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Vicky Katsoni
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Transcending Borders in Tourism Through Innovation and Cultural Heritage

8th International Conference, IACuDiT, Hydra, Greece, 2021

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Editors
Vicky Katsoni
University of West Attica
Athens, Greece

Andreea Claudia Şerban
Bucharest University of Economic Studies
Bucharest, Romania

ISSN 2198-7246 ISSN 2198-7254 (electronic)
Springer Proceedings in Business and Economics
ISBN 978-3-030-92490-4 ISBN 978-3-030-92491-1 (eBook)
https://doi.org/10.1007/978-3-030-92491-1

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Editorial

Transcending Borders in Tourism Through Innovation and Cultural Heritage

The world is facing a global health crisis which affects all economic and social sectors and society as a whole. It challenged all actors to design and implement measures to enhance resilience in all economic branches. Tourism is an economic sector closely linked to both social and economic well-being in many countries. As tourism develops, an increased impact is produced on natural resources, consumption patterns, social systems, and cultural authenticity of the host community. The effects are gradual but irreversible.

Beyond the current health crisis, the greatest challenge of the globalized world is sustainable development and the limits imposed on all economic activities, including tourism. Sustainable development has a past far but recent history, being firstly used by the World Commission on Environment and Development under the UN in *Our Common Future* Report (UN, 1987).

The tourism industry can contribute to sustainable development, and sustainability has become a critical issue that must be addressed in all tourism development strategies in all countries. Sustainable tourism has emerged as a reactive concept to new issues such as the negative impact on environmental, society, and traditional cultures (Bramwell & Lane, 1993), being able to deliver positive changes and benefits for tourism development. World Trade Organization stated that sustainable tourism *takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities* (UNWTO, 2005; UNEP, 2005).

In 2002, at the World Summit on Sustainable Development in Johannesburg (UN, 2002), it was recognized the importance of maintaining not only the environmental integrity but also the cultural integrity of the host communities and the need for enhancing the protection of natural and cultural heritage. It was highlighted the need to ensure respect for the local communities and their lifestyle. Moreover, more recently, the importance of promoting local culture has been highlighted by *The 2030 Agenda for Sustainable Development* (UN, 2015).

Tourism can significantly contribute to the three dimensions of sustainable development (UN, 2012; UNWTO, 2013): economic (e.g., employment, long-term economic perspective, reduced poverty), environmental (e.g., optimal use of environmental resources), and socio-cultural (e.g., respecting the authenticity of the host communities, conserve the cultural heritage and traditional values). It can support traditional values and cultural heritage, making a balance between maintaining cultural integrity, environmental protection, social responsibility, and economic growth both in the short and the long term (Zolfani et al., 2015; UNWTO, 2013).

Tourism industry has undergone important changes in the last decades. Globalization is accelerated by tourism and it can erode the traditions and local cultures. It is a highly needed well-designed tourism development strategy to ensure the preservation of traditions and the survival of cultural heritage.

Considering the current challenges, the tourism sector should become more innovative, should use technology and knowledge to provide new and sustainable actions, measures, instruments to adapt to the new conditions. Innovation is a way to differentiate tourism products, services, and technologies (Tajeddini et al., 2017). It can be used to reshape a successful future for this sector, being particularly needed in the tourism industry considering the changes in the global context (Tsiotsou & Ratten, 2010), the cultural influence on innovation, and the need to target economic growth, and social responsibility through a responsible lifestyle and use of limited resources.

The rich cultural heritage, innovation, human resources play a crucial role in the future of tourism. Innovation and human resources will ensure the flexibility of the sector to adapt to the continuous changing conditions, and to find solutions to use cultural heritage as a driver for sustainable tourism development.

The world is continuously facing crisis. The lessons learnt from the previous crisis make countries better prepared in dealing with issues that make people and societies vulnerable. The choices are to go back where we were before the crisis or to design a new future with a higher emphasis on resilience, cohesion, and inclusiveness. Educational and cultural resources can be used to overcome the social isolation of the current pandemic crisis (UN, 2020). Innovation and cultural heritage will become a new engine of tourism under sustainable development constraints, able to address the major economic, social, and environmental challenges while maintaining the authenticity and uniqueness of the local communities.

IACuDIT's mission is to contribute to the paradigm changes needed, in order to achieve cultural tourism development on all levels which closely links to this year's conference's theme of Transcending Borders in Tourism through Innovation and Cultural Heritage. This fully reflects the importance of tourism as a modern-day engine for cross-cultural growth and development in a digital era. Now more than ever the understanding of diversity on how different cultures respond to the coronavirus and the changing travel patterns on a global level is experienced. In Greece, tourism directly employs more employees than any other sector and remains a vital contributor to the Grecian economy. The possibilities of the digital era are emphasized. Stretching the imagination by creating new ways of networking and conversation with members, colleagues, and persons from a wide variety of national and international settings.

The aim of the conference to promote constructive, critical, and interdisciplinary conversations on the challenges emerging in tourism from the digital transformation of the industry by bringing together researchers, communities, industry, and government stakeholders, is hereby fully achieved.

An array of more than 31 conference topics was included in the call for papers. Papers submitted through virtual and poster presentations were considered for publication. All papers for the conference were double-blind peer reviewed in two phases. All the abstracts submitted for the conference were firstly peer reviewed by two experts in the field for relevance to the conference theme and contribution to the academic debate. A total of 168 abstracts were reviewed and 119 were found acceptable. All accepted papers were then given the opportunity to submit to full conference proceeding papers utilizing the comments from the first phase of double-blind peer review for the improvement and submission of a full conference paper. 68 full conference proceedings were submitted for inclusion in the Springer proceedings in Business and Economics. These full paper submissions were again double-blind peer reviewed by two experts in the field as well as the editor. During the second review process each submission was reviewed for a) relevance to the conference theme b) quality of the paper in terms of theoretical relevance and significance of the topic, and c) contribution to the academic debate.

The 36 oral presentations covered a wide range of interdisciplinary themes. The contributions were thematically selected for each group and are arranged in order of presentation in the proceedings. The subthemes to be covered by the conference were further classified into seven distinctive parts, which are

- Part I—The Role of Tourism in Sustainable Development
- Part II—Tourism—Catalyst for Regional Development
- Part III—Digital Transformation of Tourism
- Part IV—Cultural Heritage Tourism
- Part V—Customer Behavior in Tourism
- Part VI—Development and Impact of Social Media in Tourism

The editors and IACUDiT anticipate that readers of this volume will find the papers informative, thought provoking, and of value to their niche research areas.

Part I—The Role of Tourism in Sustainable Development

The *Part I* of the book consists of *ten chapters* and aims at presenting the sustainable practices and guidelines applicable in tourism, referring to a suitable balance between economic, social, and environmental dimensions. The optimal use of environmental resources and the essential ecological balance represent the key elements of tourism development. This part focuses specifically on the instruments and actions that can shape a successful sustainable future, by incorporating views on nature conservation aspects, environmental risks, ecotourism destinations, environmental policy, etc.

More specifically, chapter "Spatial Analysis of Cultural Resources and Their Contribution to the Sustainable Tourism Development Of Greece" elaborated by *Christos Amoiradis, Efstathios Velissariou, Maria Stankova, Thomas Poulios* highlights that the sustainable development of tourism in an area contributes to the preservation and promotion of the traditional values and cultural heritage of the communities. Also, the authors stressed that sustainable tourism takes into account the cultural heritage and the management of its value. The aim of this chapter is to correlate the sustainability with the tourist saturation of the individual destinations.

Chapter "Tourists' Willingness to Pay for Environmental and Sociocultural Sustainability in Destinations: Underlying Factors and the Effect of Age" elaborated by *Arthur de Araújo, Isabel Andrés Marques, Teresa Candeias* aimed to explore the dimensions of willingness to pay for sustainability in tourism destinations and the sustainability attitudes that might affect them. Additionally, as previous studies suggest young travelers attribute a greater value to sustainability, differences between age groups were also explored. A higher willingness to pay for environmental and socio-cultural sustainability, as well as higher levels of pro-environmental private behavior, were found among younger travelers. The findings offer useful insights for destination managers, which must consider them when planning and promoting innovative tourism products based on nature and cultural heritage.

In chapter "Drivers of Value Creation in an Ecotourist Destination: Disentangling the Links that Tie Travellers' Motivations and the Destination's Image", *Angel Peiro-Signes, Marival Segarra-Oña, Mauricio Carvache-Franco* explore ecotourists' motivations as a fundamental concept in travel behavior. The chapter aims to evaluate the mediating role of the image of a destination on the perceived value of travelers and the authors show that utilitarian motivations related to enriching travelers lives (self-development) or to escaping from daily routines or social pressures (ego-defensive) are the most significant predictors of perceived value. Similarly, the social and emotional dimensions are the most important in the value assessment of an ecotourist destination.

Dorothy Ruth Queiros in chapter "Improving Positivity Towards Nature Conservation in Communities Bordering Protected Areas in South Africa" refers to benefits emanating from natural protected areas to neighboring communities. These benefits are often derived from the tourism ventures within these areas and should improve the socio-economic environment of communities. The chapter aims to determine which benefits would make local communities more positive towards neighboring protected areas.

In chapter "Committed and Non-committed Policy Regimes in a Sequential Mixed Hotel Duopoly", written by *Flávio Ferreira, Fernanda A. Ferreira, Paula Odete Fernandes*, there are discussed the effects of corporate social responsibility on the strategic choice of pollution abatement and on the timing of the government's commitment to the environmental tax policy, in the hotel industry. Considering a competition between one consumer-friendly hotel and one for-profit hotel, and two policy regimes (commitment and non-commitment), with two different timings of the government's decision about environmental taxation. Hotels choose pollution abatement investments sequentially and outputs simultaneously. They show that a high degree of consumer-friendliness, the committed environmental tax is lower than the non-committed one and also show that although the environmental damage may be less under the non-committed policy regime, social welfare is always better under the committed policy regime.

In chapter "Evaluating Economic Sustainability of Nautical Tourism Through Brand Equity and Corporate Performance", *Eleonora Santos, Inês Lisboa, Cátia Crespo, Jacinta Moreira & Teresa Eugénio* started from the effect of brand equity on firm's value through the impact of measures of perceived quality and brand loyalty on customer value and willingness to buy. Stressing also the importance of sustainable tourism for destinations, to identify regional policies and to potentiate its attractiveness to tourists that are increasingly looking for nautical activities in close contact with nature, the authors compare the performance of nautical tourism firms in the Centro Region of Portugal, to assess the economic sustainability of those firms and show that brand impacts positively on corporate performance and, thus, increases the economic sustainability of these firms.

The research of *Irene (Eirini) Kamenidou, Spyridon Mamalis, Evangelia-Zoi Bara, Ifigeneia Mylona, Stavros Pavlidis* presented in chapter "Segmenting the Generation Z Cohort Based on Hotel's Environmental Policy" focuses on the sustainable practices that hotels use, and specifically, it measures the green hotel practices as evaluated by the Greek Generation Z cohort using a web-based questionnaire and data analysis incorporating descriptive statistics, K-Means Cluster analysis, chi-square, and crosstabulation tests.

In chapter "COVID-19 as a 'Policy Window' for Promoting a Green Recovery and Transformation of the Air Transport and Tourism Sectors: Is It High Time We Sailed the Turbulent Streams While the Wind is Still Blowing?", *Polyxeni Moira, Spyridon Parthenis* aim to produce a theoretically informed empirical case study on French politics and climate change public policy, applying Kingdon's Multiple Streams Framework or agenda-setting theory of policy process. The authors found that the Yellow Vests Movement (YVM), which emerged in France November 2018 as a reaction to a proposed green tax on fuel, functioned as the main focusing event which opened a window of opportunity for agenda change and policy change. The YVM policy window allowed policy entrepreneurs to advance their ideas and policymakers to pursue policies that both promote the green recovery and transformation of the air travel and tourism sector and mitigate the climate change crisis.

In chapter "Exploring Indirect Environmental Risks that Impact Coral Reef Tourism in the East African Marine Ecoregion", *Dimitri Dimopoulos, Dorothy Queiros, Ciné van Zyl*, considered environmental change as a key driver for dive tourists' decisions to travel, and these tourists are avoiding areas where coral reefs are no longer pristine. Considering the East coast of Africa for their case study their research findings indicate two overall areas of concern impacting on coral reefs—activities relating to climate change, followed by coastal development and industrialization of coastal areas.

In chapter "Creating Alternative Flagships. Case Stufy The Salt pond of Angelochori Greece", *Dilaveri Stamatina* uses the case of Angelochori, a municipal unit of Thermaikos, a Municipality in Macedonia. Under the circumstances that it has operating salt ponds, the authors consider the surrounding environment quite interesting. . The author explores how the Salt Pond's Guardhouse evolved into a flagship landmark under well-designed public agreement and policies.

Part II—Tourism—Catalyst for Regional Development

The *Part II* of our book consists of *ten chapters*, and it recognizes the importance of tourism in regional development strategies. It stresses the importance of identifying competitive advantages as tourism is a vital sector in many countries, and it needs disruptive development to successful shape its future. The importance of competitiveness, entrepreneurship, well-designed objectives and strategies, assistance and support programs for small businesses and tools for reducing regional tourism disparities are important topics discussed within this part.

More specifically, in chapter "Does Tourism Contribute to Balanced Regional Development? Evidence From Greece", *Panayiotis Drakakis* analyzes the tourism industry as a key pillar of the national economy and/or a growth engine for regional/local economies in many countries. His paper investigates the spatial distributions of both economic and tourism activity in Greece based on regional time series data (2005-2019) using Gini coefficients. The results indicate that regional tourism disparities are larger than regional economic inequalities. Furthermore, the Gini coefficients of tourism demand and supply indicators display an upward trend, suggesting that tourism activity becomes even more concentrated. This spatial concentration occurs in both wealthier and less prosperous regions, but tourism does not seem to ultimately result in economic convergence, as economically lagging regions perform poorly and even display a downward trend in tourism indicators. The analysis also suggests that domestic tourism is a more effective instrument for balanced regional development than inbound tourism. Tourism policy implications stemming from the results are also discussed.

In chapter "Are Tourism Ventures Included in Business Accelerators Fulfilling Their Financial Expectations?", *Daniel Badulescu, Ramona Simut, Alina Badulescu* consider the ambitious, growth-oriented start-ups as an important driver of change and transformation in the global economy, including the "particular" tourism sector. These firms induce the evolution of the tourism industry, by transitioning from offering standard hospitality services to providing unique experiences to visitors. The authors show that the real advantages brought by entrepreneurial initiative refer to enhancing factors that lead to economic growth, innovation and progress, and separating from factors leading to failure or mere survival of a firm. In this context, supportive measures such as start-up accelerators, incubators, and/or business angels are designed to stimulate and encourage the development of new ventures, achieving growth targets and, implicitly, ensuring economic growth, general and individual prosperity. The chapter analyzed the existence of a correlation between profit margin goals and the potential benefits that are typically associated with entrepreneurial accelerators and the results suggest that high performance goals are related with the importance of suitable financing, mentorship, network development, or business skills, but also an unconvincing alignment between the perception of entrepreneurial success, the expectations of young entrepreneurs and the requirements of business accelerator programs.

In chapter "A Targeted Multi-parameter Approach of Greek Start Ups, Related to Tourism, Culture and Leisure", *Konstantinos Giannopoulos, Paris Tsartas, Konstantinos Anagnostelos* investigate what is happening in Greece with start-ups and especially with start-ups in the field of Greek Tourism, Culture, and Leisure considering that the start-ups today are a huge part of global entrepreneurship. In recent years there was a strong interest in start-ups, their financing, and their viability as most of these businesses do not survive. The research answers questions such as what are the products and the services they offer, how are related to Tourism and Culture, how much is the percentage of turnover, how much is income from Tourism.

In chapter "The Strategy of Tourism Products Complementarity in Destination Promotion: Eurocity Chaves-Verín", *Dália Liberato, Anabela Peixoto, Pedro Liberato, Elisa Alén* consider that the process of tourism destination governance should result from the link between local authorities, communities, and the business sector, aiming at the sustainable development of the region on the economic, environmental, and social level. Another essential factor is the complementarity of tourism products, especially when combined with an innovation factor. The main objective of this chapter is to understand the tourism potential of the border destination Eurocity Chaves-Verín as a health and wellness destination and the importance of the tourism offer complementarity visioning the sustainable governance of a tourism destination.

In chapter "Exploring Stakeholders' Perspectives on Hotel Design", *Panagiota Anastasiadou, Efthymia Sarantakou, Evridiki Maniati, Evangelia Tsilika* investigate the current defining parameters shaping hotel design and planning, exploring the views of the key stakeholders involved in hotel design. Hotel design and planning are analyzed by a number of exogenous and endogenous tourism development parameters including tourist motivation, destination socio-economic and cultural characteristics, and institutional framework. Findings of the current research point out to a significant number of particularly complex aspects and parameters to be complied with, in order to update and modernize tourist accommodation establishments and meet modern-day tourism essential requirements. In addition, this study goes on to argue that it is necessary to establish a deeper multilateral engagement and cooperation of the broader group of the relevant stakeholders.

In chapter "Developing Business Tourism in Africa is a DMO Really Needed?", *Nosiphiwo Mahlangu* considered also the business tourism as a lucrative, fast-growing segment in tourism, known as the world's largest industry sector. Countries rely heavily on investment in infrastructure to support the development of the business tourism sector and to ensure sustained growth. The author employed a multi-method qualitative research to investigate the roles and functions that Destination Management Organizations perform to develop business tourism at four major conference centres across destinations in South Africa. Results revealed the importance of especially Destination Management Organisation stakeholder engagement, marketing, identification of opportunities to host business tourism events within the destination, and bidding support as the main roles and functions that need to be performed to ensure sustained growth of business tourism in South Africa.

In chapter "The Visitor in Slovak Rural Tourism in Turbulent Times", And*rej Malachovský and Matej Bel* aim to analyze the visitor in rural tourism in Slovakia in terms of their views on the quality of services. They have evaluated the statistical data on rural tourism in comparison with the development of tourism in Slovakia under the circumstances of the fundamental changes faced by Slovakia in the structure of society before and after the year 2000.

The scientific goal of the paper present in chapter "Accessibility as a Competitive Advantage of a Tourism Destination—Opportunities for Slovakia" by *Ľubica Šebová, Radka Marčeková, and Alena Kaščáková* is to examine the degree of adjustment of the tourism offerings for physically disabled visitors in Slovakia and to find out the connection between the accessibility of tourism facilities and the destinations attendance. The authors want to emphasize the need to improve the country's accessibility in tourism for visitors with disabilities, to wipe off the borders among visitors, benefiting the whole country, which can be a competitive advantage on the international tourism market. They examine the possibilities of barrier-free accommodation, catering, public transport, sports and recreational facilities, cultural-historical and cultural enlightenment facilities, zoos and botanical gardens, caves, accessible bike paths, hiking trails, ski slopes and cross-country trails, organized events for health and social events, and travel agencies specializing in offerings for people with disabilities. The results of the research point to an insufficient rate of accessibility of the country (19.7%) for visitors with physical disabilities and the need for higher investments in debarierization of the environment, which can make the whole country more attractive and increase its competitiveness as a destination on the international tourism market.

In chapter "Aviation Industry Crisis Management: Effects of COVID-19 Pandemic in Athens International Airport Environment", *Evagellia Maslarinou, Maria Tsourela, Dimitris Paschaloudis, and Dafni-Maria Nerantzaki* analyze the effects of COVID-19 pandemic in the airlines sector. As result of the high number and level of how the virus is contagious, many industries have suffered deeply, but the airlines sector was one of the highly affected industries, as soon as the news of COVID-19 became global. The paper focused on the organizations operating in the Greek Aviation Environment and showed that most of them had designed the necessary plan for crisis management, which they implemented in order to minimize business "casualties". Also, it was revealed that both heads and members of the Crisis Management Teams are always alert and ready to act almost immediately, as the plan predetermines, and at all times in accordance with the international regulations and standards, and the respective directives set out by Government agencies.

The objectives of the study presented in chapter "Smuggling Routes as a Valuable Asset for Tourism Development in Cross-Border Regions" by *Pedro Liberato, Mariana Torres, Dália Liberato*is are to understand whether smuggling tourism is a strategic tourism product in the border regions of Portugal/Galicia as tourism destinations, to evaluate its real potential and understand which routes have been carried out to promote smuggling tourism, as well as the role of population in its valuation. The results show that smuggling tourism, if strategically designed, can be one of the main tourism products of the Portuguese/Spanish border.

Part III—Digital Transformation of Tourism

The *Part III* of our book, consisting of *nine chapters*, addresses the opportunities that digitalization and new technologies provide for tourism development. The importance of digitalization should be acknowledged and its priority should be recognized considering the tourism substantial changes over the last period. The tourism journey towards digitalization is mandatory, leading to innovation and creativity, new value chains and business models, increased customer satisfaction and experience, improved destination connectivity and management, etc., with significant implications for social and economic organization and competitiveness.

This part starts with the analysis related to smart tourism made by *Aggeliki Mitala, Aggeliki Konstantoglou, Dimitris Folinas, and Thomas Fotiadis* in chapter "Smart Tourism Technologies: How Effective are They for Millennial Tourists?". Smart tourism is a concept created by smart technologies: it enhances the interaction of people with objects, connects the digital world with the real world, and supports people's holiday experiences with technological elements. The purpose of this chapter is to investigate whether the facilities provided by smart tourism technologies in a destination affect the level of millenials' satisfaction, their intention to visit a destination again in the future, and their intention to recommend a destination to their loved ones.

In chapter "Exploring Collective Memories in a Smart City Environment", *Konstantinos Koukoulis and Dimitrios Koukopoulos* investigated how could be exploited different places to enhance tourism in a city with the use of technology and how trustworthy participatory platform can be used to manage and disseminate stories about places that are related to the collective memory of specific groups of people. The study suggests that such a system can be used to exploit the hidden collective memory of a city promoting tourism development of local societies.

In chapter "Robots on the Tourist Industry—A Review for Future Research Directions", *Dimitrios Belias and Labros Vasiliadis* investigated the use of robots in the hospitality and tourist industry where they are used on some services, such as on refectories, housekeeping, and on receptions. Under the circumstances of still being at their initial stage, the authors aim to examine the current literature and to indicate future directions for research.

Chapter "Computational Methods for Evaluating Web Technologies and Digital Marketing Techniques in the Hospitality Industry" is the work of the authors *Constantinos Halkiopoulos and Dimitris Papadopoulos.* The implementation of

Information and Communication Technology (ICT) has aided in the efficient management of the hotel industry and is a crucial component of commercial hotels' competitiveness and success. Hoteliers benefit from the usage of ICT on both a strategic and operational level. The purpose of this chapter is to examine the official websites of Hotel Units located and operating in Greece. More precisely, it analyzed, assessed, and evaluated aspects such as website optimization, domain trust flow, domain referral flow, relevant websites, affiliate social networking, organic web keywords, and expected monthly SEO clicks.

Chapter "Tourism's Use of Web-Based Information Systems and the Influence of Tourism Trends" written by *Constantinos Halkiopoulos and Konstantinos Giotopoulos* discusses that the possibility and necessity of digitizing numerous services and information in order to provide the end user with all he or she seeks has an effect on the entire tourism chain and all stakeholders: tourism firms, travelers, consumers, agents, and tourist locations.

The enormous impact of technology on the typical socialized person's everyday life, and consequently on tourism, particularly the Internet and digital services, has resulted in very high percentages of tourist development in a variety of industries and with a diverse range of recipients. The chapter analyzes information media and various information systems-applications in tourism. Tourism is specifically examined in terms of its evolution and impact on our daily lives via social media, digital advertising, and modern applications of digital marketing. Additionally, it assesses the value of information systems in enterprises, how they are implemented according to needs, and how they are updated to remain "current" with the modern needs of the tourism sector's firms.

In chapter "An Investigation of the Acceptance and Success of Web Conferencing Technologies in Tourism Higher Education During the Covid-19 Pandemic", *Sofia Kallou, Aikaterini Kikili, and Michail Kalogiannakis* focused on higher education in tourism and its challenges during COVID-19 pandemic, leading to a new perspective of education and affecting the teaching and the learning processes. Higher education institutions in tourism studies have tried to adapt to these changes and have implemented online courses and Web conferencing technologies as the ideal learning environment during these unprecedented circumstances. This research investigates the acceptance, success, and overall evaluation of Web conferencing technologies in tourism higher education during the COVID-19 pandemic and the results indicated a positive and significant effect on tourism students' acceptance, satisfaction, and intentions to continue using Web conferencing technologies in the future.

Chapter "Expectations and Preferences of Couchsurfing Participants" elaborated by *Tomáš Makovník, Adriána Varcholíková* discusses the topic of the utilization of platform economy concept in tourism sector. Based on the principles of this economy, the most provided and developed tourism services are accommodation services. A significant part of them is provided via world-famous platform and social network called Couchsurfing which enables the accommodation mediation through a website and a mobile application. The aim of the research is to examine expectations and preferences of couchsurfing participants from different countries of the world and to suggest possibilities for their more effective fulfillment. The authors also provide feedback on how to improve the Couchsurfing social network.

Chapter "The Management of Conferences and Business Events in Periods of Crisis. The New Digital Paradigm" written by *Alexandra Chalkia and Athina Papageorgiou* analyzes how the COVID-19 pandemic in 2020 affected people's mobility worldwide. As a result, both international and domestic tourists almost completely canceled their bookings, airlines canceled most of their flights, almost all in-person meetings and events were suspended, etc. The aim of their research was to investigate the extent to which new technologies were used in organizing and conducting digital events during the pandemic period and their overall impact on the congress market. The results confirmed that there was a transition towards a new digital environment, in terms of organization of meetings and events and the use of technology throughout their operation.

Marga Cabrera, Lola Teruel investigated in chapter "The Virtual Truth Versus the Real Image of the Museums. Method to Analyse Virtual Visits to Museums" how to achieve the objectives of disseminating, preserving, and promoting a collection, even if the museums are closed using the virtualization of the museum heritage through virtual tours. During the COVID-19 pandemic, a massive invitation was made by the media and the museums themselves to reach their collections in this way, leaving the question of whether or not the way of presenting the information and access fits with the real image of the museums. The chapter aims at obtaining a definition of the best practices in the virtualization of heritage and suggesting some practices around its interpretation. It concludes with the exposition of different typologies of virtual visits and the definition of what an ideal virtual visit to a museum should be.

Part IV—Cultural Heritage Tourism

Part IV consists of *ten chapters*. It stresses the importance of traditional values and local heritage and the need of protecting them from eroding as an effect of globalization. This part discusses the needed convergence between tourism and culture that should lead to respect for the authenticity of host communities, conservation of their living cultural heritage and traditional values and better cultural understanding. The travel motivation, financing of cultural policy, attitude towards cultural events, thematic tourist routes, and the socio-political impact factors are only a few of the topics included in this part.

More specifically, in chapter "Local Culture Festivals and Sustainable Tourism Development in Mountain Areas. The Region of Epirus, Greece", *Stella Kostopoulou, Evina Sofianou, Evangelia Stergiou, Valia Xanthopoulou-Tsitsoni,* provide insight into sustainable tourism opportunities in mountain communities, through festivals related to local culture and traditions. The study investigates the typologies of these festivals in relevance to the digital tools and degree of social media use. The authors choose mountain festivals in the Region of Epirus, a Region with rich cultural heritage, as the study area for their research.

Chapter "Funds Cutback an Inhibitor Factor in Operating an Adequate Cultural Policy of the Country/Greece" written by *Boulouta Konstantina and Karagianni Maria* deals with the major issue of financing the Cultural Policy of Greece, with the aim of supporting cultural organizations, which in every way try to promote their cultural heritage, always with the help of the official State. It is well known that when funding from the official State is being declined (since the main cultural organizations are public) then there is pessimism about the promotion of the cultural product, including the basic principles of an effective cultural policy. The investigation presented in this chapter attempts to map the cultural space, as well as to outline the delineated process that has been taken so far. Questions are set in order to regard the causes that make it difficult but also suspend its emergence.

In chapter "A Quantitative Comparative Analysis of Residents' Attitudes Towards Cultural Events in Greece", *Doumi Maria, Stavrinoudis Theodoros, and Mouratidis Konstantinos* consider that cultural events are an integral part of Greece's history, tradition, and economy. The majority of them are held during the summer period in open-air spaces and sites with historical importance in countless tourism destinations of the country. This chapter presents the perceptions of local residents of three different prefectures (Xanthi, Chios, Rethymno) on the quality, organization, and impacts of annual cultural events in their communities.

Diana Foris, Elena Sorlescu analyze in chapter "Conceptualization and Development of Cultural-Literary Routes" thematic tourist routes as an increasingly present approach in the development of tourist products. Their existence is successfully seen especially by the presence of many such routes worldwide. One of the forms of tourism with development potential is the cultural literary one, and, in this context, this chapter deals with the way of capitalizing the cultural tourism by developing cultural-literary routes. The aim of the research is to identify the conceptualization of thematic tourist products, on the cultural-literary line.

Chapter "Visitors at Heritage Sites: From the Motivation to Visit to the Genesis of Destination Affective Loyalty" written by *Simona Mălăescu* started from the fact that, recently, the context of heritage sites and cultural tourism registered a boost in interest from the destination loyalty researchers. The results of the study confirmed the importance of place attachment‘ components as antecedents of destination loyalty also. In the case of heritage sites strongly connected with national identity, variables like affective attachment, place identity, the strength of visitor‘s national identification, and the destination‘s identification as a reenactment destinations could explain near half of the variance of the visitors‘ affective loyalty for the destination.

Lluís Miret-Pastor, Paloma Herrera-Racionero, and Andrea Márquez Escamilla discuss in chapter "Analysis of the Socio-Cultural Projects Carried Out in Spain by the FLAGs" the financing of territorial projects focused on the creation of wealth and jobs in fishing areas. Many of the tourism projects have to do with the recovery of the tangible and intangible heritage of fisheries. The authors analyze what types of projects are framed in socio-cultural projects, the chapter being focused on analyzing the projects labeled as socio-cultural in Spain in the period 2014-2020. The objective is to categorize these projects and analyze what types of socio-cultural projects have been financed during this period.

In chapter "Geomapping. Cultural Enhancement Practices of the Jabel Shams and Jabel Akdhar mountains in Oman", *Monica Morazzoni, Giovanna Giulia Zavettieri* presented a part of a wider project in which the cultural and natural heritage in some areas of Oman was mapped in order to build a tourist app. The focus of this chapter is the Jabel Shams and Jabel Akdhar mountains, studied through the methodological approach of the New Heritage literature in order to enhance, through the forms of participatory tourism, the mountain territory from a sustainable point of view, which today presents a heritage of cultural and natural assets that can be enhanced through alternative forms of tourism such as camping and glamping.

Diana-Cristina Pintea and Alina Badulescu focus in chapter "Determinants of Travellers'a Interest in Creative Tourism" the creative tourism as a new type of tourism activity has come under the spotlight. As a new concept, it is relatively unfamiliar to the academic and business environment; its particularity resides in the activities the tourists are involved in. In order to design a framework of practices specific to creative tourism, these activities have to actively engage the tourists in the habits and customs of the tourist destination, experiencing certain aspects of the natives' culture. Certainly, there are various practices similar to those described, some of them known as creative tourism, and others as experimental, adventure, or cultural tourism. Because of this ambiguity, this chapter implies both a theoretical and a statistical descriptive approach, aiming to highlight the distinctions of this particular form of tourism and the importance of exploiting it, due to its connection to the creative and cultural industries.

In chapter "Paused Renaissance: Factors Affecting the Athens Byzantine and Christian Museum Branding", the work of *Anna Zarkada and Vassiliki Markaki*, it is examined the socio-political factors affecting the Byzantine and Christian Museum of Athens brand transformation through the theoretical lens of Service Science using a triangulated mixed methods case study approach. Guidelines are proffered for reimagining the museum as a visitor-centric servicescape and navigating challenges to develop resilient museum brands.

In chapter "Sustainable Tourism and Cultural Routes in the Ionian and Adriatic Regions", elaborated by *Dimitrios Mylonopoulos, Polyxeni Moira, and Paraskevi Kakaroucha,* it is presented one form of alternative tourism that has not been systematically developed either along the Ionian Sea or in the rest of Greece: lighthouse tourism. Since the era of primitive beacons and the archetypal Pharos of Alexandria, lighthouses have incorporated a lot of universal symbols, which make them particularly attractive and appealing to people seeking original and sophisticated tourist experiences. Thus, in addition to their purely functional utility as navigational aids, which tends to be abolished, lighthouses occupy a vibrant cultural space and have become a point of reference and central to many regional and national tourism development plans globally.

Part V—Customer Behavior in Tourism

Part V includes *twelve chapters* aiming at understanding the transformational changes taking place in customer behavior in the tourism industry, both in customer demand and consumer preferences. Starting from the need of considering the impact of various factors and processes, both internal and external to the tourists, this part examines the interaction of a large area of influencing factors, such as COVID-19 pandemic, cognitive factors, tourism psychology, travel motivation, and incentives, different events (e.g., sport competition), etc.

More specifically, chapter "Consumer Behavior and Cognitive Factors in Relation to Gastronomic Tourism and Destination Marketing in Greece" elaborated by *Gerasimos Panas, Natalia Thrasidi, Constantinos Halkiopoulos, and Evgenia Gkintoni* focuses on the development of tourism as a distinct phenomenon in contemporary times, primarily associated with leisure and consumerism. It is worth noting that tourism is both a noteworthy branch of economic activity and a remarkable employer of many employees since it employs a sizable number of jobless people and has a seasonal character of labor. Tourism, in particular, contributes to the development of new employment at a time when other industries are struggling. Culinary tourism is a significant segment of alternative tourism, earning billions of dollars globally via the purposeful pursuit of authentic, unique culinary experiences, making food the ultimate travel motivation. The nations that place a premium on culinary tourism are developing marketing opportunities. The primary purpose of the study is to highlight the aspects of tourists' consumer behavior and the cognitive parameters that lead their choice (decision-making) concerning their preference regarding the tourist destination, as well as the perceptions of tourist operators regarding gastronomy and destination marketing policies applied.

Chapter "Neuromarketing as an Indicator of Cognitive Consumer Behavior in Decision Making Process of Tourism Destination", elaborated by *Hera Antonopoulou, Constantinos Halkiopoulos, Evgenia Gkintoni, Anthimos Aroutzidis,* is a review on Neuromarketing, a growing multidisciplinary area that combines consumer behavior, neuroscience, and economics to give the tourism industry new methods that are more effective than standard marketing methodologies in responding to changing market conditions. In addition, human behavior rules in tourist activities, tourism consumer behavior, and consumer psychology inclinations are all impacted by variables such as motivation, perception, learning, beliefs, and attitudes in the decision-making process while choosing a vacation location. The goal of this review is to present modern neuroscientific techniques such as eye-tracking to show, in general, tourism consumer behavior and the components of the decision-making process, as well as the higher cognitive processes involved in travel destination selection. Additionally, including cognitive and neurocognitive characteristics for the purpose of forecasting consumer behavior might be a beneficial technique for creating a knowledge database comprising stimulus data pertaining to a range of vacation places.

Ioanna Giannoukou, Aleksia Nikolopoulou, Constantinos Halkiopoulos consider in chapter "Tourists' and Employees' Psychology in the Framework of Strategic Management in Greek Tourism" that tourism is a social phenomenon that manifests itself at numerous levels of society and is subject to change. Greece is a prominent tourist destination worldwide, and tourism is a critical social and economic activity. Due to the tourist phenomenon's importance, a detailed examination is required, both for its impact on a place, the natural and built environment, and on society and culture. Tourism psychology assists in the examination of the tourist phenomena. The purpose of this research is to examine tourism psychology in Greek tourism, not only from the perspective of visitors who have visited a Greek destination, but also from the perspective of tourism sector personnel in Greece. The research attempts to shed information on the visitors' motivations, their perceptions of the trip, and the elements that influence their behavior.

Effimia Papaefthymiou, Fragiskos Bersimis, and Paris Tsartas explore in chapter "Approaches to Tourism Motivation Focusing on Acropolis Museum Visitors" the issue of tourism incentives and more specifically the push and pull factors of tourism behavior. The results showed that experiencing emotions, gaining meaningful experiences and opportunities for personal improvement are among the moderate to very important motivations for travel, while the experience of seeing the monuments and "real" objects themselves, the desire for knowledge and acquaintance with different places and people, are included to very strong motivations.

The research of *Athina Papageorgiou and Ioulia Poulaki*, presented in chapter "The Development Prospects of Sports Dance Events in Greece", examines the context of dance competitions and sports dance events held in Greece, focusing on the cities of Athens and Kalamata. The authors stress that the levels of satisfaction of the individuals from their experience in the events highlight that it is necessary to make improvements and changes that will attract more interest and will contribute to a greater number of participants.

In chapter "The Road to a Tourist's Heart is Through Their Stomach: Exploring Culinary Tourist Motivation in Zimbabwe", *Georgia Yfantidou, Dimitrios Balidis, Charikleia Patsi, Panagiota Balaska, Eleni Spyridopoulou, Despoina Antoniadou* examine tourism for people with disabilities. It offers entertainment, improves both mental and physical health, as well as socialization and contributes significantly to improving their quality of life. The purpose of this chapter is to reveal, with the use of emoji, the preferences of children with disabilities regarding their participation in recreational activities during the holidays. The results of the research showed that finding new friends and avoiding the feeling of loneliness was the most important reason for the participation in recreational activities during their holidays. Their participation contributed significantly to the cultivation and maintenance of their autonomy, the prevention of depression, and the development of sociability.

In chapter "Sequential Quality Competition in the Restaurant Industry: Effects of Restaurants' Reputation", the authors *Edinah Tendani, Magdalena Petronella (Nellie) Swart, and Ciné van Zyl* explore culinary tourist motivation as a unique behavior that is portrayed by a guest. The study is linked to the ethnic Zimbabwean cuisine and the desire to taste new gastronomy experiences offered by the destination.

Dimensions such as culinary symbolic, culinary obligation, guest contrast, and guest pleasure with their sub-dimensions are used to investigate culinary tourist motivation.

In chapter "Sport Venues Evolving to Tourism and Hospitality Giants? Proof of Dynamic Tendency", written by *Fernanda A. Ferreira, Flávio Ferreira, Paula Odete Fernandes*, a model has been considered, in which two asymmetric restaurants, with respect to their reputations, compete, non-cooperatively, on both quality and quantities. The aim of the research is two-fold: the first is to compute the decisions that give higher profits, and the second is to study the effects of the difference of restaurants' reputation. One of the main results of the research is that the reputation is an important feature, influencing the comparative results of the two restaurants in qualitative terms.

In chapter "Photographs in Tourism Destination Management Research in the Post COVID-19 Era", *Ourania Vrondou* analyzes sport venues considering they extended their role of sport competition hosts to multi-facet social and economic players constantly seeking new ways to increase profitability or at least secure viability of this huge 'concrete' investment. With the increase of sport-related traveling being recorded and widely searched in that last three decades, huge over-engineered venues tend to invest further in hospitality initiatives proving their extended value and infinite potential for significant business stimulation. The study aims to provide evidence of the extent, nature, and patterns of this tendency recently observed through the examination of venue case studies, international sport organization developments, and sport tourism market indicators.

The main purpose of chapter "Covid-19 Pandemic and High Health Risk as a New Controlling Force of Travel Motivation and Tourism Chain Value" written by *Argy-riMoustaka and Mary Constantoglou* is to explore how tourist photography in the post-COVID-19 era can contribute by creating experience value in coastal tourism and in destination management. An important reference is made on how the tourist photography contributes to the upgrading of the tourist product of the area and more precisely on a mass tourism destination in Greece, Halkidiki. Further, the occurrence of the COVID-19 pandemic is studied together with the consequences it generates in the destinations. The results of the conducted research show that the creation of photographic images is related to clean and sandy beaches along with natural beauty. In addition, the photographic images can consolidate the tourism of the destination to a satisfactory level. This happens especially nowadays when virtual travel, through images, is boosted due to the pandemic COVID-19. As a general conclusion of this chapter, photographic images influence the decision for a trip in the post-COVID-19 era.

The study presented in chapter "Porto: Literary Tourism in Pandemic Times", *by Mohamed Boukherouk, Hicham Ouakil, Adil El Filali*, sheds light on the importance of health risk in the context of COVID-19 in the international tourist market. It also examines tourists' perceptions of the changes and elements introduced to service delivery by operators to respond to the new health risk challenges. The study showed that despite the protocols aiming at reassuring tourists, the virus and the difficulty to make a decision are two main causes of a high degree of risk. This disruptive situation will break with the traditional behavior of different stakeholders. Such a situation necessitates a re-consideration of the motivations and the drivers of tourist's consumption.

In chapter "Emoji use in Research About Tourism and Recreational Activities Preferences for Children with Disabilities", the authors *Ana Ferreira, Elisa Alén, Dália Liberato, Pedro Liberato* analyze literary tourism in pandemic times. In 2020, the world faced an unimaginable pandemic that has caused devastation and suffering all over the world and affecting the global economy and imposing the suspension of almost all economic activities including tourism. They examined the possibilities that became clear for a destination like Porto, in which the tourist flow had been experiencing a growing trend in a destination consecutively considered the best European destination. Literary itineraries serve as a starting point for the discussion about the possibility of inviting to Porto through literature.

Part VI—Development and Impact of Social Media in Tourism

The last part of our book, *Part VI*, consists of *ten chapters* and it aims at presenting the extraordinary challenges and opportunities of social media adoption in the tourism industry. The objective of this part is to provide an overview of the impact of social media on traveling patterns, hospitality services provided on the principles of sharing economy, factors of influence for users' intention to reuse platforms/applications, the importance of 'keywords' to the travel industry, and businesses that operate in seasonal destinations, etc.

More specifically, chapter "Instagram: The Travelogue for Generation Z's Travellers. The Impact that Influencers and Content Creators Leave Through Their Generated Content" written by *Simon Caruana, Jordan Caruana* aims to investigate the impact influencers have on traveling patterns, specifically when choosing a destination. Instagram was chosen as it is one of the most popular social networks with the Generation Z, which was the target group of this study. While Generation Z travelers do actively follow influencers on Instagram (and other networks), it appears that the destination choice was not made exclusively only on the influencers' content, suggesting that their trust in influencers is not as high as initially imagined. The significance of influencers seems to lie in the fact that the platforms they use, such as Instagram allows them but also their followers to share experiences which in turn result in more content being generated.

In chapter "Predictive SEO for Tourism Websites Through Transformer Keyword Identification", *Agisilaos Konidaris, Ourania Stellatou, Spyros E. Polykalas, Chrysopigi Vardikou* introduce the concept of Transformer keywords as a way to enable travel websites to get the chance to appear in top search engine results through Search Engine Optimization or Search Engine Marketing quite fast. Keyword selection can be influenced by several factors and is always a dynamic process that needs to be reiterated frequently.

Chapter "Lock Me Again: The Influence of Escape Room Experiences on Visitors' Loyalty Intentions", written by *Olga V. Anton, Alexander M. Pakhalov,* aims to assess the impact of escape room experiences on visitors' satisfaction and loyalty intentions. Real-life escape rooms are relatively new entertainment facilities that quickly turned into popular tourist attractions. However, the escape room market has slowed down due to the overflow of the market with standard escape rooms that fail to create unique visitors' experiences. Thus, new experience design strategies with a focus both on stimulating return visits and on attracting new visitors are becoming a critical challenge for escape room providers. The findings reveal that the level of immersion directly affects intentions to revisit and to recommend. The perceived novelty of the experience significantly positively affects both loyalty intentions with the mediation role of satisfaction.

Chapter "Food Sharing in COVID-19 Era: Demand for Hospitality Services Provided via Eat With", the work of *Ivana Šimočková, Kristína Pompurová, Radka Marčeková, Ľubica Šebová, and Anita Kolarčíková*, deals with hospitality services provided on the principles of sharing economy. One of the advantages of food sharing via online platforms is the authenticity and face-to-face contact with domestic providers and thus a real and deep gastronomic experience of visitors. The aim of this paper is to analyze the demand for hospitality services provided on the principles of sharing economy on the platform EatWith and to reveal factors influencing demand during the COVID-19 pandemic.

In chapter "Comparison of Memorable Tourist Experiences Based on Collections of Reviews from Trip Advisor: Acropolis of Atenas and Royal Alcazar of Seville", *Fernando Toro Sánchez* focuses on the memorable tourist experience, considered as a scientific concept within the studies on tourism that is developed based on several related constructions: perceived confidence, sincerity, authenticity, and satisfaction. This work takes as a source of data the reviews collected in the recommendation platform TripAdvisor and makes a comparison using the same method, between the Acropolis of Athens and the Royal Alcazars of Seville, both declared UNESCO World Heritage Sites, using the same type of data source in the same period of time.

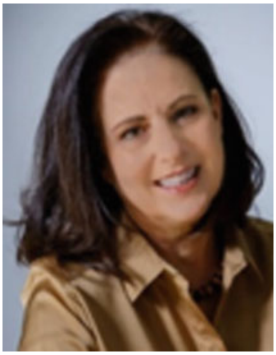
Chapter "Online Food Ordering and Delivery Applications: An Empirical Study of the Factors Affecting Intention to Re-use", written by *Evangelia Ganou, George Karavasilis, Vasiliki Vran and, Evangelos Kehris*, aims at investigating the factors that influence users' intention to reuse platforms/applications. The quality of platform/application is the most significant success factor. It seems that consumers have already been convinced about the benefits of using these platforms/applications and the quality of platform/application is their main concern. Platform and application designers should emphasize and enhance the quality of the platform/application in order to gain competitive advantage.

The aim of the study delivered by *Ioannis A. Nikas, Athanasios Koutras, Alkiviadis Panagopoulos, and Anastasios Vasileiadis* in chapter "Exploring Tourists' Food and Beverage Spots in an Urban Destination Using a Spatial-Temporal Approach" is to depict spatially and temporally tourists' food and beverage preferences during their stay in a city. An important part of planning a trip involves not only search for accommodation, but for food and beverage spots as well, to enhance the visitor's travel experience, especially when the trip involves visits to major urban centers. The agony and/or joy of tourists to meet the desired destinations can be seen nowadays in the continuous and overwhelming number of posts of their exact geographical position whereabouts together with evaluations of the provided travel services, using social networks and photo sharing applications. The process of capturing and evaluating the travel experience has now been integrated into the life cycle of a trip, whether it involves visiting a museum, the accommodation, or the meals and drinks during the day.

Rita Cannas and Daniela Pettinao investigated in chapter "Communication Responses to Covid-19 from Tourism Stakeholders in the Mediterranean: The Digital Campaign "Open Sardinia"" the local responses to COVID-19 undertaken by tourism operators by collaborative approaches shared with other stakeholders and implemented through social media tools. Specifically, the research seeks to shed light on non-governmental initiatives generated by private tourism stakeholders aimed at promoting safe tourism during the time of COVID-19 by analyzing the advertising campaign "Open Sardinia" implemented in Sardinia (Italy) in 2020. Basically, the authors focused on the key factors of the sharing of collaborative practices among private and public stakeholders in facing the disaster crises caused by COVID-19. Such key factors are based on trust, relationship and place attachment, and operatively on the adoption of digital tools such as social media. Findings show that the bottom-up advertising campaign has strongly implemented collaborative networks among different operators, finalized not only to attract tourists, but also to enhance social cohesion and resilience of local communities.

The purpose of chapter "Digital Tourist Marketing: The Latest Developments and Recommendations on How Mykonos Can Take Advantage of Digital and Influencer Marketing", elaborated by *Konstantinos Skagias, Dimitrios Belias Labros Vasiliadis, Papademetriou Christos*, is to highlight the island of Mykonos as a tourist destination and to make proposals on how it can take advantage of the latest developments on the Internet and social media. For this reason, the proposals made are indicating that the island shall focus on improvements on its internet presence. For this reason, it is strongly recommended to focus not only on making a better digital marketing strategy but also on utilizing the tens of well-known personalities that are visiting the island. Hence, influencers can have an important role on the promotion of the island.

In the last chapter "Virtual Reality and Technology Use: Applications and Implications for Religious and Pilgrimage Tourism. The Case of Greece", the author *Ioanna Chatzopoulou* aims to present the applications and the value of technologies (virtual reality, digital technologies, information technologies (IT), internet, etc...) in the development of cultural/religious tourism, especially in Greece, a country with a unique and rich religious heritage and a member of the European Union, which over the last few years has taken significant actions and initiatives in the area of digitization and online accessibility of cultural material. Furthermore, it examines potential areas of impact for technology. Cultural/religious heritage as a sector of tourism plays an important role in promoting sustainable and inclusive economic growth, fostering innovation, and providing benefits for all. The use of technology can play an essential role in enabling cultural experiences, knowledge creation, and accessibility of cultural/religious heritage and in offering additional opportunities for a better utilization, management, and preservation of religious heritage. Make tourism and culture inclusive and virtually accessible for all is vital, especially in pandemic periods.



Vicky Katsoni, Ph.D, MBA
President of the International Association of Cultural and Digital Tourism (iacudit.org)
Professor of ICT Applications in Tourism Marketing Management
Department of Tourism Management, University of West Attica, Greece.
https://www.uniwa.gr/en/
http://tourism.uniwa.gr/wp-content/uploads/sites/105/2020/05/VICKY-KATSONI-CV.pdf
https://www.researchgate.net/profile/Vicky_Katsoni
@: katsoniv@gmail.com

Andreea Claudia Şerban, Ph.D. (dr habil)
Director of Doctoral School of Economics I
Professor, Department of Economics and Economic Policies, Faculty of Economics
Bucharest University of Economic Studies, Romania
andreea.serban@economie.ase.ro

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The Role of Tourism in Sustainable Development

Spatial Analysis of Cultural Resources and Their Contribution to the Sustainable Tourism Development of Greece

Christos Amoiradis, Efstathios Velissariou, Maria Stankova, and Thomas Poulios

Abstract The concept of sustainable development in tourism has received the attention of scholars and academics in recent decades. The sustainable development of tourism in an area contributes to the preservation and promotion of the traditional values and cultural heritage of the communities. Sustainable tourism takes into account the cultural heritage and the management of its value. At the same time, however, the cultural heritage of a place can contribute to its sustainable tourism development. One way is to contribute to the alleviation of saturated tourist areas but also to the strengthening and promotion of emerging unsaturated tourist destinations. These are the contents of this article. This is done through the analysis of sustainable development of 13 regions of Greece, in 2020. Based on a research on the sustainable tourism development of Greece, occurs a presentation and analysis of the findings concerning the spatial distribution of cultural resources in its regions. Additionally is being investigated their contribution to the sustainable tourism development. The research correlates the sustainability with the tourist saturation of the individual destinations. The tourist saturation of the areas is investigated based on the TALC theory. According to the findings, some areas are considered to follow sustainable tourism development practices and others not. Based on the spatial distribution of cultural resources is then ascertained their contribution to sustainable tourism development. Suggestions for their proper management and promotion are following.

Keywords Sustainable tourism development · Cultural resources · TALC theory

C. Amoiradis (✉) · E. Velissariou · T. Poulios
Department of Business Administration, University of Thessaly, Larissa, Greece
e-mail: amic@uth.gr

E. Velissariou
e-mail: belissar@uth.gr

T. Poulios
e-mail: thomaspoulios@uth.gr

M. Stankova
Department of Economics, South-West University "Neofit Rilski", Blagoevgrad, Bulgaria

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_1

JEL Classification Z320 · Z110

1 Introduction

Throughout the twentieth century, the conceptual framework of sustainable development had been increasingly accepted in different sectors of economy. One such specific area that received the attention of scholars and academicians was the concept of sustainable development in tourism. Studies (de Sausmarez, 2007; Figueroa & Rotarou, 2016; Koncul, 2008) highlighted the need for inclusion of sustainability criteria in tourism development to ensure that it is economically bearable for the region and at the same time is socially and ethically equitable for the local population. The United Nations defined sustainable development in tourism as

> Sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems (WTO, 2004).

The definition of sustainable tourism encompasses how economies can focus on their holistic development while taking into consideration their natural ecosystem. Different factors that must be addressed within the purview of sustainable development of tourism are presented further in the current chapter.

2 Factors of Sustainable Development in Tourism

Economic factors

Tourism has both positive and negative impact on economies. The positive side of tourism includes development of local communities that help in diversifying the regional economy by attracting money. It also increases income opportunities in the country stimulating infrastructure development, such as highways, airports, and water systems among others (Scowsill et al., 2017). Among the economic factors influencing sustainable development of tourism include, receiving tax revenues from the government, government spending on tourism development, and contribution to poverty alleviation. Some of these factors are receiving tax revenues from the Government, Government spending on tourism development, Contribution to poverty alleviation, etc.

Ecological factors

The ecological aspect of sustainable development in tourism captures the impact of increase of tourist activity in components affecting environmental parameters of total volume of water consumed, electricity consumed, and conservation of biodiversity in the region. The parameters can be studied as follows: Total volume of water consumed, Total amount of electricity consumed, Conservation of biodiversity in the region, etc.

Social factors

The social aspect of sustainable development in tourism captures among others the impact of increase of tourist activity on employment, quality of housing and other parameters of social and cultural well-being of the local communities. The parameters can be studied as follows: Decreasing the rate of unemployment in the tourism industry, increasing the number of jobs in the tourism industry, reducing the cost of housing for community, providing subsidies for medical welfare of children in the community, expenditure on social services, building cultural heritage and values.

Building cultural heritage and values

Sustainability principle involving cultural aspects of tourism is based on respect for the socio-cultural authenticity of host communities. Sustainable development of tourism in a region works towards conservation of the communities' traditional values and cultural heritage. It emphasizes on contributing towards enhanced tolerance between communities and to the growth of inter-cultural understanding. Sustainability of tourism in a region also depends on the extent to which tourists' experiences is incorporated with the local culture. For some communities this may be a contentious issue, certain indigenous communities like the aborigines may not want to display and share their culture with tourists at all (Liu & Lu, 2014). Sustainable development of the sites necessitates, that symbols of cultural heritage, such as a historic monument, need to be protected as evidence of a particular civilization. No tourism-related activity should lead to external pressures such as structural adjustment to the monuments. Additionally, sustainable development of tourism also necessitates that in designing of a desirable tourist destination, values of the local community is not offended (Romão, 2018).

In a broader context, sustainable development of tourism focuses on creating perceptive importance of values and cultural heritage among the tourist. Sustainable development of tourism of the local community reinforces the importance and interpretation of the local cultural heritage and value. Sustainable development of tourism also helps in reintroducing people to their cultural roots and works towards reinvigorating their interest in culture. Sustainable tourism takes into consideration cultural heritage and value management. It defines a relationship between values of the community and the tourists. Sustainable development of tourism works towards conservation of core cultural heritage and values, without overriding the level of acceptance of the tourists (Mckercher et al., 2005).

3 Globally Sustainable Tourism Criteria

Global Sustainable Tourism Criteria (GSTC) are parameters that focus on providing a common understanding of sustainable tourism at the same time, explaining different nations that govern them. With growing consumer demand and focus of nations on developing tourism based on sustainable practices, GSTC provides a working framework for tourism. To ensure that these actions have a credible and measurable base, the GSTC prescribes of four main themes on which the business related to tourism can measure their sustainability (GSTC, 2015). These are Effective Sustainability planning, Maximizing Social and Economic Benefits for the local Community, Enhancing Cultural Heritage, and Reducing Negative Impact to the Environment.

Enhancing cultural heritage

The third parameter of GSTC is suggestive of enhancement of cultural heritage to ensure maximum benefits to visitors as well as local communities. One aspect of sustainable enhancement of cultural heritage in a tourist region is to improve protection of its main attraction. Governmental system and policies aiming to create sustainable development work towards evaluation of new opportunities of tourism at the same time working towards conservation and rehabilitate of existing ones. Sustainable development further works towards mitigation of negative impacts arising from tourism such as pollution or loss of scenic views (Hargrove, 2017; Kakiuchi, 2014).

Barmelgy (2013) in a study suggested the use of visitor management plan to enhance sustainable development of tourism. Author in the study highlights that regional management mechanism with regulatory policies is useful for releasing excessive pressure on natural resources from the tourist region. Visitor management efforts allow tourists and local communities to attain their economic requirements while safeguarding cultural heritage sites for the future generation. Additionally, enhancement of cultural heritage also requires a code of practice for developing sustainable tourism. The tour operators and guides must operate under provided guidelines to minimize adversities on sensitive cultural sites and strengthen positive visitor behaviors (Buonincontri et al., 2017).

Furthermore, sustainability for GSTC also mandates protection of archaeological and historical artifacts through laws and regulations. It also mandates programs designed to celebrate and protect intangible cultural heritage of the region such as music and crafts. Cultural heritage of a region can further be enhanced by ensuring accurate interpretive information is available to the tourists (GSTC, 2015).

4 Methodology and Data of the Research

The purpose of this research was to reveal the degree to which the tourism development of Greece as a tourist destination is based on sustainable principles. This will help in the future the planners to make tourism development and promotion more sustainable. This is done through the analysis of sustainable development of 13 regions of Greece, in 2020. The main objective for the analysis of sustainable development was the approaching of sustainability concept through its special characteristics. The overall analysis can be a useful tool for tourism management—marketing and regional policy. The results, which would stem from the analysis, could be the basis for the proposed strategies. The areas, for which the sustainability analysis is conducted, are those of the Greek administrative spatial segregation as applied by Act 3852/2010 (known as 'Kallikratis Program'). This Act's objective was a reformation of the existing regional administration system in terms of jurisdictions, spatial separations, fund distribution, and local authorities' elections. Figure 1 and Table 1 depict the name, labeling, and position of all Greek regions (NUTS II Level). Moreover, Table 2 depicts the composition of regions with their respective prefectures. For purposes of easily locating, each area (NUTS II Level) in this paper will be referred along with its respective labeling number (Amoiradis, 2021).

As far as the development component concerned, the sustainability concept has been approached by analyzing the tourism saturation of an area. The degree of saturation reveals the perspective and capacity of an area for potential further development in certain sectors, which should be carefully chosen. The most appropriate methodology to assess an area's saturation is considered to be the Tourism Area Life Cycle

Fig. 1 The Greek NUTS II regions. *Source* European Union (2018)

Table 1 The Greek NUTS II regions

Label	Region	Label	Region
1	Attica	8	Northern Aegean
2	Central Greece	9	Peloponnesos
3	Central Macedonia	10	Southern Aegean
4	Crete	11	Thessalia
5	Eastern Macedonia and Thrace	12	Western Greece
6	Epirus	13	Western Macedonia
7	Ionian Islands		

Source European Union (2018)

Table 2 Composition of Greek regions (NUTS II Level)

Label	Region	Label	Prefecture
1	Attica	6	Attikhs
2	Central Greece	12	Euvoias
		14	Evrytanias
		16	Fokeedos
		17	Ftheotidos
		49	Veotias
3	Central Macedonia	7	Chalkedikhs
		20	Hmathias
		28	Kilkis
		39	Pellas
		40	Pierias
		45	Serron
		47	Thessalonikhs
4	Crete	8	Chaneon
		21	Herakleeou
		34	Lasithiou
		42	Rethymnoy
5	Eastern Macedonia and Thrace	11	Dramas
		13	Evroy
		25	Kavalas
		43	Rodophs
		50	Xanthis
6	Epirus	5	Artas
		22	Ioanninon
		41	Prevezas
		46	Thesprotias
7	Ionian Islands	26	Kefallonias
		27	Kerkyras
		36	Lefkados
		51	Zakeenthou
8	Northern Aegean	9	Chiou
		35	Lesvou
		44	Samou
9	Peloponnesos	3	Argoleedos
		4	Arkadias
		29	Korenthias
		32	Lakonias

(continued)

Table 2 (continued)

Label	Region	Label	Prefecture
		38	Messeenias
10	Southern Aegean	10	Dodekaneesou
		31	Keekladon
11	Thessalia	23	Karditsas
		33	Larissis
		37	Magnessias
		48	Trikalon
12	Western Greece	1	Achaias
		2	Aitoloakarnanias
		19	Heleias
13	Western Macedonia	15	Florinas
		18	Grevenon
		24	Kastorias
		30	Kozanhs

Source European Union (2018)

(TALC) model theory (Butler, 2006) as it combines the Life Cycle theory along with the attractiveness of a destination. This theory utilizes the number of incoming tourists and the number of their overnight staying in an area in order to extract qualitive and quantitative results, through the pattern recognition of plots and the calculation of growth coefficients, respectively, as it will be described in more detail at the following. Regarding the development perspectives, the objective is to determine the sectors, which are not contributing to the increase of saturation, thus transfusing a character of sustainability to the area. In order to determine as precisely as possible these sectors, a complex process has been followed which briefly consisted of the following: (a) definition of appropriate independent variables which are directly or indirectly related to the development profile of an area and are classified to five (5) categories, (b) statistical analysis using the multivariate regression tool in order to determine the most important and influential of these variables, (c) pair-wise correlation filtering between the dominant variables and each area which will determine their relation in terms of tourism saturation, (d) additional appropriate filtering and evaluation of them using auxiliary rates, in order to specifically determine the sectors on which each area should concentrate, and (e) tabulation of the results in a concentrated and organized table in order to utilize them properly for the strategy configuration.

4.1 Pattern Recognition

The first step of the sustainable development analysis is the pattern recognition of the time-series plots depicting the incoming tourism in an area. This recognition is based on the TALC theory and its objective is an initial qualitive evaluation regarding the tourism saturation of an area. The results of this pattern recognition will reveal the evolution phase each area is pacing and will suggest if TALC model is sufficiently appropriate to be used in such case. The time-series plots have been derived from the data of total tourists' overnight staying in each of thirteen (13) regions of Greece (NUTS II Level) and fifty-one (51) prefectures (NUTS III Level) for years 1980–2017. Although this initial evaluation through the pattern recognition of the time-series plots is helpful, it consists of a qualitive only approach of saturation, so a more accurate one is required. This has been accomplished through the calculation of TALC growth coefficients r in the next step of the analysis.

From the research emerged thirteen (13) time-series overlaid line plots of overnight stays, one for each region (NUTS II Level). Individual time-series plots for each prefecture (NUTS III Level) are also available. After completing the qualitative evaluation of the plots, seemed that the TALC model theory could be adjusted to the real plots of incoming tourism for extracting approximative conclusion about an area's evolution. However, this qualitative approach of saturation should be accompanied by and correlated to a more accurate and quantitative analysis.

4.2 Talc Growth Coefficients' Calculation

The Tourism Area Life Cycle (TALC) model

The TALC model (Butler, 2006; Candela & Figini, 2012; Zhong et al., 2008) was introduced by Butler in 2006 and describes the evolution process of a tourist destination, by utilizing the product cycle concept as used in marketing. According to this theory, each tourism area passes through a process of certain stages as the number of visitors increase, which are exploration, involvement, development, consolidation, stagnation and decline or rejuvenation stage (Fig. 2).

Mathematical formulation of TALC model

The growth coefficient $r(t)$, as defined in TALC Theory (Polyzos et al., 2013), represents in a way the velocity of saturation in an area as it shows how quickly the number of incoming tourism increases throughout a period of time. Consequently, behind this parameter many other factors are hidden which include the starting conditions of each area (existing infrastructures, socioeconomic situation, cultural heritage, etc.), special features of it along with environmental characteristics to name a few. Therefore, the calculation of this coefficient is vital to deepen into the study of tourism saturation in an area.

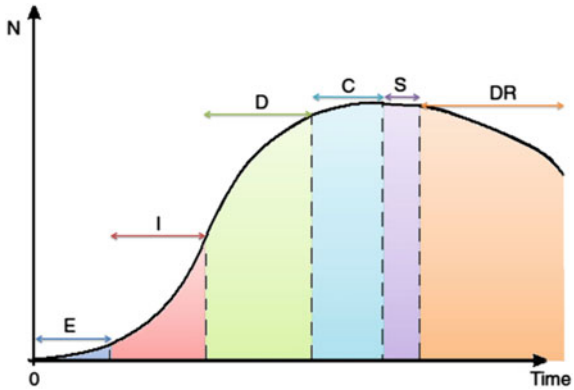


Fig. 2 The evolution phases of TALC theory (E = exploration, I = involvement, D = development, C = consolidation, S = stagnation, DR = decline or rejuvenation). *Source* Polyzos et al. (2013)

The available data refer to the diachronic total number of visitors (tourists) $N_t(t)$ and the total number of overnight stays $N_s(t)$ per Greek prefecture, for the period 1980–2017. These data are treated as integer variables describing the Greek regions that attract greater number of tourists (touristic load) or are more popular for long-term vacations (the duration of the touristic load), and their coefficients $r_s(t)$ and $r_t(t)$ are expected to reveal the level of saturation per region. For a further evaluation, a third variable $N(t) = N_s(t)/N_t(t)$ was introduced to the analysis, targeting to elect these Greek regions that are more popular for long-term vacations per tourist capita (duration/load). This ratio suggests a measure that is conceptually closer to carrying capacity than the other variables are, in the extent that it can describe the pure touristic load that a tourism monad (visitor or tourist) applies to the destination. Consequently, the TALC coefficient $r(t)$ may operate as an alternative carrying capacity index for the Greek regions, regardless the omission of the K term in the mathematical relation of the TALC model (Amoiradis, 2021).

Talc Growth Coefficients' Calculation

Although the qualitative evaluation of the time-series plots through the pattern recognition revealed an aspect of the prefectures' saturation degree, was necessary to proceed to the quantitative definition of it in order to obtain a more accurate view. The results after the calculation of the TALC growth coefficients are shown in Table 3 and are drawn at the maps of the Figs. 3, 4, and 5.

As depicted in Fig. 3, the most saturated areas regarding the total number of incoming tourists are the prefectures of Attikhs (NUTS III:6), Dodekaneesou (NUTS III:10), Herakleeou (NUTS III:21), and Thessalonikhs (NUTS III:47). A possible explanation for this distribution is the presence of the four (4) major airports of the country in these prefectures in terms of passenger arrivals (Papageorgiou, 2015). Regarding the next class of prefectures, the common feature of them is the presence of a tourist multiplier factor. This factor could vary from: (a) an airport that serves a lot of passengers especially during summer period, such as the insular prefectures of Chaneon (NUTS III:8), Kerkyras (NUTS III:27), and Keekladon (NUTS III:31);

Table 3 Numerical results of the TALC growth coefficients

Label	Prefecture	$r(t)$	$r_t(t)$	$r_s(t)$	Label	Prefecture	$r(t)$	$r_t(t)$	$r_s(t)$
1	Achaias	4.66	62.16	66.82	27	Kerkyras	10.36	65.07	75.43
2	Aitoloakarnanias	3.66	58.62	62.29	28	Kilkis	3.95	45.88	49.83
3	Argoleedos	4.99	63.1	68.09	29	Korenthias	6.6	60.36	66.95
4	Arkadias	3.71	56.14	59.85	30	Kozanhs	3.68	54.98	58.66
5	Artas	3.44	51.78	55.23	31	Keekladon	7.07	63.25	70.32
6	Attikhs	4.67	74.65	79.32	32	Lakonias	2.79	59.08	61.86
7	Chalkedikhs	10.07	61.89	71.96	33	Larissis	4.21	58.42	62.63
8	Chaneon	8.3	62.56	70.86	34	Lasithiou	9.74	62.47	72.21
9	Chiou	7.04	52.37	59.41	35	Lesvou	8.21	56.55	64.76
10	Dodekaneesou	10.56	70.45	81.01	36	Lefkados	6.43	52.28	58.71
11	Dramas	4.11	51.2	55.31	37	Magnessias	5.73	62.88	68.61
12	Euvoias	7.83	60.1	67.93	38	Messeenias	4.58	59.08	63.66
13	Evroy	3.69	59.39	63.07	39	Pellas	4.3	51.35	55.65
14	Evrytanias	5.15	51.82	56.97	40	Pierias	7.05	57.55	64.59
15	Florinas	3	53.73	56.72	41	Prevezas	6.12	55.24	61.36
16	Fokeedos	1.63	60.88	62.52	42	Rethymnoy	10.63	61.19	71.83
17	Ftheotidos	6.15	57.53	63.68	43	Rodophs	3.84	55.09	58.93
18	Grevenon	3.23	45.86	49.09	44	Samou	9.79	57.08	66.87
19	Heleias	3.56	62.15	65.7	45	Serron	3.93	53.94	57.87
20	Hmathias	3.44	53.65	57.09	46	Thesprotias	3.93	52.7	56.63
21	Herakleeou	9.79	67.32	77.11	47	Thessalonikhs	3.67	67.44	71.11
22	Ioanninon	2.99	61.42	64.41	48	Trikalon	1.54	59.95	61.5
23	Karditsas	4.77	53.18	57.94	49	Veotias	3.33	54.35	57.68
24	Kastorias	2.99	55.36	58.35	50	Xanthis	3.91	54.24	58.15
25	Kavalas	6.13	60.71	66.84	51	Zakeenthou	9.7	58.47	68.17
26	Kefallonias	8.7	55.37	64.07					

Source Compiled by author
$r(t)$ = number of the stays per tourists capita
$r_t(t)$ = total number of tourists
$r_s(t)$ = total number of overnight stays (values $\times 10^{-4}$)

(b) prefectures that are benefitted from the presence of a nearby large airport and are simultaneously consisting of an attractive destination such as the prefectures of Chalkedikhs (NUTS III:7), Kavalas (NUTS III:25), Lasithiou (NUTS III:34), and Rethymnou (NUTS III:42); (c) prefectures that are known either as a thematic destination or due to a special attraction located there such as the prefectures of Achaias (NUTSIII:1), Argolidos (NUTS III:3), Fokeedos (NUTSIII:16), Heleias (NUTS III:19), Ioanninon (NUTS III:22), and Magnessias (NUTS III:37).

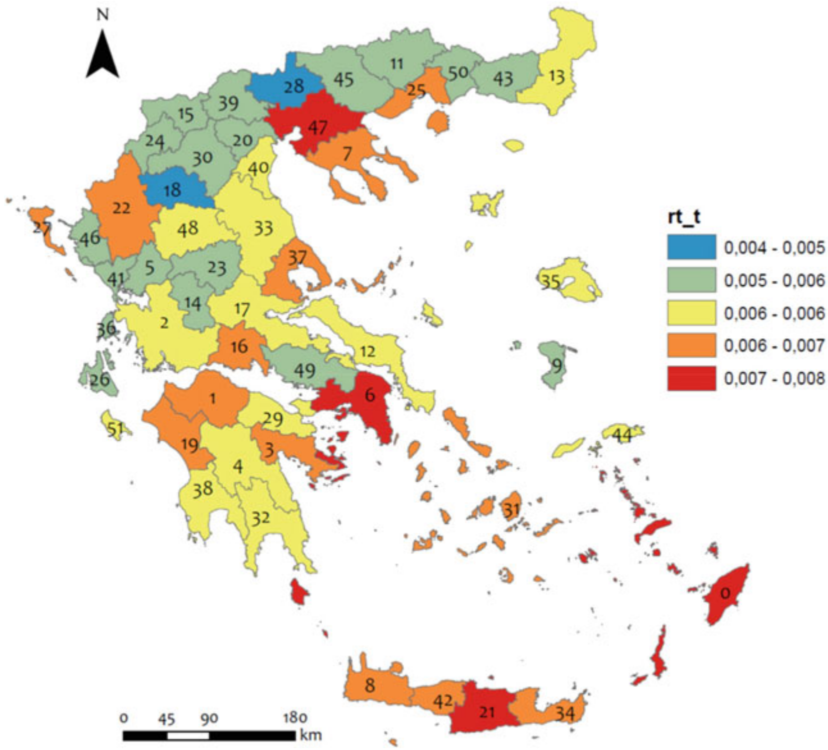


Fig. 3 Map illustrating the interregional distribution of the TALC growth coefficient for the total number of tourists $r_t(t)$. *Source* Compiled by author

Regarding the distribution of $r_s(t)$ TALC growth coefficient depicted in Fig. 4, it follows a similar pattern of the $r_t(t)$ one, however some slight differences reveal tendencies in the way visitors are utilizing the transport infrastructure and tourism capabilities in general. In such direction, it is worth mentioning that several prefectures are higher saturated in terms of overnight stays in comparison to the arriving tourists, thus indicating a preference for long-term vacation there. Indicatively, these prefectures are Euvoias (NUTS III:12), Kefallonias (NUTS III:26), Kerkyras (NUTS III:27), Korenthias (NUTS III:29), Samou (NUTS III:44), and Zakeenthou (NUTS III:51). On the contrary, the prefectures of Fokeedos (NUTS III:16), Heleias (NUTS III:19), and Ioanninon (NUTS III:22) appeared to be less saturated in terms of overnight stays, revealing in that way the presence of special attractions either cultural or thematic (Delfoi archaeological site, Ancient Olympia archaeological site and alternative tourism options respectively) which cannot be combined with long-term vacation.

The differences between the distribution of $r_t(t)$ and $r_s(t)$ TALC growth coefficients dictate the use of a more balanced saturation coefficient, which could depict

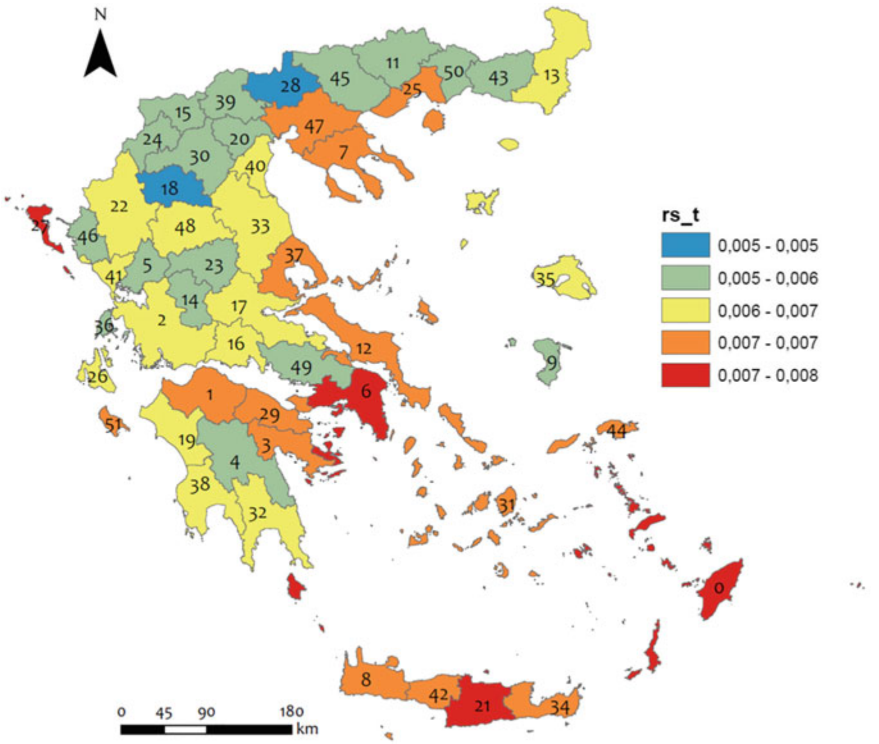


Fig. 4 Map illustrating the interregional distribution of the TALC growth coefficient for the total number of overnight stays $r_s(t)$

the phenomenon at the best possible perspective. Therefore, the TALC growth coefficient $r(t)$ which represents the overnight stays per tourist capita seems to be the proper one. As depicted in Fig. 5, most of the insular prefectures are highly saturated as a result of being well-known summer tourism destinations. A general conclusion that could be extracted is that the interregional saturation distribution follows the general touristic profile of Greece by presenting high saturation levels in summer-oriented tourist destinations, while the mild development of alternative tourism forms is located on prefectures where saturation is still in low levels.

4.3 Multivariate Regression Analysis

Variables Configuration

After calculating the TALC growth coefficient, the next step of the methodological framework consists of the 'deconstruction' of it in order to locate and evaluate each possible component that could contribute positively or negatively to it. So, at first

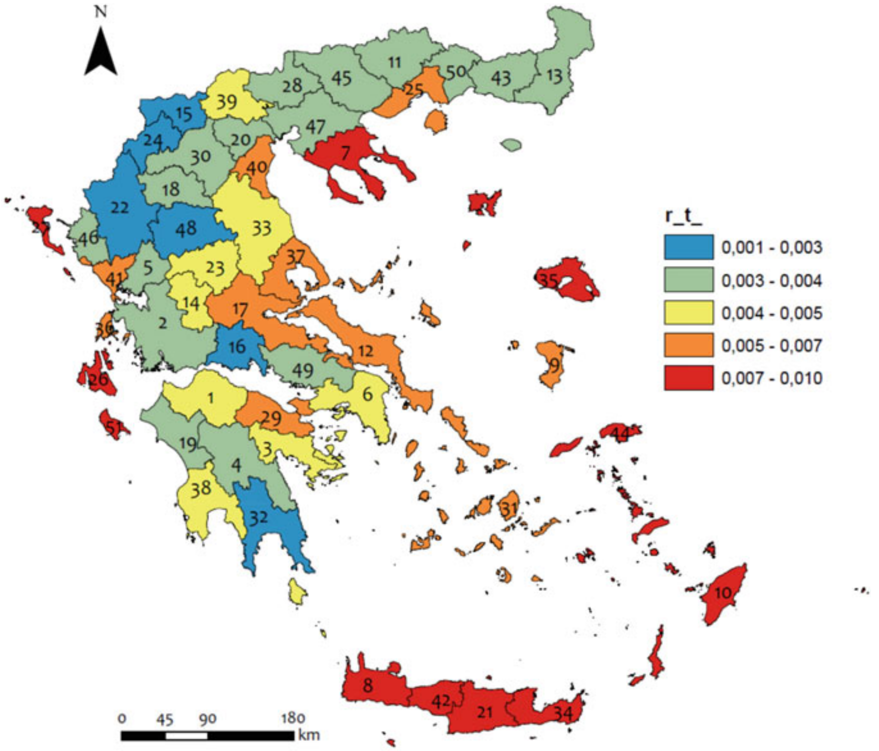


Fig. 5 Map illustrating the interregional distribution of the TALC growth coefficient for the number of the stays per tourists capita $r(t)$. *Source* Compiled by author

place, a number of variables referring to the study area is set, which considered to affect directly or indirectly the development of the prefecture in general as well as the touristic profile of it in particular. These variables are stemming from the following five (5) general categories, which are considered to represent every aspect of sustainable development and are (a) socioeconomic, (b) eco/environmental, (c) cultural, (d) geographical, and (e) infrastructure. In Table 4 are depicted the cultural variables.

4.4 Correlation Filtering

The next step of the analysis is the correlation filtering, where a specialization of the regressions' results will take place. Specifically, the significant predictors as stemmed from multivariate analysis will be correlated to each prefecture's saturation degree, as reflected in TALC growth coefficients r, in order to reveal the sectors on which each prefecture should concentrate its development perspectives. For this reason, separate

Table 4 Cultural variables participating in the analysis

	Symbol	Description	Source
Cultural variables	ANC_MONUMENTS	Total number of ancient monuments in Prefecture	http://listedmonuments.culture.gr/, self-edited
	UNESCO_MONUMENTS	Total number of UNESCO monuments in Prefecture	http://listedmonuments.culture.gr/, self-edited
	CULTURAL_RESOURCES	Total expenses (million euros) for the promotion, function and conservation of cultural activity in the Prefecture (year: 2011)	Polyzos (2011), self-edited
	MUSEUMS_VISITORS	Number of visitors to the museums of the Prefecture (year: 2019)	https://www.statistics.gr/, self-edited
	ARCHAEOLOGICAL_SITES_VISITORS	Number of visitors to the archaeological sites of the Prefecture (year: 2019)	https://www.statistics.gr/, self-edited

Source Compiled by author

graphs (scatter-plots) are created for each significant predictor variable where the growth coefficient for each regression is depicted on the y-axis, while each significant predictor variable is depicted on the x-axis. Finally, each prefecture is positioned on each graph according to the values of its TALC growth coefficient r and significant predictor variable. Moreover, the mean values of the above parameters (i.e., growth coefficient and significant predictor variable) are marked with a line, thus separating the graph into 4 quartiles.

Such graphic depiction of the combined results of multivariate regression and TALC growth coefficient can be used to easily locate, at first place, the prefectures, which are capable of expanding further their activities in each sector without approaching high saturation level.

A general rule is that prefectures with high TALC growth coefficient r (upper quartiles) should avoid enhancing their activities in sectors that have positive impact on it, hence the significant predictor variables with positive value on the multivariate regression analysis. On the contrary, they should focus on those variables with negative regression value in order to reduce the growth coefficient, thus retarding reaching the saturation point. The exactly opposite should be followed for the prefectures with low TALC growth coefficient r (lower quartiles), as there is enough margin for them to develop more activities with positive impact on it. The basic criterion for grouping the prefectures into low or high TALC growth coefficient r is the mean value of it.

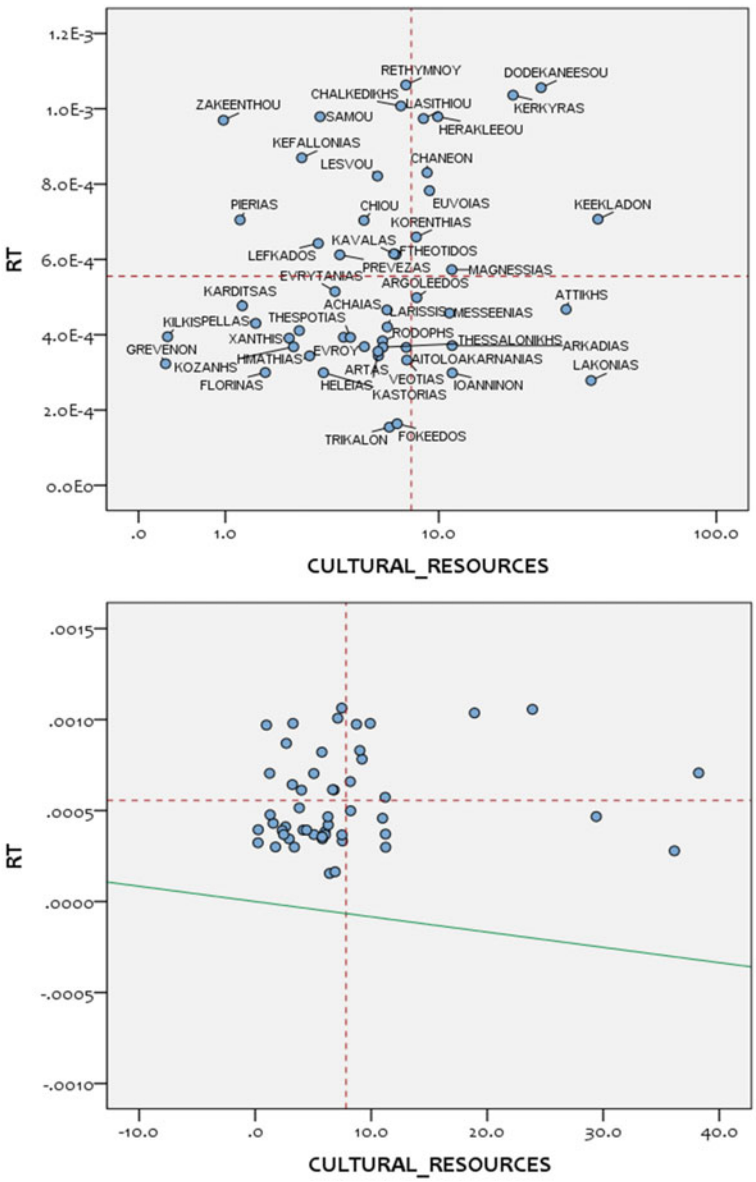


Fig. 6 Growth coefficient $r(t)$ versus 'CULTURAL_RESOURCES' variable. *Source* Compiled by author

The following Figs. 6, 7, and 8 depict the pair-wise coefficient/variable graphs for the $r(t)$ regression, which were used to evaluate the contribution of each significant predictor variable and are divided in four (4) quartiles each. Figures 7, 8, and 9 depict, respectively, the 'CULTURAL_RESOURCES', 'MUSEUMS_VISITORS' and 'NATURA_AREA' variables' distribution among prefectures and their contribution to the TALC growth coefficient. As seen from the inclination of the green line in each of them, they are factors that prevent the increase of saturation and

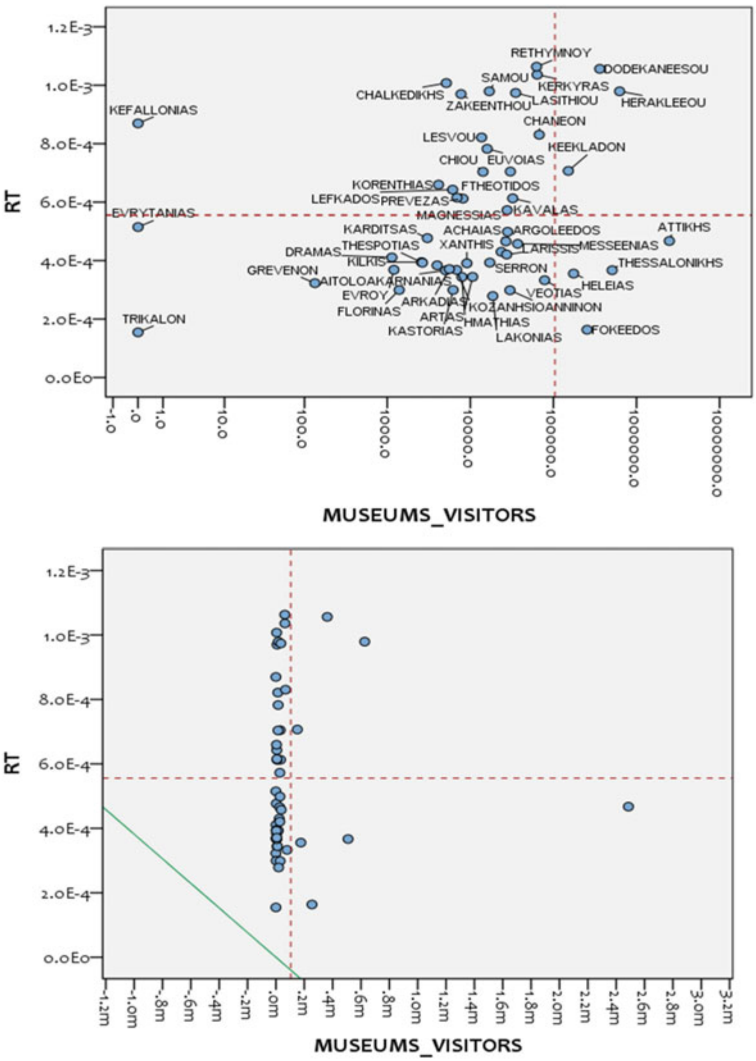


Fig. 7 Growth coefficient $r(t)$ versus 'MUSEUMS_VISITORS' variable. *Source* Compiled by author

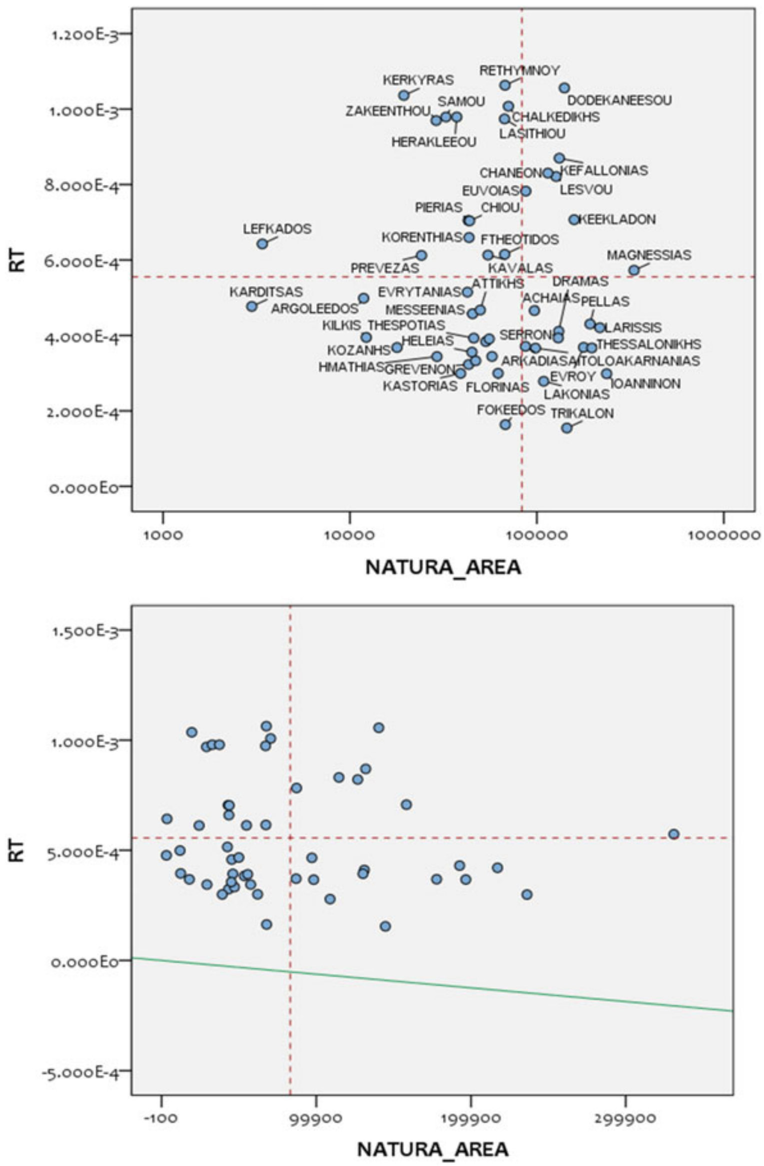
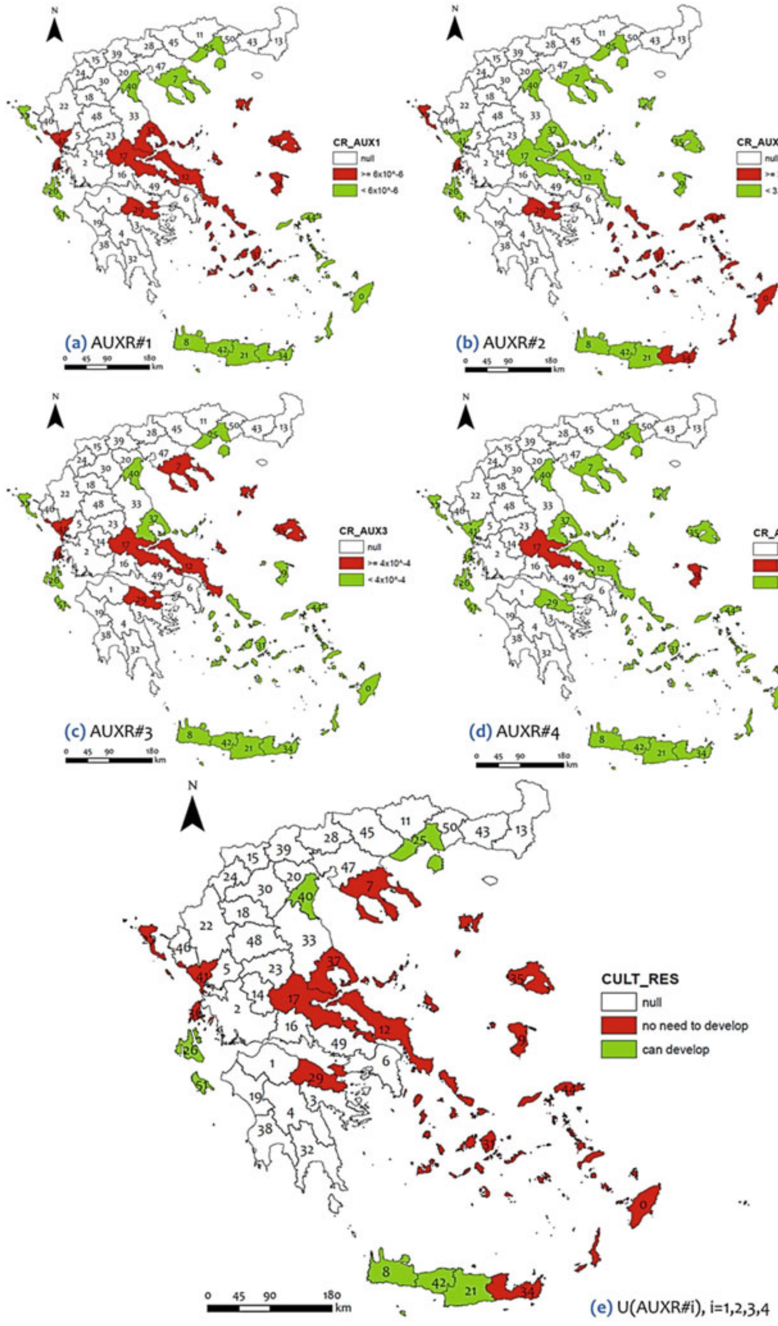


Fig. 8 Growth coefficient $r(t)$ versus 'NATURA_AREA' variable. *Source* Compiled by author

can be proved beneficial for the high-saturated prefectures, whose $r(t)$ value is above the average (upper quartiles). These prefectures are Chalkedikhs (NUTS III:7), Chaneon (NUTS III:8), Chiou (NUTS III:9), Dodekaneesou (NUTS III:10), Euvoias (NUTS III:12), Ftheotidos (NUTS III:17), Herakleeou (NUTS III:21), Kavalas (NUTS III:25), Kefallonias (NUTS III:26), Kerkyras (NUTS III:27), Korenthias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(b) AUXR#2
CR_AUX3
null
>= 4x10^-4
< 4x10^-4
(c) AUXR#3
CR_AUX4
null
>= 10^-3
< 10^-3
(d) AUXR#4
CULT_RES
null
no need to develop
can develop
0 45 90 180 km
(e) U(AUXR#i), i=1,2,3,4

◀**Fig. 9** Map illustrating the 'CULTURAL_RESOURCES' variable auxiliary ratios, where **a** is the CULTURAL_RESOURCES/STAYS_2017 ratio, **b** is the CULTURAL_RESOURCES/ ANC.MONUMENTS ratio, **c** is the CULTURAL_RESOURCES/MUSEUM_VISITORS ratio, **d** is CULTURAL_RESOURCES/ARCH.SITES VISITORS, and **e** is the combined results of the (**a**), (**b**), (**c**), and (**d**) ratios. *Source* Compiled by author

(NUTS III:29), Keekladon (NUTS III:31), Lasithiou (NUTS III:34), Lesvou (NUTS III:35), Lefkados (NUTS III:36), Magnessias (NUTS III:37), Pierias (NUTS III:40), Prevezas (NUTS III:41), Rethymnou (NUTS III:42), Samou (NUTS III:44), and Zakeenthou (NUTS III:51).

On the other hand, the contribution to the TALC growth coefficient of the other variables among prefectures has a positive inclination of the green line. This indicates that their presence is boosting the saturation of an area, thus they can be non-compounding only for the low-saturated prefectures, whose $r(t)$ values are below the average (lower quartiles).

4.5 Auxiliary-Rates Filtering

After determining the significant predictor variables of the TALC growth coefficients, the next step is the calibration of them to the reality of each prefecture mainly in terms of capacity and necessity. The capacity is measured through the utilization of auxiliary rates while the necessity is determined by establishing threshold values to these rates. As mentioned, the $r(t)$ growth coefficient is considered to be the most representative of an area's saturation degree as it reflects the density of the incoming tourism phenomenon, which is directly referred to sustainability. For this reason, the auxiliary rates were created for the significant predictor variables of the r(t) multivariate regression analysis.

The auxiliary rates used for each significant predictor variable contain the variable itself weighted to a relevant parameter, which in most cases are variables of the initial chosen ones, while the number of overnight stays for the year 2017 (variable 'STAYS_2017') was considered a crucial reference point for depicting the capacity of a characteristic in terms of incoming tourism. Specifically:

Cultural Resources

The resources spent for the promotion, function, and preservation of cultural activities often can upgrade or downgrade the subjective value of the activity itself. This hypothesis makes even more indistinguishable the limits beyond of which there should be a boost in cultural resources of an area. For this reason, four (4) ratios were created which show the distribution of existing cultural resources in relation to incoming tourism and three (3) basic variables which show the cultural-related tourist activity. These ratios are (a) CULTURAL_RESOURCES/STAYS_2017, (b) CULTURAL_RESOURCES/ANC.MONUMENTS, (c) CULTURAL_RESOURCES/MUSEUM_

VISITORS, and (d) CULTURAL_RESOURCES/ARCH.SITES VISITORS. The limits set for these ratios were 6×10^{-6}, 3.35×10^{-2}, 4×10^{-4}, and 1×10^{-3}, respectively. Due to the number of ratios that were used, all of the prefectures were below limits for at least one ratio. So, the restriction used to narrow the choice and locate the prefectures with urgent need of cultural resources boost was the requirement to be below limits at all four (4) ratios.

Figure 9 depicts five (5) maps, containing the aforementioned ratios along with one the combined results of them, showing that only 1/3 of the prefectures need developing the cultural resources sector. Among them, a worth-mentioning cluster is observed, this containing the prefectures of Chaneon (NUTS III:8), Herakleeou (NUTS III:21), and Rethymnou (NUTS III:42). These areas are hosting the majority of the incoming tourism in the region of Crete (NUTS II:4), where apart from the massive tourism activities, several significant cultural attractions are located such as the archaeological sites of Knossos, Faistos, and Malia to name a few. Consequently, loads of tourists are visiting these places during their stay there, thus creating a significant flow towards them.

Museum Visitors

This parameter is directly related to the previous one; however, it is worth evaluating it individually not only due to its indication as significant predictor variable through the multivariate regression procedure but also because it could offer targeted actions for prefectures that were excluded from the above sector (i.e., CULTURAL RESOURCES) because they were below only to 3 out of 4 ratio limits. So, in this case, only one ratio was used, this of MUSEUM VISITORS/STAYS_2017, which generally indicates how much of the incoming tourism is visiting the museums. The limit set for this ratio was 2.1%, so prefectures with lower value than that should find ways of attracting more museum visitors.

Figure 10 depicts the results of 'MUSEUM_VISITORS' ratio, where far more prefectures need to take actions towards this direction. In terms of geographical distribution, again the majority of well-known and attractive destinations seem to lack in the attractiveness of their museums, thus indicating the way that tourists have conceptualized their stay at these areas. However, the prefectures of Herakleeou (NUTS III:21) and Keekladon (NUTS III:31) seem to be separated from this phenomenon observed in the rest areas of massive tourism. On the first one lies the museum at the archaeological site of Knossos which is very famous and consequently consists of a 'must-visit' attraction of the area. Similarly, at the islands of Keekladon prefecture are located various museums either archaeological or folkloric which also consist of local prioritized attractions for the tourists.

Table 5 depicts all threshold values regarding the auxiliary rates used for the evaluation of each significant predictor variable. As mentioned, thresholds were set at that values where there was a statistically significant gap between two consecutive values, thus separating the areas into two subgroups, one lacking and the other excessing the examined feature.

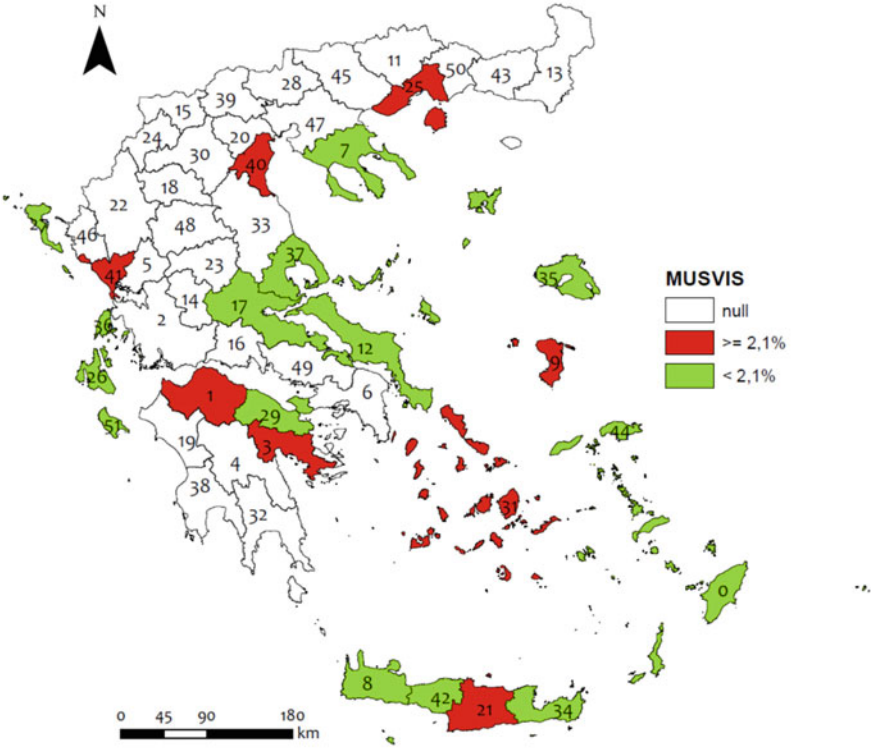

Fig. 10 Map illustrating the 'MUSEUM_VISITORS' variable auxiliary ratio. *Source* Compiled by author

Table 5 Auxiliary ratios used for the regional filtering

Variable	Ratio	Threshold
BLUE_FLAG	BLUE_FLAG/BEACHES	<15%
HOTELS	STAYS_2017/HOTELS	>3500
	STAYS_2017/HOTEL_BEDS	>80
RSI_TOURISM_SEASONALITY	N/A	N/A
CAMPING	CAMPING/HOTELS	<3%
	CAMPING/SAND_BEACH_LENG	<4
CULTURAL_RESOURCES	CULTURAL_RESOURCES/STAYS_2017	$<6 \times 10^{-6}$
	CULTURAL_RESOURCES/ ANC.MONUMENTS	$<3.35 \times 10^{-2}$
	CULTURAL_RESOURCES/MUSEUM_ VISITORS	$<4 \times 10^{-4}$
	CULTURAL RESOURCES/ARCH.SITES VISITORS	$<1 \times 10^{-3}$
MUSEUM_VISITORS	MUSEUM VISITORS/STAYS_2017	<2,1%

Source Compiled by author

4.6 Tabulation

After the completion of the significant predictor variables' filtering, the results are tabulated to a concentrated table, which integrates all the necessary information about the sectors each prefecture should focus on. The contents of this table are on their majority the results from the auxiliary rates filtering, as depicted in the previous figures. During this build-up, an overview for the prefectures was available, which revealed the number of sectors each one should be involved. For some prefectures, both high and low-saturated, only one or even none sector was defined as appropriate for development which, however, considered not acceptable in terms of strategy planning. Moreover, some special characteristics of specific prefectures directed the involvement of sectors that were not initially included in the affected ones. Consequently, these special cases were treated twofold: (a) by applying exemptions to the selection of the variables during the auxiliary rates process, only for these ones that were very close in threshold values or satisfying part of the prerequisites, (b) by consulting the pair-wise variable/coefficient analysis for the $r_s(t)$ and $r_t(t)$ multivariate regressions results.

After completing the proper configurations, the final concentrated results are depicted on the Table 6, where a plus (+) sign is set in the cross-section of each prefecture with the appropriate variable.

5 Conclusions

In this article is made an attempt to present and analyze the findings of a research (Amoiradis, 2021) concerning the spatial distribution of cultural resources in the tourist areas of Greece. Furthermore was investigated their contribution to the sustainable tourism development of Greece, in relation to sustainability with the tourist saturation of the individual regions. This will help in the future the planners to make tourism development and promotion more sustainable. The overall analysis can be a useful tool for tourism management—marketing and regional policy. The results, which stemmed from the analysis, could be the basis for proposed development and marketing strategies.

The purpose of the research (Amoiradis, 2021) was to reveal the degree to which the tourism development of Greece as a tourist destination is based on sustainable principles. This is done through the analysis of sustainable development of 13 regions of Greece, in 2020. The main objective for the analysis of sustainable development was the approaching of sustainability concept through its special characteristics. The areas, for which the sustainability analysis is conducted, are those of the Greek administrative spatial segregation as applied by Act 3852/2010 (known as 'Kallikratis Program'). In terms of regional development, the mitigation of inequalities among prefectures is one of the main objectives in order to achieve sustainability in the area (Polyzos, 2011).

Table 6 Concentrated results of analysis used for the policy proposal

Label	Prefectures	BLUE_FLAG	CAMPING	CULTURAL_ RESOURCES	HOTELS	MUSEUMS_VISITORS	RSI_TOURISM_ SEASONALITY	SKI_ROUTES_ AVAILABLE	ARCRAEOLOGICAL_ SITES_VISITORS
1	Achaias	+			+		+	+	
2	Aitoloakarnanias	+			+		+		
3	Argoleedos	+			+	+	+		
4	Arkadias	+					+		
5	Artas	+					+		
6	Attikhs	+			+		+		
7	Chalkedikhs			+		+			
8	Chaneon		+	+		+			
9	Chiou		+						
10	Dodekaneesou		+			+			
11	Dramas				+		+		
12	Euvoias					+			
13	Evroy	+			+		+		+
14	Evrytanias						+		
15	Florinas						+		
16	Fokeedos				+		+		
17	Ftheotidos					+			
18	Grevenon						+		
19	Heleias				+		+		
20	Hmathias				+		+		
21	Herakleeou		+	+					

(continued)

Table 6 (continued)

Label	Prefectures	BLUE_FLAG	CAMPING	CULTURAL_ RESOURCES	HOTELS	MUSEUMS_VISITORS	RSI_TOURISM_ SEASONALITY	SKI_ROUTES_ AVAILABLE	ARCRAEOLOGICAL_ SITES_VISITORS
22	Ioanninon						+	+	
23	Karditsas				+		+		
24	Kastorias						+		
25	Kavalas		+	+		+			
26	Kefallonias		+	+		+			
27	Kerkyras		+			+			
28	Kilkis						+		
29	Korenthias					+		+	
30	Kozanhs						+		+
31	Keekladon		+	+					
32	Lakonias	+					+		
33	Larissis	+			+		+		
34	Lasithiou		+			+			
35	Lefkados					+			
36	Lesvou		+			+			
37	Magnessias		+			+		+	
38	Messeenias	+					+		
39	Pellas						+		
40	Pierias			+		+			
41	Prevezas		+	+					
42	Rethymnoy		+	+		+			

(continued)

Table 6 (continued)

Label	Prefectures	BLUE_FLAG	CAMPING	CULTURAL_ RESOURCES	HOTELS	MUSEUMS_VISITORS	RSI_TOURISM_ SEASONALITY	SKI_ROUTES_ AVAILABLE	ARCRAEOLOGICAL_ SITES_VISITORS
43	Rodophs				+		+		
44	Samou		+			+			
45	Serron	+			+		+		+
46	Thespotias	+					+		
47	Thessalonikhs				+		+		
48	Trikalon				+		+		
49	Veotias	+					+		
50	Xanthis				+		+		
51	Zakeenthou		+	+		+			

Source Compiled by author

The concept of sustainability is approached by analyzing the tourist saturation of an area. The degree of saturation reveals the prospect and capacity of an area for possible further development in certain areas, which must be carefully selected. The most appropriate methodology for estimating the saturation of an area is considered the Theory of the Tourist Area Life Cycle (TALC) model as it combines the theory of the life cycle with the attractiveness of a destination. This theory utilizes the number of incoming tourists and the number of their overnight staying in an area in order to extract qualitive and quantitative results, through the pattern recognition of plots and the calculation of growth coefficients respectively as described in detail. Regarding the development perspectives, the objective was to determine the sectors, which are not contributing to the increase of saturation, thus transfusing a character of sustainability to the area. According to the findings, some areas are considered to follow sustainable tourism development practices and others not. The cultural heritage of a place can contribute to its sustainable tourism development in a mild way, by alleviating the saturated tourist areas but also by strengthening the unsaturated tourist areas.

A first step of the sustainable development analysis was the pattern recognition of the time-series plots depicting the incoming tourism in an area. The time-series plots have been derived from the data of total tourists' overnight staying in each of thirteen (13) regions of Greece (NUTS II Level) and fifty-one (51) prefectures (NUTS III Level) for years 1980–2017. Although this initial evaluation through the pattern recognition of the time-series plots is helpful, it consists of a qualitive only approach of saturation, so a more accurate one was required. This has been accomplished through the calculation of TALC growth coefficients r in the next step of the analysis.

The calculation of this coefficient is vital to deepen into the study of tourism saturation in an area, in order to obtain a more accurate view. Observing maps 4, 5, and 6 we can classify the destinations into three categories, depending on their degree of saturation. The possible reasons are explained above. Behind TALC growth coefficients many other factors are hidden which include the starting conditions of each area (existing infrastructures, socioeconomic situation, cultural heritage, etc.), special features of it along with environmental characteristics to name a few. So, subsequently it was necessary in order to locate and evaluate each possible component that could contribute positively or negatively to it. These were a number of variables, which considered to affect directly or indirectly the development of the prefecture in general as well as the touristic profile of it in particular. Five (5) general categories which are considered to represent every aspect of sustainable development are (a) socioeconomic, (b) eco/environmental, (c) cultural, (d) geographical, and (e) infrastructure.

In order to determine which of the above parameters contribute to tourism saturation, they were all used to three (3) different sets of regressions, on which they consisted of the independent variables while the dependent ones were the three (3) growth coefficients $r(t)$ (number of the stays per tourists capita), $r_s(t)$ (total number of overnight stays), and $r_t(t)$ (total number of tourists).

By the correlation filtering, took place a specialization of the regressions' results. Specifically, the significant predictors as stemmed from multivariate analysis have been correlated to each prefecture's saturation degree, as reflected in TALC growth coefficients *r*, in order to reveal the sectors on which each prefecture should concentrate its development perspectives. For this reason, separate graphs (scatter-plots) are created for each significant predictor variable where the growth coefficient for each regression is depicted on the y-axis, while each significant predictor variable is depicted on the x-axis. Such graphic depiction of the combined results of multivariate regression and TALC growth coefficient can be used to easily locate, at first place, the prefectures, which are capable of expanding further their activities in each sector without approaching high saturation level. Figures 7 and 9 depict, respectively, the 'CULTURAL_RESOURCES', 'MUSEUMS_VISITORS', and 'NATURA_AREA' variables' distribution among prefectures and their contribution to the TALC growth coefficient. As seen from the inclination of the green line in each of them, they are factors that prevent the increase of saturation and can be proved beneficial for the high-saturated prefectures, whose $r(t)$ value is above the average (upper quartiles).

After that, there was a need for distinguishing the limits beyond of which there should be a boost in cultural resources of an area. For this reason, four (4) ratios were created which show the distribution of existing cultural resources in relation to incoming tourism and three (3) basic variables, which show the cultural-related tourist activity. These ratios are (a) CULTURAL_RESOURCES/STAYS_2017, (b) CULTURAL_RESOURCES/ANC.MONUMENTS, (c) CULTURAL_RESOURCES/MUSEUM_VISITORS, and (d) CULTURAL_RESOURCES/ARCH.SITES VISITORS. The limits set for these ratios were 6×10^{-6}, 3.35×10^{-2}, 4×10^{-4},and 1×10^{-3}, respectively. Due to the number of ratios that were used, all of the prefectures were below limits for at least one ratio. So, the restriction used to narrow the choice and locate the prefectures with urgent need of cultural resources boost was the requirement to be below limits at all four (4) ratios. Figure 9 depicts five (5) maps, showing that only 1/3 of the prefectures need developing the cultural resources sector. Figure 10 depicts the results of 'MUSEUM_VISITORS' ratio, where far more prefectures need to take actions towards this direction. In terms of geographical distribution, again the majority of well-known and attractive destinations seem to lack in the attractiveness of their museums, thus indicating the way that tourists have conceptualized their stay at these areas.

After the completion of the significant predictor variables' filtering, the results are tabulated to a concentrated table, which integrates all the necessary information about the sectors each prefecture should focus on. The contents of this table are on their majority the results from the auxiliary rates filtering, as depicted in the figures of the previous. During this build-up, an overview for the prefectures was available, which revealed the number of sectors each one should be involved.

After completing the proper configurations, the final concentrated results are depicted on the Table ,6, where a plus (+) sign is set in the cross-section of each prefecture with the appropriate variable. Though simple in structure, this table is considered necessary and rather helpful as it gathers all necessary information related to this analysis. This is in order to easily review them and configure the development strategy for each prefecture.

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Tourists' Willingness to Pay for Environmental and Sociocultural Sustainability in Destinations: Underlying Factors and the Effect of Age

Arthur Filipe de Araújo, Isabel Andrés Marques, and Teresa Ribeiro Candeias

Abstract As recent studies show, tourists increasingly favour hotels and other tourism businesses that adopt more environmentally sustainable practices. A tourism depends on and significantly impacts cultural heritage and local communities' well-being, sociocultural sustainability also plays a significant role on tourists' decisions. Despite this trend, price is still the main determinant factor in tourists' choices, and most sustainable practices tend to add operational costs, and consequently, make services more expensive. In this context, more than knowing which sustainable practices are valued the most by tourists, it is important to know how much they are willing to pay a premium price to visit destinations where those practices are carried out. In this context, the present study aimed to explore the dimensions of willingness to pay for sustainability in tourism destinations and the sustainability attitudes that might affect them. Additionally, as previous studies suggest young travellers attribute a greater value to sustainability, differences between age groups were also explored. To this end, data were collected through a survey questionnaire (n = 562) with Portuguese tourists. The questionnaire included 16 willingness to pay items and 22 sustainability attitude items. The results point to two main willingness to pay dimensions and four sustainability attitude factors. Moreover, a higher willingness to pay for environmental and sociocultural sustainability, as well as higher levels of pro-environmental private behaviour, was found amongst younger travellers. The findings offer useful insights for destination managers, which must consider them when planning and promoting innovative tourism products based on nature and cultural heritage.

Keywords Sustainability · Cultural heritage · Tourism · Destination choice · COVID-19 · Pandemic

JEL Classification Z31 Industry Studies

A. F. de Araújo (✉) · I. Andrés Marques · T. Ribeiro Candeias
Lusófona University/TRIE, Porto, Portugal
e-mail: p5706@mso365.ulp.pt

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_2

1 Introduction

The topic of sustainability and the demand for sustainable products and services are not new in academic research, both in areas related to environmental and social studies, and in economics, management, and marketing studies. In the last 5 years, however, due to the increasingly concerning data on climate change and the depleting of natural resources, sustainability has more than ever been in the worlds' geopolitical agenda, as well as in local and regional management strategies. Authorities worldwide have agreed to make stronger efforts to meet carbon emission reduction targets look after the planet's health. Consumers, in turn, are also willing to play their part in helping to preserve the environment and are willing to back their personal values.

Naturally, tourism does not stray from this trend. On the contrary, tourism has always been pointed as a potentially sustainable industry and is expected to make great contributions towards a global sustainable development scenario. In fact, if planned and managed based on sustainability criteria, tourism can be an effective tool for achieving economic and social development while preserving natural and cultural resources (Dolnicar et al., 2008). However, like any other industry, it can also be potentially very harmful to the environment and the well-being of local communities. Increasingly aware of this scenario, tourists have also included environmental and sociocultural sustainability criteria in their consumption choice process. Consequently, businesses within the most varied industries embrace sustainable practices as part of their value propositions, aiming to gain a competitive.

Despite this trend, price is still the main determinant factor in tourists' choices, and most sustainable practices tend to add operational costs, and consequently, make services more expensive. In parallel, tourism literature points out that to be truly sustainable, destinations and services need the support of consumers, who must be convinced to choose responsible products rather than their non-responsible counterparts (Font & McCabe, 2019), which often implies paying a premium price.

Therefore, more than understanding which sustainable practices are valued the most by tourists, it is critical to know how much they are willing to pay a premium price to visit destinations where those practices are carried out.

Within such approach, previous studies suggest that tourists are willing to pay more for biodiversity conservation and cultural and environmental protection environmental protection (Ahmed et al., 2007; Aydın & Alvarez, 2020; Mathieu et al., 2003; Surendran & Sekar, 2010). Contributions from previous studies suggest that willingness to pay might be affected by tourists' income level and awareness of being in a protected area (Wang & Jia, 2012), as well as their environmental attitudes, or sustainability attitudes. Focusing on the latter, Mohaidin, et al. (2017) demonstrate that the more positive environmental attitudes are, the greater are tourists' intentions to engage in the environmentally responsible behaviour. Providing a more specific classification of such attitudes, Grilli et al. (2021) highlight the importance of environmental beliefs, pro-environmental private behaviour, and ecotour attitudes as predictors of sustainable choices and behaviours in tourism destinations.

Although these two topics—willingness to pay for a sustainable destination and sustainability attitudes—have been separately approached by the mentioned studies, the relationship between them is yet to be addressed. In this context, the present study aims to take a first step towards uncovering this relationship by exploring the dimensions of willingness to pay for a sustainability in tourism destinations and the sustainability attitudes that might affect them. Additionally, as previous studies suggest that younger travellers are more inclined to value tourism services' sustainable practices (Andereck, 2009), differences in willingness and sustainability attitudes between age groups were also explored.

To accomplish this objective, data were collected through a survey questionnaire with Portuguese tourists (N = 567). The questionnaire included 16 willingness to pay items and 22 sustainability attitude items. The lists of items were adapted from Aydın and Alvarez (2020) and Grilli et al. (2021), and several new items were added to each list based on previous literature and inputs from a panel with specialists. The data were subjected to an exploratory factor analysis, which pointed to two dimensions of willingness to pay and four dimensions of sustainability attitudes. The results expand the factors proposed by previous studies and corroborate Campos-Soria et al. (2021) idea that tourists' sociodemographic profiles are related to their evaluation of sustainability in tourism destinations.

2 Literature Review

Amongst researchers addressing tourism sustainability, many have dedicated to finding ways to improve sustainability performance in the most varied tourism scenarios, from wine tourism (Montella, 2017) to cruise trips (Paiano et al., 2020). A frequent difficulty faced by these authors, especially those addressing the destination level, is the absence of an objective scale to measure sustainability. Aiming to tackle this gap, Asmelash and Kumar (2019) have developed and validated a list of sustainability indicators for tourism destinations, based on the perceptions of residents, tourists, and local stakeholders. The indicators are grouped in four dimensions: economic sustainability, socio-cultural sustainability, environmental sustainability, and institutional sustainability, whereas each dimension is correlated with the other three. Such model effectively expands the triple bottom principle of sustainability—environmental, sociocultural, and economic—in tourism destinations. To ensure that sustainability objectives throughout these four dimensions are achieved, Li et al. (2021) state that tourism development should be planned and operated with the goal of securing long-term benefits to all actors involved, with a especial consideration of how the local community should be involved in the overall development process.

Environmental performance is often the dimension that comes to mind when the term "sustainability" is employed. In this context, plenty of studies focus on this dimension and address, for instance, environmental sustainability in nature-based tourism (Spenceley, 2008), the potential contribution of environmental sustainability to tourism growth (Pulido-Fernández et al., 2018), and the possibility of the co-existence between luxury and environmental sustainability (Cowburn et al., 2018). Economic sustainability, in turn, is pursued by any business or development plan, regardless of whether they adopt an overt sustainability orientation. Studies focused on this dimension often aim to verify whether a certain local tourism industry (Qiu et al., 2018), tourism product (Moreno-Gené et al., 2018), or business model (Smyczek et al., 2020) is indeed economically sustainable. As it has only been added to the tourism sustainability dimensions by the mentioned study of Asmelash and Kumar (2019), institutional sustainability is not addressed specifically in previous studies. However, it is arguably also pursued by any business, and especially, destinations, as the literature on tourism planning and development (e.g., Ritchie & Crouch, 2003), also point to political will and collaboration of all actors involved as essential for making tourism development and sustainability viable.

The concept of sociocultural sustainability, in turn, is very comprehensive and complex. Some studies draw attention to more specific concepts, such as identity preservation (Boussaa, 2021), tangible and intangible heritage, cultural heritage (Nocca, 2017), cultural vitality, cultural diversity, economic viability, locality, eco-cultural resilience, and eco-cultural civilisation (Soini & Birkeland, 2014). Providing a more assertive concept, Ooi et al. (2015) conclude that social capital is a guiding construct for the qualitative examination of sociocultural sustainability in tourism. In this context, social capital is used as a heuristic device for examining tourism development's sociocultural sustainability.

Regarding the specific aspects that contribute to sociocultural sustainability in tourism destinations, Getzner's (2020) findings suggest that local and regional cultural infrastructure play a significant role. The study highlights that the socio-economic characteristics and the availability of cultural infrastructure in urban or rural areas, as well as municipal cultural spending, are the main variables influencing attendance frequency. In urban destinations, another seemingly important factor contributing to sociocultural sustainability is industrial heritage (Hidalgo-Giralt et al., 2021), which might function as a tool for cultural sustainability, as it decreases tourists' concentration in historic city centres, and therefore, relieves overtourism.

These contributions are important for understanding how tourism authorities pursue sustainability goals in tourism development. However, it is also important to consider the role played by consumers in tourism sustainability on. In this regard, studies on tourism sustainability often adopt one of two distinct approaches: the supply-side approach, and the demand-side approach (Kastenholz et al., 2018). The former addresses the strategies adopted by tourism providers to create a more sustainable tourism product, frequently ignoring the behaviours of tourists at the destination. However, to be truly sustainable, destinations and services need the support of consumers, who must be convinced to choose responsible products rather than their non-responsible counterparts (Font & McCabe, 2019). In other words, to be truly sustainable, destinations need to be competitive (Ritchie & Crouch, 2003). In this context, as corroborated by an integrative review carried out by Nadalipour and Khoshkhoo (2018), many authors argue that addressing sustainability in tourist destinations while maintaining competitiveness necessarily implies the consideration of economic, sociocultural, and ecologic dimensions, as well as of all the stakeholders involved in the tourist activity—naturally, including the consumers. Thus, demand-side studies on tourism sustainability have the potential to uncover the most effective ways to implement sustainable practices, using market dynamics as an ally. Therefore, they are essential for achieving both sustainability and competitiveness in tourism destinations.

In fact, in the context of tourism services, many studies (e.g., Brazytė et al., 2016; Moliner et al., 2019; Ponnapureddy et al., 2017; Vinzenz, 2019; Vinzenz et al., 2019) show that tourists value sustainable practices are more inclined to choosing services, especially hotels, that employ such practices over those that do not. Studies on the market effectiveness of sustainable practices in tourism destinations, on the other hand, are much less abundant. Nevertheless, several studies do provide valuable contributions on the topic. Some of these studies, for instance, empirically corroborate the link between tourist destinations' sustainability and competitiveness. This is the case of Khalifa (2020) and Cucculelli and Goffi (2016), as both have demonstrated through empirical data, in two very distinct destinations (Egypt and a set of small destinations in Italy, respectively), that sustainability variables significantly impact destination competitiveness. These studies, however, draw their conclusions based on a purely supply-side approach. Nevertheless, this view is also corroborated by demand-side studies, which provide more specific insights on how to properly market sustainable tourism products. López-Sánchez and Pulido-Fernández (2016), for instance, concluded that market segmentation is useful for planning and managing demand-oriented policies. According to these authors, the most important segmentation criteria in this context is "sustainable intelligence", which includes sustainable knowledge, behaviours, attitudes, values, and willingness to pay for a more sustainable destination.

This last construct—willingness to pay for a more sustainable destination—is also considered to play an important role on destinations' quest to be competitive as a means of becoming more sustainable. After all, if sustainable destinations need to convince consumers to choose their sustainable products, which often implies paying a premium price, it is important to know how much they are willing to pay more to visit a destination where certain sustainable practices are carried out. Studies on the topic suggest that tourists are willing to pay more for biodiversity and environmental protection (Ahmed et al., 2007; Mathieu et al., 2003; Surendran & Sekar, 2010). Additionally, Wang and Jia (2012) concluded that income level and the awareness of being in a protected area were the most significant predictors of the tourist's willingness to pay.

An important methodological contribution on the assessment of willingness to pay is provided by Aydın and Alvarez (2020), who propose and validate a list of destination sustainability and willingness to pay (for a sustainable destination) items based through a mixed-method approach. The mentioned authors also conclude that cultural tourists are more willing to pay for cultural and environmental protection practices, namely: preservation of historical and cultural resources, protection of green areas, fauna and flora, and protection of overall architectural character of the location surrounding the cultural destination.

Another concept that is frequently used as possible predictor of sustainable tourist behaviour is sustainability attitudes, or environmental attitudes. For instance, Mohaidin, Wei, and Murshid (2017) conclude that environmental attitudes are positively correlated with the intention to select sustainable tourist destinations, as well as with tourists' intentions to engage in environmentally responsible behaviour. Accordingly, Grilli et al. (2021) demonstrate that environmental beliefs influence individual tastes. The study also highlights the importance of ecotourism attitudes and pro-environmental private behaviour. This is in line with previous findings by Dolnicar (2010), according to whom, an environmentally responsible behaviour at the destination is influenced by the environmental attitudes, place attachment, level of commitment to the environment, means of transportation used, environmental knowledge and education and environmental behaviour at home.

Finally, according to Campos-Soria et al. (2021), demand-side studies must also consider consumers' sociodemographic variables, such as place of residence, age, gender, and educational attainment, as they play a significant role on how tourists perceive destinations' sustainability. This statement is backed by previous study's results (Andereck, 2009), which demonstrate that younger tourists attribute more value to tourism businesses' efforts towards providing a sustainable product than older ones.

Although the topics of willingness to pay for a sustainable destination and tourists' sustainability attitudes have been addressed separately by studies such as Aydın and Alvarez (2020) and Grilli et al. (2021), respectively, the relationship between them has not yet been tackled. Considering the addressed contributions and knowledge gaps, the present study aims to contribute to the literature on tourism destination sustainability by analysing the dimensions of tourists' willingness to pay for a more sustainable destination, and the sustainability attitudes that might affect them.

3 Methodology

3.1 Research Instrument Development

To explore tourists' willingness to pay for a more sustainable destination, and the sustainability attitudes that might affect them, the present study adopted as settings, Portuguese tourists travelling both domestically and internationally. In this context, data were collected through a survey questionnaire, which was developed based on contributions from previous studies. Regarding willingness to pay, the list of items proposed and validated by Aydın and Alvarez (2020) to understanding Turkish cultural tourists' willingness to pay for a more sustainable destination was adapted to the present study's settings. The mentioned authors propose a list of sustainability items through a thorough qualitative study based on the analysis of TripAdvisor cultural destination reviews. Additionally, through a quantitative survey, they reduce these lists of items to smaller lists of factors, and subsequently confirm their dimensionality, effectively validating scales for measuring tourists' evaluations of sustainability criteria and willingness to pay items in cultural destinations. Therefore, this list of items was deemed adequate as a starting point for the present investigation. The list of sustainability attitudes, in turn, was adapted from Grilli et al.'s (2021) study on prospective tourist preferences for sustainable tourism development in Small Island Developing States (SDIS).

The items' wordings were adapted to reflect the broader context of the present investigation, in terms of destination types (not limited to cultural destinations). Wording adaptations also aimed to tailor the items' semantics to Portuguese inquiries. To this end, a panel with experts (Portuguese tourism researchers) was carried out. Finally, based on the input of experts, as well as on the extant literature on sustainable tourism, two new items were added to the list of willingness to pay items, and five new items were added to the list of sustainability attitudes. In the latter case, the new items were added as an attempt to add a new dimension to the construct: "Sustainability consumption behaviour".

The final questionnaire included 16 items of willingness to pay for a more sustainable destination and 22 items of sustainability attitudes. The items were operationalised through a 7-point Likert scale, through which respondents were solicited to show the level of importance they attribute to each item. Additionally, considering Campos-Soria et al.' (2021) suggestion, the introductory part of the questionnaire included categorical questions that aimed to characterise the sample's sociodemographic profile, which also allowed for comparisons between age groups.

3.2 Data Collection Procedures

The survey was carried out exclusively in Portuguese. The items were then translated back to English merely for the purposes of reporting the results. The questionnaire was applied online, through Google Forms, to a convenience sample of Portuguese people who had travelled within the last 12 months. The data collection procedures took place during the months of April and May 2021, during which Portugal, like most European countries, was going through severe restrictions due to the COVID-19 pandemic, but still allowing travel within certain limitations. The questionnaire was disseminated in travel-related social media groups, as well as marketing survey platforms. The respondents' knowledge on sustainability or sustainable tourism was not assessed, as the goal was to measure travellers' sustainability attitudes and willingness to pay more for a set of sustainable practices in tourism destinations regardless of their theoretical knowledge on the subject. In line with this goal, none of the groups where the questionnaire was disseminated explicitly mentions sustainability as a topic of interest. A total of 567 valid responses were collected. Table 1 summarises the sample's sociodemographic and travel behaviour profile.

Table 1 Sample characterisation

Sociodemographic variable	Absolute frequency	Percentage
Gender		
Male	353	62.3
Female	208	36.7
Other/preferred not to say	6	1.1
Age group		
$\leq$ 8 years old	42	7.4
Between 19 and 35 years old	451	79.5
Between 36 and 50 years old	40	7.1
Between 51 and 65 years old	32	5.6
More 65 years old	2	0.4
Monthly income		
Rather not say	34	6.0
Up to 1,000€	121	21.3
Between 1,000€ and 1,500€	141	24.9
Between 1,500 and 2,000€	104	18.3
Between 2,000€ and 2,500€	68	12.0
Between 2,500€ and 3000€	32	5.6
Over 3,000€	67	11.8
Number of people in the family aggregate		
1	36	6.3
2	82	14.5
3	179	31.6
4	193	34.0
5	60	10.6
More than 5	17	3.0
Area of residence		
Urban	427	75.3
Rural	140	24.7

4 Results

The analysis carried out within the present investigation aimed to explore the dimensions of Portuguese tourists' willingness to pay for a more sustainable destination and of their individual attitudes regarding sustainability and sustainable tourism. To this end, the data on each of these two constructs were subjected to an Exploratory Factor Analysis. For both analyses, the values for Bartlett's test of sphericity were significant ($p = 0.000$). Accordingly, Kaiser-Neyer-Olkin measure of sampling adequacy was 0.959 for willingness to pay and 0.913 for sustainability attitudes. That is, in both cases, it is above the recommended value of 0.5. These measures suggest that factor analysis is adequate for exploring these data.

Table 2 EFA for willingness to pay items

Items	Factor loadings	Mean[a]	Eigen values	Total rotated SSL[b]	Variance explained (%)	Cronbach's Alpha
Factor 1: Willingness to pay more for sociocultural sustainability and local quality of life		5.06				
I am willing to pay more to visit a destination where tourism enhances the quality of life of the local community	0.851	5.09	11.351	6.279	70.944	0.962
I am willing to pay more to visit a destination where the local community can enjoy the same facilities as tourists	0.851	4.85				
I am willing to pay more to visit a destination where the local community works in higher paying jobs	0.783	4.55				
I am willing to pay more to visit a destination that develops in a way that respects the culture and values of the local community	0.769	5.34				

(continued)

Table 2 (continued)

Items	Factor loadings	Mean[a]	Eigen values	Total rotated SSL[b]	Variance explained (%)	Cronbach's Alpha
I am willing to pay more to visit a destination where services are provided by local people and not by international chains and non-local providers	0.765	5.16				
I am willing to pay more to visit a destination that offers cultural exchange between tourists and hosts	0.762	5.02				
Added—I am willing to pay more to visit a destination that includes local producers in the tourism business supply chain (e.g. as suppliers to hotels and restaurants)	0.717	5.18				
I am willing to pay more for a destination where local products are prioritised over mass-produced ones	0.703	5.23				
Factor 2: Willingness to pay more for environmental sustainability and a higher quality experience		5.45				

(continued)

Table 2 (continued)

Items	Factor loadings	Mean[a]	Eigen values	Total rotated SSL[b]	Variance explained (%)	Cronbach's Alpha
I am willing to pay more to visit a destination that offers higher quality services	0.823	5.65	1.079	6.152	6.742	0.952
I am willing to pay more to visit a destination where tourism does not induce negative behaviour	0.783	5.54				
I am willing to pay more to visit a destination where green areas, fauna and flora are protected	0.771	5.61				
I am willing to pay more to visit an easily accessible destination	0.764	5.11				
I am willing to pay more to visit a destination with lower levels of environmental, water and air pollution	0.747	5.58				
Added—I am willing to pay more to visit a destination that is not too crowded with tourists	0.732	5.21				
I am willing to pay more to visit a destination where historical and cultural resources are preserved	0.725	5.48				
I am willing to pay more to visit a destination where renewable resources are used and recycling is carried out	0.691	5.37				

(continued)

Table 2 (continued)

Items	Factor loadings	Mean[a]	Eigen values	Total rotated SSL[b]	Variance explained (%)	Cronbach's Alpha
Overall scale					77.686	0.972

Varimax rotation was used; Kaiser–Meyer−Olkin = 0.959; Barlett's test of sphericity—significance = 0.000. Factor loadings smaller than 0.5 are not included. [a] Items measured on a 7-point scale (1 = Not important at all; 5 = Extremely important). [b] Sum of square loadings

4.1 The Underlying Dimensions of Willingness to Pay and Sustainability Attitudes

As shown in Table 2, the EFA for willingness to pay items yielded a two-factor solution. Both factors exceed one eigenvalue, and the general solution explains over 77% of the total variance, which according to Hair et al. (1998), is a good value. Moreover, no item presents a particularly low value of commonality, and each item loads significantly to its respective factor, which suggests that none should be excluded. However, the first factor does present a significantly higher number of eigenvalues and explains alone over 70% of the total variance. Nevertheless, as the factor solution does make sense theoretically and allows for a meaningful interpretation, both factors were kept. Finally, the Cronbach's alpha values of both factors are higher than 0.750, indicating that they are indeed reliable. The item "I am willing to pay more to visit a destination where the local community works in higher paying jobs" did have a slight negative effect on the factor's reliability. However, as the Cronbach's alpha value is still highly above the threshold and the inclusion of this item makes theoretical sense, it was maintained. After an examination of the content meaning of each set of items, the factors were named: "Willingness to pay more for socio-cultural sustainability and local quality of life" and "Willingness to pay more for environmental sustainability and a higher quality experience".

As shown in Table 3, the EFA for sustainability attitudes yielded a four-factor solution. Again, all the factors exceed one eigenvalue, and the general solution explains over 77% of the total variance. Amongst the original list of items, not all presented acceptable communality values, and some did not load significantly to any factor, or negatively contributed to that factor's reliability. Therefore, six items were excluded. Although the discrepancy is lower than in the previous case, the first factor still presents a significantly higher number of eigenvalues and explains over 50% of the total variance. Nevertheless, once again, the factor solution is in line with the theory and allows for a meaningful interpretation, thus, all factors were kept. Cronbach's alpha values all exceed 0.750, which indicates that the scales are reliable. After an examination of the content meaning of each set of items, the factors were named: "Environmental beliefs", "Sustainable consumption behaviour" (newly proposed), "Ecotour attitudes", and "Pro-environmental private behaviour".

Looking at the means of individual items, regarding willingness to pay for socio-cultural sustainability and local quality of life, respondents are more willing to pay to visit a destination that develops in a way that respects the culture and values of the

Table 3 EFA for sustainability attitudes

Items	Factor loadings	Mean[a]	Eigen-values	Total rotated SSL[b]	Variance explained (%)	Cronbach's Alpha
Factor 1: Environmental beliefs		6.05				
Nature has great value that makes its conservation important for current and future generations	0.865	6.30	8.084	4.317	50.528	0.931
The balance of nature is very delicate and easily disturbed	0.846	6.09				
Plants and animals have as much right to exist as human beings	0.829	6.07				
Humans are severely abusing the environment	0.825	6.06				
When humans interfere with nature, the consequences are often disastrous	0.720	5.72				
Factor 2: Sustainable consumption behaviour (newly proposed)		4.88				
Added—I give preference to products from organisations that offer good conditions for workers	0.903	4.91	1.912	3.603	11.972	0.948
Added—I prefer products from organisations that pay their employees fairly	0.897	4.74				

(continued)

Table 3 (continued)

Items	Factor loadings	Mean[a]	Eigen-values	Total rotated SSL[b]	Variance explained (%)	Cronbach's Alpha
Added—I give preference to organisations that care about working conditions throughout their supply chain	0.885	4.97				
Added—I prefer products with a lower environmental impact	0.734	4.90				
Factor 3: Ecotour attitudes		5.33				
Visiting sustainably managed tourist areas should be subject to a higher relative payment	0.777	4.35	1.241	2.265	7.753	0.825
Sustainable tourist destinations should restrict the volume of visitors in order to preserve their cultural identity	0.680	5.41				
Sustainable tourism should avoid interfering with the local habitat, flora and fauna	0.634	5.81				
Sustainable tourism can enhance visitors' personal development	0.633	5.85				
At home, I have energy-efficient devices	0.583	5.25				
Factor 4: Pro-environmental private behaviour		4.64				
I ride a bicycle or take public transport to work or school/university	0.900	4.65	1.133	1.803	7.084	0.846

(continued)

Table 3 (continued)

Items	Factor loadings	Mean[a]	Eigen-values	Total rotated SSL[b]	Variance explained (%)	Cronbach's Alpha
For short journeys I use public transport or ride a bicycle	0.853	4.64				
Overall scale					77.338	0.972
Excluded items						
The role of sustainable destination management goes beyond the economic function—neutral contribution to reliability		5.88				
Added—I sort the garbage by material at home		5.25				
I read articles, magazines and/or books on environmental issues		3.83				
I donate to environmental organisations		2.90				
I am an active member of an environmental organisation		2.82				

Varimax rotation was used; Kaiser–Meyer–Olkin = 0.913; Barlett's test of sphericity—significance = 0.000. Factor loadings smaller than 0.5 are not included. [a] Items measured on a 7-point scale (1 = Not important at all; 5 = Extremely important). [b] Sum of square loadings

local community, and where local products are prioritised over mass-produced ones. In contrast, respondents are the least willing to pay more to visit a destination where the local community works in higher paying jobs and can enjoy the same facilities as tourists, as both items present averages under 5. Regarding environmental sustainability and a higher quality experience, respondents are most willing to pay more to visit a destination that offers higher quality services and where green areas, fauna and flora are protected. The least valued items in the factor, but still with means over 5, refer the willingness to pay more for an easily accessible destination, and one that is not too crowded with tourists.

Regarding sustainability attitudes, namely, environmental beliefs, respondents highly believe in all the statements in this factor, as most of them had means over

6. The only exception is "When humans interfere with nature, the consequences are often disastrous", which, however, is not significantly lower. Environmental consumption behaviour items have significantly lower means, which are also very close from each other, all within a 0.17 range. Regarding Ecotour attitudes, the most agreed upon statement refers to sustainable tourism's potential to enhance visitors' personal development (5.85), followed by the belief that it should avoid interfering with the local habitat, flora, and fauna (5.81). Meanwhile, the least agreed upon statement is "Visiting sustainably managed tourist areas should be subject to a higher relative payment". Finally, the two items of Pro-environmental private behaviour present very similar means, which are significantly lower than those of items within most other factors, and closer to those of Sustainable consumption behaviour.

4.2 The Effect of Age

As shown in Table 1, there is a dominance of the second age group—Between 19 and 35 years old—in the sample. This raised a concern about the potential effect of this variable on the results. Also, the literature on tourism sustainability and competitiveness suggests that young people are more environmentally and socially aware, and consequently, more willing to pay a premium price for a sustainable destination. To address this possibility, a one-way-ANOVA test was performed to check for statistically significant differences within willingness to pay and sustainability attitudes factors between age groups. To this end, each factor identified within the EFA was computed into a new variable. Therefore, the ANOVA test was carried out considering these new constructs as dependent variables and the age category as the grouping factor. For the purpose of this analysis, as only two respondents were 65 years old or older, these cases were filtered out. Additionally, a general linear model was performed to test how much of the means' variance on each variable is indeed explained by the age category.

As shown in Table 4, the means of all variables decrease as the age increases. The only exception to this trend is sustainable consumption behaviour, where means do drop drastically from the first to the second category, but then continuously rise again through the last two last categories. However, this category had a non-significant ANOVA p value, indicating that these differences are not statistically significant. The variables in which mean differences amongst age groups were indeed statistically significant ($p \leq 0.05$) were willingness to pay for sociocultural sustainability and local quality of life ($p = 0.050$), willingness to pay more for environmental sustainability and a higher quality experience ($p = 0.046$), and pro-environmental private behaviour ($p = 0.030$). Amongst those, the mean differences in pro-environmental private behaviour are the most significant. Meanwhile, mean differences in willingness to pay for sociocultural sustainability and local quality of life are just borderline significant, as the p value is exactly on the threshold.

Finally, the partial ETA squared values indicate that, for both willingness to pay for sociocultural sustainability and local quality of life and willingness to pay more for

Table 4 ANOVA and general linear model results for age

Construct	Age category	Mean	SD	F	p	Patrial ETA Square[a]
Willingness to pay for sociocultural sustainability and local quality of life	≤18 years old	5.48	1.41	2.62	0.050*	0.014
	Between 19 and 35 years old	5.09	1.55			
	Between 36 and 50 years old	4.73	1.77			
	Between 51 and 65 years old	4.59	1.85			
	Total	5.06	1.58			
Willingness to pay more for environmental sustainability and a higher quality experience	≤18 years old	5.81	1.39	2.64	0.049*	0.014
	Between 19 and 35 years old	5.47	1.40			
	Between 36 and 50 years old	5.24	1.69			
	Between 51 and 65 years old	4.92	1.73			
	Total	5.45	1.45			
Environmental beliefs	≤18 years old	6.44	1.03	2.56	0.052	0.014
	Between 19 and 35 years old	6.05	1.33			
	Between 36 and 50 years old	5.63	1.56			
	Between 51 and 65 years old	6.05	1.19			
	Total	6.05	1.32			
Sustainable consumption behaviour (newly proposed)	≤18 years old	5.29	1.64	0.93	0.424	0.005
	Between 19 and 35 years old	4.83	1.80			
	Between 36 and 50 years old	4.95	1.63			
	Between 51 and 65 years old	5.01	1.84			
	Total	4.88	1.78			
Ecotour attitudes	≤18 years old	5.63	1.07	2.21	0.086	0.012
	Between 19 and 35 years old	5.35	1.32			
	Between 36 and 50 years old	5.20	1.36			
	Between 51 and 65 years old	4.88	1.29			
	Total	5.33	1.31			

(continued)

Table 4 (continued)

Construct	Age category	Mean	SD	F	p	Patrial ETA Square[a]
Pro-environmental private behaviour	≤18 years old	5.20	1.87	5.71	0.001*	0.030
	Between 19 and 35 years old	4.74	2.16			
	Between 36 and 50 years old	3.73	2.15			
	Between 51 and 65 years old	3.70	2.40			
	Total	4.65	2.18			

* Significant at a 95% confidence interval
[a] For age

environmental sustainability and a higher quality experience, 14% of the variability can indeed be explained by respondents' membership to the age category. Meanwhile, in the case of pro-environmental private behaviour, the age category explains 30% of the variability.

5 Conclusion

The present study aimed to explore the dimensions of willingness to pay for sustainability in tourism destinations and the sustainability attitudes that might affect them. The findings show that within the context adopted as study settings—Portuguese tourists travelling both domestically and abroad—willingness to pay for a more sustainable destination encompasses two dimensions: "Willingness to pay more for sociocultural sustainability and local quality of life" and "Willingness to pay more for environmental sustainability and a higher quality experience". The first factor includes items that supposedly indicate a genuine concern with the effects of tourism for local communities, as well as with the preservation of cultural aspects, as those items do not directly affect travellers' experience in the destination. The second factor, in addition to a concern with the effect of tourism on the environment, indicates a higher willingness to pay for aspects also benefit tourists' experiences. Unlike most items within the first factor, items like higher quality services, tourism not inducing negative behaviours, and green areas, fauna and flora being protected, have a more direct effect on how genuine, authentic, and enjoyable tourists' experiences will be.

It can also be argued that even within the first factor—willingness to pay more for sociocultural sustainability and local quality of life—the most valued items are those with a higher potential to positively influence tourists' experiences. For instance, respondents showed to be willing to pay the most to visit a destination that develops in a way that respects the culture and values of the local community, and where local products are prioritised over mass-produced ones. Although a genuine sociocultural concern, the respect for the values of local communities is essential for an authentic cultural tourism experience. Accordingly, local products also appeal to tourists who prioritise tasting local flavours, or simply enjoying fresher ingredients, as well as buying authentic souvenirs. In contrast, the least valued item within this factor referred to tourists' willingness to pay more to visit a destination where the local community works in higher paying jobs, which more directly impacts locals' quality of life and is less (or not at all) noticed by tourists.

In this context, these findings corroborate those of studies on sustainability in tourism businesses, such as Moliner et al. (2019), according to which sustainability positively affects tourists' experiences. Moreover, the present study extends these conclusions and suggests that, on the destination level, tourists are willing to pay more for sustainable practices that have a positive effect on their experience.

The findings regarding willingness to pay more for a sustainable destination also partially contrast with those obtained by Aydın and Alvarez (2020), which developed the original list of items adapted for the present study. Within the mentioned study, three dimensions of willingness to pay were identified, as willingness to pay for the environment and willingness to pay for quality represented two different factors. Moreover, the factors were generally more distinct, with a less concentrated (in the first factor) explanation of the total variances. These differences seem to be explained by the settings. First, the mentioned study addressed cultural tourism in particular, and the research population consisted of Turkish tourists travelling to Turkish cultural destinations. Within the present study, no type of tourism or destination limited the research population. Moreover, it is possible that Portuguese travellers (or consumers in general), when compared to Turkish, have a tendency of providing more uniform responses across different willingness to pay items. Finally, although in the mentioned study, there is also a higher number of younger respondents, this discrepancy is bigger in the present study, which might also have affected this result. Nevertheless, deconstructing willingness to pay more for a sustainable destination in these two factors still allows for a meaningful interpretation and brings about useful insights. Moreover, the present study also added items to the scale. Consequently, the study shows that, in addition to the items considered by previous studies, tourists are also willing to pay more to visit a destination that includes local producers in the tourism businesses' supply chain, and that is not too crowded with tourists.

The findings on sustainability attitudes, in turn, are mostly in line with the original scale proposed by Grilli et al. (2021). Moreover, the items proposed in the present study resulted in the identification of a new factor: Sustainability consumption behaviour, as expected. Therefore, the present study suggests that the consideration of sustainability issues on day-to-day consumption choices is a dimension of sustainability attitudes, and therefore, potentially related to tourists' sustainable choices within destinations.

The main differences in the final list of factors in comparison to Grilli et al.'s (2021) list regard the excluded items, especially within pro-environmental private behaviour, which only retained two of the original five items. The exclusion of such items is also arguably explained by the study settings. The mentioned study's research population consisted of UK residents who considered travelling to Fiji. In this context, the study adopted several items that were probably proposed with the intention of being tailored to Anglo-Saxon culture and customs, such as: being an active member of an environmental organisation, and donating to environmental organisations, which have both been excluded. Not only these items did not load significantly to any factor, but they were also the least valued within the whole list, being the only ones with a mean lower than 3. The next least valued item, which has also been excluded, referred to reading articles, magazines and/or books on environmental issues, which reinforced the possibility of the exclusions being explained by the context, namely, by socio-cultural differences between Portuguese and British residents.

Finally, the findings also demonstrated that age significantly explains differences at least in willingness to pay more for sociocultural sustainability and local quality of life, willingness to pay more for environmental sustainability and a higher quality experience, and especially on Pro-environmental private behaviour. The differences in willingness to pay more for sociocultural sustainability and local quality of life are just borderline significant, and the amount of variance explained by age in both willingness to pay dimensions is relatively low. This was expected, as age is certainly not the only factor explaining variances in these constructs. The significance and amount of explained variance by age in pro-environmental private behaviour were higher, however, still moderate, as there must be other factors explaining such changes as well. Moreover, even in the variables without statistically significant differences, means consistently decrease as age increases, the only exception being Sustainable consumption behaviour.

In sum, these findings corroborate Campos-Soria et al.'s (2021) suggestion regarding the consideration of sociodemographic traits in studies regarding tourism sustainability perceptions. They also corroborate Andereck's (2009) conclusion that younger tourists value tourism businesses' efforts towards a better sustainability performance more than their older counterparts. Moreover, the findings expand these conclusions by showing that such phenomenon also takes place on the destination level. Additionally, the findings show that even when not travelling, younger tourists are more inclined to adopting sustainable behaviours, namely: riding a bicycle instead of driving, and using public transportation.

5.1 Theoretical and Practical Contributions

The present study presents a clear theoretical contribution, as it suggests that tourist' willingness to pay more for sustainable practices within a destination is positively related to such practices' effects on their general experience. Additionally, the study identified a new dimension of sustainability attitudes: sustainable consumption behaviour, which is potentially positively related to tourists' sustainable consumption choices. The demonstration that younger tourists are more willing to pay for both sociocultural and environmental sustainability within destinations, as well as more inclined to adopting pro-environmental private behaviours, is an additional theoretical contribution. Finally, the study also added two items to the list of "willingness to pay for a sustainable destination" items, which should be considered by future studies on the topic.

The study also provides useful managerial implications for tourism industry stakeholders. First, tourism businesses and destinations are advised to act on the items that have been added to the willingness to pay scale. Additionally, to truly achieve a competitive edge through the adoption of these practices, they should market them in a way that highlights their benefits to tourists' experiences. For example, in the case of the inclusion of local producers in the supply chain, businesses should not focus exclusively on the reduced "food miles" or the benefits to local farmers that result from sourcing their food locally. Instead, hotels and restaurants should highlight the increased freshness, healthiness, and flavour of the fruits, vegetables, and meats used as ingredients in the dishes they serve.

These implications are corroborated by the findings on sustainability attitudes. For instance, the added factor—sustainable consumption behaviour—includes items related to giving preference to organisations that offer good conditions for workers, and care about care about working conditions throughout their supply chain. Considering these findings, tourism businesses and organisations should also prioritise and market such practices aiming to highlight their benefit to tourists' experiences. For instance, hotels can focus on the genuine sympathy and goodwill of their well-paid and well-treated employees.

5.2 Limitations and Future Research

Despite its contributions, the present work also has its shortcomings, which in turn, point to future research avenues. The main limitation stems from the study's cross-sectional nature. Additionally, the time interval in which responses were collected, during the lockdown, was quite atypical, and might have influenced responses. Therefore, future studies should assess Portuguese tourists' willingness to pay more for sustainable destinations in a time when the effect of the COVID-19 pandemic has phased off, to verify whether the mentioned tendency towards more uniform answers is inherent of the Portuguese population or a result of this atypical period.

Future research should also explore tourists' willingness to pay more for a sustainable destination, as well as their sustainability attitudes, in other settings, particularly in other countries, or even groups of counties. Those works should benefit from the additional sustainability attitude factor identified in the present study, as well as from the additional willingness to pay items. Moreover, although the present study contributed to the understanding of both willingness to pay and sustainability attitudes, the relationship between these constructs—and between its dimensions—is still unverified. Therefore, future studies should propose and attempt to validate the causal model including these variables, once again, benefiting from the additional factor and items identified in the present research. Finally, the present study showed that age is one of the variables affecting both willingness to pay dimensions and pro-environmental private behaviour. Future studies should further explore the sociodemographic variables affecting these dimensions, as well as the other sustainability attitudes factors.

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Drivers of Value Creation in An Ecotourist Destination: Disentangling the Links that Tie Travellers' Motivations and the Destination's Image

Angel Peiro-Signes, Marival Segarra-Oña, and Mauricio Carvache-Franco

Abstract Ecotourists' motivations are a fundamental concept in travel behaviour and determine different aspects of tourism activities, which will eventually reflect the value created by the travelling experience. This paper aims to evaluate the mediating role of the image of a destination on the perceived value of travellers. We analysed a sample of 382 visitors in three ecotouristic destinations located in Ecuador by using the partial least squares (PLS) methodology. Results show that utilitarian motivations related to enriching travellers lives (self-development) or to escaping from daily routines or social pressures (ego-defensive) are the most significant predictors of perceived value. Similarly, the social and emotional dimensions are the most important in the value assessment of an ecotourist destination. Managerial implications clearly arise from the results' discussion. Ecotourist destination managers will have to closely examine these motivations in order to adapt destination services to enhance aspects that reinforce travellers' motivations.

Keywords Destination image · Ecotourism · Motivations · Perceived value · PLS analysis

JEL Classification Z32 · Q56 · F64

1 Introduction

There are several definitions of ecotourism, but what most of them have in common is a focus on the natural environment. This tourism is also understood differently according to the characteristics in which the activity is developed (Cater, 2007).

A. Peiro-Signes (✉) · M. Segarra-Oña
Universitat Politècnica de València, Valencia, Spain
e-mail: anpeisig@omp.upv.es

M. Carvache-Franco
Universidad Espíritu Santo, Samborondón, Ecuador

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_3

Ecotourism has become one of the fastest-growing sectors in the tourism industry (Das & Chatterjee, 2015); this type of tourism has grown much faster than tourism in general (Hultman et al., 2015). In this sense, due to the growing interest of tourists in the environment and the displacements directed towards the enjoyment of the natural environment, together with the greater dissatisfaction of tourists with mass tourism, a significant touristic market gap related to nature has recently arisen (Rivera, 2010).

In addition, due to its effectiveness in protecting the environment, education, recreation and job creation, areas related to ecotourism have become essential destinations as there has been a change in the touristic demand towards activities related to the environment that are found, mainly, in natural areas (Luo & Deng, 2008). The image and, therefore, the touristic attractions and destinations can be improved when deploying environmental management practices (Hu & Wall, 2005).

Furthermore, studies have indicated that the most effective predictor of tourism behaviour should be the behaviour itself, including the motivations behind it (Kotler et al., 2003; Carvache-Franco et al., 2019).

In this sense, motivation has become a fundamental concept for travel behaviour and determines different aspects of tourism activities, such as reasons for travelling, specific destination image or overall satisfaction with the trip (Allison & Severt, 2012; Chen & Petrick, 2016). In addition, the study of the motivations facilitates a better understanding of the expectations, needs and objectives of tourists and is a fundamental element to design marketing strategies and helps the positioning and competitiveness of the agents involved in destination image management (Pons et al., 2007; Carvache-Franco et al., 2019).

The existing relationships among the variables affecting value creation have been previously examined. For instance, Stydilis et al. (2017) modelled the interrelationships between behavioural intentions, satisfaction, perceived quality and destination image, but only in relation to domestic tourism. The moderating effect of previous visits on the cognitive tourist destination was studied by Rodriguez-Molina et al. (2013) and, in the same vein, Camprubí et al. (2013) highlighted the relevance of tourists as agents in destination image-formation processes. However, so far no study has explained the factors impacting the destination image, how they do this and how much this affects tourists' final perceived value of the destination image. That is why this paper aims to evaluate the mediating role of the travellers' perceived value of the destination image.

2 Literature Review and Hypothesis

Tourist motivations

Motivational factors determine behaviour (Ajzen, 2005). Knowing tourists' motivations will help to identify their expectations and predict their future behaviour regarding a destination (Jang & Feng, 2007; Pan, 2008; Yoon & Uysal, 2005). There are a wide variety of motivations for why people visit a destination in general, and an ecotouristic destination in particular.

It is believed that there are differences between conventional and ecotourists' motivations (Chan & Baum, 2007); environmental factors tend to factor more in the decision-making process of ecotourists (Holden & Sparrowhawk, 2002; Weaver & Lawton, 2002; Wurzinger & Johansson, 2006). Similarly, visiting natural environments are more likely to motivate ecotourists (Wurzinger & Johansson, 2006). However, some authors have reported other related motivations in ecotourists such as personal and social values (Galley & Clifton, 2004; Eubanks et al., 2004; Giddy & Webb, 2018).

Lee et al. (2014) used a classification of the eco-travellers' motivations based on the Functional theory (Katz, 1960). Motivations can be originated by the desire to obtain information to understand the world (knowledge function), to maximise reward and minimise penalties (utilitarian function—reward, self-development and escape), to reduce anxiety due to an internal or external reality (ego-defensive function), or to interact with their reference social groups (social-adjustive function).

There is then a wide variety of motivations for ecotourists to visit a specific destination, but there is no agreement on a dominant driving force (Wight, 1996).

The selection of the destination is influenced by the destination image travellers have (Goossens, 2000). How this image is created is influenced by the tourists' motivations (Baloglu & McCleary, 1999; Beerli & Martin, 2004).

An analysis of this relation has determined that motivations have a direct impact on both the cognitive (Llodra-Riera et al., 2015) and the affective dimension of the image (Beerli & Martin, 2004).

Based on the above, we propose:

H1 Ecotourists' motivations positively impact the formation of the cognitive image of a destination.

H2 Ecotourists' motivations positively impact the formation of the affective image of a destination.

Destination Image

A destination image gathers customer beliefs and impressions about a destination (Crompton, 1979). The destination image is built based on the attributes and features that characterise a destination (Baloglu & McCleary, 1999; Jenkins, 1999). Subsequently, local resources and the supporting activities and infrastructure available in the destination become a vital factor in the decision to visit (Beerli & Martin, 2004). When confronting an objective evaluation of a destination, there is a subjective perception of the destination's attributes. The existing literature defines these two perspectives, building an image of the cognitive and affective dimensions (Baloglu & Mangaloglu, 2000; Martin & Bosque, 2008). The affective image is based on the feelings created during a previous experience of a destination's attributes. Thus, as the cognitive image is based on the knowledge of a destination's attributes, this cognition will affect the customer's feelings, suggesting that the cognitive image can influence the affective image (Beerli & Martin, 2004).

Thus, it is hypothesised that:

H3 Cognitive image positively affects the affective image.

Destinations can attract tourists, creating the proper destination image. As mentioned previously, the image will be constructed based on what tourists are offered, such as the destination resources available or the activities proposed, and on the expectations created based on the previous experiences of the potential visitor. Several authors have deemed the destination image to be an essential factor affecting the perceived value (Kim et al., 2013).

Thus, it is hypothesised that:

H4 Destination image positively affects the perceived value.
H4a Cognitive image positively affects the perceived value.
H4b Affective image positively affects the perceived value.

Perceived value is evaluated against the expectations to generate satisfaction (Chi & Qu, 2008; Prayag & Ryan, 2012) and, eventually, this experience will affect future intentions (Chen & Tasi, 2007).

Perceived value

The concept of perceived value relates to the customer's assessment of the utility of a specific product or service (Zeithaml, 2000). This evaluation is based on the perception of the relationship between benefits and sacrifices. In other words, what is obtained related to what is given? Therefore, perceived value is related to customer behaviour and intentions (Cronin et al., 2000; Oh, 2000).

Benefits and sacrifices can cover different aspects, such as economic, personal or social. Thus, perceived value is a construct describing the evaluation of a wide variety of trade-offs made by the customer (Cronin et al., 2000; Grewal et al., 1998).

Several authors have studied the different dimensions of perceived value. These studies propose a different number of dimensions. They agree on the existence of an economical and quality (functional) perspective (Chen & Hu, 2009; Deng et al., 2010; Williams & Soutar, 2009). The economic perspective refers to the utility derived from the product/service due to the reduction of its perceived costs (Sweeney & Soutar, 2001), and the functional value relates to the utility derived from the perceived quality of the product/service (Sweeney & Soutar, 2001).

These two dimensions relate solely to a cognitive and rational approach. However, perceived value is generated after experiencing the product or service, so it is exposed to the subjective or emotional reactions generated by the customer (Bolton & Drew, 1991; Havlena & Holbrook, 1986; Sweeney & Soutar, 2001). Thus, this affective approach captures the feelings or emotions generated by the products or services. Most researchers agree on categorising them as a social dimension and an emotional dimension (de Ruyter et al., 1997; Deng et al., 2010; Grönroos, 1997; Kim & Park, 2017; Sánchez et al., 2006; Sheth et al., 1991; Sweeney & Soutar, 2001; Sweeney et al., 1999; Williams & Soutar, 2009; Yang & Jolly, 2009). The social dimension refers to the utility derived from the product/service's ability to enhance social self-concept (Sweeney & Soutar, 2001), while the emotional dimension refers to the utility derived from the feelings or affective states that a product/service generates (Sweeney & Soutar, 2001).

The perceived value of a destination is evaluated after experiencing it based on the evaluation of these dimensions. Thus, the expectations created by the customer establish the baseline for the comparison between what the customer gets and what is given. As customers' expectations are based on the cognitive and affective image that they have, image is a significant inductor of the perceived value of the destination (Chiu et al., 2014).

The mediating role of destination image

The literature has so far found evidence that ecotourists' motivations have a positive impact on tourists' intention to revisit a destination (Lee et al., 2014). Some contributions have positively associated the perceived value of an ecotouristic destination to satisfaction and, consequently, to loyalty (Kim & Park, 2017). Along this line, other authors found that motivations affect both the cognitive and affective image of a destination (Llodra-Riera et al., 2014) and the latter affects the perceived value of a destination (Chiu et al., 2014). Therefore, we can presume that ecotourists' motivations may affect the perceived value of the destination through other variables, such as destination image, that may act as mediators in the relationship. We consider it is necessary to identify the potential mediator effect in such a link. Hence, based on this theoretical analysis, we propose:

H5 Destination image mediates the relationship between a traveller's motivations and the perceived value of an ecotouristic destination.

The concept of perceived value is a crucial factor in achieving a competitive advantage and a good predictor of behavioural intentions (Parasuraman, 1997; Parasuraman & Grewal, 2000). Confirming destination image as a mediator between customer motivation and perceived value would have significant implications. Hence, identifying the most critical motivation of this image and its value perception would allow destination managers to create the right atmosphere to increase the perceived value of the destination. Working around those attributes that relate to key motivations and creating experiences to evoke the proper feelings will facilitate this, and destination managers would be able to direct communication strategies more effectively and efficiently. However, they will have to ensure that the experiences delivered are aligned to the projected image of the destination in order to increase the perceived value and satisfaction.

3 Sample and Method

We have chosen three ecotouristic destinations located in the Guayas region in Ecuador. More precisely, the research study was limited to the Santay, Puerto Morro and Samanes protected areas. We randomly surveyed a total of 382 travellers in these areas. 10.9% of the respondents had less than 20 years old, 60.9% were aged between 20 and 29 and 19.3% between 30 and 39. The vast majority (98.8%) of these individuals were Ecuadorian nationals. Women represented 57.3% of the respondents.

Since the analysis used existing validated scales, we focused our efforts on adjusting the survey to the Ecuadorian context and translating the language into Spanish, as used by the respondents. Besides the respondents' information, including age, gender, area of origin, and profession, the questionnaire was coded in a Likert 1–5 measurement scale, in which the range of responses was 1 (not important) to 5 (very important).

We analysed the data from the survey using the partial least squares (PLS) structural equation modelling methodology with Smart PLS 3 (Ringle et al., 2012). We used PLS because it focuses on prediction and introduces a new structural path based on a previous study (Chin, 2010).

We followed the two-step approach modelling the hierarchical constructs as reflective-formative because the motivations and perceived value were second-order constructs created by the aggregation of different dimensions (first-order constructs), in addition to our interest in the higher order variables. According to Becker et al. (2012), this approach leads to unbiased results and produces excellent estimates leading to a more parsimonious model. In this case, the dimensions became the observed indicators of second-order factors, and their weights indicated the importance of these drivers.

As we aim to test the mediating effect of the destination image on the relationship between the eco travellers' motivations and perceived value, we used Niltz et al.'s (2016) approach. That is, we evaluated the effects of travellers' motivations on perceived value by introducing the mediators as these effects may be affected by a variety of direct and indirect forces (Hayes, 2009). This method allows us to determine the existence of either full or partial mediation (Baron & Kenny, 1986).

4 Results

Measurement model

Regarding the measurement model, for the reflective measures in first-order constructs, we first assessed the individual item reliability (Table 1). Item loadings were generally above the accepted threshold of 0.7 (Carmines & Zeller, 1979). We excluded individual items with loadings under the suggested threshold. We assessed their construct reliability, checking that composite reliabilities (CR) were greater than 0.7 (Nunnally & Bernstein, 1994). Additionally, the constructs showed sufficient convergent validity as their average variance extracted (AVE) rates were higher than 0.5 (Fornell & Larcker, 1981; Table 1). For discriminant validity, we noted that the square root of AVE (Table 2) was greater than its correlations with other constructs (Fornell & Larcker, 1981).

Table 1 Quality criteria of the first-order and second-order constructs

Dimension/question	Item	Loading	AVE	CR	Weights	Loadings	VIF
Knowledge function—nature appreciation	Mot_1		0.9	0.947	0.086 n.s	0.476	1.37
To be close to nature	Mot1_1	0.941					
To gain a better appreciation of nature	Mot1_2	0.956					
Utilitarian function-reward	Mot_2		0.584	0.894	0.112 n.s	0.711	2.254
To experience new things	Mot2_1	0.792					
To explore the unknown	Mot2_2	0.799					
To develop my personal interests	Mot2_3	0.802					
To have fond memories	Mot2_4	0.710					
To gain a sense of self-achievement	Mot2_6	0.753					
To experience different cultures	Mot2_7	0.724					
Knowledge function—building personal relationships	Mot_3		0.744	0.921	0.021 n.s	0.748	2.524
To meet new people	Mot3_1	0.858					
To meet people with similar interests	Mot3_2	0.877					
To meet the locals	Mot3_3	0.862					
To be with other if I need them	Mot3_4	0.853					
Utilitarian function—self-development	Mot_4		0.723	0.954	0.287*	0.882	3.475
To have a chance to get to know myself better	Mot4_1	0.854					
To understand more about myself	Mot4_2	0.870					
To gain a new perspective on life	Mot4_3	0.873					
To think about good times I have had in the past	Mot4_4	0.840					
To know what I am capable of	Mot4_5	0.883					
To gain a sense of self-confidence	Mot4_6	0.899					
To feel inner harmony/peace	Mot4_7	0.743					

(continued)

Table 1 (continued)

Dimension/question	Item	Loading	AVE	CR	Weights	Loadings	VIF
To be independent	Mot4_8	0.832					
Social-adjustive and value function—interpersonal relationships	Mot_5		0.75	0.937	0.203*	0.828	2.882
To reminisce about parents' times	Mot5_1	0.894					
To contact with family/friends who live elsewhere	Mot5_2	0.892					
To feel that I belong	Mot5_3	0.876					
To strengthen relationship with my family	Mot5_4	0.829					
To strengthen relationship with my family	Mot5_5	0.836					
Utilitarian function—escape	Mot_6		0.733	0.916	0.177*	0.699	1.633
To avoid interpersonal stress	Mot6_1	0.833					
To be away from the crowds of people	Mot6_2	0.874					
To be away from daily stress	Mot6_3	0.897					
To escape from routine	Mot6_4	0.818					
Ego-defensive function	Mot_7		0.834	0.938	0.368***	0.867	2.258
To join people's interest	Mot7_1	0.887					
To join social discussion	Mot7_2	0.942					
To follow current events	Mot7_3	0.910					
Cognitive image			0.686	0.916			
Ecological system is properly maintained	Img1_1	0.774					
Rich fauna and flora	Img1_2	0.803					
An area of ecological conservation	Img1_3	0.885					
An area of environmental education	Img1_4	0.836					
Natural and cultural attractions	Img1_5	0.838					
Affective image			0.764	0.907			
An arousing destination	Img2_1	0.864					
An exciting destination	Img2_2	0.914					
A pleasant destination	Img2_3	0.843					
Economic value			0.835	0.938	0.172 n.s	0.658	2.394

(continued)

Table 1 (continued)

Dimension/question	Item	Loading	AVE	CR	Weights	Loadings	VIF
Service is economical	ValP1_1	0.894					
Good for the price	ValP1_2	0.936					
Value for money	ValP1_3	0.912					
Functional value			0.775	0.912	−0.071 n.s	0.688	2.888
Acceptable standard of quality	ValP2_1	0.877					
Well organised Convenient for me	ValP2_2	0.905					
Convenient for me	ValP2_3	0.858					
Social value			0.881	0.957	0.647***	0.916	1.697
Gains social approval from others	ValP3_1	0.918					
I feel like a special person	ValP3_2	0.953					
Make a good impression on other people	ValP3_3	0.945					
Emotional value			0.835	0.938	0.421***	0.816	1.683
Enjoyable	ValP4_1	0.891					
Makes me feel happy	ValP4_2	0.922					
Positive feeling	ValP4_3	0.929					

*** Significant at $p < 0.001$, ** significant at $p < 0.01$, * significant at $p < 0.05$

We modelled second-order constructs as formative measures. Additionally, we modelled motivation as a composite of multiple underlying dimensions because they are distinct in nature. We evaluated the absence of multicollinearity problems by checking the variance inflation factor (VIF) and the Condition Index, as suggested by Belsley (1991). VIF factors were generally lower than the suggested threshold of 3.3 and condition indexes were far less than 30. After evaluating the significance of the item weights (Table 1), we decided to keep all the indicators in the model as per Hair et al.'s (2014) suggestions, as factor loadings of the different facets were greater than zero (see Table 1). The weights of the lower-order constructs were especially vital as they represented the actionable drivers of the ecotourists' motivations. Similarly, weights in the perceived value construct provided information about how each perceived value dimension contributed to the aggregated perceived value of the ecotouristic destination.

The results (Table 1) illustrated that the ego-defensive ($w = 0.383$, $p < 0.001$), utilitarian functions of self-development ($w = 0.287$, $p < 0.001$) and scape ($w = 0.177$, $p < 0.05$), and interpersonal relationships ($w = 0.203$, $p < 0.05$) motivations significantly contributed to building the motivation of a traveller to visit an ecotouristic destination. Similarly, the social ($w = 0.647$, $p < 0.001$) and emotional value ($w =$

Table 2 Discriminant validity assessment

	Affective image	Cognitive image	Economic value	Emotional value	Functional value	Social value	Mot 1	Mot 2	Mot 3	Mot 4	Mot 5	Mot 6	Mot 7
Affective image	0.874												
Cognitive image	0.631	0.828											
Economic value	0.331	0.327	0.914										
Emotional value	0.437	0.364	0.521	0.914									
Functional value	0.353	0.382	0.756	0.582	0.880								
Social value	0.428	0.317	0.496	0.537	0.595	0.939							
Mot 1	0.309	0.182	0.275	0.211	0.237	0.203	0.948						
Mot 2	0.411	0.378	0.243	0.318	0.268	0.286	0.506	0.764					
Mot 3	0.366	0.344	0.320	0.313	0.273	0.454	0.308	0.633	0.862				
Mot 4	0.451	0.401	0.341	0.424	0.333	0.487	0.377	0.622	0.688	0.850			
Mot 5	0.406	0.353	0.335	0.369	0.327	0.524	0.294	0.522	0.649	0.781	0.866		
Mot 6	0.416	0.324	0.237	0.361	0.257	0.287	0.271	0.458	0.405	0.512	0.415	0.856	
Mot 7	0.456	0.364	0.299	0.369	0.331	0.536	0.301	0.482	0.623	0.625	0.625	0.564	0.913

0.421, $p < 0.001$) represent the most important dimension in the composition of the perceived value of the ecotouristic traveller.

Structural model

We assessed the structural model by estimating the path coefficients, their significance, the variance explained and the predictive relevance of the model. Applying the method developed by Niltz et al. (2016) evaluated the total, direct and indirect effects after performing a bootstrapping procedure with 5000 resamples (Henseler et al., 2009) (Table 3).

Table 3 Structural model results

Direct effects	Coefficient	CI 95%	BC CI 95%	Explained variance
Motivations → perceived value	0.446***(7.42)	[0.074, 0.218] sig	[0.074, 0.218] sig	26.21%
Motivations → cognitive image	0.444***(10.17)	[0.366, 0.535] sig	[0.366, 0.535] sig	19.7%
Motivations → affective image	0.316*** (6.13)	[0.218, 0.422] sig	[0.218, 0.422] sig	16.89%
Cognitive image → affective image	0.491***(10.33)	[0.396, 0.581] sig	[0.396, 0.581] sig	31.03%
Cognitive image → perceived value	0.048 n.s	[−0.091,0.179] n.s	[−0.091,0.179] n.s	1.9%
Affective image → perceived value	0.224***(3.70)	[0.105, 0.342] sig	[0.105, 0.342] sig	11.01%
Indirect effects				VAF
Motivations → cognitive image → perceived value	0.021	[−0.041, 0.083] n.s	[−0.041, 0.083] n.s	4.40%
Motivations → affective image → perceived value	0.073	[0.031, 0.123] sig	[0.029, 0.121] sig	14%
Motivations → cognitive image → affective image → perceived value	0.050	[0.022, 0.082] sig	[0.021, 0.081] sig	10%
Total indirect effect	0.143***(3.85)	[0.074, 0.214] sig	[0.074, 0.214] sig	24.4%

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. n.s. = Not significant; sig. = significant at $p < 0.05$; t values in parentheses

All the paths were significant except for the relation between cognitive and perceived value. The results confirmed the positive impact of motivation on the destination image, affecting both the cognitive image (H1: $\beta 1 = 0.444$, $p < 0.001$) and the affective image (H2: $\beta 2 = 0.316$, $p < 0.001$). We confirmed the impact of cognitive image on the affective image (H3: $\beta 3 = 0.491$, $p < 0.001$) and the positive impact of the latter on the perceived value (H4a: $\beta 4a = 0.224$, $p < 0.001$). However, the cognitive image hypothesis regarding the perceived value of an ecotouristic destination was not confirmed (H4b: $\beta 4b = 0.048$, not significant at $p < 0.05$).

The cumulative effect of motivation on perceived value was 0.587 ($p < 0.001$), confirming the impact of tourists' motivations on the perceived value of the customer in an ecotouristic destination. The direct path between motivation and the perceived value was quite high and statistically significant ($\beta = 0.446$, $p < 0.001$), indicating the absence of a full mediation. However, the indirect effects of motivations through the affective image (0.073, $p < 0.05$) and through the cognitive and then affective images (0.05, $p < 0.05$) were statistically significant. In addition to the abovementioned, we evaluated the strength of a partial mediation. We calculated the ratio between the indirect and the total effect. This ratio is called the Variance Accounted For (VAF) value. The VAF values (see Table 2) indicate that mediation through the affective image explains approximately 24% of the variance on the perceived value, confirming a complementary partial mediation of the affective image. Therefore, although their destination image is acting as a mediator, the mediation is done exclusively through the affective image and so the mediated portion (24%) is relatively low, partially confirming H5.

Regarding the variance explained by the model, we evaluated the R2 values. The model was able to explain 39.1% of the variance of the perceived value. Additionally, the results demonstrated the affected image had good predictive power (R2 = 47.9%), where the variance explained by the cognitive image (31.03%) almost doubled that of the motivations (16.9%).

Furthermore, we evaluated how well-observed values are reproduced by the model through the Q2 value (Geisser, 1975; Stone, 1974). The test pointed out values greater than 0, implying that the model has satisfactory predictive relevance for the three endogenous constructs (see Fig. 2).

5 Discussion and Conclusions

Our findings are an essential contribution to the knowledge of how ecotourists' motivations affect loyalty to a certain destination. We focused on the links between motivations, destination image and perceived value.

The tourist motivation approach has been used to identify expectations (Pan, 2008). Perceived value is related, albeit through other factors, to customer expectations for a service (Bolton & Drew, 1991). On the other hand, destination image depends on the attributes and feelings an individual has regarding the destination.

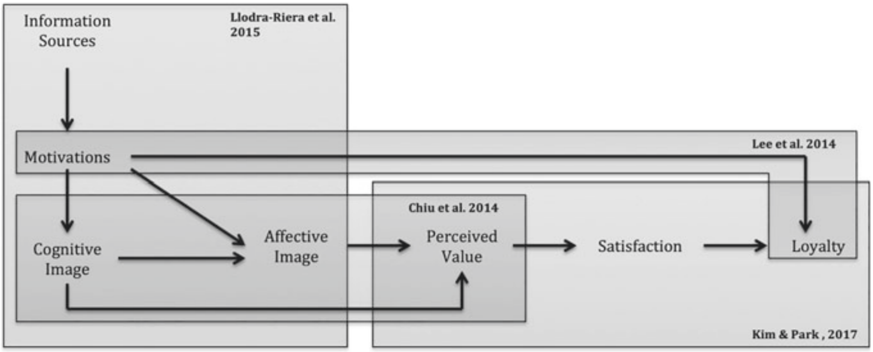

Fig. 1 Theoretical framework. *Source* self-compiled

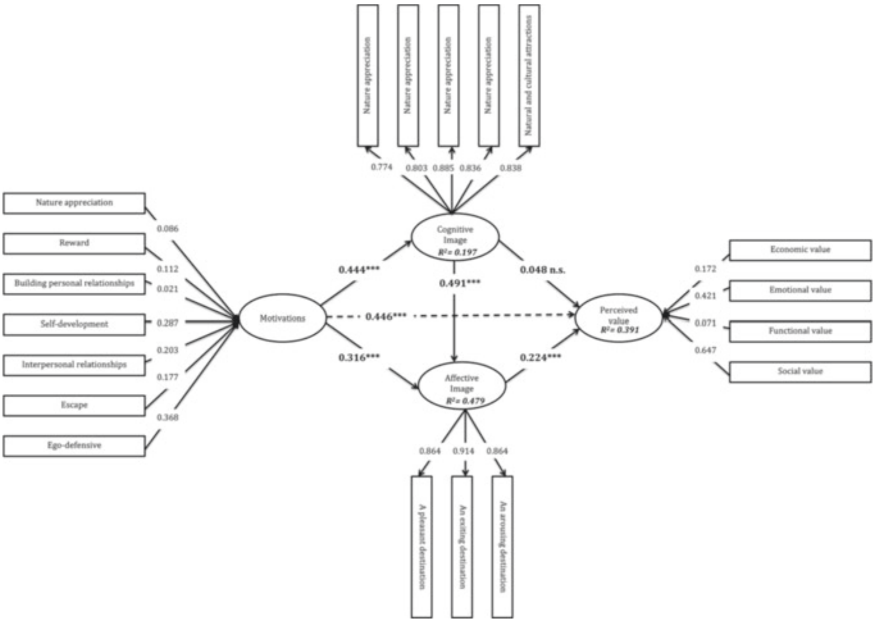

Fig. 2 Model with the mediated effects

It is based on beliefs and impressions (Crompton, 1979) and contains the accumulated expectations towards a place over time (Kim & Richardson, 2003); it is therefore dependent on tourists' subjective perception. Subsequently, both motivations and destination image might create travellers' expectations. In addition, motivations influence the image perceived (Baloglu & McCleary, 1999; Beerli & Martín, 2004).

Previously, we showed that the model predicted 39.1% of the variance of ecotourists' perceived value; ecotourists' motivations provided most of this explanatory power. Additionally, we observed that the affective image of a destination also has a role on the value perceived, while the cognitive image becomes irrelevant. Although Kim et al. (2013) modelled destination image as an antecedent variable to the perceived value, and Chiu et al. (2014) found a significant positive relationship between cognitive image and perceived value, they did not evaluate tourists' motivations. The results in our study indicate that tourist motivations play a more predominant role in the perceived value than the tourist image of the destinations. Thus, it contradicts Ryan and Gu (2008), who stated that the destination image was the start of tourists' expectations.

The partial mediation of the destination image on the relationship between motivations and perceived value reinforces this. The dominant role of motivations might indicate that, although the tourists' cognition and feelings regarding a destination might influence whether an individual travels to the destinations, it is the travelling motivation what determines the expectation to which the experience is evaluated. In other words, the destination image might impact the decision about where to travel but tourist will perceive value in a destination if the experiences there fulfilled the expectations created based on the tourist particular motivations.

The latter prompts a number of questions such as what motivations are the most important to ecotourists and have a greater impact on the perceived value? Alternatively, what aspects of the value proposition of a tourist destination are vital for ecotourists?

This research uncovers that utilitarian motivations related to enriching travellers' lives (self-development) or escaping from daily routines or social pressure (ego-defensive) were found to be the most significant predictors of the respondents' perceived value. Ecotourist destination managers will have to look closely at these motivations in order to adapt the destination services and enhance those aspects that reinforce travellers' motivations. Consequently, destination communication and marketing strategies should also be aligned to create the proper destination image.

Similarly, the social and emotional dimensions are the most important in the value assessment of an ecotouristic destination. Thus, activities and experiences in the destination should be designed and configured to focus on appealing to the emotional and social needs of ecotourists because of their influence on visitors' perceived value. We can clearly observe how dominant motivations are related to their counterpart's dimensions of the perceived value.

Finally, our study has a few limitations that should be addressed. First, the sample was obtained from three specific ecotouristic destinations in Ecuador. Thus, the results cannot be generalised, and replication of the study in other similar areas in other regions or countries is recommended. Second, most of the visitors were international travellers, which might be conditioned by specific cultural values affecting both service delivery and visitor experience. Third, the socio-demographic characteristics of the sample are diverse. As a future line of research, we can study the different patterns between the different socio-demographic groups.

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Improving Positivity Towards Nature Conservation: Cases of Local Communities Bordering Protected Areas in South Africa

Dorothy Ruth Queiros

Abstract Benefit sharing refers to benefits emanating from natural protected areas to neighbouring communities. These benefits are often derived from the tourism ventures within these areas and should improve the socio-economic environment of communities. In the South African context, beneficiation appears to be a key influence in encouraging communities to support conservation efforts, rather than desiring the land for alternative uses. While numerous studies have been done on the necessity of benefits, less research has focused on which benefits improve positivity towards nature conservation. This is surprising considering how important this knowledge is to community well-being and a thriving wildlife tourism industry. This paper, therefore, aims to determine which benefits, in addition to those already present, would make local communities more positive towards neighbouring protected areas. Data were collected at three local communities, each bordering a protected area containing a tourism venture—Kekana Gardens community (Dinokeng Game Reserve); Khanyayo community (Mkhambathi Nature Reserve) and Mnqobokazi community (Phinda Private Game Reserve). Participants were selected using non-probability purposive sampling. Qualitative data were gathered using focus group interviews with 56 community members. The paper first discusses the main findings from each case, followed by cross-case analysis. Employment was common across all three. At Dinokeng, locals clearly requested information, education, involvement and the meeting of basic needs. For Mkhambathi, much was said about development and infrastructure being vital for locals and tourists. The desire to be informed of and involved in the reserve also emerged. For Phinda, which has the most developed community beneficiation programmes, locals had less to say. They focused on education, particularly infrastructure (colleges and schools) and education (bursaries and nature conservation training). The paper ends by providing recommendations regarding what tourism and protected area managers can do differently in future to enhance community well-being and the continuance of Africa's wild spaces.

D. R. Queiros (✉)
University of South Africa, Pretoria, South Africa
e-mail: queirdr@unisa.ac.za

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_4

Keywords Benefits · Conservation · Local communities · Positivity · Protected areas · Wildlife tourism

JEL Classification Q34

1 Introduction

Benefit sharing or benefit-based approaches occur when the protected area together with its tourism ventures share benefits with the local community to improve their social and economic environment, and to foster a good relationship (Queiros & Mearns, 2019).

In the South African context, beneficiation appears to be one of the key influences in encouraging communities to support conservation efforts, rather than wanting to use the land for other uses. Benefit-based approaches have, therefore, been widely adopted to reduce opposition and attract local support, based on the idea that benefits motivate local people to change their attitudes and to adapt their behaviour to be pro-conservation (Gadd, 2005; Kideghesho et al., 2007).

While numerous studies have been done on the necessity of benefits (Dewu & Røskaft, 2018; Jamal & Camargo, 2014), two research gaps were identified within these studies. First, less research has focused on which benefits improve positivity towards nature conservation (Stronza & Gordillo, 2008). Second, in spite of stakeholders acknowledging the value of intangible benefits (Cetas & Yasué, 2017; Stem et al., 2003), these are seldom researched as potential causal mechanisms for conservation (Stronza & Gordillo, 2008). These research gaps are surprising considering the importance of this knowledge to community well-being and a successful wildlife tourism industry.

Data were collected at three local communities in South Africa, each bordering a protected area containing one or more tourism ventures. For each community, the neighbouring protected area already had certain benefits in place. This research aimed to determine, from the perspective of the local communities, what further benefits would improve positivity towards nature conservation at the three protected areas.

This information can help tourism and protected area managers know which benefits to focus on in order to enhance community well-being, which in turn enhances conservation in Africa.

The paper commences with a brief literature review, followed by the research design and methodology. The results and discussion section considers the findings from each community separately, followed by cross-case analysis. The paper ends with a conclusion, which contains recommendations for tourism and conservation stakeholders.

2 Literature Review: Beneficiation

The accrual of benefits by local people due to the presence of tourism and conservation initiatives is important (Jamal & Camargo, 2014; Jhala et al., 2019). It is important for two reasons. Firstly, the well-being of communities surrounding protected areas, who often live in poverty, is crucial. Secondly, some studies have linked benefits to improved positivity towards protected areas as well as pro-conservation behaviour (Kideghesho et al., 2007; Kiss, 2004; Shibia, 2010).

Benefit distribution should be equitable (Giampiccoli et al., 2015) and open and transparent, mitigating against unrealistic expectations which result in discontent when unmet (Thondhlana & Cundill, 2017: 214). Furthermore, it is important that communities are aware of existing benefits. Gadd (2005) and Snyman (2012) highlight the importance of beneficiaries making the connection between the benefits and the tourism and wildlife resources from which those benefits stem.

Tangible benefits tend to be economic benefits, motivating individuals to see conservation and tourism as sources of income (Imran et al., 2014). The downside of this is that the level of income is seldom enough for the community (Stronza & Gordillo, 2008) and that if the income drops, local people may see the prime reason for conserving as no longer existing (Gadd, 2005), which could threaten the protected area. Tangible benefits include formal and informal employment; harvesting of natural resources (such as thatch grass for roofing); revenue from tourist levies and gate fees; community development projects such as clinics and creches; etc.

Intangible benefits have received less focus, but are vital because they influence the stability of local institutions as well as the success of long-term collective action towards biodiversity conservation (Stronza & Gordillo, 2008). Berkes (2004) argues that rural communities in the developing world seldom equate benefits with simple monetary rewards, and that various types of social and political benefits are also important. A further reason to focus on intangible benefits is that if pro-conservation behaviour is only practised because economic benefits are received, there can be dire consequences should tourism decline or donors withdraw (Gadd, 2005). Ideally, protected areas and tourism should offer a combination of tangible and intangible benefits (Burgoyne & Mearns, 2017). Examples of intangibles include training, such as learning a new skill; participating in decision-making; cultural exchange with tourists; environmental education and enhanced pride and self-esteem.

3 Research Design and Methodology

This research is situated in the paradigm of constructivism, which acknowledges that individuals will have multiple subjective interpretations of their world (Creswell, 2014) and that findings are discovered through the interaction between individuals as well as through interaction with the researcher and interpreter (Bann, 2001).

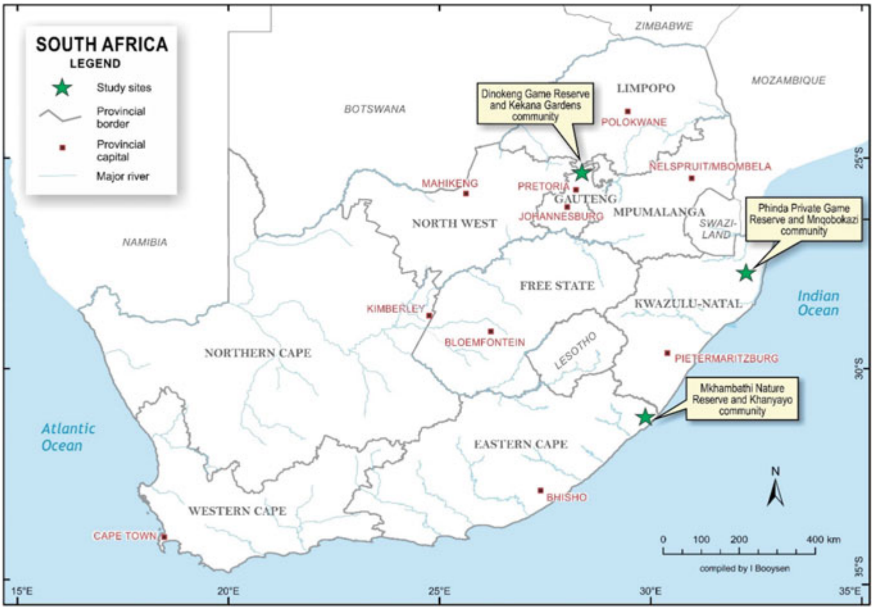

Fig. 1 Location of case study sites within South Africa

Data were collected at three local communities, each bordering a protected area containing a tourism venture. The three protected areas each had differing management models and ownership structures and were at different stages in the level of improvement in human well-being offered to the adjacent community. The communities are lower-income communities and are either rural or peri-urban. Each case study is described below and indicated on the map in Fig. 1:

- **Kekana Gardens community** is a peri-urban community adjacent to Dinokeng Game Reserve in the Gauteng province. This reserve is a public–private partnership between provincial government and private landowners. Tourism establishments are operated by different landowners and range from budget to luxury. Due to it being a fairly new reserve, opened in 2011, the relationship with the community is still in its infancy, and reserve management and landowners are still developing various economic and social upliftment programmes.
- **Khanyayo community** is a rural community and is the closest community to Mkhambathi Nature Reserve in the Eastern Cape province. Mkhambathi is a provincial reserve on land owned by several surrounding local communities who won their land claim. It is a joint management venture between Eastern Cape Parks and Tourism Agency and the Mkhambathi Land Trust, which consists of community members. There are currently only a few mid-range accommodation options available, but a private company (Mkambati Matters) is developing luxury accommodation in a section of the reserve. Reserve staff have been interacting

with the community for a number of years and run various economic and social upliftment programmes.

- **Mnqobokazi community**, bordering Phinda Private Game Reserve, in KwaZulu Natal province is also a rural community. Phinda is a private game reserve, managed by &Beyond, offering luxury tourism. Some of the land within the reserve is owned by local communities who won land claims. This land is rented from these communities by &Beyond. Unlike the other two case studies, it has a dedicated organisation, Africa Foundation, which focuses on community involvement and beneficiation. The relationship between the reserve and the community can be considered as well established, with various successful economic and social upliftment programmes in place.

Participants were selected using non-probability purposive sampling. In qualitative research, purposive sampling is often the norm, selecting participants or sites that will best help the researcher understand the phenomena (Moser & Korstjens, 2018; Rapley, 2014). In addition, qualitative research focuses on a smaller number of people but the data are detailed and rich (Cohen et al., 2011). Qualitative data were gathered using focus group interviews with 56 community members. In each community, two focus groups were conducted, each with a different group of people. The size of the focus groups ranged from 5 to 15 participants, and it was important that the group comprised a balanced representation of ages, gender and positions in society.

This paper focuses on one question posed to participants, namely "**Some people like this nature reserve and the animals. Some people think there are better ways to use this land. What would make you more positive towards the reserve being here over the next 100 years, that is, down to the time of your great grandchildren?**" In each group, the researcher played the role of a facilitator and made use of a local translator, who translated the question into the local dialect. Some participants answered in English, while others answered in their mother tongue. The focus group interviews were recorded and later transcribed. Data analysis was inductive, with codes emerging from the data itself (Thornberg & Charmaz, 2014). The coding was descriptive, i.e. the code label describes the basic topic of the quote (Miles et al., 2014). The researcher coded the data for all three case studies, and the codes developed were adapted throughout this process. With quotes being the data in qualitative studies, the findings are illustrated using direct quotes from participants. These quotes are referenced using the focus group number (abbreviated as "FG"), followed by the line on which the quote is found within that transcript, for example "FG1:605".

4 Results and Discussion: Improving Positive Attitudes Towards Dinokeng, Mkhambathi and Phinda

This section first discusses the **main findings from each case**. For each community, a table with the basic data is supplied first, starting with Table 1. Based on this table, the most pertinent findings are discussed. All three case studies had the same coding frame. Even if a code had zero quotes, it is still included in the table, as that itself tells a story and aids the cross-case analysis later. For each case, a table is also provided, which compares the existing benefits with the benefits desired by each community.

The section then secondly considers the key findings from the **cross-case analysis**, where the data for each case study are compared against each other.

4.1 Main Findings from Each Case

Kekana Gardens Community Bordering Dinokeng Game Reserve (DGR)

Table 1 Code frequencies for Kekana Gardens community

Code label	Focus Group 1 and 2
Basic needs	3
Community projects	1
Development/infrastructure	0
Employment	4
Enjoyment of reserve	0
Information/education	7
Involvement/interaction	4
Other	3
Training	1
Total	23

The residents of Kekana Gardens clearly requested **information/education** as well as **involvement/interaction**, as illustrated in the selected quotes that follow. They desire this, because by knowing more, and interacting more they will understand the importance of the reserve and its animals; and they really want to understand. There appears to be a genuine desire to be part of it. C1 want to respect the reserve, but need knowledge and interaction first. By interacting more, they will feel more involved. They want to get to know the landowners within Dinokeng.

> If you give me information, it will help. I understand that you protect animals and me – not only animals. I know you value me (FG1:482).

> I think it's very hard to protect what you don't know. If we know those people who are owning those things, if we know the animals, then it will be easy for us to protect it. You

> can't just tell someone they must protect it, but they don't know about the game reserve. We need knowledge … (FG2:334).

> Don't be afraid to come and talk to us … we want to be more active and involved. These animals belong to us (FG1:481).

Participants also indicated that **employment** would improve positivity. There was dissatisfaction that non-locals are employed, and this creates negativity towards DGR, for example: "*Coming back to unemployment. If they can employ people from the area, there will be less crime*" (FG2:605).

Meeting **basic needs** for all is an impossible challenge, which park and tourism stakeholders can only partially alleviate. Participants mentioned donations for the elderly and orphans, for example: "*Donations for orphans and granny's*" (FG1:487). The problem of hunger also emerged, in the context of food/meat being a benefit that would improve positivity: "*It's like working in a restaurant, but you stay hungry all the time*" (FG1:483).

The issue of how secure the wall/fence is, and that electrifying it would increase the community's sense of security also emerged under "**Other**": "*Initially they expected the game reserve to be secure. But the electric fence is not working. People are scared. What if a lion comes? Hence they don't like it. If the reserve electrifies the fence, it may change the local people's minds*" (FG2:431).

To end the discussion on the Kekana Gardens community, Table 2 compares the existing benefits emanating from the reserve to the benefits that participants feel would improve positivity in future. The existing benefits were obtained from research by Queiros (2020) and fall beyond the scope of this paper. However, it is included because what participants "want" will be influenced by what they already "have", and hence it is important to set this context. Where "benefits that improve positivity" are an extension of an existing benefit, these are shaded in grey and come first in the table. The benefits are listed in no particular order. This table is provided in the same way for the other two case studies further on in this section.

For the Kekana Gardens community, three benefits mentioned are an extension of existing benefits, namely employment, information/education and meeting basic needs. As discussed above, this community had a keen desire for the intangible benefits of information, involvement, interaction and education, even if the latter is on an informal basis. Tourism and conservation stakeholders would do well to provide more of this to improve positivity—focusing strongly on telling the community what is going on inside the reserve and providing opportunities for interaction and involvement where possible. Employment is also key, but in this fairly new reserve, the number of jobs that can be offered is limited. DGR landowners do come together to offer soup kitchens and food parcels, for example for Mandela Day, which is celebrated each year in South Africa on Nelson Mandela's birthday (18 July). On that day, citizens are encouraged to donate time, money or items to improve the lives of others. While it would not be possible for this reserve to meet all the basic needs of a large community, these schemes could be increased where possible to positively impact pro-conservation attitudes and behaviour. Finally, in terms of electrifying the fence, participants expressed fear that dangerous animals and snakes could cross

Table 2 Comparing existing benefits with benefits that would improve positivity: Kekena Gardens/Dinokeng Game Reserve

Kekana Gardens Community/Dinokeng Game Reserve	
Existing benefits	Benefits that would improve positivity
Employment	Employment
Learning/training on the environment	Information/education
Soup kitchen/feeding schemes	Meeting basic needs
Spin-offs from tourism	Involvement/interaction
Less transport costs due to working in DGR	Electrifying the fence
Recipient of land claim	
Being able to visit DGR	

Note The list of existing benefits does not claim to be an exhaustive list of all benefits received

over to their community. Unfortunately, the effectiveness of the boundary fence is negatively affected by vandalism (cuts in the fence). Landowners are serious about the security of the boundary and should reassure the community of this, conduct regular checks and provide information on who to call and what to do if an animal escapes. These actions could improve positivity further.

4.2 Khanyayo Community Neighbouring Mkhambathi Nature Reserve (MNR)

Table 3 presents the data for the Khanyayo community.

Table 3 Code frequencies for Khanyayo community

Code lable	Focus Group 1 and 2
Community projects	0
Development/infrastructure	10
Employment	5
Enjoyment of reserve	0
Other	1
Information/education	1
Involvement/interaction	2
Pride in reserve	0
Training	0
Total	19

The Khanyayo participants strongly acknowledge that **development and infrastructure** are vital for both the local community and tourists and will result in **employment.** Specific mention was made of shops, more accommodation options, road access, better walking paths within the reserve, more facilities for community benefit such as a clinic, and a mobile phone network. Two examples of these quotes follow, followed by a quote illustrating the desperate desire for **employment**:

> We like to have that nature reserve. The only thing that must be improved is infrastructure [which] is very poor here … If there are more tourists, then us as young people will get more jobs … (FG1:451).
>
> I think if the reserve or Eastern Cape Parks can try to get the investor who's going to make more repairs so that there can be more visitors, that would also create the opportunities of jobs to the communities surrounding the reserve … (FG1:446).
>
> We want—because we are poor. We want to work in there. They must create work. So, there's very big difference between us and Mkhambathi. That's the main problem (FG2:447).

Involvement/interaction also emerged as an intangible benefit to improve positivity, in the context of the community desiring better feedback and reporting from the Mkhambathi Land Trust (which comprises community members from different villages). An example follows:

> I think that … the community should be more involved in everything that is happening in the nature reserve. … I don't think the board that is employed or that is dealing with the Mkhambathi thing, is transparent to the community. So, I think if the board can be transparent with everything to the community it could be much better (FG2:88).

Under the code of **Information and education**, the one quote stated a desire for training on the importance of MNR: "*… I think community awareness about how important it is to have the nature reserve. So that the community will understand the impact that the nature reserve could have in our community. … I think the youngsters could be also trained on something … to do with the nature reserve so that they could understand more*" (FG2:81).

To end the discussion on the main findings from the Khanyayo community, Table 4 compares the existing benefits emanating from MNR to the benefits that Khanyayo participants feel would improve positivity in future.

The Khanyayo participants desire more employment, information/education and development/infrastructure than is currently received. MNR has suffered from lack of funding and support over the years, making these benefits complex to provide. Reserve management do strive where possible to provide permanent employment and contract jobs under various programmes, such as clearing invasive species, and clean-up campaigns along the coast. The training received in the past did much to improve positivity, and the educational opportunities should continue to be pursued by reserve management and tourism stakeholders. Infrastructure remains a challenge. With a section of MNR currently being developed for high-end tourism, this may provide funding to improve infrastructure such as the road to MNR, which would also benefit the community.

Table 4 Comparing existing benefits with benefits that would improve positivity: Khanyayo community/Mkhambathi Nature Reserve

Khanyayo community/Mkhambati Nature Reserve	
Existing benefits	Benefits that would improve positivity
Employment	Employment
Learning/training on the environment	Information/education
Facilities and infrastructure	Development and infrastructure
Access to natural resources and places of spiritual importance	Involvement/interaction
Recipient of land claim	
Being able to visit MNR	
Revenue sharing	
Learning new skills	
Support for schools and higher education	

Note The list of existing benefits does not claim to be an exhaustive list of all benefits received

The request for information/interaction is important and should be noted. Conservationists do attend community meetings and via the Mkhambathi Land Trust, community representatives are supposed to keep the community informed. Within the constraints of a small reserve with a small staff, outreach programmes aimed at informing the community of activities within the reserve and interacting with them will go far towards improving positivity towards conservation.

4.3 Mnqobokazi Community Bordering Phinda Private Game Reserve (PPGR)

Table 5 presents the data for the Mnqobokazi community.

Table 5 Code frequencies for Mnqobokazi community

Code label	Focus Group 1 and 2
Community projects	0
Development/infrastructure	3
Employment	2
Enjoyment of reserve	0
Information/education	2

(continued)

(continued)

Code label	Focus Group 1 and 2
Involvement/interaction	0
Other	2
Total	9

The Mnqobokazi community had the least quotes on what would make them more positive, and this is probably due to the well-established beneficiation programmes currently run. PPGR offers high-end luxury tourism, and several benefits are possible due to donations from tourists. In addition, & Beyond, which is the group that PPGR belongs to, has its own organisation, Africa Foundation, which is dedicated to community involvement and beneficiation.

Under **development/infrastructure**, three quotes occur, with two participants mentioning education-related infrastructure as a positivity builder—requesting a high school and college respectively, for example:

> Considering the good relationship that the community and the game reserve have, we would like … the game reserve [to] look in our direction in terms of developing another high school, because we only have one high school in this area … (FG2:144).
>
> I think if Phinda can try to build a college for … learners from these schools, so that they can go and be educated about nature conservation … and go far (FG2:165).

The third quote related to the desire for a shopping mall—"*she's saying she would like to see the shopping mall being built … which might boost the love of the game reserve, if the game reserve is the one that has proposed that, and then more job opportunities will be created out of that*" (FG2:147).

Participants emphasised **information/education**, stating that more bursaries, and training and education on nature conservation that can lead to employment would make them more positive:

> … the CLEF bursary scheme that is offered by Phinda should be increased … so that it provides opportunities for more people to … benefit from this (FG2:141).
>
> … he would like to see the game reserve providing opportunities or training for people who can be taken to universities or colleges to learn more about nature conservation … and then be provided job opportunities after that within the game reserve—that will also have a … positive impact to the community (FG2:141).

Finally, Mnqobokazi residents mentioned more **employment** opportunities as something that would positively influence communities (FG2:138); and training and education that could lead to employment within the reserve (FG2:141). Under "**other**", the first quote was "*it's good to keep it as a game reserve but I think [for] people who are in the community—maybe they must give us a chance to buy shares*" (FG1:151), and the second was a discussion on reserve expansion. One community member would like to see the reserve expanded, which is positive: "*If there were a large area of land that is not in use, I would have loved to see the game reserve being expanded so that it accommodates more animals*" (FG1:154). However, another elderly participant interjects that she disagrees, and that PPGR already has enough land.

To end the discussion on the findings from the Mnqobokazi community, Table 6 compares the benefits currently received with the benefits participants felt would improve their positivity towards PPGR in future.

Offering a high-end tourism product and having an organisation dedicated to community programmes, PPGR can and does offer more benefits than the other two case studies. Existing benefits that the community would like to see more of include education-related infrastructure and more bursaries. Africa Foundation has focused strongly on education over the years and this is noted and appreciated by the community. Again, the complexities of a large community emerge, where more of this is needed. PPGR employs more of the community than the other two case studies, but in a South Africa filled with need, these participants want to see more employment. While several training programmes exist, participants hone in on the desire for more training on nature conservation, in order for young people to be employed in future within the reserve. The last two benefits that participants would like to see in future are interesting. The desire for PPGR to have more land is most encouraging and reveals positivity and an appreciation for conservation.

Table 6 Comparing existing benefits with benefits that would improve positivity: Mnqobokazi community/Phinda Private Game Reserve

Mnqobokazi community/Phinda Private Game Reserve	
Existing benefits	Benefits that would improve positivity
Facilities and infrastructure	Education-related infrastructure Shopping mall
Employment	Employment
Learning new skills	Training on nature conservation
Support for schools and higher education	More bursaries
Learning/training on the environment	Expanding PPGR to include more land
Recipient of land claim	Being able to buy shares in PPGR
Spin-offs from tourism (donations and inter-cultural contact)	
Big 5 draws tourists	
Benefits for sport	
Sponsorship for community facilities	

Note The list of existing benefits does not claim to be an exhaustive list of all benefits received

Cross-case analysis

Having considered the main findings from each case, this section briefly conducts a cross-case analysis. Based on Fig. 2, the top four benefits that participants identified as means to improve positivity towards their neighbouring protected area are discussed.

Development/infrastructure is strongly evident as a positivity builder, particularly for MNR, which is not very developed. Participants linked development and infrastructure with increased employment. **Employment** is also strong in its own right. With mentions at all three case studies, it can be concluded that this is certainly a benefit that improves positivity towards these protected areas. For **information/education**, ten quotes arose across the three case studies. For DGR, participants requested information as well as education in general. Considered cumulatively, it is clear that information and education are perceived as factors that improve positivity. **Involvement/interaction** is clearly important in encouraging community positivity towards the reserve. It arose fairly strongly for DGR, with participants seeking involvement and interaction because they want to know and understand the importance of the reserve, and this will increase their sense of involvement. They have a sense of ownership and want to feel ownership over the reserve. In other words, involvement and interaction were linked to locals knowing and understanding the importance of the reserve and its conservation. At MNR, it was about the need for interaction with and transparency of the board of the Mkhambathi Land Trust, which constitutes community members. For PGR, it did not emerge, most likely because the community experiences a good degree of involvement and interaction with staff and management working for this reserve.

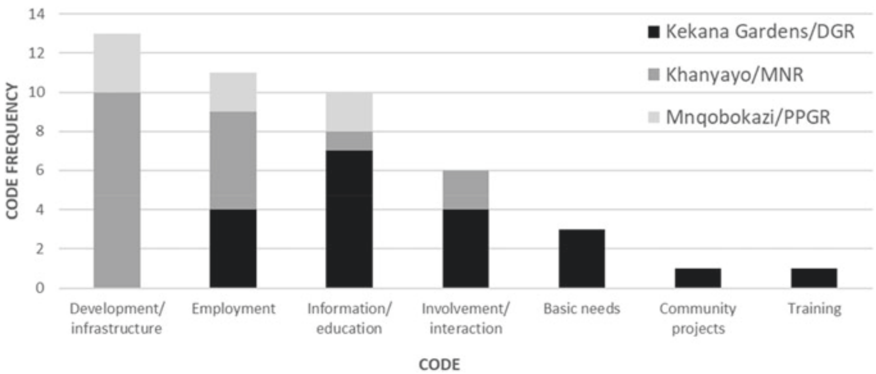

Fig. 2 Increasing positivity in the communities bordering DGR, MNR and PPGR

5 Conclusion and Recommendations

For disadvantaged communities bordering protected areas in Africa, well-balanced and value-laden beneficiation programmes are essential. However, some key pieces in the puzzle seem to be missing. Little research has focused on which benefits improve positivity towards nature conservation. Furthermore, intangible benefits as potential causal mechanisms for conservation are insufficiently explored in research. With these research gaps in mind, this paper aimed to determine, from the perspective of the local communities, what further benefits would improve positivity towards nature conservation at three protected areas within South Africa. The findings from each case study were first discussed, followed by cross-case analysis, which aimed to draw common themes, from which recommendations could be gleaned.

Future research could be done in other communities to expand current knowledge on the benefits that improve positivity towards conservation — the benefits that motivate communities to want to have the land under conservation, rather than expropriated for other less-sustainable options.

This research highlighted that it is insufficient to only study beneficiation and what benefits are currently in place. To build a complete puzzle, stakeholders need to know which benefits communities would *like to have in place.* The paper also revealed that intangible benefits are very important to local communities, and, while job provision is something to strive for, the intangibles may be simpler to implement than tangible benefits.

The paper now concludes with several recommendations for tourism and protected area managers. They outline what can be done differently in future to enhance community well-being as well as the conservation of African wildlife and the natural environment that sustains it. These recommendations are applicable beyond the South African and African context, to conservationists and tourism stakeholders in any setting where a protected area borders a rural or peri-urban community, which is economically disadvantaged.

- Offer general education, training and skills development. These are highly visible benefits, which can impact the positivity of local communities towards conservation.
- Provide information on the reserve and keep the neighbouring community informed on what is going on. Ensure that local people are aware of the benefits offered by the presence of tourism in the protected area. Openly discuss limitations on benefits and what can realistically be offered.
- Where possible, increase permanent and contract employment, as this is a dire need and improves positivity towards the protected area. As far as is possible, avoid the employment of non-locals.
- Where development/infrastructure is lacking for the community and tourists, work progressively towards improving this.
- Focus on ways to involve and interact with neighbouring communities. They want to be involved and it helps them to understand conservation better and their role in

it. For example, attend community meetings; take school children into the reserve; and organise community clean-up campaigns.
- Positivity builders can be a combination of tangibles (such as employment and infrastructure) and intangibles (such as interaction, involvement, information and education). For cash strapped protected areas, offering intangibles may be more achievable than tangibles and goes a long way towards improving attitudes concerning protected areas.

By asking the right questions, tourism and conservation stakeholders can find out which benefits, if present, would improve the positivity of local communities towards conservation. Having this knowledge, and acting on it, is essential for two key reasons—enhancing community well-being and safeguarding Africa's wild spaces.

Acknowledgements The communities who participated in the research relating to this paper are gratefully acknowledged. I wish to thank the supervisors of my PhD in Environmental Management, from which this work originates, Prof Kevin Mearns and Prof Ciné van Zyl, for their invaluable guidance. Thank you to the University of South Africa for funding provided through its Academic Qualification Improvement Programme.

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Committed and Non-committed Policy Regimes in a Sequential Mixed Hotel Duopoly

Flávio Ferreira, Fernanda A. Ferreira, and Paula Odete Fernandes

Abstract This paper highlights the effects of corporate social responsibility (CSR) on the strategic choice of pollution abatement and on the timing of the government's commitment to the environmental tax policy, in the hotel industry. To do this, we consider a competition between one consumer-friendly hotel and one for-profit hotel, and two policy regimes (commitment and non-commitment), with two different timings of the government's decision about environmental taxation. Hotels choose pollution abatement investments sequentially and outputs simultaneously. We show that with a high degree of consumer-friendliness, the committed environmental tax is lower than the non-committed one. We also show that although the environmental damage may be less under the non-committed policy regime, social welfare is always better under the committed policy regime. In addition, we examine the changes in the degree of CSR on the equilibrium results.

Keywords Pollution abatement · Commitment · Environmental policy · Consumer-friendly hotel

JEL Classification L83 · Z30

F. Ferreira (✉) · F. A. Ferreira
School of Hospitality and Tourism, Applied Management Research Unit (UNIAG), Polytechnic Institute of Porto, Rua D. Sancho I, 981, 4480-876 Vila do Conde, Portugal
e-mail: fff@esht.ipp.pt

F. A. Ferreira
e-mail: faf@esht.ipp.pt

P. O. Fernandes
Applied Management Research Unit (UNIAG), Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal
e-mail: pof@ipb.pt

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_5

1 Introduction and Literature Review

Climate change is the greatest environmental threat we face as human beings. With the global climate warming and environmental pollution increasing, more people have been paying attention to improve environmental quality by reducing pollution. Furthermore, recently, corporate social responsibility (CSR) becomes much popular in economic activities, instead of the usual profit maximization objective function of a private firm, that is community welfare has been adopted as an important business routine. Several firms have introduced green innovation as the innovation that emphasizes environmental waste reduction, prevention of pollution and implementation of environmental management to ensure ecological well-being.

The three key areas of environmental impact from the accommodation industry are energy, water and waste. The environmental impact from staying in hotels is quite astounding. According to McCormick (2012), hotels contribute 60 million tons of CO_2 emissions annually due to wasteful practices and oblivious guests. Yet, if all the hotels in the USA were to go green, reducing their emissions by just 10%, it would be the same as planting 1.1 million acres of pine trees.

Recent works on CSR in tourism and hospitality can be found in Benavides-Velasco et al. (2014), Farrington et al. (2017) and Font and Lynes (2018), among others.

Environmental organizations and many economists agree that a key tool for fighting climate change is environmental taxation. According to the statistical framework developed jointly in 1997 by Eurostat, the European Commission, the Organisation for Economic Cooperation and Development (OECD) and the International Energy Agency (IEA), environmental taxes are *those whose tax base consists of a physical unit (or similar) of some material that has a negative, verified and specific impact on the environment*. Environmental taxes have been used by governments to influence the green consumerism and the environmentally friendly behavior of producers and consumers.

The effects of environmental taxes differ in EU countries, environmental taxes systems vary, and tax policies in this scope are also different. According to Eurostat (2020), in 2019, the governments in the EU collected environmental tax revenue of EUR 330.6 billion, representing 2.4% of EU GDP and 5.9% of total EU government revenue from taxes and social contributions (TSC). Across the EU, the environmental tax revenue-to-GDP ratios ranged in 2019 from 1.4% (Ireland) to 3.9% (Greece). The environmental taxes to TSC ratios also varied across the EU Member States, with Bulgaria (10.3%) reporting the largest shares of environmental taxes in TSC and Germany and Luxembourg the lowest (both 4.4%). However, pollution and resource taxes account for a very small portion of the environmental tax revenue, and they group a variety of taxes, levied, e.g., on waste and water pollution.

The ability of a regulator (government) to commit credibly to an environmental policy is important to support the higher social welfare levels associated with a committed policy (see, for example, Requate and Unold (2003) and D'Amato and Dijkstra (2015)). Ferreira and Ferreira (2017) studied, in both mixed and privatized markets, trade and environmental policies in an international duopoly serving two countries, with pollution abatement (see also Ohori (2004)). Poyago-Theotoky and Teerasuwannajak (2002) and Moner-Colonques and Rubio (2015), among others, analyzed, in a profit-maximizing oligopoly, environmental taxation under the time inconsistency problem when the regulator is not able to commit credibly and showed that firms undertake increased abatement activities generating less pollution, which might result in higher social welfare. Leal et al. (2018) complemented these research studies by examining the interplay between the strategic choice of abatement technology and the timing of the government's commitment to the environmental policy, in a market in which a consumer-friendly firm competes with a for-profit firm. They studied both committed and non-committed policy regimes. In the first case, the regulator sets the environmental tax and then the firms choose pollution abatement investments. In the second case, firms first set their pollution abatement investments and then the regulator chooses the environmental tax. In specific, in each policy regime, the situation is modeled as a three-stage game. In the committed policy regime, the regulator sets the environmental tax and then the firms choose pollution abatement investments simultaneously. In the non-committed policy regime, firms first set, simultaneously, their pollution abatement investments and then the regulator chooses the environmental tax. Finally, in both regimes, firms choose outputs, simultaneously, in the third stage.

In this paper, we investigate the same question by considering sequential, instead of simultaneous, decisions at the pollution abatement investments stage, in both policy regimes. We examine the changes in the degree of CSR on the equilibrium results. Two of our main findings are as follows: Under the committed policy regime, the degree of consumer-friendliness increases the environmental tax rate. Furthermore, both environmental damage and social welfare are simultaneously increasing or decreasing depending on the degree of consumer-friendliness. Under the non-committed policy regime, the degree of consumer-friendliness increases the environmental tax rate and decreases the environmental damage.

Recently, Xu et al. (2016) and Lee and Xu (2018) also developed research works on mixed markets with environmental taxation.

This paper is organized as follows: The model is established in the next section. In Sect. 3, we examine committed and non-committed policy regimes, present the respective results, and we also provide a comparison between both regimes. Finally, the conclusions of this paper are presented in Sect. 4.

2 Methods

In this paper, we establish a market competition composed by two hotels with different objectives. One is a consumer-friendly (CF) hotel (hereafter referred to as hotel H_1) that cares for not only its profit but consumer surplus. The other is a for-profit (FP) hotel (hereafter referred to as hotel H_2) that aims to maximize only its profit. The inverse demand function is linear, given by $p = A - Q$, where A

is a constant that represents the theoretically highest price in the market, or the total market size, p is the market price, q_1 and q_2 denote the hotels' outputs and $Q = q_1 + q_2$. Without loss of generality, each hotel has the same quadratic cost function $c(q_i) = \frac{1}{2}q_i^2$, $i \in \{1, 2\}$.

We assume that the hotels' activity leads to environmental pollution, $e_i > 0$, but each hotel can reduce the level of pollution to $e_i = q_i - a_i$ by investing an amount of $\frac{1}{2}a_i^2$ in abatement. The resulting environmental damage is given by $ED = \frac{(e_1+e_2)^2}{2}$, where the marginal environmental damage is $MED = e_1 + e_2$. The government imposes an environmental tax t per unit of pollutants emitted. The government's tax revenue is $T = t(e_1 + e_2)$. Then, the profit function π_i of hotel H_i is

$$\pi_i = pq_i - \frac{1}{2}q_i^2 - te_i - \frac{1}{2}a_i^2, \tag{1}$$

We assume that CF hotel H_1 aims to maximize its profit plus a fraction of consumer surplus (CS):

$$V = \pi_1 + \theta CS, \tag{2}$$

where $CS = \frac{Q^2}{2}$ and the parameter $\theta \in [0, 1]$ indicates the weight assigned to the consumer. The FP hotel H_2 seeks only for its profit maximization π_2.

The social welfare W is defined as the sum of consumer surplus, the profits of both hotels and tax revenue, minus environmental damage:

$$W = CS + \pi_1 + \pi_2 + T - ED. \tag{3}$$

We examine two alternative scenarios: (i) committed and (ii) non-committed policy regime. The proposed methodology consists of modeling the non-cooperative competition using game theory concepts. In each regime, the model is a fourth-stage game. In the committed policy regime, the game runs as follows:

- In the first stage, a welfare-maximizing regulator sets the environmental tax;
- In the second stage, the CF hotel H_1 chooses pollution abatement investment;
- In the third stage, the FP hotel H_2 chooses pollution abatement investment;
- In the fourth stage, both hotels select outputs simultaneously.

In the non-committed policy regime, the game runs as follows:

- In the first stage, the CF hotel H_1 chooses pollution abatement investment;
- In the second stage, the FP hotel H_2 chooses pollution abatement investment;
- In the third stage, a welfare-maximizing regulator sets the environmental tax;
- In the fourth stage, both hotels select outputs simultaneously.

3 Results

In this section, we calculate the explicit solution of the game analytically, for each policy regime. We solve the game by backward induction to obtain the subgame perfect Nash equilibrium.

The Committed Policy Regime

In the fourth stage, the CF hotel H_1 chooses its output level q_1 to maximize its objective function V, and the FP hotel H_2 chooses its output level q_2 to maximize its own profit π_2. The equilibrium is determined by the first-order optimal conditions $\frac{\partial V}{\partial q_1} = 0$ and $\frac{\partial \pi_2}{\partial q_2} = 0$. So, the equilibrium output level of each hotel and total outputs are:

$$q_1 = \frac{(1-t)(2+\theta)}{2(4-\theta)}, q_2 = \frac{(1-t)(2-\theta)}{2(4-\theta)}, Q = \frac{2(1-t)}{4-\theta}. \tag{4}$$

Note that CF hotel's output is greater than FP hotel's output. If the concern on consumer surplus rises, the CF hotel is more aggressive and thus increases its output while the FP hotel decreases the output. The overall effect is an increase in the aggregate output.

In the third stage, the FP hotel H_2 decides pollution abatement investment by setting the pollution abatement level a_2, which maximizes its own profit π_2. Putting the results above into π_2 defined by (1), the first-order optimal condition $\frac{\partial \pi_2}{\partial a_2} = 0$ gives $a_2 = t$.

In the second stage, the CF hotel H_1 decides pollution abatement investment by setting the pollution abatement level a_1, that maximizes its payoff function V. Putting the results above into the payoff function V defined by (2), the first-order optimal condition $\frac{\partial V}{\partial a_1} = 0$, gives $a_1 = t$.

Finally, in the first stage, the government sets the environmental tax that maximizes social welfare W. Using the results above into (3), and solving $\frac{\partial W}{\partial t} = 0$, we get[1]

$$t^C = \frac{36 - 4\theta + \theta^2}{276 - 112\theta + 13\theta^2}. \tag{5}$$

Note that as CF hotel H_1 cares more for consumer surplus, the environmental tax will be higher.

The equilibrium outputs of the hotels and total market are as follows:

$$q_1^C = \frac{6(5-\theta)(2+\theta)}{276 - 112\theta + 13\theta^2}, q_2^C = \frac{6(5-\theta)(2-\theta)}{276 - 112\theta + 13\theta^2}, Q^C = \frac{24(5-\theta)}{276 - 112\theta + 13\theta^2}.$$

The equilibrium abatement and emission levels are as follows:
$a_1^C = a_2^C = \frac{36-4\theta+\theta^2}{276-112\theta+13\theta^2}, e_1^C = \frac{24+22\theta-7\theta^2}{276-112\theta+13\theta^2}, e_2^C = \frac{24-38\theta+5\theta^2}{276-112\theta+13\theta^2}.$

[1] Throughout the paper we use the notation superscript C to refer to the committed policy regime.

Note that both hotels make the same abatement effort. However, the CF hotel's emission level is larger than that of the FP hotel's.

Finally, the profits of the hotels, environmental damage and social welfare are obtained:

$$\pi_1^C = \frac{12096 - 82208\theta - 2540\theta^2 + 1648\theta^3 - 179\theta^4}{2\left(276 - 112\theta + 13\theta^2\right)^2},$$

$$\pi_2^C = \frac{12096 - 154408\theta + 7540\theta^2 - 1520\theta^3 + 109\theta^4}{2\left(276 - 112\theta + 13\theta^2\right)^2},$$

$$MED^C = \frac{2\left(24 - 8\theta - \theta^2\right)}{276 - 112\theta + 13\theta^2}, \; ED^C = \frac{2\left(24 - 8\theta - \theta^2\right)^2}{\left(276 - 112\theta + 13\theta^2\right)^2},$$

$$W^C = \frac{3\left(24 - 8\theta - \theta^2\right)}{276 - 112\theta + 13\theta^2}.$$

It is straightforward to show the result presented in Proposition 1 below, which means that, under the committed policy regime, the profit of the CF hotel is always higher than the profit of the FP hotel.

Proposition 1 Under the committed policy regime, $\pi_1^C - \pi_2^C > 0$, for all $\theta \in [0, 1]$.

It is also straightforward to show that

$$t^C - MED^C = \frac{-3\left(4 - 4\theta - \theta^2\right)}{276 - 112\theta + 13\theta^2} \begin{cases} < 0, & 0 < \theta < 2\sqrt{2} - 2 \\ > 0, & 2\sqrt{2} - 2 < \theta < 1 \end{cases}$$

$$\frac{\partial t^C}{\partial \theta} = \frac{12\left(244 - 32\theta - 5\theta^2\right)}{\left(276 - 112\theta + 13\theta^2\right)^2} > 0$$

$$\frac{\partial ED^C}{\partial \theta} = \frac{96\left(24 - 8\theta - \theta^2\right)\left(20 - 49\theta + 9\theta^2\right)}{\left(276 - 112\theta + 13\theta^2\right)^3} \begin{cases} > 0, & 0 < \theta < \frac{4}{9} \\ < 0, & \frac{4}{9} < \theta < 1 \end{cases}$$

$$\frac{\partial W^C}{\partial \theta} = \frac{72\left(20 - 49\theta + 9\theta^2\right)}{\left(276 - 112\theta + 13\theta^2\right)^2} \begin{cases} > 0, & 0 < \theta < \frac{4}{9} \\ < 0, & \frac{4}{9} < \theta < 1 \end{cases}$$

Then, we obtain the following propositions.

Proposition 2 Under the committed policy regime, with a low (respectively, large) degree of consumer-friendless, the optimal environmental tax is lower (respectively, higher) than marginal environmental damage.

Proposition 3 Under the committed policy regime, the degree of consumer-friendliness increases the environmental tax rate. Furthermore, both environmental damage and social welfare are simultaneously increasing or decreasing depending on the degree of consumer-friendliness.

The Non-committed Policy Regime

The fourth stage in the non-committed policy regime is the same as in the previous segment. In the third stage, the government sets the environmental tax that maximizes social welfare W. Putting the results (4) into W defined by (3), the first order optimal condition $\frac{\partial W}{\partial t} = 0$ gives

$$t = \frac{(2+\theta)^2 - 4(4-\theta)(a_1 + a_2)}{20 + \theta^2}. \tag{6}$$

Note that hotels can strategically choose abatement levels to influence taxation: by increasing investment to reduce emissions, the hotels can expect a lower environmental tax.

In the third stage, the FP hotel sets its abatement effort. By substituting (6) into π_2 given by (1), the first-order condition $\frac{\partial \pi_2}{\partial a_2} = 0$ yields

$$a_2 = \frac{128 + 32\theta + 36\theta^2 + 4\theta^3 + \theta^4 - 4a_1\left(68 - 8\theta + \theta^2 - \theta^3\right)}{992 - 112\theta + 60\theta^2 - 8\theta^3 + \theta^4}. \tag{7}$$

In the second stage, the CF hotel chooses its abatement effort. By substituting (6) and (7) into the objective function V given by (2), the first-order condition $\frac{\partial V}{\partial a_1} = 0$ yields[2]

$$a_1^{NC} = \frac{f_1(\theta)}{f_2(\theta)}, \tag{8}$$

where $f_1(\theta) = 192000 + 2429440\theta - 53120\theta^2 + 22144\theta^3 - 2960\theta^4 + 304\theta^5 + 32\theta^6 - 8\theta^7 + \theta^8$,

$$f_2(\theta) = 2064640 - 8122880\theta + 346304\theta^2 - 88192\theta^3 + 18688\theta^4 - 2800\theta^5 + 332\theta^6 - 24\theta^7 + \theta^8.$$

By substituting (8) into (7), we get

$$a_2^{NC} = \frac{f_3(\theta)}{f_2(\theta)}, \tag{9}$$

[2] Throughout the paper we use the notation superscript NC to refer to the non-committed policy regime.

where
$f_3(\theta) = 213760 - 744496\theta + 93696\theta^2 - 125544\theta^3 + 5760\theta^4 - 624\theta^5 + 112\theta^6 - 8\theta^7 + \theta^8$.

It is straightforward to show the result presented in the following proposition.

Proposition 4 Under the non-committed policy regime,

$$a_1^{NC} - a_2^{NC} \begin{cases} < 0, 0 < \theta < \theta_1 \\ > 0, \ \theta_1 < \theta < 1 \end{cases}, \text{ with } \theta_1 \approx 0.0708.$$

Hence, in contrast to the case in which both hotels decide simultaneously the abatement levels, the FP hotel can be more aggressive investing in abatement technology (if the CF hotel's consumer-friendliness is low).

Now, by substituting (8) and (9) into (6), we get

$$t^{NC} = \frac{f_4(\theta)}{f_2(\theta)}, \tag{10}$$

where
$$f_4(\theta) = 88320 + 196864\theta + 6848\theta^2 + 1600\theta^3 + 2752\theta^4 - 496\theta^5 + 124\theta^6 - 12\theta^7 + \theta^8.$$

Finally, from (4) and (10), the equilibrium outputs and emission levels are achieved:

$$q_1^{NC} = \frac{2(2+\theta) f_5(\theta)}{f_2(\theta)}, q_2^{NC} = \frac{2(2-\theta) f_5(\theta)}{f_2(\theta)}, Q^{NC} = \frac{8 f_5(\theta)}{f_2(\theta)}.$$

where

$$f_5(\theta) = 123520 - 321920\theta + 131168\theta^2 - 2320\theta^3 + 416\theta^4 - 40\theta^5 + 3\theta^6,$$

$$e_1^{NC} = \frac{f_6(\theta)}{f_2(\theta)}, e_2^{NC} = \frac{f_7(\theta)}{f_2(\theta)}$$

where

$$f_6(\theta) = 302080 - 1246720\theta + 41408\theta^2 - 5088\theta^3 - 16\theta^4 + 368\theta^5 - 100\theta^6 + 14\theta^7 - \theta^8$$

$$f_7(\theta) = 280320 - 301312\theta + 23360\theta^2 - 23072\theta^3 + 544\theta^4 - 368\theta^5 - 20\theta^6 + 2\theta^7 - \theta^8.$$

It is straightforward to show that $e_1^{NC} - e_2^{NC} > 0$, for all $\theta \in [0, 1]$. So, we can establish the following proposition.

Proposition 5 Under the non-committed policy regime, the emissions generated by the CF hotel are always higher than the emissions generated by the FP hotel.

Note that this result is different from the one got by Leal et al. (2018), which states that the CF hotel can generate less emissions than the FP hotel.

Finally, we obtain hotel's profits, environmental damage and social welfare at equilibrium:

$$\pi_1^{NC} = \frac{f_8(\theta)}{2(f_2(\theta))^2}, \pi_2^{NC} = \frac{f_9(\theta)}{2(f_2(\theta))^2},$$

where

$$\begin{aligned} f_8(\theta) = & 729396019200 - 6006262988880\theta + 782649262208\theta^2 + 264650096640\theta^3 \\ & -457682575360\theta^4 + 207598755584\theta^5 - 72979691520\theta^6 + 18753433600\theta^7 \\ & -3950195200\theta^8 + 655636480\theta^9 - 87530240\theta^{10} + 8739840\theta^{11} - 597280\theta^{12} \\ & +14240\theta^{13} + 1960\theta^{14} - 240\theta^{15} + \theta^{16}, \end{aligned}$$

$$\begin{aligned} f_9(\theta) = & 724410368000 - 10112224460800\theta + 7152455188480\theta^2 - 3158649405440\theta^3 \\ & +1252925890560\theta^4 - 370305146880\theta^5 + 98204436480\theta^6 - 21205667840\theta^7 \\ & +4040744960\theta^8 - 637634560\theta^9 + 87869440\theta^{10} - 9875200\theta^{11} + 947680\theta^{12} \\ & -71840\theta^{13} + 4840\theta^{14} - 240\theta^{15} + \theta^{16}, \end{aligned}$$

$$MED^{NC} = \frac{2f_{10}(\theta)}{f_2(\theta)}, ED^{NC} = \frac{2(f_{10}(\theta))^2}{(f_2(\theta))^2}, W^{NC} = \frac{f_{11}(\theta)}{(f_2(\theta))^2}$$

where

$$f_{10}(\theta) = 291200 - 2129920\theta + 323840\theta^2 - 140800\theta^3 + 2640\theta^4 - 600\theta^6 + 80\theta^7 - \theta^8,$$

$$\begin{aligned} f_{11}(\theta) = & 1096975974400 - 7352873779200\theta + 3314099486720\theta^2 - 1379014737920\theta^3 \\ & +348463104000\theta^4 - 106614538240\theta^5 + 19390924800\theta^6 - 4606361600\theta^7 \\ & +654433280\theta^8 - 113108480\theta^9 + 9413120\theta^{10} - 633600\theta^{11} - 161280\theta^{12} \\ & +34560\theta^{13} - 5880\theta^{14} + 480\theta^{15} - 3\theta^{16}. \end{aligned}$$

It is straightforward to show the result presented in Proposition 6 below, which means that, under the non-committed policy regime, the profit of the CF hotel is higher (respectively, lower) than the profit of the FP hotel, if the CF hotel's consumer-friendliness is not so high (respectively, high).

Proposition 6 Under the non-committed policy regime,

$$\pi_1^{NC} - \pi_2^{NC}\begin{cases} > 0, 0 < \theta < \theta_2 \\ < 0,\ \ \theta_2 < \theta < 1 \end{cases}, \text{ with}\, \theta_2 \approx 0.980.$$

It is also straightforward to show that

$$t^{NC} - MED^{NC}\begin{cases} < 0,\ \ 0 < \theta < \theta_3 \\ > 0,\ \ \theta_3 < \theta < 1 \end{cases}, \text{ with}\, \theta_3 \approx 0.828,$$

$$\frac{\partial t^{NC}}{\partial \theta} > 0,\ \ \frac{\partial ED^{NC}}{\partial \theta} < 0,$$

$$\frac{\partial W^{NC}}{\partial \theta}\begin{cases} > 0,\ \ 0 < \theta < \theta_4 \\ < 0,\ \ \theta_4 < \theta < 1 \end{cases}, \text{ with}\, \theta_4 \approx 0.454.$$

Then, we can state the following propositions.

Proposition 7 Under the non-committed policy regime, with a low (respectively, large) degree of consumer-friendless, the optimal environmental tax is lower (respectively, higher) than marginal environmental damage.

Proposition 8 Under the non-committed policy regime, the degree of consumer-friendliness increases the environmental tax rate and decreases the environmental damage. Furthermore, the effects of consumer-friendliness on social welfare depend on its level.

Comparisons

In this segment, we compare the equilibrium results that we got in both committed and non-committed policy regimes.

Proposition 9

$$t^{C} - t^{NC}\begin{cases} > 0, 0 < \theta < \theta_5 \\ < 0,\ \ \theta_5 < \theta < 1 \end{cases}, \text{ with}\, \theta_5 \approx 0.931.$$

Note that the committed environmental tax can be lower than the non-committed one. This result is different from the corresponding one for the case in which both hotels decide simultaneously the abatement investments (see Leal et al. (2018)).

Proposition 10

$$a_1^{C} - a_1^{NC}\begin{cases} > 0, 0 < \theta < \theta_6 \\ < 0,\ \ \theta_6 < \theta < 1 \end{cases}, \text{ with}\, \theta_6 \approx 0.320,$$

$$a_2^{C} - a_2^{NC} > 0,\ \text{for all}\, \theta \in [0, 1].$$

Note that abatement investments made by CF hotel are higher (respectively, lower) under the committed policy regime than under the non-committed policy regime, for low (respectively, high) consumer-friendliness. However, abatement investments made by FP hotel are always higher under the committed policy regime than under the non-committed one.

Proposition 11

$$\pi_1^C - \pi_1^{NC} \begin{cases} < 0, 0 < \theta < \theta_7 \\ > 0, \ \theta_7 < \theta < 1 \end{cases}, \text{ with } \theta_7 \approx 0.417,$$

$$\pi_2^C - \pi_2^{NC} \begin{cases} < 0, 0 < \theta < \theta_8 \\ > 0, \ \theta_8 < \theta < 1 \end{cases}, \text{ with } \theta_8 \approx 0.437.$$

Note that both hotels earn higher profits under the non-committed policy regime if the consumer-friendliness is low.

Proposition 12

$$ED^C - ED^{NC} \begin{cases} < 0, 0 < \theta < \theta_9 \\ > 0, \ \theta_9 < \theta < 1 \end{cases}, \text{ with } \theta_9 \approx 0.766,$$

$$W^C - W^{NC} > 0, \text{ for all } \theta \in [0, 1].$$

Note that the environmental damage under the committed policy regime is smaller (respectively, larger) than under the non-committed policy regime, for low (respectively, high) consumer-friendliness. Furthermore, social welfare is always higher under the committed policy regime.

4 Conclusion

This paper addressed the effects of corporate social responsibility on the strategic choice of pollution abatement and on the timing of the government's commitment to the environmental tax policy, in the hotel industry. We studied a competition between one consumer-friendly hotel and one for-profit hotel under two policy regimes (commitment and non-commitment), with two different timings of the government's decision about environmental taxation. In each regime, the model was treated as a four-stage game, in which the government decides the environmental tax and both hotels set pollution abatement investments sequentially and outputs simultaneously. From the study, we conclude that both hotels earn higher profits under the non-committed policy regime if the consumer-friendliness is low. Under the committed policy regime, the degree of consumer-friendliness increases the environmental tax rate. Furthermore, both environmental damage and social welfare are simultaneously increasing or decreasing depending on the degree of consumer-friendliness. Under the non-committed policy regime, the degree of consumer-friendliness increases the environmental tax rate and decreases the environmental damage.

We also showed that, with a high degree of consumer-friendliness, the committed environmental tax is lower than the non-committed one. Furthermore, although the environmental damage may be less under the non-committed policy regime, social welfare is always better under the committed policy regime. These conclusions are contrary to those under simultaneous decisions at the pollution abatement investments level.

Acknowledgements This article is a result of the project "GreenHealth—Digital strategies in biological assets to improve well-being and promote green health" (Norte-01-0145-FEDER-000042), supported by North Portugal Regional Operational Programme (NORTE 2020), under the PORTUGAL 2020 Partnership Agreement, through the European Regional Development Fund (ERDF).

We are also grateful to the Foundation for Science and Technology (FCT, Portugal) for financial support by national funds FCT/MCTES to UNIAG, under the Project number UIDB/04752/2020.

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Evaluating Economic Sustainability of Nautical Tourism Through Brand Equity and Corporate Performance

Eleonora Santos, Ines Lisboa, Catia Crespo, Jacinta Moreira, and Teresa Eugenio

Abstract Previous literature has validated the effect of brand equity on firm's value through the impact of measures of perceived quality and brand loyalty on customer value and willingness to buy. Simultaneously, understanding how sustainable tourism can be developed is important for destinations, to identify regional policies, and to potentiate its attractiveness to tourists that are increasingly looking for nautical activities in close contact with nature. Thus, this paper compares the performance of nautical tourism firms in the Centro Region of Portugal, to assess the economic sustainability of those firms. Bearing this in mind, the sample of 51 firms is split into those with a brand and the brandless firms to evaluate the impact of brand equity on corporate performance. The analysis is drawn on the concept of firms' economic and financial performance, which is measured by a set of indicators of profitability, financial structure, and leverage, constructed from companies' financial reports from SABI database for 2015–2019. Data on touristic firms operating in the Centro Region are collected from the National Tourism Registry. Results show that brand impacts positively on corporate performance and, thus, increases the economic sustainability of these firms.

Keywords Brand equity · Nautical tourism · Corporate performance · Economic sustainability · Tourism management

JEL Classification M21 – Business Economics · Z32 – Tourism and Development

1 Introduction

Nautical tourism comprises the navigation of seas, lakes, or rivers with the purpose of recreation and pleasure (Martínez Vázquez et al., 2021). This type of tourism is

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E. Santos (✉) · I. Lisboa · C. Crespo · J. Moreira · T. Eugenio
CARME Centre of Applied Research in Management and Economics, Polytechnic Institute of Leiria, Leiria, Portugal
e-mail: eleonora.santos@ipleiria.pt

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_6

regarded as a strategic product in Portugal, due to the country's exceptional coastline with potential for surfing and other nautical activities and the infrastructural conditions for tourist cruises.

Thus, nautical tourism has grown in popularity and captured practitioners' interest and has become increasingly important given its economic impacts (Bell et al., 2007).

In addition, nautical tourism is expected to meet sustainability standards because it emphasizes the provision of opportunities for tourists to learn and develop a more positive attitude towards environmental resources (Ocampo et al., 2018). This recognition creates opportunities to extend the existing knowledge about the impacts of nautical tourism activities by approaching these activities from a supply perspective. Indeed, understanding and researching nautical tourism are critical to destinations and firms' marketing strategies and sustainable tourism development.

Previous literature shows that firms operating in nautical tourism activities are more economically sustainable than other firms operating in outdoor tourism activities, i.e., in nature/adventure or cultural tourism activities in the Northern Region of Portugal (Santos et al., 2019). Furthermore, empirical studies have validated the effect of brand equity on the value of the firm, through the impact of measures of perceived quality and brand loyalty on customer value and willingness to buy (Baldauf et al., 2003). Indeed, the creation of strong brands is at the base of the performance of any company in the market, being even one of the priority tasks of marketing as the brand, together with customers, currently constitutes one of the most important (intangible) assets for the company (Keller & Lehmann, 2006).

On inland waterways, nautical activities such as sport fishing or sailing on lakes or nature reserves represent a complementary tourist offer. Yet, the coastal areas offer additional opportunities because, in addition to the complementary tourist activities, the nautical structures can provide tourist accommodations. In this context, the Centro Region has an extensive Atlantic coast, which is perfect for nautical tourism, with calm waters, beautiful landscape, sand dunes, and beaches, the perfect setting for this kind of tourism (https://www.nauticalportugal.com/). The region concentrates 22% of spaces for mooring recreational vessels, of which nautical tourism ports represent 41% of national total. Thus, this paper analyses and compares the performance of nautical tourism firms with brand in the Centro Region of Portugal with those without brand, to assess the economic sustainability of those firms. The analysis is drawn on the concept of firms' economic and financial performance, which is measured by a set of indicators of profitability, financial structure, and leverage, constructed from companies' financial reports from SABI data base for 2015–2019.

In what follows, Sect. 2 presents the empirical literature. Section 3 describes data sources and methodology; Sect. 4 presents the results and its discussion; and, finally, Sect. 5 provides the concluding remarks and regional policy implications.

2 Brand Equity, Corporate Performance, and Economic Sustainability

Consumers remember a brand more easily than the products/services or even the company that owns it. It follows that the value of the brand rises as one of the constructs that has most aroused the curiosity of marketing experts since it has associated with it a set of benefits both for the company and for the consumer. In fact, in the last 20 years, there has been a considerable increase in research on the value of the brand, despite the origin of the concept being centered in the 1980s, representing one of the priority research topics of the Marketing Science Institute (Aaker, 1996; Erdem & Swait, 1998). In its origin, the brand was used to identify the property or origin of the products/services (Kotler, 1997) or to increase the perceived value of products/services through the associations it held (Farquhar, 1989). According to the American Marketing Association (AMA, 2021), a brand means a name, term, design, symbol, or any other aspect or combination of several that identifies and distinguishes a product or service of a company from its competitors. For Kapferer (2004), the brand refers to a set of several elements, namely a multi-sign, that is, a name, a graphic identity, or a symbol, which is associated with one or more products and/or services that, in turn, hold a promise of quality, safety, and relevance in relation to their substitutes. The brand is a critical success factor and an engine of competitive advantage for organizations, in addition to being the main element of differentiation (and remembrance) among consumers, and thus a decision factor. The construction of the brand must be focused on the development of the brand value (Guzmán, 2004), i.e., the added value that is transferable to its products/services. Therefore, the brand value is a quantifiable construct that has associated benefits for both companies and consumers (Shankar et al., 2007).

The concept of brand equity has been widely explored from the perspective of the company (financial perspective) and of the consumer (marketing perspective). According to the financial perspective, brand equity is an intangible asset with effects in terms of cash flows, company shares, company's assets, and sales. Recognizing brands on the company's financial statement as an identifiable intangible asset was a relatively recent development in financial reporting (Seetharaman et al., 2001). Several authors study intangible assets in different perspectives (e.g. Lhaopadchan, 2010) with the purpose of intangible asset valuation and understand what the intangible asset is and how it affects the bottom line of the business; Nguyen (2021) examines key factors that affect intangible asset holdings of foreign subsidiaries of multinational enterprises (MNEs); Ferdaous and Rahman (2019) explore the relationship between intangible assets and firm performance). The brand represents, therefore, a good, which can be acquired or sold for a certain value. In turn, the marketing perspective regards brand equity as a value delivered to customers/consumers using the brand, capable of providing financial return to the company. This value results from the marketing investments made in the positioning and communication of the company brand and its sale. Hence, a brand with higher value can promote a greater number of favorable responses from consumers (perceptions, preferences, and behaviors) when compared to an inferior brand equity (Keller & Lehmann, 2006). AMA (2021) states that brand equity results from consumers' attitudes towards the positive attributes of the brand.

According to Farquhar (1989), the higher the value of a brand, the more resistant it is in relation to attacks by competitors and moments of crisis, and the lower the perceived risk for customers, in addition to creating more barriers to the entry of other brands in the market.

Thus, literature has demonstrated that brand equity positively influences firm performance (Kirk et al., 2013; Rahman et al., 2019; Wang et al., 2015). The theoretical underpinning of this relationship has been mostly associated with the resource-based view (Rahman et al., 2019; Wang & Sengupta, 2016). According to the resource-based view, firms possess a bundle of resources that can be used and combined to create competitive advantage (Barney, 1991). Resources are perceived as strategic to create competitive advantage in the market when they are rare, valuable, inimitable, and non-substitutable (Barney et al., 2001). Among the different types of a firm's strategic resources, brand equity is widely considered as one of the most important due to its valuable, inimitable, and non-substitutable characteristics (Rahman et al., 2019; Wang et al., 2015). Consequently, brand equity is perceived as a key strategic resource and as one of the most relevant determinants of firm performance (Wang & Sengupta, 2016). Brand equity reflects different strategic advantages that accrue to the brand, which occur when consumers respond more favorably to the brand's actions, compared to its competitors (Wang & Sengupta, 2016). Strong brands often create reliable and credible quality signals than can attract many potential customers (Wang et al., 2021). Therefore, better-performing firms are associated with stronger customer-based brand equity (Tsai et al., 2010). The brand equity dimensions can create competitive advantage in many ways, and consequently leverage the firm's performance (Rahman et al., 2019). For example, a high level of brand awareness can reduce customers' search costs and strengthen repeat purchases (Johansson et al., 2012). A strong level of brand loyalty can make customers less sensitive to competitors' marketing actions, reduce comparative shopping actions, and protect a brand from competitors (Vomberg et al., 2015). Moreover, perceived quality can positively enhance customers' satisfaction (Johansson et al., 2012). Additionally, products or services with strong brand equity are more prone to achieve and maintain a premium price compared to ones with low brand equity (Steenkamp, 2014), as well as to obtain a stable revenue stream (Rahman et al., 2019). Therefore, brand equity can be considered as an important antecedent of firm performance (Wang et al., 2015).

Several authors have investigated sustainability accounting (Gray, 2019; Kwakye et al., 2018; Lamberton, 2005). Some studies focus on companies that introduce in their strategy the concept of triple bottom line. In which the three dimensions are present in decision-making: economic, environmental, and social (Adams & Kuasirikun, 2000; Cho, 2009). In fact, measuring sustainability requires some elements based on the economic, ecological, and societal subjects (Epstein, 2008). The purpose of sustainability indicators for industries is to measure firms' economic, environmental, and social performance by providing information on how it contributes to sustainable development (Azapagic & Perdan, 2000). On economic grounds, management accounting techniques assist managers to plan and control firms' activities to maximize their profits. These techniques allow to report economic performance of the organization to the shareholders (Dutescu et al., 2014).

The link between sustainability and corporate financial performance has been an extensively debated topic. Sustainability indicators should be simple with a wide scope, quantifiable, sensitive to changes and allow for the tracking of longer-term trends and thus enabling the of making short-term projections and relevant decisions for the future (Harger & Meyer, 1996). Traditional sustainability measurement tools include non-integrated, regional, and integrated indicators/indices. Examples of non-integrated indicators include water quality, national education levels, population growth rates, Gross National Product (GNP) per capita, and the number of ratified global agreements (UNCSD, 2001). Regional flow indicators are non-integrated as they only focus on environmental aspects. Analysis of material and energy flows allows an overview of the structure of resource flows and identification of inefficiencies within a system (Anderberg et al., 2000). Regarding integrated indicators, a range of alternative measurement tools have been conceived, due to the shortcomings of Gross Domestic Product (GDP) not taking environmental considerations into account. A detailed description of many of these indicators along with assessment results can also be found in Hanley et al. (1999). At corporate level, one of the most used methods to determine the overall performance, measured through financial analysis is the financial statements analysis and ratio analysis (Borovčanin, 2015). The financial analysis of a firm may be performed for a diversity of reasons, for example valuing equity securities, assessing credit risk, or assessing a subsidiary's performance. Financial analysis tools can be useful in measuring firms' performance and trends in that performance. Basically, analysts convert data into financial metrics that assist in decision-making, trying to respond to such questions as: How effectively has the firm performed, relative to its own past performance and/or relative to its competitors? How is the firm liable to perform in the future? Grounded on expectations about future performance, what is the value of this firm?

The International Accounting Standards Board (IASB, 2010) issued the Conceptual Framework that superseded the Framework for the Preparation and Presentation of Financial Statements. According to this document, the general purpose of financial reports is to provide information about the financial position of a reporting entity, which is information about the entity's economic resources and the claims against the reporting entity. Financial reports also provide information about the effects of transactions and other events that change a reporting entity's economic resources and claims. Both types of information provide useful input for decisions about providing resources to an entity. A complete set of financial statements comprises: (a) a statement of financial position (balance sheet) as at the end of the period; (b) a statement of profit and loss (income statement) and other comprehensive income for the period; (c) a statement of changes in equity for the period; (d) a statement of cash flows for the period; (e) notes, comprising a summary of significant accounting policies and other explanatory information; and (f) a statement of financial position as at the beginning of the earliest comparative period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its financial statements, or when it reclassifies items in its financial statements.

Financial statements comprise data about the past performance of a firm (income and cash flows) along with its present financial condition (assets, liabilities, and equities—presented in balance sheet). The financial analyst must be proficient in using financial statements combined with other information to reach valid conclusions and make predictions (Back, 2005; Guay et al., 2016; Holt, 2004). A key source of data is firms' annual reports, comprising the financial statements and management commentary (operating and financial review or management's discussion and analysis). The analysis of financial reports is an important instrument for the assessment of business strengths and weaknesses (Carmeli, 2002). The importance of traditional financial ratios in assessing firm financial health is conventional. Accounting information regarding profitability, liquidity, and indebtedness is critical to measuring financial performance (Wu et al., 2010). Indeed, studies show that firms with relatively lower earnings, larger declines in operating income and high debt-to-asset ratios are more likely to experience bankruptcy. In the private sector, models predicting deteriorating financial conditions typically include accounting data.

3 Data Sources and Methodology

This paper focuses on Portuguese firms operating in nautical tourism in the Centro region.

According to the database from the National Tourism Registry, there are 80 agents operating in nautical tourism in the Centro Region. However, a search in SABI database (where the data was collected) delivered only 55 firms. The reason for such discrepancy is because SABI only contains firms and not entrepreneurs. After data cleaning procedures to eliminate firms with all blank cells, we end up with an unbalanced sample of 51 firms with a total of 255 observations for 2015–2019, 5 years of analysis. SABI is a database with financial information from Spanish and Portuguese companies that contain detailed information. For this study, "business financial information" was used, particularly the information from the financial statements to build the financial ratios. The information about the brand was collected from The National Tourism Registry (RNAAT) and SABI databases. To characterize financial performance of firms from the nautical tourism sector, several ratios are calculated, described, and explained. Four broad financial performance measures are employed, assessing profitability, liquidity, financial structure, and indebtedness. Additionally, a fifth indicator is also considered to deal with brand equity.

Profitability ratios show the firm's efficiency in generating profits. To be viable, a firm must generate enough financial surpluses to absorb all costs.

The ratio of *Return on Equity* (ROE) measures shareholders' return, it means, the firms' ability to efficiently use shareholders' investment to increase profits. The calculation formula is as follows:

$$Return\ on\ Equity\ (ROE) = Net\ Income/Total\ Equity \tag{1}$$

ROE should be positive, otherwise the firm is generating losses, and a high value is desirable because it means that with less use of investors' funds, the firm is able to increase profits.

The ROA shows the firms' ability to generate profits using all its investment. The formula is:

$$Return\ on\ Assets\ (ROA)\ = Net\ Income/Total\ Assets \tag{2}$$

To be efficient, a firm should maximize ROA, meaning that per euro (€) invested in total assets, the firm is able to generate ROA's value profits.

Liquidity ratios give information about the firms' structure of applications and resources. The current ratio is one of the most used ratios, which is calculated as follows:

$$Current\ Ratio\ (CR) = Current\ Assets/Current\ Liabilities \tag{3}$$

The current ratio measures a firm's ability to pay off its short-term debts (within a year) with its short-term investment (current assets). It should be higher than one to show that the firm is in a favorable liquidity situation.

Financial leverage ratios (also known as debt ratios) measure the firm's indebtedness. It compares the overall debt load of a firm with its assets or equity. When liabilities finance most of the assets, the firm is considered highly leveraged, and it is regarded as riskier for creditors. The most common is the debt ratio is calculated as:

$$Debt\ Ratio\ (Debt) = Total\ Liabilities/Total\ Assets \tag{4}$$

The higher this ratio the higher the financial risk involved since the firm will have more debts and less ability to pay off the debt in the future.

4 Results and Discussion

As referred, this paper aims to analyze and compare the performance of nautical tourism firms with brand in the Centro Region of Portugal with those without brand, to assess the economic sustainability of those firms.

The characterization of the sample is presented in Table 1 with the number of firms per year, its characterization by brand equity and by size. Firms are classified into micro, small, and medium enterprises, following the Portuguese law decree number 81/2017. This classification is explained above.

The number of firms per year increased from 2015 till 2018, but then it slightly decreased in 2019. The number of firms with and without brand is similar over the

Table 1 Characterization of the sample

	2015		2016		2017		2018		2019	
	N	# (%)	N	# (%)	N	# (%)	N	# (%)	N	# (%)
Total	37	100	40	100	45	100	45	100	43	100
Panel A: with brand equity?										
Without brand	17	46	20	50	26	58	26	58	23	53
With brand	20	54	20	50	19	42	19	42	20	47
Panel B: by size										
Micro	33	89	37	93	42	93	42	93	39	91
Small	3	8	2	5	2	4	2	4	3	7
Median	1	3	1	3	1	2	1	2	1	2

Source Authors' calculations

sample. While firms with brand remain the same through the period analyzed, from 2015 till 2018, the number of firms without brand increased. Moreover, most of the firms are micro-size firms, i.e., with less than 10 employees whose annual turnover or annual balance sheet total does not exceed EUR 2 million. Only one firm presents median size (employs fewer than 250 persons and either have an annual turnover that does not exceed EUR 50 million, or an annual balance sheet not exceeding EUR 43 million) and there are no large firms. In fact, in Portugal, around 99.9% of firms are SME (Small and Medium Enterprises), which includes micro-firms (Pordata, 2021).

Table 2 presents the mean values of accounting information, namely total assets, and total equity (from balance sheet), turnover and net income (from income statement), and number of employees for the total sample, splitting the sample into firms with brand and brandless firms.

Firms with brand have more total assets, equity, turnover, and employees than firms without brands. However, the analysis of medians shows that the first type of firms shows losses, while firms without brand and less turnover, employees, and total investment (total assets) exhibit profits. These facts suggest that both groups of firms are singular about financial performance.

To assess the economic sustainability of nautical tourism firms, we analyze a set of financial indicators, namely those related to profitability, liquidity, indebtedness,

Table 2 Mean values of main accounting information

	Total assets	Total equity	Net income	Turnover	Employees
Total sample	626.23	208.27	1.04	234.03	4.62
Brandless firms	194.57	64.08	1.95	170.69	3.35
Brand equity firms	1123.97	374.53	− 0.01	307.06	6.09

Total assets, Total equity, Net income, and Turnover are in EUR. Thousand. Number of employees is in number

Source Own analysis in IBM SPSS version 27

Table 3 Basic statics

Variable	Obs	Mean	Median	Std. Dev	Min	Max
ROE	210	−74.37	7.00	780.08	−9962.00	1318.00
ROA	210	−11.85	1.00	75.04	−745.00	67.00
CR	204	11486.83	2.00	163980.37	0.00	2342114.00
Debt	210	106.55	74.00	188.85	0.00	1485.00

ROA Return on assets; *ROE* Return on equity; *CR* Current ratio; *Debt* Debt ratio
Source Own analysis in IBM SPSS version 27

firm's growth, and efficiency, for the whole sample. Table 3 presents the descriptive statistics.

The analysis of the medians shows the following results: (1) Most firms present a negative profitability, i.e., although, there is a wide dispersion over the sample, with firms with high profitability ratios (both ROE and ROA), others show massive losses. Moreover, profitability is positive but low on average (ROE = 7% and ROA = 1%). In other words, shareholders get 0.07€ per 1€ invested (ROE); (2). The current ratio is higher than one, suggesting that most firms have ability to pay their short-term debts (current liquidity) using current assets. The dispersion among the sample is high, with great variation between the minimum and the maximum values: (3) Firms are largely indebted as the debt ratio is over 100%, meaning that liabilities are not only financing investments but also covering losses (negative equity) suggesting that a substantial number of firms experience technical bankruptcy. (4) Total indebtedness is high (74%) suggesting that liabilities are the main sources to finance firms' investment. Moreover, while some firms do not present liabilities, others are over indebted (maximum = 1,485).

Table 4 shows the basic statistics for brand and brandless firms. The Mann–Whitney Test (MW test), nonparametric test, was performed to test if the medians

Table 4 Basic statistics per group of firms

Variable	Group	Mean	Median	Std. Dev	Minimum	Maximum	MW test
ROE	Brandless	−98.84	7.00	990.39	−9962.00	1318.00	0.88
	Brand	−46.40	7.50	432.70	−3065.00	292.00	
ROA	Brandless	−23.02	1.00	99.35	−745.00	66.00	0.32
	Brand	0.92	1.00	23.01	−102.00	67.00	
CR	Brandless	22101.00	2.00	227485.67	0.00	2342114.00	0.26
	Brand	6.20	1.00	32.65	0.00	323.00	
Debt	Brandless	130.28	70.50	253.84	0.00	1485.00	0.14
	Brand	79.44	76.50	41.45	2.00	201.00	

ROA Return on assets; *ROE* Return on equity; *CR* Current ratio; *Debt* Debt ratio
Source Own analysis in IBM SPSS version 27

for both groups of companies are equal (the Kolmogorov–Smirnov analysis shows that the data are not normally distributed).

Results suggest that brand and brandless firms present similar financial situations, since the Mann–Withney test is not statistically significant. Yet, firms with brand show higher ROEs (median values), but less liquidity (CR) and are more indebted (Debt). These facts suggest that brand firms are funding their investment needs through external capital. In turn, current liabilities increased, which explain the smaller current ratio (liquidity). Additionally, the group of brandless firms presents great dispersion (standard deviation), and the difference between the maximum and the minimum values is high. This suggests that the brand impacts positively on corporate performance and, thus, increases the economic sustainability of these firms.

Finally, Table 5 presents the correlation matrix of the variables.

The variable brand is positively correlated at a significant level with turnover, total assets, total equity, and ROA. These facts corroborate the findings that brands increase corporate performance and economic sustainability. Moreover, turnover, total assets, total equity, number of employees, and net income are positively correlated with each other's meaning that to invest (total assets) firms increase shareholders' investment (total equity), its turnover increase, with positive impact on profits. Moreover, firms with greater net income have more ROA, and more ROA decreases firms' indebtedness (debt).

5 Conclusion and Regional Policy Implications

Studies for Portugal show that nautical tourism can be regarded as a strategic product that provides opportunities for regional development by contributing to the valorization of environmental and natural resources, providing a way to decrease seasonality and due to tourists' average level of expenses (Taveira et al., 2020). This paper analyzes and compares the performance of nautical tourism firms with brand in the Centro Region of Portugal with those without brand, to assess the economic sustainability of those firms. The results allow us to conclude that the number of firms per year increased from 2015 till 2018, but then it slightly decreased in 2019. The number of firms with and without brand is similar over the sample. Firms with brand have more total assets, equity, turnover, and employees than firms without brands. However, the analysis of medians shows that the first type of firms shows losses, while firms without brand and less turnover, employees and total investment (total assets) exhibit profits. These facts suggest that both groups of firms are singular about financial performance.

The financial analysis of nautical tourism firms in the Centro Region shows that brand equity is an important factor that impacts positively on corporate performance and economic sustainability, following other literature (Wang & Sengupta, 2016). These results are of relevance for tourism management by disclosing an important way that these firms have to increase their performance. Also, regarding tourism

Table 5 Correlation

	Brand	Turn	T. Assets	T. Equity	N. Emp	NI	ROE	ROA	CR	Debt
Brand	1									
Turn	0.138^{**}	1								
T. Assets	0.237^{***}	0.904^{***}	1							
T. Equity	0.229^{***}	0.662^{***}	0.797^{***}	1						
N. Emp	0.130	0.908^{***}	0.936^{***}	0.652^{***}	1					
NI	−0.021	0.404^{***}	0.334^{***}	0.279^{***}	0.376^{***}	1				
ROE	0.034	0.051	0.033	0.030	0.036	0.016	1			
ROA	0.160^{**}	0.095	0.053	0.064	0.059	0.140^{**}	0.082	1		
CR	−0.067	−0.017	−0.017	−0.012	−0.011	0.005	0.007	0.015	1	
Debt	−0.135	−0.098	−0.068	−0.116	−0.066	−0.081	0.012	-0.527^{***}	−0.026	1

Brand dummy variable that is one when the firm owns a brand, and zero otherwise; *T. Assets* total assets; *T. Equity* total equity; *N. Empl* number of employees; *NI* net income; *ROA* return on assets; *ROE* return on equity; *CR* current ratio; *Debt* Debt ratio
Source Own analysis in IBM SPSS version 27
***, **, and * are significantly different from zero at the 1%, 5%, and 10% level, respectively

planning at regional level, tourism authorities should envisage to promote, disseminate, and advertise firms' branding. In addition, the recent growth in nautical tourism activity in recent decades has caused an imbalance between the number of berths and the number of boats and yachts, especially in Central and Northern Europe. This represents an opportunity for the Portuguese Centro region if there are available berths in the marinas. It is recognized that the Centro Region with an area of 28,199 km^2, the second largest in terms of NUTS II regions in Portugal (surpassed only by the Alentejo), and nearly 280 km of coast, has a good geographical position and navigability conditions. However, despite the recent trend of a substantial increase in the number of floating berths, the national supply is still relatively limited and therefore has a considerable potential for further growth. Avenues of future research include cross-country comparisons and comparisons with other types of Outdoor Tourism (e.g., nature and cultural tourism).

Acknowledgements This paper is financed by National Funds of the FCT—Portuguese Foundation for Science and Technology within the project «UIDB/04928/2020».

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Segmenting the Generation Z Cohort Based on Evaluation of Hotel's Environmental Policy

Irene Kamenidou, Spyridon Mamalis, Evangelia-Zoi Bara, Ifigeneia Mylona, and Stavros Pavlidis

Abstract Tourism consists of a "neuralgic" sector of the economy of many countries, and for it to be viable in the future years, sustainable practices are applied. One area of sustainability in the tourism sector is the interest in sustainable practices that hotels employ. This research focuses on the sustainable practices that hotels use, and specifically, it measures the green hotel practices as evaluated by the Greek Generation Z cohort. Seven statements referring to a hotel's (0–5 star) environmental policy that is easily detected when staying at a hotel room are evaluated by 736 Generation Z members. Criteria for participating in the study were to be an adult member of the Greek Generation Z cohort, thus born 1995–2001 in 2019, have internet access, an email or Facebook account, and stayed at a hotel for at least two nights. Additionally, satisfaction, intention to return, and intention to recommend the hotel are measured based on the hotel's environmentally friendly practices. A web-based questionnaire was utilized for data selection in May 2020, during the country's lockdown, with questions referring to hotel accommodation of the previous year. Data analysis incorporated descriptive statistics, K-Means Cluster analysis, chi-square, and cross-tabulation tests. Cluster analysis is applied to all seven statements, plus the three statements: satisfaction, intention to return, and intention to recommend. K-Means Cluster analysis extracted three segments, precisely the "environmentally indifferent," the "environmentally sensitive," and the "environmentally insensitive but dissatisfied". Marketing directions are provided two-fold: towards the targeted customer group, i.e., the Greek members of the Generation Z cohort for increasing environmental awareness, as well as towards the hoteliers with recommendations referring to low-cost sustainable practices.

Keywords Generation Z · Sustainability · Environmental policy · Tourism · Segmentation · Tourist behavior · Marketing communication · Digital communication

JEL Classification M31 · M39 · L83 · Z32 · Z33

I. Kamenidou (✉) · S. Mamalis · E.-Z. Bara · I. Mylona · S. Pavlidis
International Hellenic University, Kavala Campus, Greece
e-mail: rkam@mst.ihu.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_7

1 Introduction

From the end of 1980 and onwards, environmental protection and performance have been of great interest by authorities, businesses, and the communities (Erdogan & Tosun, 2009; Lim & McAleer, 2005). The tourism industry relies heavily on the environment since natural, beautiful, and impressive sceneries and places are destination attributes that attract tourists (Chen et al., 2021; Lee et al., 2010; Li et al., 2021). Then again, the tourism industry exploits natural resources in different ways degrading the environment (Kamenidou et al., 2018; Khan et al., 2020; Williams & Ponsford, 2009).

Today, on the one hand, the consequences of climate change and natural resources exploitation have appeared, while consumer parties and organizations take action to maintain sustainability and a sustainable future. On the other hand, tourists have become more educated, thus being more environmentally aware and sensitive (Hsiao et al., 2014). Subsequently, they have an increased preference towards destinations (Lee et al., 2010) and hotels (Warren et al., 2017), that apply environmentally friendly practices (EFP). Consequently, stakeholders in the tourism industry take measures for a sustainable tourism future (Dinica, 2009; Lemy et al., 2019; Lopes et al., 2020) in order to be competitive in the marketplace.

Hotels are a focal point in the tourism industry and more and more hotel managers acknowledge that the application of an environmental policy is a competitive advantage (Chan & Hsu, 2016; Pham et al., 2019; Stylos et al., 2018). This competitive advantage will trigger customers' positive future behavior towards the hotel (Martínez, 2015; Wang et al., 2018), and thus it will increase profitability. Studies referring to the EFP that hotels apply are abundant in literature due to the seriousness of the issue (Dimitiradis et al., 2018; Han et al., 2011; Hsiao et al., 2014; Li et al., 2021).

Also, tourist demographic characteristics, such as age, impact on tourist behavior, and studies have revealed that they play an essential role in choosing hotels that apply environmental policy (Han et al., 2009; Mensah & Mensah, 2013; Rodríguez et al., 2020). Though, a relatively fewer academic papers focus exclusively on young tourists (18–25 years old) and the hotel's EFP (HEFP), most of which are outside the focus of this paper. With respect to age, and specifically generational cohorts as tourists and HEFP, limited studies were found, and to our knowledge, exist, mainly focusing on millennials/generation Y (e.g., Bahja & Hancer, 2021). Only a handful focus solely (or amongst other cohorts) with generation Z (e.g., Dębski & Borkowska-Niszczota, 2020). Thus, the study of the Generation Z cohort (Gen Zers) as tourists and HEFP is in its infancy. This paper has as its aspiration to reduce this gap in the academic literature.

Specifically, it aims to explore if the hotel Gen Zers stayed in during 2019 (before the COVID-19 crisis) implemented EFP (or a green, eco-hotel, or sustainable policy). It also measures based on HEFP, their satisfaction, intention to return, and intention to recommend the specific hotel. Lastly, it segments Gen Zers based on these variables.

This research fills the following gaps in the literature:

1. It deals with an understudied issue, i.e., the combination of generational cohort research and HEFP, which is extremely rare in the academic arena.
2. It measures actual (after consumption) behavior based on HEFP (i.e., satisfaction, intention to return, and intention to recommend as a result of the HEFP experience).
3. It segments Gen Zers based on the chosen HEFP, satisfaction, intention to return, and intention to recommend which up to now, and to our knowledge, no research has been implemented.

The outcome of this study is considered important for hoteliers and officials in charge of implementing sustainable regulations in the tourism and hospitality sector. The research outcomes of this study are valuable for the hotel management, which can benefit from the provided insight from a generational cohort that is the future of the society (Kamenidou et al., 2019), and the information provided may be used to decrease the hotels' environmental problems in order to be in line with their customers' desires (Verma & Chandra, 2018).

This paper is structured as follows. The next section provides the literature review followed by the methodology and the results. Additionally, the discussion based on results, the implications, the conclusions, the limitations, and directions for future research are presented.

2 Literature Review

With respect to age, and specifically generational cohorts as tourists, which are considered as better indicators than age (Kamenidou et al., 2021), 67 studies were found. Thus, to our knowledge, these exist referring to HEFP and generational cohort's behavior. However, these studies mainly refer vaguely to generational cohorts (or are located in the reference section), with few directing research on them. To our knowledge, those that focus on generational cohorts and the hotel's eco-friendly practices are 14 in total. Ten of these emphasize on millennials/generation Y (e.g., Huh & Chang, 2017; Tang & Lam, 2017; Wang et al., 2018). Though, very few deal exclusively (or also) with the Generation Z cohort (Dębski & Borkowska-Niszczota, 2020; Lemy, 2016; Nadanyiová & Gajanová, 2019; Shin & Kang, 2021), generation X (Bahja & Hancer, 2021), or multiple generations (Bahja & Hancer, 2021; Nadanyiová & Gajanová, 2019; Shin & Kang, 2021).

Specifically, regarding the Gen Zers, four studies have been found that deal with HEFP, which are presented in the following.

Shin and Kang (2021) investigated multigenerational cohorts' intentions ($N =$ 413) to participate in green P2P (peer-to-peer) accommodations. They found that younger consumers (i.e., Generation Y&Z) are more likely to address environmentally friendly (EF) lodging behavior compared to older generational cohorts. As the authors stated, this is due to that "younger consumers' personal normative goal in green consumption acts as a more effective motivator for creating a positive attitude toward green traveling compared with the older generation”. Dębski and Borkowska-Niszczota (2020), explored the ecological behavior, attitudes, and choices of Gen Zers ($N = 245$, 18–25 years old) in the accommodation business sector. They found that Gen Zers rate highly accommodation facilities that carry out pro-ecological procedures and thus, are willing to stay at EF accommodations. Nadanyiová and Gajanová (2019) through a multigenerational cohort approach ($N = 407$, i.e., Baby Boomers: 46 respondents, Generation X: 95, Generation Y: 163, and Gen Zers: 103 respondents) explored consumers’ perceptions of green marketing as a source of competitive advantage in the hotel industry. They found that: Gen Zers tend to give more attention to environmental protection by e.g., noticing the hotel’s ecolabel.

Furthermore, half of Gen Zers consider that a hotel’s green activities are a criterion for potentially selecting it and perceive saving water, energy, and recycling as the most essential hotel practices that promote environmental protection. Though, even if they consider the hotel’s green activities as a criterion for selecting it, when asked about the importance of a hotel’s green activities to consumers, a large percentage answered that they are not interested in whether a hotel does apply green activities and promotes them accordingly. Lemy (2016) explored Gen Zers perceptions of HEFP effects on service quality through qualitative research (20 students) and specifically focus groups. Findings showed that Gen Zers have favorable perceptions towards the HEFP.

3 Methodology

Seven items were used referring to the HEFP that could be observed by anyone that stayed in the hotel room. The seven items were adopted from Stegerean et al. (2014) and Dimitiradis et al. (2018) and were slightly modified in order to be in line with the aim and objectives of the research. The seven items used were: (1) The hotel follows an environmental certification system (there is a sign at the reception, in the room, or the in-room hotel’s leaflets/brochures), (2) The hotel has a written environmental policy (there is a sign at the reception, in the room, or the in-room hotel’s leaflets/brochures), (3) The products in the room are ecological, such as soaps and shampoos (the products have eco certifications), (4) The hotel has electricity saving practices (such as key cards to control the electric power in the room), (5) The hotel applies water consumption reduction practices (such as low-flow taps or taps with sensors), (6) The hotel applies selective waste collection practices (has separate bins for glass, plastic, etc. in the room or balcony), (7) The hotel uses cleaning products that do not harm the environment (there is a sign at the reception, in the room, or the in-room hotel’s leaflets/brochures). Answers were rated on a 5-point Likert scale, whereas 1 = I totally disagree up to 5 = I totally agree, with the neutral answer 3 = I neither agree/nor disagree.

As to satisfaction measurement, the 5-point satisfaction scale, based on HEFP (Likert-type scale) was used with 1 = totally dissatisfied up to 5 = totally satisfied and the neutral answer point 3 = neither satisfied nor dissatisfied. Referring to intention to return and intention to recommend based on HEFP, a 5-point probability (Likert-type scale) was used. More precisely, the scale had answers rated as 1 = very unlikely up to 5 = very likely, and the neutral point 3 = neither likely nor unlikely.

In order to participate in the research, criteria were applied. Specifically, they had to be an adult member of the Greek Generation Z cohort (i.e., born between 1995 and 2001), have internet access, an email or Facebook account, and had stayed at a hotel the previous year (before the lockdown due to COVID-19) for at least two nights (in 2019). For data collection, the convenience combined with the snowball sampling procedure was utilized. Specifically, since the targeted group was young tourists and exclusively Gen Zers, an online questionnaire was developed for data collection, and data was collected via the internet. A Facebook account was created that provided the study's aim, the qualified participants, and the link to the questionnaire. When the questionnaire opened, it also provided the purpose, the qualified participants, the instructions, and the consent to use the data. In the questionnaire's instruction section, the participant's above-mentioned qualifications were stated, while the written permission was the first question. The invitation to participate in the research as well as the link of the questionnaire was sent to friends, acquaintances, and students of the researchers. They were also requested to invite other Gen Zers that meet the above criteria. The link was activated for about one month, from 28 April until 31 May 2020. Questionnaires were valid only if they met the before-mentioned criteria and gave consent to use the questionnaire for data analysis. If one of the criteria was not fulfilled, the questionnaire was discarded. In this manner, the final sample size was 736 Gen Zers. Data analysis included descriptive statistics, K-Means Cluster analysis, chi-square, and cross-tabulation tests.

Ethical Approval: There are no ethical issues involved in the processing of the questionnaire data used in the study. The necessary consents have been obtained by the persons involved, and the anonymity of the participants has been secured. All procedures performed in studies involving human participants were in accordance with the ethical standards of the International Hellenic University research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

4 Results

Sample profile

The majority of the participants were females, which were overrepresented in the sample (61.1%). As for age, two highly represented age groups stood out: the 20-year-old (20.7%) and the 22-year-old (17.1%) group. The 18-year-old Gen Zers (6.3%) were the least represented age group, followed by the 21-year-old (11.7%). The overwhelming majority of the sample was single (96.7%), university students (67.7%), and 68.5% had completed secondary education (i.e., lyceum including those that were at present university students). Lastly, as to income, 43.5% had net family income up to 1000.00€, 37.8% from 1000.01–2000.00€, and 18.7% more than 2000.00€.

Gen Zers tourist behavior

The hotel that Gen Zers stayed at was located in Macedonia, Greece, for 26.9% of the sample (Central Macedonia, Western Macedonia, and Eastern Macedonia and Thrace), Greek islands (34.5%), the rest of Greece (16.3%), and lastly, 22.3% stayed at a hotel abroad/overseas. Moreover, the hotel that Gen Zers chose was found by personal search on the internet, through online booking platforms, such as Booking.com or Trip Advisor (43.5%), or other different websites (20.1%). Additionally, 15.5% found the hotel from friends who recommended it to them, 11.1% found it from travel agents, and 9.8% from other sources. The number of nights Gen Zers stayed at the hotel is 2–3 for the 34.5% and 4–5 nights for the 48.4% of the sample. Additionally, 11.9% of Gen Zers stayed 6–7 nights, and more than seven nights stayed 5.2% of the participants. The reason for staying in the hotel was job-related (5.4%) and tourism and recreation-related (84.8%). Also, 9.8% of the sample stated that they stayed at the specific hotel for work combined with tourism/recreation. Regarding the number of stars the hotel had, 14.4% of the Gen Zers stayed at a hotel with 0–2 stars and 31.3% at a three-star hotel. Moreover, 42.3% of Gen Zers stayed at a four-star hotel and 12.0% at a five-star hotel.

Table 1 presents the HEFP based on Gen Zers' experience during their stay. From the MS, it is evident that no MS > 3.50 on the Likert scale, and thus most hotels that

Table 1 Hotels' environmental policy

Hotel's environmental policy statements	1	2	3	4	5	MS
The hotel follows an environmental certification system (there is a sign at the reception, in the room, or the in-room hotel's leaflets/brochures)	4.6	13.3	37.2	32.3	12.5	3.35
The hotel applies selective waste collection practices (has separate bins for glass, plastic, etc. in the room or balcony)	11.1	16.0	24.7	28.8	19.3	3.29
The hotel has electricity saving practices (such as key cards to control the electric power in the room)	7.6	17.4	35.9	25.8	13.3	3.20
The hotel uses cleaning products that do not harm the environment (there is a sign at the reception, in the room, or the in-room hotel's leaflets/brochures)	7.9	15.2	38.6	25.5	12.8	3.20
The hotel has a written environmental policy (there is a sign at the reception, in the room, or the in-room hotel's leaflets/brochures)	8.7	16.8	35.9	25.3	13.3	3.18
The products in the room are ecological, such as soaps and shampoos (the products have eco certifications)	10.6	16.6	35.1	24.5	13.3	3.13
The hotel applies water consumption reduction practices (such as low flow taps or taps with sensors)	9.0	20.4	36.1	20.9	13.6	3.10

Source The authors

Gen Zers chose did not employ EFP. Also, all MS > 3.00, therefore fall in the range 3.00 < MS < 3.4. Therefore, a concentration of MS around (indifferent) point 3 of the Likert scale is observed. In Table 1, in the first row, the numbers 1–5 represent the answers of the Likert scale, while the numbers in the corresponding columns represent percentages.

As to Gen Zers' future behavior toward the hotel they stayed at, results revealed the following. As to satisfaction based on the HEFP, 74.2% of the Gen Zers were satisfied or very satisfied (MS = 3.97). As to intention to return (based on their experiences of HEFP), only 55.5% considered likely or very likely to return to the specific hotel (MS = 3.52). Lastly, as an intention to recommend the hotel based on their experiences of HEFP, 70.1% considered likely or very likely to recommend the specific hotel (MS = 3.85).

Segmentation of Gen Zers

Segmentation through K-Means Cluster analysis extracted three clusters (Table 2). ANOVA tests showed that all three segments are different in all cases ($p = 0.000$). Table 2 presents the three segments derived from K-Means Cluster analysis, the number of participants per cluster (N), the Final Cluster Centers (FCC, i.e., the numbers in each cluster column), as well as the results of the ANOVA tests (F-statistic and *p*-value).

In addition, chi-square tests were executed in order to explore statistically significant differences ($\alpha = 0.05$) between Gen Zers' demographic characteristics (plus the location of their chosen hotel) and clusters. Results reveal that Gen Zers' age ($\chi_2{}^2 = 6.709$; $p = 0.035$) and education ($\chi_6{}^2 = 33.112$, $p = 0.000$) provided statistically significant differences. The Gen Zers were divided into two main age categories: the younger Gen Zers (18–20 years old) and the older Gen Zers (21–24 years old).

Segment No. 1: "The environmentally indifferent." This segment is the largest of the three since it incorporates 312 Gen Zers (i.e., 42.4% of the sample). Gen Zers neither agree nor disagree that the hotel applies these methods (2.6 < FCC < 3.1). It could also be safe to suggest that these Gen Zers probably did not observe if the hotel employs eco practices. This is considered a logical conclusion since if they observed the seven practices stated, they could either agree that they exist or disagree that the hotel practices them.

Furthermore, based on the HEFP, they are satisfied with the hotel, they tend to prefer to come to this hotel in the future, and they are likely to recommend it to others. The profile of this segment has as follows: it is overrepresented by females, compared to the other two groups, it has the most significant percentage of older, single, and university students Gen Zers. Lastly, the hotel they stayed at is located on a Greek Island.

Segment No. 2: "The environmentally sensitive". This segment is the second largest of the three segments since it incorporates 286 Gen Zers (i.e., 38.8% of the sample). The Gen Zers of this group agree that the hotel includes EFP (3.9 < FCC < 4.2). Furthermore, based on the HEFP, they are satisfied with their stay at the hotel, they are likely to stay again at this hotel in the future, and they are likely to recommend it to others. The profile of this group has as follows: it is overrepresented

Table 2 Segments of the Gen Zers based on hotel's environmental practices and Gen Zers' future behavior

Environmentally friendly practices	Cl. 1	Cl. 2	Cl.3	F	Sig.
	$N = 312$	$N = 286$	$N = 138$		
The hotel follows an environmental certification system (there is a sign at the reception, in the room, or the in-room hotel's leaflets/brochures)	3.03	4.08	2.54	214.164	0.000
The hotel has a written environmental policy (there is a sign at the reception, in the room, or the in-room hotel's leaflets/brochures)	2.89	3.94	2.23	188.035	0.000
The products in the room are ecological, such as soaps and shampoos (the products have eco certifications)	2.74	4.05	2.13	277.127	0.000
The hotel has electricity saving practices (such as key cards to control the electric power in the room)	2.79	4.13	2.20	339.499	0.000
The hotel applies water consumption reduction practices (such as low flow taps or taps with sensors)	2.65	3.98	2.29	235.023	0.000
The hotel applies selective waste collection practices (has separate bins for glass, plastic, etc. in the room or balcony)	2.83	4.14	2.57	153.872	0.000
The hotel uses cleaning products that do not harm the environment (there is a sign at the reception, in the room, or the in-room hotel's leaflets/brochures)	2.80	4.03	2.39	227.008	0.000
I am satisfied with this hotel	4.12	4.45	2.65	289.839	0.000
I will continue to prefer the services of this hotel in the years to come	3.68	4.07	2.01	310.587	0.000
I would recommend this hotel to anyone who seeks my advice	4.00	4.45	2.26	411.717	0.000

Source The authors

by females, while the older Gen Zers comprise a little over half of the group (53%) and are also single in the vast majority. Compared to the other two groups, it has the largest percentage of Zers that have finished secondary education. As to their profession, the university student group dominates this segment, their family income is up to 1000.0€ (42.7%), and the hotel is located in Macedonia, Greece.

Segment No. 3: "The environmentally insensitive but dissatisfied." This group is the smallest of the three segments since it incorporates 138 Gen Zers (i.e., 18.8% of the sample), who disagree that the hotel they chose applies EFP ($2.1 < \text{FCC} < 2.6$). Furthermore, based on the experienced HEFP, they tend to be dissatisfied with their stay at the hotel (FCC = 2.65), they are not likely to stay again (FCC = 2.01) at this hotel in the future and they are not likely to recommend it to others (FCC = 2.26).

The profile of this group has as follows. Compared to the other two, this group has the highest percentage of females, married, postgraduates, salaried, and Gen Zers family income up to 1000.0€ (47.8%). Furthermore, compared to the other two groups, it has the smallest percentage of singles, university students, families with income > 2000€. Lastly, the hotel that Gen Zers stayed at is located abroad.

5 Discussion—Conclusion

This study aimed to explore if the hotel that Gen Zers stayed at implemented EFP. The findings of the study, based on the MS of each statement rated, reveal that the chosen by the Gen Zers hotels were EF indifferent. This conclusion is based on the MS from the seven statements examined, which were concentrated around point 3 of the Likert scale (neither agree nor disagree). Gen Zers satisfaction, intention to return, and intention to recommend the specific hotel based on the experienced HEFP were also measured. MS for these statements reveals that Zers are satisfied and are likely to recommend the hotel, but neither likely nor unlikely to return to it in the future. Lastly, it segments Gen Zers on the basis of these variables. Three groups of Gen Zers arose, namely, the "environmentally indifferent," the "environmentally sensitive," and the "environmentally insensitive but dissatisfied."

The findings of this study cannot be directly compared to other studies since we have not found similar research regarding aim and objectives and the targeted sample group. Thus, any comparisons will be made indirectly.

Researchers have asserted that every generational cohort has different values and behavior compared to the others (Kamenidou et al., 2021; Shin & Kang, 2021). For so, stakeholders should implement changes that target these cohorts separately.

As for Gen Zers and HEFP, the findings of this study are partially in line with other studies. For example, Dębski and Borkowska-Niszczota (2020) found that Gen Zers rate highly accommodation facilities that carry out pro-ecological procedures and thus, are willing to stay at environmentally-friendly accommodations. This is partially in line with our findings and specifically with the environmentally sensitive group (38.8% of the Gen Zers), which has chosen a hotel that applies EFP.

Additionally, the findings of this study are partially in line with the results of Nadanyiová and Gajanová (2019). They found that even if Gen Zers consider the hotel's green activities as a criterion for selecting it, they are not interested in whether a hotel does apply green activities and promotes them accordingly. In this study, the environmentally insensitive but dissatisfied and environmentally indifferent group added together comprise 61.2% of the sample. Both groups did not select a hotel based on its EFP. In general, this study is also in line with the study of Haddouche and Salomone (2018), who found that sustainable tourism is not a key concept for Gen Zers and opposes McBride (2016), and Lemy (2016), who stated that Gen Zers value or have favorable perceptions towards hotel's that implement EFP.

As to segmentation analysis, academic research referring directly to Gen Zers and HEFP are not found for comparison. Though, in segmenting Gen Zers based on sustainable behavior, Kamenidou et al. (2019) found that it is limited in researching Gen Zers university students' sustainable food consumption behavior. The two groups that arose were the "The under-consideration students" and the "negatively positioned students." It also lies in line with Su et al. (2019) results (studying sustainable food consumption), who found that "Gen Z consumers with high environmental consciousness (sustainable activists) and moderate ecological awareness (sustainable believers) considered more eco-friendly and healthy product attributes when purchasing sustainable food, whereas Gen Z consumers with low environmental consciousness (sustainable moderates) considered more extrinsic product attributes (e.g., price and convenience)."

Marketing implications

Gen Zers are born in technology; they spend many hours per day in social media platforms and are the channels where they obtain information (Kamenidou et al., 2021). They have a dominant presence in social networks, and e-WOM is a vital source of information for Gen Zers (Dawson, 2018). Gen Zers widely use social media as part of their identity and spread e-WOM details on their trip (Kamenidou et al., 2021). Gen Zers favor user-generated content over traditional influencer content and are mostly influenced by their peers (Walters, 2021). Thus, in targeting Gen Zers to make them more environmentally conscious, digital communication channels are the most suitable way to access them. Therefore, social networks and hotel websites, and online accommodation platforms are ways to notify Gen Zers about a hotel's EFP (Nadanyiová & Gajanová, 2019).

Mendleson and Polonsky (1995 in Shin & Kang, 2021) point out that Gen Zers are more environmentally conscious than older cohorts since they have obtained environmental education during their school education and because of the environmental issues they have faced. Thus, tourist destination sites must point out the hotels that apply EFP and the EFP practiced by the destination authorities. Hotels that utilize EFP should also target the indirect customers, such as environmental associations to inform their members about the specific hotel and its EFP.

Furthermore, Gen Zers seek memorable experiences (Kamenidou et al., 2021; Törőcsik et al., 2014). Therefore, when applying EFP, hotels must simultaneously offer exceptional service encounters so these two variables will be combined in the Gen Zers subconscious. Previous findings also reveal that Gen Zers are reluctant to discard plastic packages and do not have a positive attitude towards some HEFP, such as prolonged usage of bed sheets or sheets and towels changed only on request (Nadanyiová & Gajanová, 2019). So, these tactics may not be implemented by hotels since they spur negative attitudes towards the hotel.

As for implications for hoteliers, the significance of their eco-friendly policy will become more intense in the coming years (either through consumer demand or government laws), thus defining the hotel's survival in the marketplace. Therefore, several steps should be taken on their behalf, some of which could be the following. To obtain certification for its EFP and take pro-environmental measures (Nadanyiová & Gajanová, 2019) that are not costly, or in the near future, the cost will be covered by the benefits derived. Such measures may well be using key cards in the rooms and thus reducing the electricity cost, which will lead to a future reduction of operational costs (Fuentes-Moraleda et al., 2019).

Limitations and directions for future research

This research has some unavoidable limitations that should be considered when interpreting its results and could simultaneously serve as a trigger for future research. First, this study did not explore if Gen Zers have engaged up to now in pro-environmental behavior or if they are a member of an ecological organization. Another limitation is that it did not have as a question if Zers searched for an environmentally friendly hotel. Though, this question is answered indirectly two-fold, first from their answers regarding the observed HEFP and secondly, from the K-Means Cluster analysis. The third limitation is the number of variables that are incorporated in the question referring to the HEFP. Other statements/variables that are equally important may have been left out. Another limitation is the targeted group, the sample size, and the research design. More precisely, this research is limited to one generational cohort, Gen Zers, with a sample size of 736, which may be considered small. It also incorporated online data collection channels and a non-probability sampling method, which excludes the generalization of results. Thus, subsequent studies that deal with these limitations would be very beneficial and interesting regarding its outcomes.

All the above considered, this research is important because it provides insight and firsthand information about an issue that is understudied. Specifically, it provides an understanding of the youngest adult generational cohort combined with its chosen HEFP, their satisfaction, their intention to return, and intention to recommend, and segments them on this basis. Therefore, it provides hotel managers with valuable information for future facility adjustments.

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COVID-19 as a 'Policy Window' for Promoting a Green Recovery and Transformation of the Air Transport and Tourism Sectors: Is It High Time We Sailed the Turbulent Streams While the Wind is Still Blowing?

Polyxeni Moira and Spyridon Parthenis

Abstract The COVID-19 public health crisis has had an unprecedented, devastating effect on the air transport industry and the travel and tourism sector, which reflected in a dramatic decrease in international tourist arrivals, international tourism receipts, world scheduled passenger traffic and gross passenger operating revenues in the years 2020 and 2021. The aim of this paper is to produce a theoretically informed empirical case study on French politics and climate change public policy, applying Kingdon's Multiple Streams Framework (MSF) or agenda-setting theory of policy process. The Yellow Vests Movement (YVM), which emerged in France in November 2018 as a reaction to a proposed green tax on fuel, triggered a political crisis with nationwide extended demonstrations, strikes and riots. To appease the protesters who demanded far-reaching economic, political and institutional reforms, the French government amid the pandemic introduced a flagship Bill on Climate and Resilience, which sparked a strong controversy because of political unwillingness for a radical policy change. Our findings suggest that it was the Yellow Vests Movement rather than the COVID-19 pandemic which functioned as the main focusing event which opened a window of opportunity for agenda change and policy change. The YVM policy window allowed policy entrepreneurs to advance their ideas and policymakers to pursue policies that both promote the green recovery and transformation of the air travel and tourism sector and mitigate the climate change crisis. This paper responds to calls for more systematic applications under the MSF in various policy areas and political systems, operationalizing all the MSF structural elements and testing hypotheses derived from the MSF.

Keywords Multiple Streams Framework · Focusing events · COVID-19 · Climate change · Air travel · Tourism · France

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P. Moira (✉) · S. Parthenis
Department of Tourism Management, University of West Attica, Athens, Greece
e-mail: polmoira@uniwa.gr

S. Parthenis
e-mail: s.parthenis@uniwa.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_8

JEL Classification L52 · L93 · N70 · Q54 · Z32 · Z38

1 Introduction

The COVID-19 pandemic outbreak in Wuhan, China, in December 2019, is one of the gravest public health crises in modern history, with over 4.6 million deaths worldwide (CRC, 2021) at the time of writing. COVID-19 is the most consequential event of the twenty-first century, after the September 11 attacks, having shaken the foundations of mankind and having changed the course of history. It also had a devastating effect on people, world economies and societies, including the tourism sector (hotels, restaurants, tour operators and cruise ships) and the air transport industry (e.g., airlines and airports), which reflected in dramatic reductions in international tourist arrivals, international tourism receipts, world scheduled passenger traffic and gross passenger operating revenues in the years 2020 and 2021. International tourist arrivals (overnight visitors) decreased by 83% during the period January–March 2021 compared to 2020, which marked an unprecedented reduction of 73%, the worst year on record for international tourism (UNWTO, 2021: 1). In addition, international tourism receipts dropped by US$ 930 billion in 2020, an estimated 64% decrease in real terms due to the plummet in global travel. International visitors spent about US$ 536 billion in destinations in 2020, about one-third of the amount spent in 2019 (US$ 1,466 billion) (ibid.). Compared to 2019 levels, COVID-19 had a disastrous impact on world scheduled passenger traffic for the year 2020: an overall reduction of 50% of seats offered by airlines, a total decrease of 2,699 million passengers (−60%) and about US$ 371 billion loss of gross passenger operating revenues of airlines (ICAO, 2021: 5).

In a press conference following the Climate Ambition Summit, held in New York on December 12, 2020, the UN Secretary-General linked the two current global crises and underlined the opportunity window that COVID-19 has opened for economic recovery and green transformation:

> *While the pandemic has led to a decline in economic activity, any effect on emissions is only temporary and ultimately insignificant. But the tragedy of COVID-19 has also given us an unexpected opportunity for a reset. COVID relief and recovering investments can spur a green transition. Policies to strengthen societies to face pandemics or other shocks can be a catalyst for sustainability. Pandemic recovery and climate action must be two sides of the same coin.* (UN, 2020).

2 Literature review

To meet the research objectives, a review of previous literature on empirical applications of the Multiple Streams Framework on climate change policy was performed along with a literature review of the nexus between the COVID-19 pandemic and the climate change crisis, and their combined effects on the global travel and tourism sector.

"Policy-making is a form of collective puzzlement on society's behalf; it entails both deciding and knowing" (Heclo, 1974: 305). As public policies decisively affect our day-to-day lives, we need theories to explain them. The role of theory in political analysis is crucial because it "helps us to formulate the questions we need to ask, provides for the possibility of predictions" (Savigny & Marsden, 2011: 8) and enables the analyst to "find some way of simplifying the situation in order to have any chance of understanding it" (Sabatier, 2007: 4). The aim of this paper is to contribute to the new policy sciences scholarship and in particular, the theories of the policy process. We will apply Kingdon's Multiple Streams Framework (1984) on an empirical case study of the French national climate change policy. Public policies are usually characterized by long periods of stability punctuated by short periods of radical change. Policy change is not easy because of the "unwillingness of major power-holders to recognize the need for change because of commitment to ideology or group benefits" (Baumgartner et al., 2006: 962). Public policies change because they depend on the combined influence of the dynamic interaction between policy actors' ideas (content, evidence, values), institutions (processes, context) and interests (actors, power), which change over time (Shearer et al., 2016; Παγουλάτος, 1999). Policy change is also influenced by the policy actors' core beliefs and policy narrative strategies (McBeth et al., 2007). The paper also contributes to theoretical knowledge by applying the MSF to a semi-presidential political context, thereby confirming the portability of the MSF concepts.

The Multiple Streams Framework

The Multiple Streams Framework (MSF) is a theoretical framework in the field of public policy analysis. The reason why the MSF was selected to investigate this specific case study is that it has been one of the most well-established, popular and widely used and adapted theories of the policy process as well as an important source of theoretical value to policy sciences. Originally designed as a framework of agenda setting in the United States, the MSF has become a forceful analytical instrument that "travels with ease into comparative national, subnational, and supranational settings", underlining the significance of ambiguity and uncertainty (Cairney & Zahariadis, 2016: 102). Its popularity lies in that its original streams metaphor is adaptable and simple to use in empirical studies and that it allows researchers to unravel the reciprocal influence between significant components of the policy process (Cairney & Jones, 2016: 40–41).

The MSF was based on Kingdon's work *Agendas, Alternatives, and Public Policies* (1984). In any policy system, there are three connected sets of processes in progress, which run in parallel, independently of each other, called 'streams'. The MSF was expanded and extended by Zahariadis (2003), who examines the entire policy formation process, not just agenda setting. It was modified by Herweg et al. (2015) to explain decision-making, distinguishing two policy windows and therefore, two coupling processes: one for agenda setting, which they label agenda window, with its associated agenda coupling; and one for decision-making, called decision window, with the related decision coupling. In Fig. 1, this modified version of the

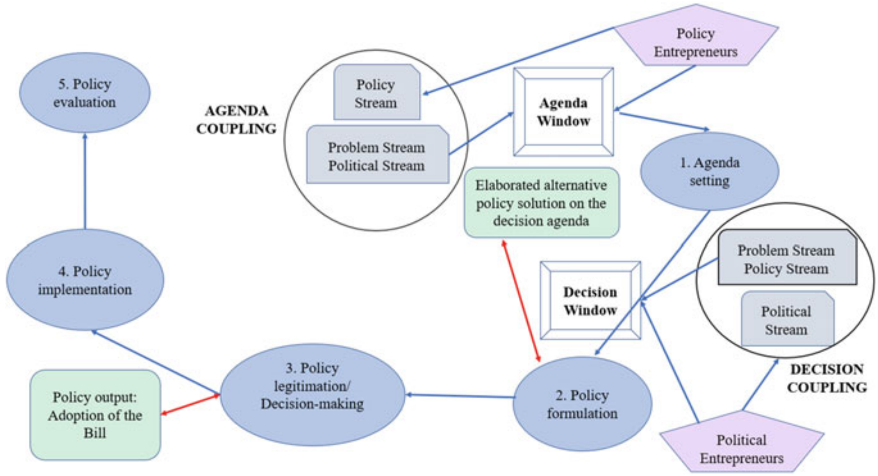

Fig. 1 A modified version of Multiple Streams Framework through the Stages Heuristic model (policy cycle). *Source* Knill & Tosun (2020): 365 (for the policy cycle); Herweg et al. (2015): 444–446 (for the modified MSF); Authors' own elaboration

MSF is illustrated through the policy cycle because this helps us to better explain and represent the two policy windows and the two coupling processes.

Past MSF applications in climate change

Jones et al. (2016) identified 311 peer-reviewed journal articles citing Multiple Streams Approach (MSA) between the years 2000 and 2013. 43.4% of the authors had been affiliated with U.S. institutions, while no author had been affiliated with a Greek institution. The most popular policy domains investigated were health (28%), environment (19%) and governance (14%). Regarding the geographic areas studied, these included 65 different countries, mostly in Europe. In ten of these articles, the location of study was France. As for the level of governance studied, the MSF proved to be the most popular (52%) at the national/federal level of analysis. 88% of all MSF applications used qualitative methodologies, mostly case studies and interviews. The authors observed that none of the MSF applications reviewed contained all five of the major concepts within the MSF. Reviewing the relevant literature, one theoretical and two empirical applications of the MSF on the climate change policy subsystem were identified. Pralle (2009) used the MSF in the U.S. context to explore the political strategies for keeping the issue of climate change high on agendas and raising the salience of the problem. Storch and Winkel (2013) used the MSF as an insightful theoretical heuristic to examine forest policymaking in the light of climate change in two German states. Keskitalo et al. (2012) applied the MSF through a multi-level approach to explain the ways in which the climate change adaptation issue was developed in four European countries (the United Kingdom, Sweden, Finland and Italy), highlighting the importance of linked agenda-setting processes on multiple levels of governance.

3 Methodology

In this case study, an exploratory qualitative case study design was used. This paper examines the agenda-setting process from the election of Emmanuel Macron to the French presidency in May 2017 leading to the adoption of the Bill on Climate and Resilience in July 2021 by the two chambers. Selected French and international media and institutional political discourse available online will be studied. Political discourse is "defined as talk and text produced in regard to concrete political issues (language in politics) or through the actual language use of institutional political actors, even in discussions of nonpolitical issues (language of politicians)" (Kampf, 2015: 1160).

We assume that the COVID-19 pandemic has functioned as a focusing event and has opened a window of opportunity, allowing advocates of policy ideas in France to advance their agendas and policymakers to both espouse transport policies aimed at both adapting to long-term climate change and providing fiscal stimulus packages. More specifically, we examine whether agenda change and policy change occurred, that is, whether policy entrepreneurs in France took advantage of an open window of opportunity and managed to couple successfully the problem stream, the policy stream and the political stream. This paper responds to calls from scholars for (a) more systematic applications under the MSF (Weible & Schlager, 2016: 11) in various policy areas with consistency and coherence (Jones et al., 2016) in a nontrivial way (Cairney & Jones, 2016: 38), (b) operationalizing all five of the MSF subcomponents (Jones et al, 2016: 24) and (c) testing hypotheses derived from the MSF (Herweg et al., 2015). Two hypotheses will be tested: one for the problem stream and one core hypothesis for the agenda change.

The first hypothesis to be tested is the following: "*H1: The more a condition puts the policy makers' re-election at risk, the more likely it is to open a policy window in the problem stream*" (Herweg et al., 2015: 437). The second hypothesis to be tested is the following: "*H2: Agenda change becomes more likely if (a) a policy window opens; (b) the streams are ripe; and (c) a policy-entrepreneur promotes the agenda change.*" (Herweg et al., 2015: 443).

4 Results—Discussion

Problem identification and framing—*The problem stream*

To operationalize the problem stream, we discuss the mechanisms of indicators, focusing events and policy feedback. Agenda change is initiated by "changes in indicators of underlying problems and focusing events or sudden shocks to policy systems that lead to attention and potential policy change" (Birkland & Warnemert, 2017: 108).

Indicators

We present some key indicators marking the deterioration of climate change worldwide.

According to the data provided by the French Data and Statistical Studies Department (SDES, 2019: 6–8), the years 2014–2018 were the five hottest years ever recorded, while 2018 was the hottest year observed in metropolitan France. Carbon pollution from flying in Europe rocketed to 26% from 2014 to 2018, far surpassing any other transport mode, with Air France being ranked in the top ten carbon emitters airlines (Transport & Environment, 2019). Hundreds of deaths in British Columbia in Canada and Washington and Oregon in the United States due to hyperthermia were related to the heatwave that began in late June 2021. Native Alaskan community relocations from coastal villages inland, caused by climate change, are perhaps the greatest current human rights challenge (NRC & AIJ, 2017: 5, 8). In July 2021, catastrophic flooding hit western Germany leaving dozens dead. According to the Global Climate Risk Index 2021, between 2000 and 2019, over 475,000 people died as a direct result of more than 11,000 extreme weather events globally and losses amounted to around US$ 2.56 trillion (Eckstein et al., 2021: 5). In France, signs of climate change are increasing with not only heatwaves (an absolute record of 46 °C was reached in the Department of Hérault in June 2019), damaged or lost crops, droughts, forest fires, but also floods in the Department of Aude in October 2018 and in the Department of Alpes-Maritimes in early October 2020, causing the deaths of several people (ANV-COP21, 2020; Oxfam France, 2020).

Focusing events

Conditions such as climate change and air pollution became defined as problems through the strategic use of focusing events. Focusing events can play a critical role in the policy process and the study of agenda setting. Birkland (1997) defines a focusing event as (1) sudden and relatively rare; (2) harmful or revealing possible future harms; (3) confined to a geographical area; and (4) known to policymakers and the public simultaneously. "Focusing events become attached to particular problems, providing powerful impetus for action or change" (Jones et al., 2016: 15).

Yellow Vests Movement (YVM)

As part of his environmental policy strategy, Macron announced in October 2018 the introduction of a green tax on fuel, in a government's attempt to combat global warming by reducing fuel consumption. Immediately after that, two lorry drivers created a Facebook event to "block all French roads". The YVM started with people from rural parts of France who have to drive long distances for work and extended to the working and middle classes. "The protests included weekly mass protests on Saturdays, which were called Acts." (Shulziner & Kornblit, 2020: 535). On November 17, 2018 (Act I), about 288,000 people joined mass demonstrations across France (Dormagen & Pion, 2021) and the YVM was born. On December 10, 2020, in a TV address to the nation, Macron eventually yielded.

Since his election, Macron had seen public opposition or resistance on almost every one of his reforms, but this was the biggest political crisis he had faced until then (Cigainero, 2018). Grossman (2019: 31) claims that the YVM should be seen as “an expression of the gap between political expectations and output that chronically accompanies recent French presidents.”. On January 13, 2019, Macron published a Letter to the French, where he detailed the questions proposed for the big debate. Two days later, he launched the Great National Debate. On the same day, a proposal to create a Citizens’ Assembly was suggested to Macron by the Gilets Citoyens and Démocratie Ouverte (Mellier-Wilson, 2020). In April 2019, the government responded by establishing a Citizens’ Convention for Climate (CCC), consisting of 150 randomly selected citizens, to work out proposals for decreasing by 2030 carbon emissions in France by 40% from its 1990 levels in a spirit of social justice. This process illustrates that policymakers began to interpret the climate action condition as a relevant problem because they thought that its tenacity menaced their re-election (Herweg et al., 2015: 437).

COVID-19

The global spread of COVID-19 was facilitated by the “travel networks used by the tourism industry” (Prideaux et al., 2020: 672). The pandemic and its economic impact judiciously prevailed in public discourse in most countries, pushing out of the governmental, public and media agendas other salient issues such as climate change, because “the most important ‘real world’ events affecting the place of environmental issues on the agenda are economic issues” (Pralle, 2009: 788). However, in France COVID-19 did not move climate change solutions down the list of priorities because the protests of the YVM had not ended when the pandemic broke out and the climate action-oriented policy process was still in progress. Most governments and policymakers had not been prepared for this crisis and were taken aback by the rapid expansion and the high rates of mortality. Consequently, they did not manage to make immediately the connection between the COVID-19 crisis, the accompanying economic and financial crisis and the preexisting climate change crisis.

Scholars have discussed extensively the common challenges, similarities and differences in terms of causes and impacts between COVID-19 and climate change crises and the lessons which can be learned from them to minimize loss of life (Botzen et al., 2021; Fuentes et al., 2020; Manzanedo & Manning, 2020; Phillips et al., 2020). Table 1 shows to what extent the YVM and COVID-19 fit the Birklandian definition of focusing events. Researchers have also started studying whether the timing and the attributes of the current pandemic and its global economic, social and environmental impacts have served as a focusing event for states, policymakers, researchers and businesses to reconsider the way they deal with climate hazards under change, and consequently, to transform the current model of the sectors which contribute to it, such as air transport and travel and tourism (Ioannides & Gyimóthy, 2020; Prideaux et al., 2020). Policy learning from the COVID-19 crisis could help us address global climate change and prepare mankind for forthcoming crises (Klenert et al., 2020: 752). Scientific evidence shows that climate threats, which are rising in frequency and intensity, are likely to converge with the COVID-19 outbreak and public health

Table 1 Comparison of the Yellow Vests Movement (YVM) and the COVID-19 pandemic as focusing events

Focusing events	YVM	Features of YVM	COVID-19	Features of COVID-19
Sudden, relatively rare	No/Yes	It was not sudden because: (a) an online petition for lower fuel prices at the pump had started in May 2018, which had reached 300,000 signatures by mid-October 2018; (b) there had been a warning as it followed a viral Facebook storm; a spontaneous call for blocking the roads nationally on 17 November 2018 had previously been posted on Facebook in late October 2018. This event was relatively rare: the worst riots in many years—and in Paris, the worst in half a century (it was even compared to the protests of May 1968 in intensity)	Yes/No	Relatively rare, but not sudden. Although originally identified in Wuhan in December 2019, it was on 30 January 2020 that the WHO declared the COVID-19 outbreak a Public Health Emergency of International Concern
Harmful and reveals future harms	Yes/No	Until 30 January 2019, 11 people, including 3 yellow vests, had been killed in traffic accidents caused by yellow vests roadblocks in Belgium and France (Coquaz, 2019), and 4,439 police and civilians had been injured. It did not reveal future harms	Yes	Harmful (4.643 million global deaths and about 225.520 million global cases confirmed had been reported as of 14 September 2021 [CRC, 2021]) and revealed future harms
Concentrated geographic are	Yes	All over France	No	Global in scope

(continued)

Table 1 (continued)

Focusing events	YVM	Features of YVM	COVID-19	Features of COVID-19
Known to policymakers and public simultaneously	Yes	What policymakers had not been aware of until 17 Nov. 2018 was the magnitude, the intensity, the frequency, the geographical dispersion, and the duration of the protests	No	Policymakers were aware before public

Source DeLeo et al. (2021): 15 (for the features of COVID-19); The features of YVM are the authors' own elaboration

reaction. These compound risks, viz., when multiple risks occur simultaneously, or one after another (Willman, 2020), will intensify and be intensified by the current economic crisis (Phillips et al., 2020: 586). Ecker et al. (2020) examined whether depicting the response to the COVID-19 threat as a 'trial run' for future climate action would increase climate change concern and mitigation support but found no evidence for this.

Monasterolo et al. (2020: 1) studied the feedback loops and transmission mechanisms among the public health risk, the climate change risk, the financial risk and the economic risk (Fig. 2) and found that they "interact non-linearly in space and time in a nexus", causing compound risk. Governments' failure to acknowledge this

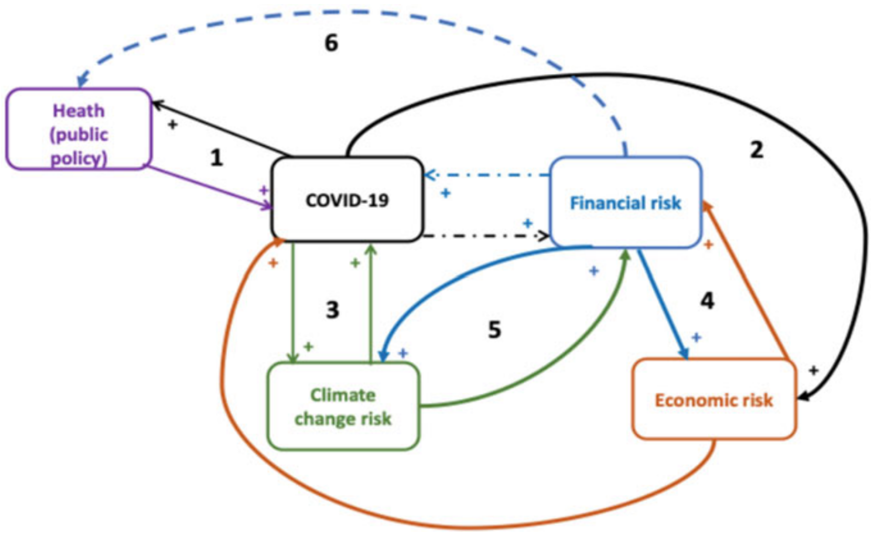

Fig. 2 Compound risk of COVID-19, climate change, economics and finance. *Source* Monasterolo et al. (2020): 5

nexus and approach it holistically hinders society and the economy to progress along a resilient trail. This is because there are different events interacting in a compound risk "that are not studied within the same field of research" (Monasterolo et al., 2020: 4). For example, let us take the town of Wuhan, along the Yangtze River in south-western China, which was heavily struck by both the COVID-19 pandemic in early 2020 and the torrential rains and floods in July 2020. How should the national and provincial governments intervene to tackle this multiple crisis? Only by recognizing the nexus between these four risks will policymakers be able to design and implement an effective and integrated policy to address them.

Policy Feedback

Typically, this is negative feedback produced by bureaucrats and evaluation studies and reports "on the unintended consequences of policies" (Pralle, 2009: 785). Repeated feedback on policies and progress may maintain pressure on politicians to fulfill their commitments (Pralle, 2009: 795).

The Council of State (Conseil d' État)

The Council of State made a decision in July 2021, ordering the government to take by March 31, 2022, all necessary measures allowing to bend the curve of greenhouse gas emissions (Conseil d' État, 2021). The deadline expires in the middle of the presidential campaign, which creates additional pressure for Macron, if he is a presidential candidate, to comply with the Paris Agreement.

High Council for Climate (*Haut Conseil pour le Climat*)

Assessing the Bill, the High Council for Climate, a body established by law in November 2019 by Macron to advise on climate policy, published a report indicating that the rate of decline in greenhouse gas emissions in France during the first carbon budget 2015–2018 had been about half as fast as needed to be on the right trajectory to achieving its 2030 target (HCC, 2021: 5).

From the discussion of the problem stream above, our first hypothesis is confirmed. The findings support the claim that "once elected, presidents have a quasi-contractual responsibility to ensure that their election promises are kept [and] an electoral incentive to do so because their chances of re-election are affected by the perception of their performance in this respect." (Elgie, 1999b: 69). Whenever a policymaker realizes that their re-election is in jeopardy due to a particular circumstance, they understand that condition as a relevant problem and seek to remedy it. Macron's centrist government seemed to have neglected climate action policy until November 2018 when the YVM appeared. French policymakers came to believe that the public expected them to react to the salient social justice and climate action problems and that a failure to do so could mean electoral losses. Thus, they became more likely to agree to a compromise. That was exactly what Macron did to respond to the demands of the YVM, by withdrawing the ecotax on fuel and increasing the minimum wage.

Politics stream

We will seek to identify and operationalize the concepts which make up the politics stream.

National mood

Environment was the second most important issue for the French, despite the prevailing economic and health crisis (ADEME, 2020). Polls "describe a mood; although cumulatively—insofar as politicians use them to shape strategy, cast doubt on rivals and build momentum—they count." (McNicoll, 2021). In an online opinion poll conducted in December 2018, 48% of the respondents said they would like Macron to resign while 55% of the respondents said that the National Assembly should be dissolved (Romanacce, 2018). While nearly 70% of the French did not want a Macron-Le Pen duel in the second round of the next presidential election, these two candidates were still the frontrunners in all the first-round hypotheses tested, according to the results of two surveys conducted in April 2021 by Ifop-Fiducial (2021) and Ipsos-Sopra Steria (2021). Macron is foreseen to get re-elected, probably because he seems to fit well the idea that the presidential race "attracts candidates that are highly ambitious and make bold promises" (Grossman, 2019: 32).

Government and legislatures: the French political system

Representative democracies are classified in: Parliamentary democracies, Presidential democracies and Semi-Presidential democracies (Clark et al., 2018: 454). "Semi-presidentialism is where a constitution includes a popularly elected fixed-term president and a prime minister and cabinet who are collectively responsible to the legislature" (Elgie, 1999a: 13). France belongs to the premier-presidentialism semi-presidential subtype of regime where the prime minister and cabinet are collectively responsible solely to the legislature (Elgie, 2011: 28). "The French Republic is an extremely hierarchical democracy with a relatively weak parliament and a very strong executive in which the president is a far stronger player than any other member of the executive." (Chadwick, 2021).

The 2017 French presidential election was held between April 23 and May 7, 2017. Macron won in the second round with 66.1% of the vote, succeeding in attracting voters from both the center-left Socialist Party and center-right Les Republicains (LR), which both lost considerable support in the primary process. The presidential election was followed by a legislative election on June 11 and 18, 2017. The centrist party which Macron founded in 2016, La République En Marche! (LREM), led an alliance with the centrist Democratic Movement (MoDem), which won 350 of the 577 seats, a substantial majority (60.66%) in the National Assembly.

Passarelli (2020: 92) clarifies that the Presidential Party (PP) is "the party of the candidate who in a […] semi-presidential system runs under its label and is directly elected." The French President does not participate in the parliamentary process. It is the French Prime Minister who has both to advance the government's agenda there and to secure a legislative majority for the government's policies. French politics for the period 2017–2022 is classified under the title 'imperial presidency' (Passarelli, 2020: 99). This means that Macron's party (LREM) is both a centralized and unified party in its organizational structure and a personalized Presidential Party. Macron is the recognizable, and recognized, political chief of his own parliamentarian party and government alliance. Thus, it is expected that LREM implements Macron's political program, which means that the legislature's fate relies on presidential success (Passarelli, 2020: 100).

Interest group advocacy campaigns

In December 2018, the 'Affair of the Century' (L' Affaire du siècle) petition was an initiative, taken by four environmental protection and international solidarity organizations: Notre Affaire à Tous, the Nicolas Hulot Foundation for Nature and Humanity, Greenpeace France and Oxfam France. It reached two million signatures within three weeks, making it the most massive online mobilization in French history. On December 17, 2018, the aforementioned NGOs sent a letter of formal notice to Prime Minister and twelve members of the French government, initiating the first stage in a legal proceeding against the French government for inadequate action on climate change. The plaintiffs alleged that the French government's failure to implement proper measures to effectively address climate change violated a statutory duty to act. On February 3, 2021, the Administrative Court of Paris issued a decision, recognizing that France's inaction has caused ecological damage from climate change (Sabin Center, 2021).

Policy stream

The impact of COVID-19 heavily affected the aviation and tourism sectors. Most airlines were short on liquidity and asked their national government for bailout plans. European governments decided to give loans and guarantees to airlines or nationalize their airlines. In April 2021, the European Commission approved French plans to grant up to €4 billion for the recapitalization of Air France, which is owned by the Air France-KLM Holding company, where the French state holds a 14.3% share. Corsair, a French private airline company, also received €140 million, in the form of restructuring aid and compensation measures. The French government bailed them out, for damages suffered in the context of coronavirus outbreak, to preserve jobs and prevent layoffs. However, this state aid was granted unconditionally, without setting environmental commitments for the airlines to reduce their CO_2 emissions. Ioannides and Gyimóthy (2020: 629) warn that this kind of government intervention might reinforce the prevalence of "existing power asymmetries" in the travel and tourism sector and underscore that "quick band-aid fixes" to address the consequences of the pandemic are insufficient because they ignore other crises taking place at the same time. Greenpeace (2020) advocated that aviation de-growth is indispensable to restrain global heating to 1.5 °C and restrict climate degradation and that the COVID-19 crisis should be the prompt for a just and green transition in the air transport sector and suggested specific policy solutions, including the protection of the employees' posts through a well-designed aviation de-growth action plan, and the active promotion of alternatives to polluting planes and cars, which would also generate many sustainable jobs.

Macron got elected with campaign promises and the #MakeOurPlanetGreatAgain hashtag used repeatedly on Twitter, to address climate change and position himself as a hero of the global climate against Donald Trump. This is because hero-focused policy narratives are instrumental in meeting policy goals at the meso-level (Shanahan et al., 2013). The Former French President, François Hollande, labeled Macron as "the President of the very rich". On February 10, 2021, the Bill on Climate and Resilience (Assemblée Nationale, 2021) was presented to the Council of Ministers, which was the outcome of 149 propositions made by the Citizens' Convention for Climate. The Bill aimed to "accelerate the transition from the development model to a carbon neutral, more resilient, fairer, and better society solidarity, set by the Paris Agreement.". In March 2021, the Bill was tabled to the Lower House for discussion and it was adopted in its first reading in May. The proposed Article 36 of the Bill [Article 145 of Law no. 2021–1104] (Légifrance, 2021) prohibits the operation of air services on internal routes within the national territory as long as an alternative by train exists in less than 2.5 h. The proposed Article 37 of the Bill (Article 146 of Law no. 2021–1104) provides for forbidding the construction of new airports and the extension of the existing airports.

Then the Bill was forwarded to the Upper House (Senate), controlled by a right-wing majority, which produced its version on June 29, 2021. Decision coupling became exceptionally difficult because even if the Bill proposal was supported by the majority alliance, the balance of power did not permit that alliance to pass the Bill without taking into consideration the position of the second chamber (Herweg et al., 2015: 445). After that, the Presidents of the two Houses convened the Joint Mediation Committee (Commission Mixte Paritaire) to propose a text on the provisions still under debate. On July 13, 2021, an agreement was reached on the final version of the Bill. However, Réseau Action Climat (2021) accused the government of 'green-washing': "*Despite the cries of victory from the government and the majority, it is recalled that NOTHING that was voted on in the text is up to the initial proposals of the Citizens' Convention for Climate.*" Law no. 2021–1104 of August 22, 2021, was published in the Official Journal of the French Republic on August 24, 2021 (Légifrance, 2021).

The French ruling alliance parties or their policy experts did not produce any policy ideas independently but adopted those put forward by the CCC, which was supported in its work by a wide range of experts and fact checkers. These proposals fulfilled to a certain extent some 'criteria for survival' (Herweg et al., 2017: 24) and thus, gained consensus within the broad policy community. These proposals were slightly revised or combined with the pet ideas of other experts of the ruling alliance so that they could become legitimate and be incorporated into the Bill. In the meanwhile, the French relevant public was ripe enough, although with some reservations, to accept these specific citizen-driven policy proposals.

From the above discussion, we can conclude that the policy stream was ripe; therefore, successful agenda coupling occurred because: (a) viable legitimized alternatives became available, (b) these alternatives gained consensus within policy communities and (c) ensured that the relevant public was ripe enough to accept them.

Policy entrepreneurs

Marion Cotillard and Cyril Dion

On the occasion of the march for the climate, organized on October 13, 2018, which gathered 100,000 people across France, the French writer and film director Cyril Dion said that "*if we want to mobilise millions of people, we need an emotion, a euphoric emotion as if we had won the World Cup or a tragic emotion when we confront barbarism or assassination attempts*" (Alternatiba Paris, 2018). It is estimated that about 700,000 people in total had participated in 2,300 marches in 170 countries around the world during the COP21 UN Climate Conference 2015 in Paris. On February 12, 2019, Macron invited the French actress Marion Cotillard and Dion to discuss climate change; on February 22, 2019, Macron discussed climate change at the Élysée Palace with the Swedish activist Greta Thunberg. Some days before this meeting, Thunberg had given an interview to the French media *Brut*:

> *Dear Mr. Macron, you need to take action now, not just talking about taking action. Because if you keep on going like this, 'business as usual', you are going to fail. And if you fail, you are going to be seen as one of the worst villains in human history.* (Brut, 2019)

On April 25, 2019, on Cotillard and Dion's proposal, Macron announced the establishment of the Citizen's Climate Convention.

Policy windows: the agenda coupling and the decision coupling process

In Fig. 3, we use the streams metaphor to depict three kinds of partial couplings between pairs of streams (marked A, B and C), and two complete couplings (marked D and E). The order in which partial couplings A, B and C are illustrated is random. Dolan (2021: 180) remarks that "the streams metaphor implies that partial couplings appear and disappear over time until a complete coupling occurs" and that "it is possible for all three types of partial couplings to coexist simultaneously, connecting various problems, policies, or political opportunities to each other".

In coupling A, the policies stream and the politics stream converge. It is the adoption of the Paris Agreement on December 12, 2015, during the COP21 UN Climate Conference under the French presidency of Hollande. It was the first time in over 20 years of UN negotiations that a binding and universal agreement on the reduction of climate change was concluded by the participating 196 countries.

Multiple policy entrepreneurs (e.g., politicians, artists) like Laurent Fabius**,** the French foreign minister and president of COP 21, Laurence Tubiana, the French top climate ambassador, Marion Cotillard, Leonardo DiCaprio, Robert Redford and Sean Penn attended the event and successfully raised awareness of the climate change crisis. After years of stagnation with regard to the climate change issue, there was a renewed political willingness of the participating countries to review it. However, ecology activists observed that COP21 had betrayed its promises and that the Paris Agreement had two major flaws: (a) there was no legal constraint to enforce it, and

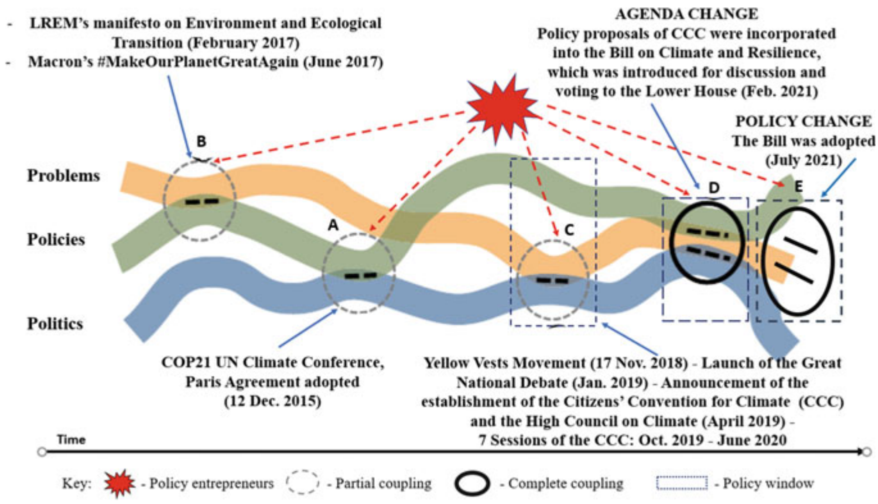

Fig. 3 The streams metaphor and the French national climate change policy over time. Source Adapted from Dolan (2021): 80; Cooper-Searle et al. (2018): 54; Authors' own elaboration

(b) it relied only on the goodwill of the states who had to set their commitments themselves (ANV-COP21, 2020). On December 12, 2015, about 20,000 people protested in Paris to declare a state of climate emergency.

In coupling B, the problem stream and the policies stream converge. It is the period of the change of the French administration, that is, when Macron takes over presidency. During his presidential election campaign, Macron had announced his party's program for the environment and the ecological transition. This program had suggested a change of model that would make it possible to reduce energy consumption and air transport carbon dioxide (CO_2) emissions, create sustainable and connected cities, breathe higher quality air and create jobs.

When President Donald Trump announced on June 1, 2017, that the U.S. would cease all participation in the 2015 Paris Agreement on climate change mitigation, Macron said in English: "*I call on you to remain confident. We will succeed [...] Because we are fully committed, because wherever we live, whoever we are, we all share the same responsibility: Make our planet great again.*" (Abrams, 2017). However, Macron's actions during the first 18 months of his presidency seemed to be deprived of a sense that an urgent problem was being solved, probably because he was "afraid of suffering excessive political damage" and the electoral consequences. Four years after the COP21, France never succeeded in meeting its targets for reducing greenhouse gas emissions.

In coupling C, the problems stream and the politics stream converge. Climate change was not framed as a technical problem but as a social justice or moral problem, pertaining to questions of unequal responsibility for the problem and wealth distribution (Pralle, 2009: 792). The French climate change advocacy groups took advantage of the open agenda window and used relational strategies to frame the general discontentment as relating to climate change action. Political conditions started to change as soon as Macron realized the accumulated anger and the rising general discontentment of the French people with his policies. To appease the protesters, he launched the Great National Debate, a 'deliberative democracy' exercise, and announced the establishment of the Citizens' Convention for Climate (CCC) and the High Council for Climate.

In coupling D, agenda change occurs when the three streams join. It is the policy formulation stage. It is where the decision window opens. Multiple policy entrepreneurs outside of the French government such as the YVM, Greenpeace France, Cotillard and Dion forcefully promoted the agenda change and successfully raised awareness of the urgency of the climate change crisis as there had been no political willingness from Macron to address it adequately until that time. Feasible solutions produced by the CCC, which met the survival criteria, were attached to what the public and the policymakers perceived as a significant public problem. Policy entrepreneurs used indicators and feedback on existing policy programs, seized the opportunity and pushed for government action (Pralle, 2009: 784). They also sought new venues, "shopping among the various governmental institutions", such as the Council of State, where they could urge for their policy claims (Pralle, 2009: 797). This venue shopping was successful and helped advocacy groups to keep the climate change action issue on the governmental agenda for an extended period. But it was originally the YVM that the French environmental advocacy groups fell back on and drew the attention of the policymakers to the climate change problem blaming the government for inaction. We also observe that the COVID-19 crisis did not open the unique "opportunity for escaping the unsustainable global tourism path" as expected because of the French policymakers' short-sightedness and insistence on following "a fundamentally flawed market logic" (Ioannides & Gyimóthi, 2020: 624). The lesson learned from this case study is that crises do not always lead to policy changes and reforms. In the light of the discussion above, our second hypothesis (H2) is confirmed because all the prerequisites were met simultaneously at a given point in time.

In coupling E, policy change occurs. It is the policy legitimation stage. It is where the three streams converge again because they are ripe for coupling. One of the policy outputs is the adoption of the Bill on Climate and Resilience by the French Parliament in July 2021 and the publication of Law no. 2021–1104 of August 22, 2021. However, Pralle (2009: 783) underscores that "a single policy enacted at a particular moment" does not mean that the government is likely to solve this 'wicked' problem, as gradually "more stringent targets will have to be enacted" on condition that this issue remains high on the government agenda and is not displaced by economic declines and other political and social developments.

Nonetheless, environmental NGOs like Greenpeace France (2021) interpreted this policy output as the government's failure because the law completely missed the key issue of regulating air traffic and will probably only affect between one and three air routes out of the hundred or so that exist, with an extremely limited climate benefit. It also believes that the provision banning the construction of new airports

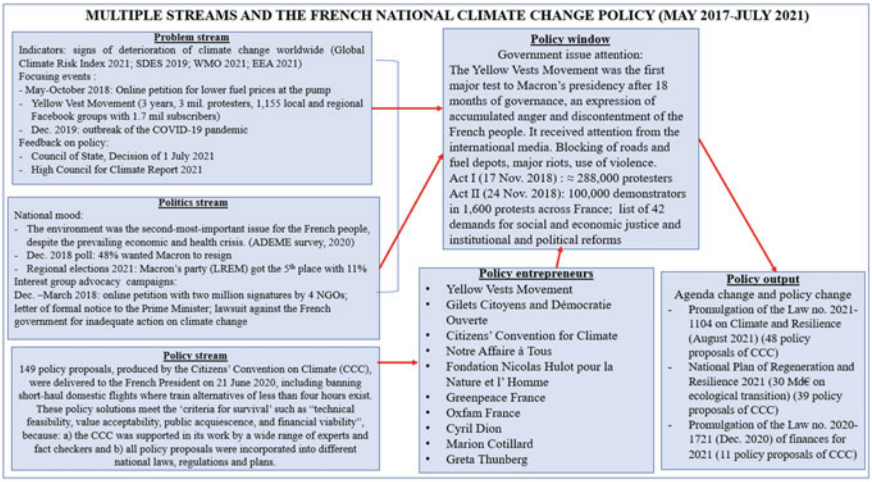

Fig. 4 The policy process leading to the adoption of the Bill on Climate and Resilience in France, through the lens of the Multiple Streams Framework. *Source* Adapted from Zahariadis (2003), Authors’ own elaboration

and airports expansion projects will be ineffective and criticizes the upper house’s decision to reject the Senate’s proposal for a 5.5% reduction in VAT on train tickets. For a summary of the policy process leading to the adoption of the Bill on Climate and Resilience in France, explained through the lens of the Multiple Streams Framework.

5 Conclusion

Our findings show that the policy window for climate action policy opened with the emergence of the YVM while COVID-19 did not lead to an “environmentally friendly and resource neutral” consumption model of the tourism industry (Prideaux et al., 2020: 667). The MSF seems to fit well to analyze the public policy process in semi-presidential systems. By operationalizing all MSF concepts and testing two hypotheses derived from them, this paper allows portability of the MSF and comparison between MSF empirical applications across different political systems on multiple levels of governance. Further qualitative and/or quantitative MSF research could focus on comparative politics, comparing institutional responses and policy processes in countries with similar or different political contexts to investigate whether COVID-19 facilitated or hindered policy learning and whether it functioned as an opportunity window for a climate change-driven transformation of the travel and tourism sector.

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Exploring Indirect Environmental Risks That Impact Coral Reef Tourism in the East African Marine Ecoregion

Dimitri Dimopoulos, Dorothy Queiros, and Ciné van Zyl

Abstract The east coast of Africa is renowned as an adventure tourism getaway destination, and scuba dive tourists from around the world frequent the region to dive on its pristine coral reefs. Environmental change, however, is becoming a key driver for dive tourists' decisions to travel, and these tourists are avoiding areas where coral reefs are no longer pristine. Indirect environmental risks, occurring outside the borders of countries and outside the control of dive operators, impact coral reef tourism within those countries and on the greater Blue Economy. Indirect environmental risks include climate change, industrialisation of coastal regions, increased shipping and boating activities, as well as marine and land-based pollution. This paper reports on the perceptions of dive operators on the indirect environmental risks which threaten the future of the dive tourism industry in the East African Marine Ecoregion. The research followed an exploratory and descriptive research design within a post-positivism paradigm. Via purposive sampling, surveys were conducted with 34 dive operators from Kenya, Tanzania, Mozambique and South Africa. Research findings indicate two overall areas of concern impacting coral reefs—activities relating to climate change, followed by coastal development and industrialisation of coastal areas. In terms of specific indirect risks, marine pollution is significant, followed by coral bleaching and extreme weather events. There is an increasing level of concern that continued environmental disturbances will impact business in future. This is not just a problem for the coastal tourism industry but also for coastal communities who share this precious resource. It is vital to cast a spotlight on the turbulent waters of environmental risks, which ultimately affect the sustainability of marine tourism and the wider Blue Economy. By doing so, regional plans can be shaped to respond to these threats in a more discerning way.

Keywords Dive operators · East African Marine Ecoregion · Environmental change · Indirect environmental risks · Marine tourism · Scuba diving industry

JEL Classification Q53 · Q54 · Z31 · Z32

D. Dimopoulos (✉) · D. Queiros · C. van Zyl
University of South Africa, Pretoria, South Africa

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_9

1 Introduction

"*Code red for humanity*"! The August 2021 report released by the Intergovernmental Panel on Climate Change (IPCC) has triggered global shock waves, reporting that some aspects of climate change are irreversible (De Ferrer, 2021: 1). Humanity's ecological footprint remains deeply unsustainable. The World Wide Fund for Nature's (WWFs) Living Planet Index continues to decline, showing an average decrease of 68% in population sizes of animals and fishes between 1970 and 2016 (WWF, 2020). The most recent report on our oceans states that "*overfishing, pollution and coastal development, among other pressures, have impacted the entire ocean, from shallow waters to the deep sea, and climate change will continue to cause a growing spectrum of effects across marine ecosystems*" (WWF, 2020: 70). Moreover, the effects of such environmental changes, such as the 2016 El Niño which caused the coral bleaching of Australia's Great Barrier Reef causing a mere 67% coral mortality rate, resulted in a dramatic drop in dive tourism numbers in the region (Coral Reef Studies, 2016; Smee, 2018).

Marine tourism is one of the fastest growing sub-sectors of the marine industry and is expected to be the largest contributor to the global ocean economy (Dwyer, 2018). Marine tourism can be defined as recreational activities whose focus is based on marine environments such as coral reefs (Orams, 1999). Scuba diving is an important component of marine tourism and has become a key recreational activity in the East African Marine Ecoregion (EAME). Dive operators are located close to areas where dive tourists can access coral reefs and offer services that facilitate the scuba diving experience such as diving courses, scuba equipment, accommodation and boating fleets to get to the reefs.

Coral reefs are the primary nautical assets for dive tourism. Yet, they are influenced by the continued barrage of environmental disturbances, which affects their ability to adapt to such changes (Buddemeier et al., 2004; Richmond, 2011). Environmental risk, in the context of coral reefs, concerns changes to the environment around which corals thrive that are influenced by environmental disturbances, and the coral reef and supporting ecosystem's ability to endure such changes. Indirect environmental risks, which form the focus of this paper, are those that occur further afield outside the borders of countries and outside the control of dive operators.

These risks compromise the quality of the tourist experience (Hinch & Higham, 2011). Once tourists perceive a degraded destination image, this will have implications on dive tourism, as these businesses depend on dive tourists being able to experience pristine reefs.

The dire situation has prompted the discussion of contemplating a reality without coral reefs. It is therefore essential to have an in-depth understanding of environmental risks. Part of this is the category of indirect environmental risks. This paper therefore reports on the perceptions of dive operators on the indirect environmental risks which threaten the future of the dive tourism industry in the East African Marine Ecoregion (EAME).

The paper commences with a literature review on indirect risks, followed by a description of the study area and methodology. The results are then presented and discussed. The paper ends with a conclusion and reflections on mitigating indirect environmental risks.

2 Literature Review

The literature review focuses on indirect environmental risks that affect the health of coral reef ecosystems and will consequently result in a poor experience for dive tourists. This affects the destination image, which will ultimately negatively impact dive operators' businesses in the region. Climate change and coral reefs will be discussed first, followed by coastal development and coral reefs.

2.1 Climate Change and Coral Reefs

Climate change refers to a change of climate which is attributed directly or indirectly to human activity that changes the composition of the global atmosphere and is observed over comparable time periods (UNFCCC, 1992). Climate change has far-reaching implications for the health and functioning of coral reef ecosystems (Anthony & Marshall, 2009; Hughes et al., 2003). Burke et al. (2011) suggest that the state of coral in the Indian Ocean has shown a significant decline as a result of anthropogenic and climate-related episodes, where as much as 68% of coral reefs are under threat. Research has indicated that climate change in ocean temperatures could effectively kill off most hard coral species by mid-century, with unknown consequences for remaining coral communities (Wilkinson, 2008).

The effects of climate change on coral reefs and their associated ecosystems also threaten the coastal communities that derive benefits from the coral reefs themselves (Buddemeier et al., 2004; Burke et al., 2011; Gössling et al., 2008). The scuba diving industry will also be affected by coral mortality, as divers are less inclined to visit dive sites in areas where the once pristine marine environment has been degraded.

Climate change-related episodes include coral bleaching, extreme weather events, sea-level rise and ocean acidification. Each of these is discussed in turn below.

Coral Bleaching and Sea Surface Temperature (SST) Rise

Scientists observe coral bleaching to be one of the most destructive forces on coral reefs in the Western Indian Ocean. Rising sea surface temperatures appear to be the primary cause of mass coral bleaching events (Australia, 2016; Celliers & Schleyer, 2002; Cesar et al., 2003; Hoegh-Guldberg, 1999; Obura, 2017). In 2015 and 2016, ocean temperatures reached their highest levels, making it one of the strongest El Niño events ever recorded causing overall global warming (NOAA, 2016). Mass bleaching events are thought to have only occurred every decade or century prior to the 1980s, but from 1982 to the present, coral bleaching events worldwide have increased in frequency and are expected to increase to a near-annual frequency in the next 20–50 years (Sealey-Baker, 2010).

Extreme Weather Events

Rising global average temperature is associated with widespread changes in weather patterns. Scientific studies indicate that extreme weather events such as heat waves and large storms are likely to become more frequent or more intense with human-induced climate change (Burke et al., 2011). A recent study by Fischer and Knutti (2015) suggests that the effects of warming will vary around the world. Tropical storms are also predicted to change in strength and frequency, as a result of rising sea surface temperatures (Knuston et al., 2008). Damaged corals will not be able to recover in time as frequent storms erode the coral reef structures, reducing reef resilience and damaging marine ecosystems (Perkins et al., 2012; Rahmstorf & Coumou, 2011; Wilkinson & Souter, 2008).

Sea-level Rise

Sea-level rise causes submergence and flooding of coastal land and erosion of beaches and near-shore developments (Ibe & Awosika, 1991; IPCC, 2007; Nicholls & Cazanave, 2010). Long-term effects would include increased erosion of coastal zones; reduced ability of coral reef algae to adapt to lower levels of light; the reduction of coastal wetlands, saltmarshes and mangroves; and changes in coastal development and infrastructure (Burke et al., 2011; Richmond, 2011). It also affects coral's ability to adapt to other changes, such as coral bleaching and coral disease (Kleypas et al., 1999).

Ocean Acidification

Coral reefs' mortality increases as a result of ocean acidification (Jury et al., 2010). The increase in anthropogenic CO_2 since the beginning of the industrial revolution has led to the ocean becoming more acidic. This decreases habitat quality and diversity, and the reefs' ability to absorb wave energy, which is instrumental for coastal protection (Richmond, 2011). Reduced effectiveness of coral reefs is detrimental to coastal populations, as fish species may decline as the reefs die. It also has dire implications on dive tourism, as businesses depend on dive tourists being able to experience healthy reefs.

2.2 *Coastal Development and Coral Reefs*

Africa's marine and coastal resources have traditionally supported livelihoods through artisanal fisheries and subsistence agriculture. At present, the EAME is experiencing rapid urban and industrial growth, with the development of harbours and ports, urbanisation, industrial fisheries, oil and gas exploration and tourism (Kitheka et al., 2011). Much of the region's natural coastal assets have supported a growth in tourism, bringing substantial economic benefits to local communities.

Marine Pollution: Land-Based Pollutants, Micro-plastics and Floating Marine Debris

Indirect environmental effects resulting from marine pollution have various sources, some of which are land-based and others originating deep in the ocean. Sources of pollution are difficult to establish given that contaminants often travel far distances before they settle on or near coral reefs where they are likely to do harm. Sources include land-based run-off such as industrial and agricultural waste, and ocean-based pollution from shipping and boating activities resulting in marine debris and plastics (Obura, 2017; Richmond, 2011). Increased tourism and recreational activity is also a source, with additional sediments and chemicals such as effluents, bilge water and engine oil from boats and cruise ships (Danovaro et al., 2008).

Industrialisation of Coastal Regions

Rapid urbanisation of coastal regions in the EAME causes loss of biodiversity, habitat degradation, and the modification of mangrove and coral reef ecosystems to make provision for industrial growth (Burke et al., 2011; Pereira et al., 2014; Richmond, 2011).

Increased Shipping and Boating

Increased shipping and boating traffic results in coral reef damage around the world (Scarlet & Bandeira, 2014). In the EAME, this is occurring at increasing rates with the dredging of seabeds, shipwrecks, oil and gas exploration and fishing fleets devastating large areas of coral reefs and their ecosystems (Burke et al., 2011; Jones et al., 2016).

3 Study Area and Methodology

The EAME includes the territorial waters from Somalia (10° North latitude), extending south along the East African coastline to north-eastern South Africa (28° South latitude) and the international waters within the 200-mile Economic Exclusion Zone (Oglethorpe, 2009). Kenya, Tanzania, Mozambique and the north-eastern coast of South Africa fall within the EAME and are the countries of focus for this research. The distribution coverage of dive operators within these countries is limited to their proximity to coral reefs, since most dive operators operate from within or close to marine protected areas (MPAs) and marine reserves (Oglethorpe, 2009; Wilkinson, 2008). Figure 1 illustrates the geographical range of the EAME and the level of coral reef degradation in the region.

The research design was exploratory and descriptive, within a post-positivism paradigm. The methodology consisted of structured interviews and surveys. Four structured interviews took place between July and October 2015. One dive operator in

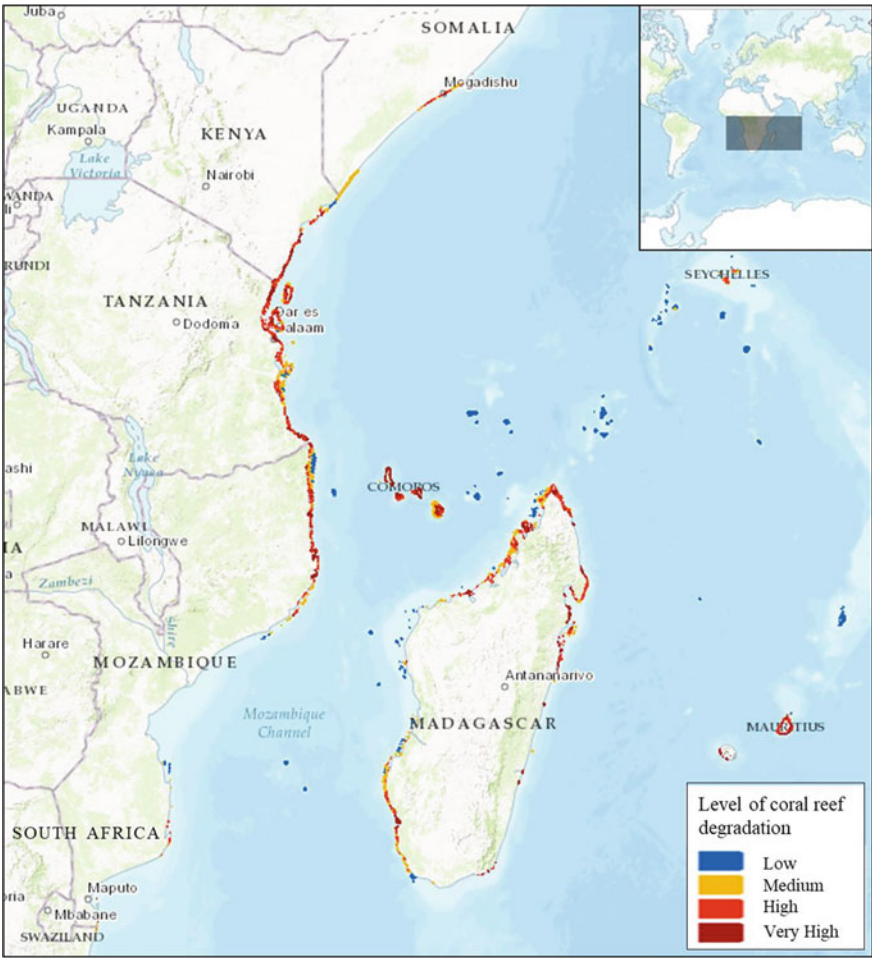


Fig. 1 Level of coral reef degradation along the east coast of Africa. *Sources* ArcGIS (2015), Burke et al. (2011)

each of the four focus countries was selected via purposive sampling. These findings, along with the literature review, were used to shape the survey.

An online structured survey, using Survey Monkey©, was conducted between July and September 2016 with dive operators located in the dive tourism hotspots of the EAME. The sample size (63) was determined from a given population of 77 dive operators. To increase responses, the researcher travelled to the EAME and administered several surveys in person. In total, 34 responses were received. Data was prepared for analysis and interpretation using IBM SPSS©. Descriptive statistics are used to describe the characteristics of the sample (Leedy & Ormrod, 2010). The presentation of frequencies, measures of location (mean, median and mode) and measures of spread (standard deviation) were used to describe the outcome of this study (Cooper & Schindler, 2008). As this was mainly an exploratory study, many of the statistics are descriptive. Accordingly, a descriptive analysis was carried out on all valid data to determine the mean intensity and standard deviation for the responses.

To express the variable levels of impact, a Likert scale was used, ranging from very high impact (5), high impact (4), moderate impact (3), low impact (2) to no impact (1). This scale provided a rating of the respondents' perceptions on the level of impact for indirect environmental risks.

4 Results and Discussion

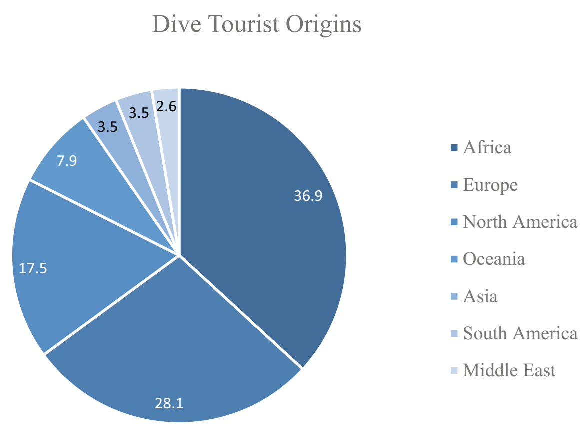
The research findings are discussed in this section and cover (1) biographical information, (2) an overall context of environmental risks and (3) a comparative analysis of indirect environmental risks.

4.1 Biographical Information

Dive operators have typically remained in business for a sustained period with the majority of dive operators (82.35%) in business for 10 years or more. All of their scuba diving activities occur on coral reefs, with over 90% of dives taking place in the MPAs. Over 70% of these operators derive the majority of their revenue from scuba diving activities.

Dive operators were asked to indicate where their dive tourists come from, and Fig. 2 illustrates these findings. The 36.85% hailing from Africa are mostly dive tourists from the four focus countries, either travelling domestically or crossing

Fig. 2 Origin of dive tourists by region



borders, in particular, South Africans going to Mozambique and Zanzibar in Tanzania.

4.2 Overall Context of Environmental Risks

The introduction and literature review clearly indicated the importance of paying attention to environmental risks. This section considers the researchers' findings in this regard.

Impact of Environmental Risks: Present Versus Future

Dive operators were asked what the impact of environmental risks was on their dive operations at present, and what they perceived it would be in future (Fig. 3). While the current perceived impact was only 8.8%, the future impact rose to 26.5%. Historically, most dive operators in the EAME had not deemed environmental risks to have an impact on their businesses as they mostly operate within MPAs. However, they now see negative changes on the horizon.

Exploratory Factor Analysis: Climate Change and Coastal Development

The data collected for indirect environmental risks was subjected to an exploratory factor analysis (EFA) to explore relationships among variables measured using the five-point Likert scale to rate the impact of external risks (Table 1).

The risks were rotated into two factors. The first relates to **climate change**-related impacts. These occur on a global scale and negatively impact coral reefs (items 1, 2, 3, 4 and 7). This factor is considered most important among dive operators. The second factor considers **coastal development** (industrialisation of coastal areas and

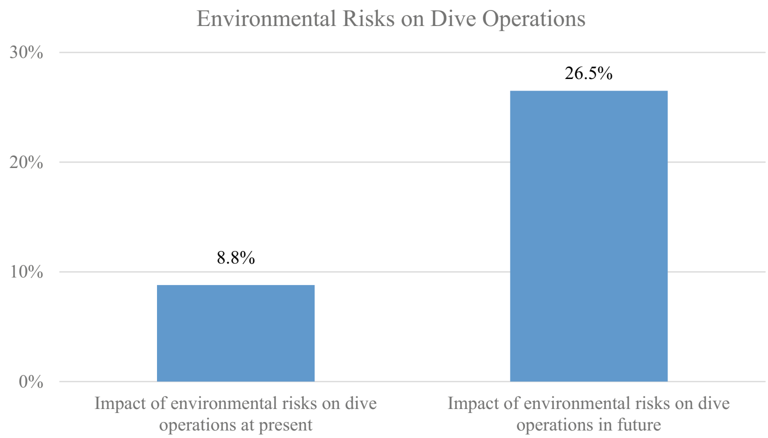


Fig. 3 Perceived impact of environmental risks on dive operations: comparison between present and future

Table 1 Indirect environmental risk factors

Item	Indirect Environmental Risks	Factor	
		1	2
3	Ocean Acidification	0.906	
1	Coral Bleaching	0.699	0.432
4	Extreme Weather Events	0.604	
2	Sea-level Rise	0.593	
7	Marine Pollution	0.570	0.523
5	Industrialisation of Coastal Regions		0.940
6	Increased Shipping & Boating	0.334	0.828

increased development of ports and harbours to accommodate shipping and boating traffic)—items 5 and 6.

Coral Reef Degradation and Business Continuity

Dive operators were asked whether coral reef degradation would have an impact on their businesses, and how long they could continue to operate given the extent of coral reef degradation. 11.35% of the respondents felt that they would close their operations within 5 years, while 14.65% said their businesses could survive if there was no further coral reef degradation, which at this stage is unlikely. This is a key finding as it demonstrates that dive operators have low resilience to indirect environmental change.

Dive Tourist Decisions

Finally, dive operators were asked whether environmental risks would influence the decisions of dive tourists to travel to a dive destination. Figure 4 shows that 21 out of the 34 dive operators (62%) felt that a negative environmental change on coral reefs is a major concern for dive tourists and is a determining factor when making

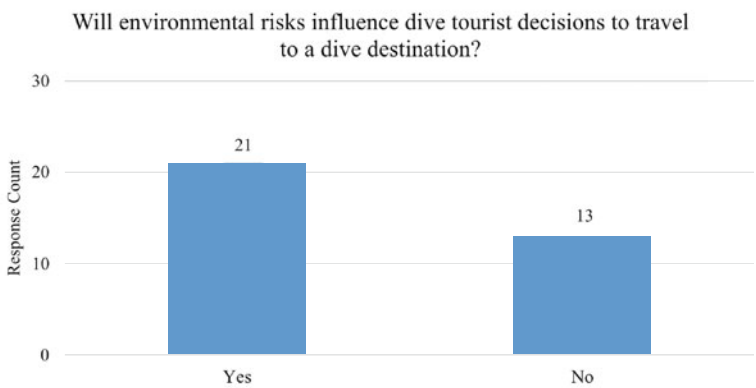


Fig. 4 The influence of environmental risks on the decisions of dive tourists

a decision to travel to a scuba diving destination. This illustrates the importance of destination image for attracting dive tourists.

In closing Sect. 4.2, environmental risks are perceived to be a future threat in the EAME. Environmental degradation occurring on coral reefs would negatively affect the continuity of dive operations as well as negatively influence a dive tourist's decision to travel to a dive destination. These overall results have confirmed the literature—environmental risks matter and it is important to have an in-depth understanding of them. This in-depth stance is the focus of the next section's comparative analysis.

4.3 *Comparative Analysis of Indirect Environmental Risks*

Having set the context above of the importance of environmental risks, this section now dives into the individual risks and compares these for each country. Figure 5 illustrates the highest indirect environmental risks per country. The various risks surround the radar with each country having its own colour. It provides a glance into **which risks are most prominent per country**, with the numbers representing the Likert scale results per country.

The risk radar diagram reveals that Tanzania is experiencing all the indirect environmental risks at a higher level than the other countries (except for extreme weather

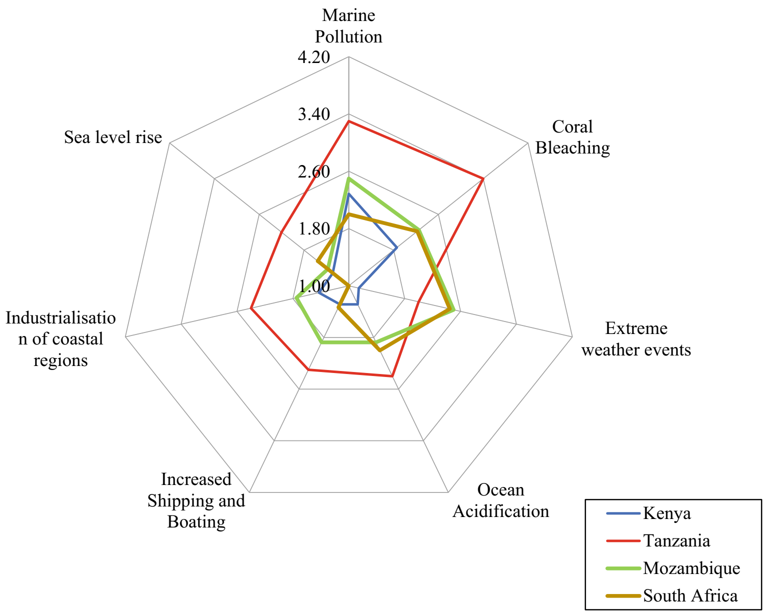


Fig. 5 Risk ratings for indirect environmental risks

events). For South Africa and Mozambique, however, extreme weather events are the highest indirect environmental risk.

It is also important to consider **the overall mean per risk to compare how the individual countries fare against the overall mean.** These overall means are depicted in the bar graphs that follow. The three indirect environmental risks that fall above the mean are discussed next, namely marine pollution, coral bleaching and extreme weather events. Industrialisation of coastal regions, increased shipping and boating, sea-level rise and ocean acidification all scored below the overall mean and are therefore not discussed in this paper. However, it is important to note that they cannot be ignored as the first two contribute towards marine pollution and the second two to climate change. As pointed out in Sect. 4.2, these were the two factors emerging from the EFA.

Marine Pollution

Marine pollution (floating plastics and marine debris) ranked highest among the indirect environmental risks. Marine pollution originating from the open ocean has been shown to negatively affect coral reef ecosystems. Micro-plastics, floating plastics, fishing gear debris and rubbish thrown overboard ships all contribute to the mass of marine debris that finds its way to coastal shores by ocean currents. Figure 6 shows marine pollution responses by country. Dive operators in Tanzania (M = 3.30) (SD = 0.67) felt that marine pollution is a problem that needs to be addressed and viewed as having a particularly high impact. Those in Mozambique (M = 2.50) (SD = 0.53) acknowledge there is a problem but do not consider marine pollution drifting onto reefs from other parts of the ocean to be impacting their coral reefs. Marine debris is an increasing problem and, although much pollution is out at sea, ocean gyres are

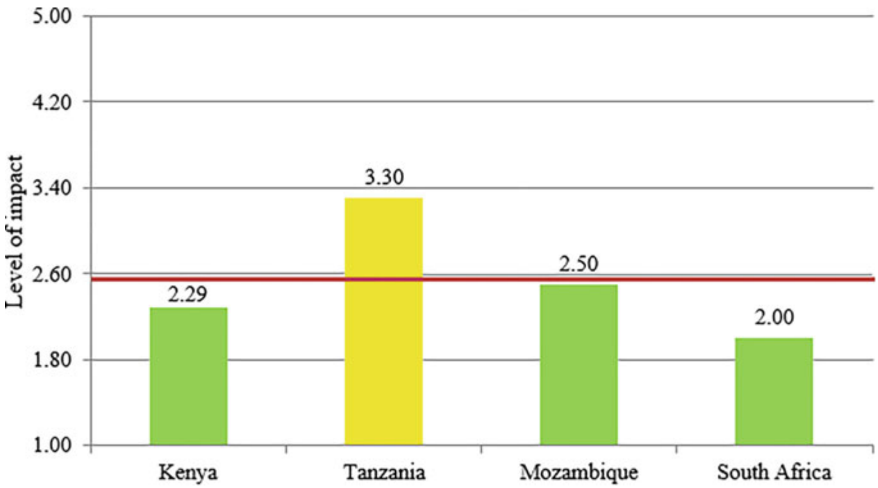


Fig. 6 Marine pollution (plastics, marine debris) [Red line indicates the overall mean for Marine pollution (plastic, marine debris) (M = 2.56) (SD = 0.89)]

pushing this pollution towards coastal and shallow ocean regions (Danovaro et al., 2008). Pereira et al. (2014) indicate that marine pollution is becoming an increasing problem in Mozambique. South Africa (M = 2.00) (SD = 0.87) and Kenya (M = 2.29) (SD = 0.95) are seen as a low risk.

Coral Bleaching

Coral bleaching resulting from increasing sea surface temperatures (such as was caused by the recent El Niño event of 2015/2016) has had a devastating effect on coral reefs. The 1998 El Niño event destroyed much of the coral off the east coast of Africa. According to Obura (2005), there was a 50% mortality on most reefs closer to the equator. Sustained sea surface temperature rises have been shown to cause irreversible harm to coral reef ecosystems, and these effects can be seen long after such events have passed. Figure 7 shows the perceived impact that coral bleaching has on coral reefs. The coral reefs in Tanzania (M = 3.40) (SD = 0.52) have suffered extensively from previous coral bleaching episodes, and dive operators along the entire Tanzanian coast perceive this to be one of the greatest environmental impacts. This could be as a result that shallow reefs in Tanzania would be more sensitive to heat variations than reefs which are in deeper waters off fringing reefs such as in Kenya (M = 1.86) (SD = 1.21). In addition, the ocean currents are cooler where reefs occur at higher latitudes such as in southern Mozambique (M = 2.25) (SD = 0.71) and South Africa (M = 2.22) (SD = 1.30). Incidents of coral bleaching have, however, been observed in all countries along the east coast of Africa, but not all countries have reported high levels of coral bleaching, especially those in high latitude reefs.

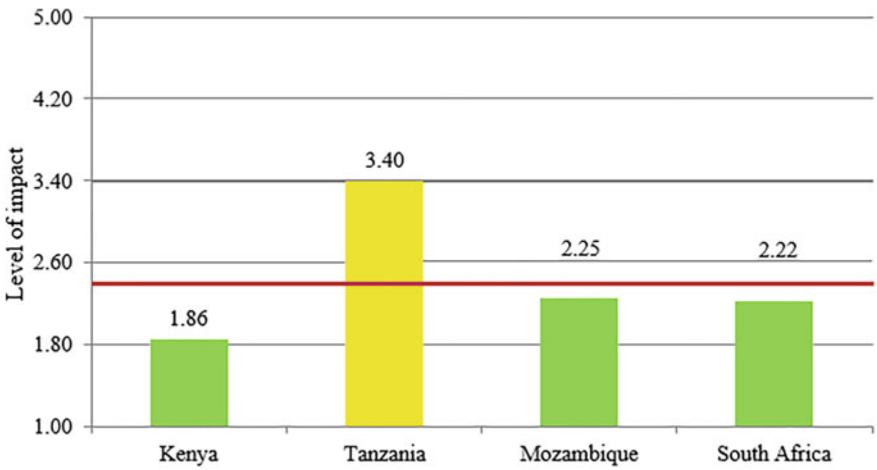


Fig. 7 Coral bleaching [Red line indicates the overall mean for Coral bleaching (M = 2.50) (SD = 1.11)]

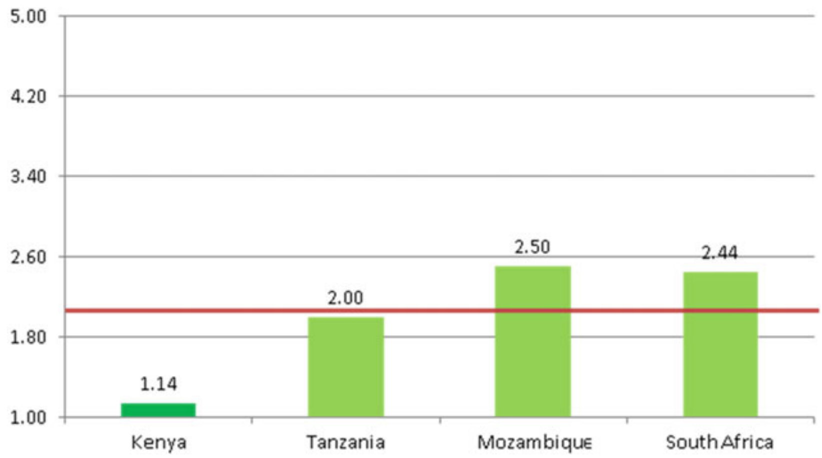


Fig. 8 Extreme weather events [Red line indicates the overall mean for Extreme weather events (M = 2.06) (SD = 1.01)]

Extreme Weather Events

Figure 8 shows the extent to which extreme weather events (tropical cyclones, severe storms, etc.) may cause the destruction of coral reefs. Overall, most dive operators felt that this was not a risk that would have an impact on their dive operations. Dive operators in Mozambique (M = 2.50) (SD = 1.20), however, rated extreme weather events as the highest impact, while South Africa (M = 2.44) (SD = 1.13) scored the second highest. Given that these two countries are in a similar geographical range, these stretches of coastline may be more susceptible to severe and damaging storms than other areas along the East African coast. However, there is evidence that climate change is causing more severe weather and that this is expected to occur at a higher frequency in future (Fischer & Knutti, 2015). The recent report released by the IPCC focuses on extreme weather events across the world that have been triggered by climate change. These in turn will damage coral reefs further. At this point in time, however, dive operators from Tanzania (M = 2.00) (SD = 0.38) and Kenya (M = 1.14) (SD = 0.38) expressed that it had little or no impact at present.

Section 4.3 started by depicting which risks were most prominent per country. It then considered the three indirect environmental risks that scored the highest, and within those, discussed in-depth the risk level for each country.

5 Conclusion and Reflections

This paper has cast a spotlight on the turbulent waters of indirect environmental risks, which ultimately affect the sustainability of marine tourism and the wider Blue Economy. Findings reveal that indirect environmental risks have the potential to impact dive operators' businesses in the EAME in future. This change is attributed to climate change-related events and the development of coastal regions. The highest indirect risks at present in the EAME are perceived to be marine pollution, coral bleaching and extreme weather events. As the quality of coral reefs declines, this will affect the destination image, resulting in less dive tourists.

Since indirect environmental risks fall outside of the control of dive operators, countries and even wider regions, it makes the response to these threats complex. In an attempt to explore possible responses to these threats, the paper ends by offering a few reflections in this regard. It is not easy to remain optimistic about the future of the marine environment when it has seen so many environmental disturbances in such a short space of time. Clear and decisive actions need to be taken to restore the health of coral reefs and to find ways to prevent further coral reef degradation.

Climate change is affecting the dive tourism industry on a global scale, and it is therefore important to take examples and guidance from those who have implemented strategies to address these issues. The Paris Agreement's target to keep global atmospheric temperatures below 2 °C is one of the most important accords ever implemented, but its effectiveness is yet to be quantified. Governments in the countries within the EAME need to urgently adapt their policy frameworks to align with the UN Sustainable Development Goals, much like the European Union has done. These are hard measures designed to shock the systems currently in place to make significant changes towards current approaches to anthropogenic environmental change.

MPAs aim to offer protection through the implementation of policy at a local and at best, national level, however, they are not as effective in providing solutions at a regional or global scale where the cooperation of governments can help drive effective change. Dive operators understand fully well that coral reef degradation is expected to continue and will have an impact on business continuity in future. Employing any adaptation strategies to counter the indirect environmental impacts has not been prioritised as such risks have not been easily recognisable and are not within the control of dive operators.

Yet, regional plans can be shaped to respond to these threats in a more discerning way. While carbon dioxide emissions from African countries are literally "*a drop in the ocean*", governments of EAME countries could take tough decisions to reduce these emissions that contribute to global warming. Strict action could be taken to curb land-based pollution that lands in the ocean, and boating and shipping activities that harm coral reefs.

Collaboration in the value chain of coral reef tourism is key! Governments, national park authorities, dive operators, dive training organisations, non-government organisations and local communities need to establish strong collaborations to draft sound economic and sustainable solutions, formulate new policy thinking and, at the same time, find ways to build capable and effective resilience.

To ensure continuity and sustainability for the dive tourism industry, and for the local communities who rely on coastal resources, coral reefs need to survive and thrive. With tourism as the largest global economic sector, and with marine tourism being a significant income earner, it should be "*all hands on deck*" so that we do not have to contemplate a future without coral reefs.

Yes, it may be code red for humanity, but "*if we combine forces now, we can avert climate catastrophe. But, as IPCC report makes clear, there is no time for delay and no room for excuses*" (António Guterres, the UN Secretary-General, in De Ferrer, 2021: 1).

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Creating Alternative Flagships: Case Study of the Salt Pond of Angelochori, Greece

Dilaveri Stamatina

Abstract Angelochori is a municipal unit of Thermaikos, a Municipality in Macedonia with coastlines of 52 km, two protected wetlands and a population with no real identity not only due to its villages' intense regionalism but also due to the rapidly increasing population. Angelochori has operating salt ponds and the surrounding environment is quite interesting. The Salt Pond's Guard House was left to ruin, but thanks to an idea by the President of the Educational Association of Angelochori, and in agreement with the Municipality, it has evolved into a flagship landmark (on the saltworks A.E. website where their salt ponds' location is on the Greek map; on Google, you will find the Guard's house location; this doesn't happen to their other facilities) and a meeting point for creative people from the surrounding area of Thessaloniki, amplifying the Municipality's reputation.

Keywords Salt ponds · Alternative flagships · Sustainable development

JEL Classification Y · Z

1 Introduction

This paper attempts to *present* the Salt Pond's Guard House in the Municipality of Thermaikos. A qualitative research was conducted including interviews with the President of the Cultural Association of Angelochori, an executive of the Municipality of Thermaikos and with one of the first artists to present their work in the Guard's house.

Also, secondary sources were used, websites and pages from social media.

The results accentuate the reuse of a space and its transformation into a cultural meeting point for people with environmental quests; a space which can become a flagship landmark for the Municipality.

The purpose of this paper is to

D. Stamatina (✉)
University of the Aegean, Mitilini, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_10

– Showcase the benefits of mild human intervention on nature;
– Showcase the relations between civilization and environment;
– Showcase a way to create alternative flagship landmarks with a reference point to nature and civilization;
– Investigate the impact of actions aimed to upgrade the natural environment in cultural cohesion.

2 Culture—Space—Place

Braudel (2002) mentions that the meaning of culture is impossible to be defined "as one defines a straight line, a triangle or a chemical element". A widely accepted definition is that by 'culture' by which we refer to the amount of material and spiritual values that were created by man in time (Bitsani, 2004). In another approach, the term is referred to as spiritual, moral and artistic expressions of life (Adoniadou, 2015).

One aspect of culture is that in today's time of identity and value crisis, it can become a consistency factor in local communities. The cultural process is a process of reciprocation and interaction between people. Collectivity exceeds subjectivity and a person becomes worthy from the collectivity he obtains in his reciprocation (Poulios et al., 2015: 24).

According to older perceptions, a space could be reenacted objectively and culture would develop in it. However, culture isn't something we talk about, but a special dimension from which we talk. It's something from which we see but rarely what we do see (Hastrup, 2011: 353). Therefore, space is not objective. It is created by the way it is perceived through a specific—every time—cultural view. Space is a cultural creation as a place and a landscape and does not define culture (Boeschoten, 2021: 201).

Another definition of this 'non-space' (Auge, 1995) includes expressions that are formed socially as experiences in a space that transform it into a place, and are transferred spatially to be manifested outside of the boarders in unfamiliar places. Such are globalized airport spaces, malls and traditional tourist destinations.

3 Identity and Reputation of a Place

In the competitive international environment, a place's reputation is created through six (6) communication channels (Anholt, 2007) including tourism and its visitors' experience, the policies that can affect its reputation due to publicity and the cultural interest they present: organizing high-level cultural activities, exporting artworks and artists and athletic achievements.

Important elements of a place's materialistic character are the **First Rate Flagship Landmarks** (Deffner, 2012: 44). It is about symbols of material civilization which often define a town's image and amplify its reputation. According to Clarke: "A place—a Region, a town, a neighborhood—blends a synthesis of historic, economic, social and political processes into a simple cultural image" (Kourliouros, 2001: 97). For that reason, any intervention on a town's image or attempt to create a new one cannot be ignored. History can not only create a new narration for the town but can also express the 'place's spirit' in words.

4 Sustainable Development

According to the standard definition, 'sustainable development' is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Defner, 2012: 46). Viable cultural development must preserve its identity and have only positive outcomes. It is also considered successful when policies are based on a cost–benefit analysis aimed to protect the environment and maintain its prosperity.

Establishing a powerful identity contributes to a place's attractiveness and visitation. It creates alternative forms of tourism, such as sea-related tourism, cruising tourism, conferences, cultural based on consuming the tangible or intangible cultural attractions and attracting high-level visitors (Lagos, 2005: 70; Velissariou et al., 2000: 41). One of them is organizing cultural activities for the residents and visitors of a town. Residents' participation in development is important so as not to alienate a place's character. The characteristics which a place's identity consists of relate to its abiotic components such as climate and geomorphologic elements as well as the natural environment, the intervention in space and how it's expressed. Alternatively, a place's identity is the foundation of a person's identity, consisting of knowledge and emotions that evolve in natural spaces (Gieseking et al., 2014).

Culture is included in the 'environment' section: structured or unstructured. In sustainable development, the local community plays a significant role given not only the fact that culture management and preservation are its responsibility but also because it's the immediate receiver of its results (Poulios et al., 2015: 17). Places which are advertised for their enwrapping atmosphere or their events and overall entertainment are the ones that win over their visitors.

5 Case Study

5.1 Methodology

A qualitative research was conducted including interviews with the President of the Cultural Association of Angelochori Mr. Evangelo Micho, the visual artist and supervisor of the Legal Department in the Municipality's Cultural Organization

Mrs. Androniki Rapti and composer and educator Mr. Petros Satrazanis. Secondary sources were used, but it is impressive that when I asked for a book about the local history or anything else that might refer to the salt ponds from my informants, after looking into it they didn't find anything relevant. The research conducted included websites of the Municipality, the Region of Central Macedonia, Saltworks A.E. and other Social Media.

6 Profile: The Municipality of Thermaikos

"A wonderful place to live", these are the words a visitor is greeted by on the Municipality's website. The Municipality of Thermaikos is a part of the Region of Central Macedonia and is subdivided into communities, with Peraia being the primary one. It was established by the Kallikratis programme in 2011 in the merging of the already existing Municipalities of Epanomi, Nea Michaniona and Thermaikos. Its population has increased over the last two decades by approximately 157%. This is due to the fact that some settlements were transformed from resorts to suburbs of Thessaloniki. The population in 1991 was 19,492 residents, while in the last population census it reached 50,264 local residents.

It is a seaside Municipality with coastlines reaching 52 km and two wetlands of high ecological significance, one in "Fanari" Epanomis and one in Angelochori. Both are enlisted in the "Natura 2000" programme of the European Union. The beaches in Peraia, Neon Epivaton, Agia Triada and Nea Michaniona, during the 1960s–1970s, were tourist resorts. There were also some establishments built in the area and it was used for scenes in a movie titled "Kati na kaii" by Giannis Dalanidis. In Agia Triada, there was also a functioning camping site (Kouzinopoulos, 2016). It is worth mentioning that today the Thermaic Gulf is a very burdened area.

We can also draw data about the Municipality of Thermaikos, on a Regional level, from the annual competitiveness and structural adjustment report on tourism written by Insete for the year 2019 for the Region of Central Macedonia. The report was published in 2020 and co-funded by the European Union. We notice that the municipality of Thermaikos does not have any traditional settlements and as it is clarified, settlements with any particular "historical, town planning, archaeological, folkloric, social and aesthetic" physiognomy. There aren't any in the museum directory either. On the contrary, it is a Municipality with the most beaches and blue flags in the regional unit of Thessaloniki.

In the Municipality's Strategic Planning for 2015–2019 which is posted on their website, a S.W.O.T. analysis is included. In the strong points section, there is a reference to **the coastal zone, the remarkable natural beauty and high residential development**. It is worth mentioning that civilization is not mentioned in the form of events or in the existence of a specific flagship landmark in the area. In the opportunity section, we find the development of domestic one-day tourism from Thessaloniki and the potential for alternative tourism. According to the study, the inadequate protection of the Thermaic Gulf, the coast erosion, the pressure for non-environmentally sustainable practices created by the arbitrary housing development, the variable tourism market and the intense competition in coastal tourism are an immediate threat. Furthermore, the promotion of alternative tourism along with protecting the natural and cultural environment is considered a very pressing matter.

In terms of action planning, it is rather interesting how the cultural identity is being reinforced through "organizing and conducting events to **strengthen cultural identity**, improve institutions and events already operating, establishing new cultural institutions". In an interview given by an employee of the Legal Department of the Municipality of Thermaikos, we detect the diversity in identity and, by extension, the cultural activities' character in the eight local communities of the Municipality. From these communities, seven are constituted by refugees and only Epanomi has 'local' residents. The villages have intense localism even though they are beside one another. The Municipality organizes the annual events of each community based on the local elements. When asked about a local flagship landmark, she referred to three temples and the Angelochori Lighthouse which is not open to the public.

7 The Guard's House: A Landscape, a Deserted House, an Idea That Became a Landmark

7.1 The Salt Pond of Angelochori

Since 1902, next to the lagoon in Angelochori, there has been an operating salt pond owned and monopolized by the government. In 1987, the salt pond of Angelochori, just like the others on Greek lands, belonged to the company "GREEK SALT PONDS A.E.", controlled by the government. The area which hosts the salt ponds, the lagoon, the saltwater marshland and the sea life creates a unique wetland. From the 178 documented bird species, 48 are protected by the 79/409–85/411 Community Directive. Other species of mammals, amphibians and reptiles are protected by the 02/43 Directive, while 11 types of habitats have been documented.[1]

On their website, the company states that the salt ponds' uniqueness and their attraction to bird fauna is that in these areas, hunting is banned more effectively. So, they became an attraction pole for birds, whose protection is the company's main concern: "the challenge in Greek salt competitiveness never stops. It keeps moving forward to where the growth and protection of the environment do not cancel each other out.[2]" The slogan on the website's homepage is: "Producing salt, we conserve nature throughout Greece".

[1] https://www.thermaikos.gr/episkeptis/fysi/#limnothalassa-agelochoriou, access on 28/4/2021.
[2] https://saltworks.gr/page-34.html.

Apart from the natural environment, on the Hellenic Railway Heritage website, the Angelochori salt pond railway, founded by the B.Δ/5-3-1918 (ΦΕΚ 51/Α/9-3-1918), has been listed in the Industrial Archaeology ‘monuments’ of our country.[3]

7.2 *The Salt Pond’s Guard House*

On the beach of Angelochori, near the salt ponds, there is a small building. For years it was a home for the Salt Pond’s Guard’s family until the 1980s when salt was no longer a monopoly. Since then, it has been left to ruin, doors and windows were stripped off and part of the roof was destroyed. The surrounding environment presented the same abandoned scene.

The man who wished to make better use of the house not only for its history but also for the area’s energy Mr. Evangelos Michos, President of the Educational Cultural Association of Angelochori, gave an interview about his idea[4]: “when I reached Angelochori, I came across an abandoned area and decided I would start, even on my own, with the house as a reference point.”

8 Findings

8.1 *Benefits of Mild Human Internation on Nature*

Evangelos Michos: “In this house, your soul rejoices. I know that the aura begins from the salt pond waters and you are ‘embraced’ by the calmness of the lagoon and the sea. In the West there is visual contact with mount Olympus and in the North with the Lighthouse. The light coming from the Lighthouse showers the house with disturbing”. He explains that he tried to ensure that the natural light wouldn’t be disrupted (by using candles) and neither would the fauna (producing sounds without amplifiers)”.

On 23 August 2018, the first event themed “fairytales about salt” took place at the Guard’s House. 150 people watched while sitting on boards over bricks. The screening was a ‘small miracle’ according to our informant, when he transferred the piano from his house to the House. On that night, people from the Upper Town Festival also came to see the event, while five photographers advertised the House on social media with their pictures.

Petros Satrazanis, a composer and educator, was the artist of the night. He participated, as he admitted, after being invited by Evangelos Michos to present something

[3] https://railwayheritage.blogspot.com/2015/04/aggelochori-saltworks-railway.html, access on 2/5/20121.

[4] Evangelos Michos, President of the Educational Cultural Association of Angelochori, gave an interview about his idea to make better use of the house.

‘of his’ and he accepted the invitation because the idea of being on a beach with a piano, playing and talking to people was particularly enticing.[5] His answer about the space and the feeling it created is quoted as such:

“I often look at pictures of that summer night in 2019 and even though they travel me back to that location and its unquestionable beauty, they need my own memories to complete the … transfer…I remember we started playing as the sun was setting … the sounds of the natural piano disappeared in the salt ponds and people arrived with anticipation in their eyes, as if they were expecting to see and hear ‘everything’ in just a few hours even though there wasn’t enough light or sound support. Perhaps, in the end, the stillness of those moments is what can’t be recorded and ‘saved’ on any digital recording unit?” “For the purpose of connecting the events to the environment and the environmental consciousness, it is worth mentioning that during the quarantine period the House, and the areas surrounding it, was a reference point for families and friends. It was used to organize children’s parties. House chores were loved and from February 2021 until the spring, many actions took place all of which ended up at the Guard’s House for a meet or a Dionysian gathering, as our informant mentions. The actions are organized by the Educational Cultural Association of Angelochori and are followed by environmental organizations such as ‘Save your Hood’ in Thessaloniki. At this point, we should point out that the Municipality supports all of the actions. As far as the audience at these events is concerned, according to Michos, it is 80% people from the town of Thessaloniki and Peraia and few from Angelochori because they are just now beginning to embrace it.

The Salt Pond’s Guard House has a Facebook group with 1,275 members. The members post pictures from their visit to the house or different pictures representing the beauty of the scenery. In all of the landscape pictures, there are ‘likes’ and friendly comments which demonstrates an intimacy. The administrator pots event programmes and actions concerning mostly cleaning the shores.

9 The Alternative Flagship

9.1 European Maritime Days and Their Connection to the Guard’s House

European Maritime Day is celebrated each year on May 20th and seeks to emphasize the important role seas have in citizens’ lives and the European effort for sustainable development.[6]

The Municipality of Thermaikos, through its Legal Department, organizes annual events from April until June. It is worth mentioning that at these events, the Guard’s House was used as a cultural space and not just as a place for cleaning. Specifically,

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[5] Petros Satrazanis, a composer and educator participated in a concert at the Guard’s House.

[6] https://ec.europa.eu/maritimeaffairs/maritimeday/index_en, access on 10/4/2021.

on 12 May 2019, an installation art exhibition was held titled “collap” (sea) with big sea sculptures by the artist Stella Varna.

In that spirit, the events for 2021 started off with a web conference about “The Salt Pond’s Guard House in Angelochori”. The Municipality mentions in their press release: “Angelochori, the Aegean, London and our pioneers narrate new practices that love the sea”. At the conference, amongst others, a few words were shared by Mr. Evangelos Michos who talked about the House’s history and the present, composer Petros Satrazanis, a photographer who is fanatic about the place Mr. Chrysostomos (Tommy) Courtis and representatives of the environmental organizations.

9.1.1 The Poster

Androniki Rapti, designed the poster for the European Maritime Days for 2021 themed “The Guard’s House”, emphasizing its importance and the impact people who thought of using it as an event space had. In the poster, we see a man leaning over and cleaning. Mrs. Rapti mentions that the man who appears on the first level is Vangelis (Evangelos Michos) because in his face she saw people with a conscience and for that reason she used the Guard’s House as a background. Vangelis is leaning over and holding the house on his back so the new generation, a young boy on the top of the poster, can “step on it”. The child holding a trowel wants to contribute.

Over the child, the map of Europe corresponds to the world’s environment. She believes that the house, which has no particular architecture, could be located in any country.

10 Conclusions

Everything we obtained from the interviews and the conference proves that the Guard’s House is not an ‘interpreted’ version of the virtual representation as highlighted by Scarles (2004), but a virtual intervention in the transformation of material landscapes in order to be used in the tourism industry. It is not a space occupation by the public which seeks an escape from reality. People live in this space, care for it and save the time spent for its care and maintenance of the ecosystem that has hosted and entertained them (entertainment in the sense of lifelong learning). All of these activities are communicated through the European Maritime Days and their accounts on Facebook and Twitter. Promoting the events and the area enhances the Municipality’s reputation while giving it an alternative landmark oriented towards civilization as well as the natural environment.

The joint activities and the care for the Salt Pond’s Guard House can become a common meeting point and new memories can form a mutual identity.

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Tourism—Catalyst for Regional Development

Does Tourism Contribute to Balanced Regional Development? Evidence from Greece

Panayiotis Drakakis

Abstract Tourism constitutes a key pillar of the national economy and/or a growth engine for regional/local economies in many countries. However, there is a question as to whether it ultimately leads to economic convergence or divergence among regions. This paper aims to contribute to the limited literature on this topic by empirically investigating the spatial distributions of both economic and tourism activity in Greece based on regional time series data (2005–2019). Gini coefficients of economic, tourism demand, and tourism supply indicators are calculated and compared. The results indicate that regional tourism disparities are larger than regional economic inequalities. Furthermore, the Gini coefficients of tourism demand and supply indicators display an upward trend, suggesting that tourism activity becomes even more concentrated. This spatial concentration occurs in both wealthier and less prosperous regions, but tourism does not seem to ultimately result in economic convergence, as economically lagging regions perform poorly and even display a downward trend in tourism indicators. The analysis also suggests that domestic tourism is a more effective instrument for balanced regional development than inbound tourism. Tourism policy implications stemming from the results are also discussed.

Keywords Regional tourism disparities · Spatial distribution · Balanced regional development (BRD) · Gini coefficient · Greece

JEL Classification R12 Size and Spatial Distributions of Regional Economic Activity · Z32 Tourism and Development

1 Introduction

For many countries, tourism serves as a pillar of the national economy and/or a driver of growth for regional/local economies. There is an abundance of studies

P. Drakakis (✉)
University of Piraeus, Piraeus, Greece
e-mail: pdrakakis@unipi.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_11

in the tourism literature that have analysed and pointed to its significant economic impact on the national (e.g. Jones, 2010; Narayan, 2004) or regional/local level (e.g. Frechtling & Horváth, 1999; Saayman & Saayman, 2006). Therefore, at the central, regional, and local policy levels, tourism development is often treated as an essential means for achieving economic prosperity and mitigating spatial (regional or local) disparities.

Nevertheless, some researchers (e.g. Bohlin et al., 2016; Williams & Shaw, 1995) argue that tourism does not always reduce spatial inequalities, but actually enhances them. More specifically, it is possible for a country to experience GDP growth as a result of tourism, but for touristically and economically developed regions to enjoy a disproportionate share of this growth because they have a substantial concentration of tourism activity (tourism supply and demand). This spatial concentration and polarisation of tourism activity are usually typical of mass tourism (Brenner & Aguilar, 2002; Tosun et al., 2003). The research question that arises, therefore, is whether tourism ultimately contributes to regional economic convergence or divergence and, hence, promotes or hinders balanced regional development (BRD).

Despite the importance of this issue, however, the literature on this topic is limited (Goh et al., 2015; Li et al., 2016). Moreover, with respect to Greece, only a few relevant studies have been conducted and these do not clearly state if tourism ultimately promotes BRD. The present study, therefore, seeks to add to the small body of literature by investigating whether, and how, tourism activity in Greece can contribute to BRD. In particular, the aims of this paper are (a) to assess whether regional tourism disparities are greater/less than regional economic inequalities; (b) to determine if tourism activity is considerably concentrated; (c) to ascertain if there is a trend of convergence or divergence in tourism disparities; (d) to deduce whether tourism leads to regional economic convergence or divergence; and (e) to evaluate which form of tourism (inbound or domestic) is a more effective instrument for BRD.

The paper is structured as follows: the next section discusses the two contrasting arguments that have been presented in the literature (tourism reduces/reinforces regional inequalities) and also reviews relevant studies in Greece. Section 3 outlines the method used for analysing the spatial distributions of tourism and economic activity. The fourth section presents the main results, followed by the discussion and conclusion.

2 Literature Review

Tourism reduces regional inequalities

The notion that tourism can benefit poorer peripheral areas and offset regional inequalities appeared in the wake of early regional development theories. In 1964, Christaller argued, in the polar periphery context, that tourism could constitute a growth instrument for peripheral regions, as the movement of residents from metropolitan centres to coastal, rural, and mountain destinations could reverse the flow of income and employment away from central poles, thus redistributing wealth and setting overlooked areas on the path of economic development (Murphy & Andressen, 1988; Telfer, 2002). Friedmann also, in 1966, regarded tourism as a development option for problematic regions with limited growth potential in other sectors of the economy (Oppermann, 1993). Lastly, Peters in 1969 maintained that tourism has the innate capacity to reallocate growth away from industrial centres to neglected regions (Krakover, 2004; Williams & Shaw, 1995).

Empirical studies upholding the above argument have been conducted in developed and developing countries. In the case of Israel, for example, Krakover (2004) uses data on hotel rooms, guest nights, revenues, and employment to ascertain that the tourism industry spurred a convergence trend and not polarisation to central regions. Although inbound tourists mainly visited the big cities (Tel Aviv and Jerusalem), significant domestic tourism flows to the periphery boosted the share of those areas in the above indicators. Moreover, private tourism investments were transferred to the periphery, attracting even more tourists. The researcher, however, cautions against generalised conclusions, pointing to certain particular factors regarding Israel: (a) the country's small size; (b) government incentives (subsidies) for investments in peripheral regions; and (c) security concerns on the northern borders and in the cities of Tel Aviv and Jerusalem.

Also, Soukiazis and Proenca (2008) test tourism's impact on regional growth and how it affects regional convergence in Portugal's NUTS II and NUTS III regions by employing the conditional convergence model. Using accommodation capacity as a proxy, they find that tourism has a positive impact on regional growth at both regional levels. Moreover, it is a relevant conditional convergence factor, contributing to the reduction of regional asymmetries.

In developing countries, China accounts for several empirical studies corroborating this notion. Wen and Sinha (2009) and Wen (2015) applied the Gini coefficient and used time series data in major tourism indicators of inbound tourism and tourism supply. Although inbound tourism is heavily concentrated in coastal—and more economically developed—areas, they identify a convergence trend in the regional distribution of both inbound tourism and tourism supply. This is due to the inland areas' gradual improvement of their share over the years, leading to a slow but noticeable reduction in the regional disparity. However, the authors do not account for domestic tourism's regional effect, although it constitutes the larger proportion of tourism arrivals and receipts. This limitation is addressed by Goh et al. (2014, 2015) who compare the spatial distribution and the impact of both inbound and domestic tourism on China's regional development. Despite using different methods (Mean Log Deviation decomposition, and Gini coefficient decomposition combined with Granger causality tests, respectively), they conclude that (a) declining tourism spatial inequalities are mainly and increasingly caused by domestic tourism, and (b) that the latter is a more effective instrument for BRD than inbound tourism. Li et al. (2015, 2016), in turn, employ a more sophisticated method, that of the conditional convergence model. They conclude that tourism development in China has a positive effect on BRD, with domestic tourism making a greater contribution than inbound tourism.

The importance of domestic tourism in reducing regional inequalities is also evidenced in Brazil by Haddad et al. (2013). The authors use national survey data for domestic tourism and employ an interregional input–output model to compute the tourism multiplier effects. They reason that domestic tourism's total net multiplier effects are a 'zero-sum game' at the national level but its regional distributive effects are significant, thus narrowing the gap between regions in this country.

Tourism reinforces regional inequalities

The above argument has been challenged by a number of researchers who contend that tourism activity is concentrated in central, economically evolved, or privileged regions, which have the necessary tourism infrastructure and transport networks, as well as central government policy and promotion support. Such polar concentrations enhance disparities among regions and, therefore, increase divergence.

This is a relatively frequent phenomenon in developing countries. In Malaysia, for example, tourism activity became concentrated over the course of a decade in two states (Kuala Lumpur and Penang), which are also the country's political and financial centres, and was much less developed in peripheral states (Oppermann, 1992). In Peru, meanwhile, O'Hare and Barrett (1999) conducted a regional-level analysis and found that the country's wealthier regions benefitted more over time from inbound tourists, as they tended not to visit poorer ones as much. In their local-level analysis, moreover, it transpired that inbound and domestic tourists gravitated towards each region's main province or administrative capital. In South Africa, lastly, Rogerson (2014) divides municipalities into three groups, namely (a) metropolitan, (b) priority district, and (c) other district municipalities, with priority districts representing the most lagging and underdeveloped regions. His findings show that the country's tourism space economy is consistently dominated by metropolitan municipalities, which are the most prosperous and economically advanced areas.

The polar concentration of tourism activity can also occur in developed countries. In a study on the United Kingdom, Williams and Shaw (1995) use time series data and conclude that tourism favours wealthier regions, contributing to even greater disparities. There are two reasons for this: firstly, the development of international tourism has altered Britons' preferences, who tend to choose foreign destinations over domestic ones. At the same time, inbound tourists are showing an inclination towards Britain's big cities. Secondly, the evolution of new forms of tourism—such as cultural, business, and urban—has shifted domestic tourism flows from the periphery to urban centres. Zimmerman (1998) also notes, in the case of Austria, a considerable shift in tourism demand towards the wealthier states of Vienna and Lower Austria. Particularly critical of the belief that tourism reduces regional disparities, Bohlin et al. (2016) carried out a longitudinal analysis based on guest night statistics in Sweden. Their results indicate that metropolitan areas have grown faster in guest nights than rural and peripheral ones, owing to their ability to attract visitors, especially inbound tourists. Thus, centripetal forces to metropolitan areas exist, contrary to Christaller's perception, which overlooked the fact that large cities can appeal to both leisure and business travellers.

Spatial distribution of tourism in Greece

Only a few studies have examined regional tourism inequalities in Greece. Liargovas et al. (2007) investigated the allocation of European Union funding for regional tourism development among Greek regions. To that end, they developed a 'Regional Tourist Development Index' (RTDI) and then calculated the RTDI as well as the per capita Community Support Framework (CSF) funding for each of Greece's 51 prefectures (NUTS III regions). Their analysis revealed that the distribution of investments favoured the prefectures with the higher RTDI scores, thus contributing to a process of divergence. Gaki et al. (2013), moreover, employed and calculated the Herfindahl–Hirschman index and the Krugman Dissimilation index for each of the 13 NUTS II regions (see Fig. 1) at specific years (2000, 2003, 2005, and 2007). They found that tourism activity was highly concentrated, creating tourism disparities among regions.

In another study, Klouri (2018) examined the distribution of travel receipts, arrivals, and guest nights from inbound tourists among the 13 Greek regions. Tourism activity was found to be concentrated in five regions, representing between 82–89% of the above tourism indicators. However, her analysis was based on rather static

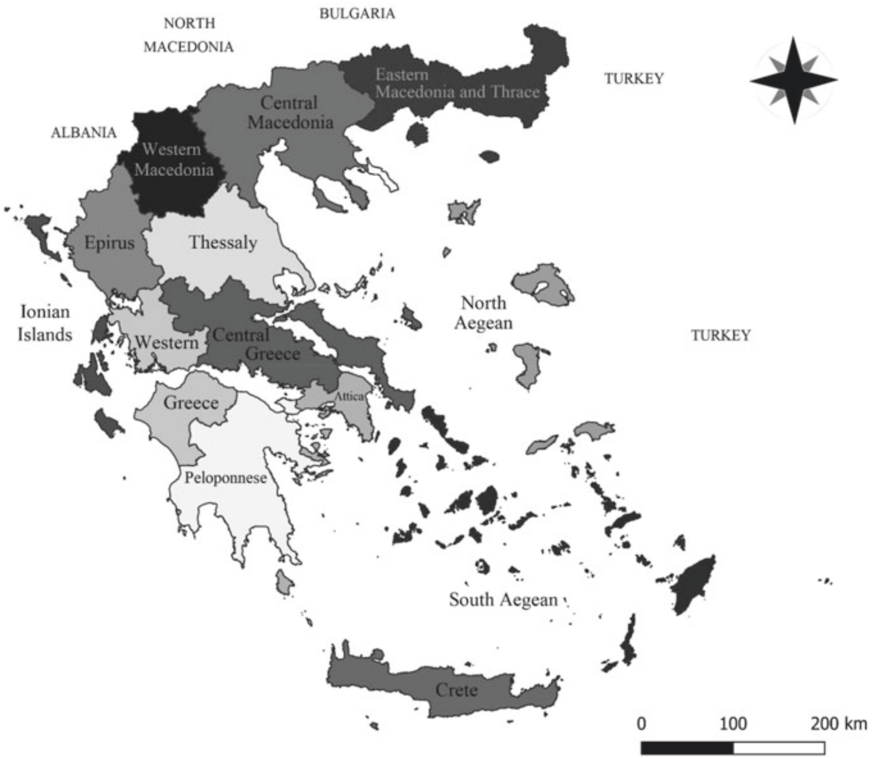

Fig. 1 Regions of Greece (NUTS II). *Source* Own illustration, using QGIS software

data (January–June of 2016 and 2017) and did not take into account the impact of domestic tourism, which constitutes a large proportion of tourism activity. These limitations are not the case in the study by Papatheodorou and Arvanitis (2014) who investigated the impact of the economic crisis on Greek tourism. They calculated Gini coefficients for the years 2005–2012 and found that it did not affect the existing patterns of inbound and domestic tourism spatial concentration, but positively affected that of internal tourism (creating an upward trend in disparities over the last few years). The concentration of domestic tourism was far smaller than that of inbound, with internal tourism's concentration lying between the two.

In conclusion, the aforementioned studies indicate or imply that there is a significant concentration of tourism activity in Greece. However, some research gaps have been identified. Firstly, the spatial distributions of tourism and economic activity are not compared. In other words, it is not known whether regional tourism disparities are greater/less than regional economic inequalities. Furthermore, it would be interesting to ascertain if there is a positive correlation among them. Secondly, economic variables (such as GDP per capita) for each region are not provided or at least utilised. As a result, it is not clearly stated if tourism activity is concentrated in wealthier or economically lagging regions, thereby hindering or promoting BRD, respectively.

3 Methodology

Regional time series data were used to examine the spatial distributions of economic and tourism activity. These data were collected from the Hellenic Statistical Authority (ELSTAT) and the Hellenic Chamber of Hotels. More specifically, GDP per capita data were used for the period 2005–2018. On the tourism demand side, only guest nights in hotel accommodation by domestic and inbound visitors for 2005–2019 were used. Data regarding tourism receipts from domestic visitors are not available, and those from inbound visitors have only been published in recent years (2016–2019). Lastly, data for the number of hotel beds during 2005–2019 were used as a supply-side indicator. It should be noted that figures on guest nights and capacity at campsites and short-stay accommodation (apartments and rooms to let) were not utilised. The inclusion of the former would bias the results as campsites are mostly concentrated in coastal regional units. Data for the latter type of establishment are too recent.

Certain coefficients/indexes have been employed for the analysis of spatial tourism distribution and inequalities. The one that has been more widely used—with variations—is the Gini coefficient (e.g. Goh et al., 2015; Li et al., 2015; Papatheodorou & Arvanitis, 2014; Wen & Sinha, 2009). Others include the Gini-Hirschman coefficient (Gaki et al., 2013), the Theil entropy index (Wang et al., 2015), the Mean Log Deviation (MLD) index (Goh et al., 2014), and the Krugman Dissimilation index (Gaki et al., 2013). This study employs the Gini coefficient as presented by Wen and Tisdell (1996), Wen and Sinha (2009), and Li et al. (2015) for analysing both economic and tourism disparities. It is given by the following formula:

$$G = 1 + \left(\frac{1}{n}\right) - \left(\frac{2}{n \times n \times \bar{y}}\right) \times (y_1 + 2y_2 + 3y_3 + \cdots + ny_n)$$

where G represents the Gini coefficient, n is the number of observations, $\bar{y}$ is the mean of observations, and y_1, y_2, y_3, … y_n represent individual observations of the relevant variable y in descending order of size.

The coefficient's values range from zero (absolute equality) to unity (complete inequality). As such, the larger the coefficient is, the greater the degree of inequality. In our case, the Gini coefficient was calculated by listing the observations of variable y for the 13 Greek regions in descending order, and then multiplying them by corresponding weights valued from one to 13. In particular, coefficients of (a) economic development (GDP per capita as proxy), (b) tourism demand (domestic, inbound, and total tourism guest nights as proxies), and (c) tourism supply (hotel beds as proxy) were calculated separately.

4 Results

Table 1 and Fig. 2 present the values and the evolution of the Gini coefficients for the years 2005–2019. It is evident that in both tourism demand and supply indicators,

Table 1 Gini coefficients of economic and tourism indicators

	GDP per capita	Domestic tourism guest nights	Inbound tourism guest nights	Total tourism guest nights	Hotel beds
2005	0.2078	0.2706	0.6223	0.5071	0.4756
2006	0.2222	0.2678	0.6312	0.5097	0.4776
2007	0.2270	0.2726	0.6251	0.5058	0.4768
2008	0.2319	0.2814	0.6296	0.5086	0.4743
2009	0.2365	0.2807	0.6308	0.5036	0.4751
2010	0.2262	0.2792	0.6417	0.5230	0.4761
2011	0.2294	0.2869	0.6454	0.5414	0.4827
2012	0.2218	0.2904	0.6551	0.5567	0.4840
2013	0.2230	0.2926	0.6556	0.5614	0.4850
2014	0.2224	0.3067	0.6377	0.5512	0.4825
2015	0.2231	0.3184	0.6337	0.5513	0.4861
2016	0.2286	0.3206	0.6383	0.5565	0.4859
2017	0.2374	0.3108	0.6310	0.5544	0.4900
2018	0.2429	0.3108	0.6321	0.5641	0.4972
2019	N/A	0.3103	0.6325	0.5653	0.4994

Source Calculated from the Hellenic Statistical Authority and the Hellenic Chamber of Hotels

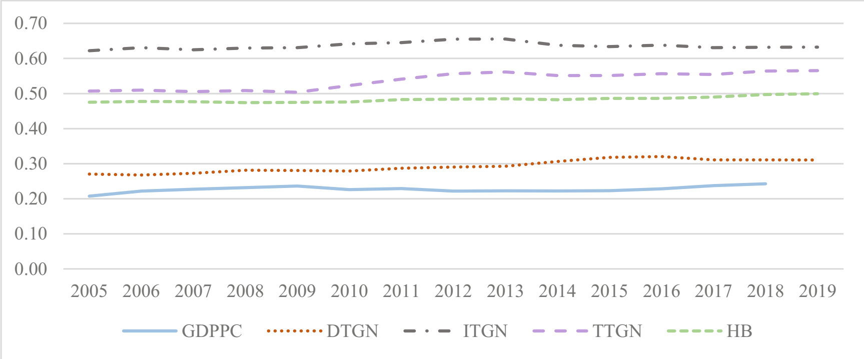

Fig. 2 Gini coefficients of economic and tourism indicators. *Note* GDPPC means GDP per capita; DTGN means domestic tourism guest nights; ITGN means inbound tourism guest nights; TTGN means total (or internal) tourism guest nights; HB means hotel beds

they are consistently larger than that of the economic development indicator. This means that the spatial distribution of tourism activity is more imbalanced than that of general economic activity. Hence, regional tourism disparities are larger than regional economic inequalities.

We also observe that the Gini coefficients of economic and tourism activity follow a parallel course, and more particularly an upward trend, with the overall increase being 16.89% for GDP per capita, 14.70% for domestic tourism guest nights, 11.47% for total (internal) tourism guest nights, 5.01% for hotel beds, and only 1.63% for inbound tourism guest nights. Indeed, the Gini coefficient of GDP per capita is positively correlated with that of hotel beds (0.46), domestic tourism guest nights (0.37), and total tourism guest nights (0.22), but has no correlation with that of inbound tourism guest nights. The above correlation coefficients do not represent a cause-and-effect relationship, but nevertheless suggest that regional economic inequalities would become larger as tourism activity becomes more concentrated. This is possible for countries such as Greece where the economy relies heavily on tourism.

In Table 2, the data demonstrate that tourism activity in Greece is considerably polarised, both on the tourism demand and supply side. Specifically, half of the country's total tourism guest nights and hotel beds was concentrated in only two regions (South Aegean and Crete) in 2019 (53.62% and 48.03%, respectively). Taking also into account the next top three regions (Ionian Islands, Central Macedonia, and Attica), this concentration reaches 84.62% and 78.08%, respectively. In fact, the polarisation of demand is mainly induced by inbound tourism, which constitutes the larger proportion (84.61%) of total guest nights. The first two and five regions were dominant in this form of tourism, gathering 60.02% and 89.96%, respectively, of the country's inbound tourism guest nights. On the contrary, their participation in domestic tourism guest nights was much lower (18.41% and 55.30%, respectively), indicating fewer disparities.

Table 2 Share of Greek regions in DTGN, ITGN, TTGN, and HB

Regions		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Change (2005–2019)
South Aegean	DTGN	10.35	8.58	9.10	9.52	9.65	9.25	8.83	8.79	8.67	8.62	8.12	8.71	8.87	11.43	11.26	0.91
	ITGN	28.14	28.10	27.68	27.15	27.81	29.52	29.47	28.29	28.38	27.46	27.90	26.72	27.29	30.13	31.06	2.92
	TTGN	23.55	23.19	22.85	22.52	22.62	24.28	24.88	24.42	24.72	24.14	24.50	23.58	24.32	27.25	28.01	4.46
	HB	22.89	23.33	23.23	23.15	23.47	24.02	24.58	24.75	24.93	24.62	24.95	24.76	25.44	25.96	26.12	3.23
Crete	DTGN	6.89	6.36	6.95	6.81	7.87	7.81	7.77	7.34	7.11	6.94	7.10	6.94	6.36	6.72	7.16	0.26
	ITGN	28.77	29.56	29.83	30.81	30.81	31.31	31.89	33.17	33.61	32.33	31.71	33.12	32.08	30.09	28.96	0.19
	TTGN	23.12	23.73	23.88	24.50	24.26	25.24	26.53	28.04	28.69	27.85	27.48	28.55	27.93	26.50	25.61	2.48
	HB	21.04	21.07	20.97	21.19	21.21	21.17	21.31	21.39	21.51	21.48	21.51	21.75	21.62	21.81	21.91	0.87
Ionian Islands	DTGN	7.15	6.72	6.96	6.85	7.37	7.38	6.89	5.47	5.04	4.38	4.50	4.51	4.59	5.08	5.24	-1.90
	ITGN	14.89	14.03	13.13	12.93	13.03	12.28	12.07	12.68	12.39	12.09	12.27	12.90	12.57	12.87	12.89	-2.00
	TTGN	12.89	12.19	11.52	11.33	11.42	11.01	10.92	11.25	11.02	10.73	10.93	11.43	11.28	11.67	11.71	-1.18
	HB	12.02	11.97	12.14	12.03	11.88	11.59	11.63	11.53	11.63	11.66	11.67	11.71	11.59	11.75	11.84	-0.17
Central Macedonia	DTGN	14.69	15.92	15.55	16.53	16.43	16.18	16.28	15.76	15.30	15.90	17.31	17.45	16.91	16.18	15.83	1.14
	ITGN	7.24	8.12	8.75	9.69	9.16	8.97	9.16	10.21	9.61	9.61	9.30	9.00	9.11	8.66	8.82	1.58
	TTGN	9.16	10.08	10.52	11.49	11.24	10.83	10.74	11.31	10.67	10.72	10.67	10.47	10.37	9.81	9.90	0.74
	HB	11.62	11.59	11.66	11.58	11.50	11.44	11.47	11.41	11.13	11.49	11.25	11.39	11.26	11.04	10.86	-0.76
Attica	DTGN	15.28	15.96	16.08	15.37	14.62	14.74	15.49	16.25	16.9	17.72	17.67	16.73	16.68	15.41	15.81	0.53
	ITGN	9.88	10.50	10.48	9.92	9.41	8.78	8.36	7.38	7.42	9.05	8.91	8.60	8.81	8.18	8.23	-1.65
	TTGN	11.27	11.87	11.94	11.35	10.90	10.32	9.95	9.14	9.18	10.58	10.41	10.02	10.08	9.29	9.40	-1.88
	HB	9.14	8.83	8.83	8.68	8.45	8.10	7.83	7.76	7.61	7.39	7.56	7.48	7.43	7.30	7.35	-1.79
Peloponnese	DTGN	9.02	8.99	9.12	9.39	9.39	9.68	9.95	9.97	10.48	10.36	10.27	10.48	10.56	11.44	11.05	2.03

(continued)

Table 2 (continued)

Regions		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Change (2005–2019)
	ITGN	2.58	1.83	1.98	1.58	1.84	1.72	1.77	1.44	1.49	1.76	1.77	2.04	2.17	2.30	2.25	-0.33
	TTGN	4.24	3.63	3.84	3.64	4.00	3.78	3.59	3.13	3.16	3.28	3.23	3.51	3.53	3.71	3.60	-0.64
	HB	4.76	4.72	4.73	4.71	4.75	4.91	4.72	4.76	4.89	4.95	4.95	4.77	4.68	4.60	4.60	-0.16
Thessaly	DTGN	8.70	8.31	7.64	7.71	7.56	7.62	7.89	8.25	7.95	7.92	7.70	8.24	8.30	7.33	7.64	-1.06
	ITGN	1.71	1.38	1.31	1.33	1.45	1.37	1.34	1.32	1.36	1.51	1.52	1.39	1.41	1.49	1.49	-0.22
	TTGN	3.51	3.12	2.96	3.01	3.19	2.99	2.80	2.69	2.58	2.64	2.58	2.58	2.52	2.39	2.44	-1.07
	HB	3.90	3.86	3.88	3.92	3.88	3.82	3.71	3.71	3.69	3.78	3.70	3.69	3.64	3.45	3.41	-0.49
Central Greece	DTGN	5.96	6.20	6.96	6.27	6.27	6.57	6.05	5.90	6.18	6.01	5.96	6.14	6.33	6.64	6.58	0.62
	ITGN	1.23	1.13	1.12	1.01	1.10	1.04	0.95	0.80	0.66	0.83	0.87	1.03	1.12	1.13	1.14	-0.08
	TTGN	2.45	2.41	2.64	2.39	2.58	2.46	2.09	1.81	1.68	1.75	1.75	1.92	1.96	1.98	1.98	-0.47
	HB	4.25	4.11	4.05	4.04	4.06	4.05	4.00	3.93	3.82	3.78	3.69	3.67	3.61	3.56	3.45	-0.79
Eastern Macedonia and Thrace	DTGN	6.85	6.56	6.05	6.27	5.71	5.40	5.34	6.12	6.49	5.92	5.59	5.53	5.64	4.87	4.70	-2.15
	ITGN	1.14	1.17	1.14	1.27	1.29	1.19	1.26	1.35	1.49	1.49	1.67	1.52	1.60	1.47	1.47	0.33
	TTGN	2.61	2.52	2.42	2.59	2.55	2.28	2.16	2.29	2.42	2.27	2.34	2.22	2.25	2.00	1.97	-0.64
	HB	2.62	2.62	2.70	2.64	2.69	2.77	2.83	2.82	2.76	2.70	2.74	2.70	2.74	2.68	2.61	-0.01
North Aegean	DTGN	3.73	3.68	3.49	3.45	3.26	3.00	2.88	2.56	2.65	2.76	2.60	2.49	2.80	2.68	2.78	-0.94
	ITGN	2.62	2.55	2.27	2.27	2.26	2.06	2.02	1.88	2.01	2.12	2.24	1.79	1.84	1.74	1.66	-0.95
	TTGN	2.90	2.84	2.59	2.58	2.54	2.31	2.21	2.02	2.13	2.24	2.30	1.92	2.00	1.88	1.84	-1.07
	HB	3.19	3.11	2.99	2.94	2.96	2.90	2.87	2.87	2.88	2.82	2.81	2.78	2.76	2.72	2.69	-0.50
Western Greece	DTGN	5.26	6.32	6.02	5.91	5.85	6.07	6.06	6.94	6.35	6.36	6.61	6.55	6.43	5.38	5.33	0.07
	ITGN	1.34	1.20	1.81	1.56	1.39	1.33	1.27	1.01	1.11	1.23	1.36	1.36	1.35	1.15	1.19	-0.15

(continued)

Table 2 (continued)

Regions		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Change (2005–2019)
	TTGN	2.35	2.49	2.91	2.70	2.66	2.56	2.34	2.18	2.08	2.14	2.27	2.26	2.17	1.80	1.83	-0.52
	HB	2.37	2.58	2.54	2.59	2.56	2.56	2.42	2.41	2.43	2.56	2.40	2.39	2.34	2.27	2.28	-0.08
Epirus	DTGN	3.80	4.04	4.00	3.81	4.13	4.41	4.72	4.71	4.77	5.08	4.62	4.51	4.80	5.25	5.07	1.27
	ITGN	0.36	0.33	0.40	0.39	0.38	0.35	0.35	0.40	0.40	0.45	0.44	0.50	0.57	0.72	0.77	0.40
	TTGN	1.25	1.26	1.34	1.29	1.45	1.40	1.32	1.25	1.21	1.27	1.16	1.20	1.25	1.42	1.43	0.18
	HB	1.60	1.57	1.61	1.78	1.84	1.91	1.89	1.91	1.97	2.00	2.04	2.13	2.12	2.15	2.12	0.52
Western Macedonia	DTGN	2.32	2.36	2.08	2.11	1.89	1.91	1.84	1.95	2.09	2.03	1.93	1.70	1.72	1.60	1.54	-0.78
	ITGN	0.11	0.09	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.06	0.05	0.05	0.07	0.08	0.06	-0.05
	TTGN	0.68	0.66	0.61	0.61	0.60	0.55	0.47	0.45	0.45	0.41	0.38	0.34	0.34	0.31	0.29	-0.39
	HB	0.62	0.65	0.67	0.75	0.74	0.76	0.75	0.74	0.76	0.77	0.74	0.77	0.78	0.71	0.76	0.13

Note DTGN means domestic tourism guest nights; ITGN means inbound tourism guest nights; TTGN means total (or internal) tourism guest nights; HB means hotel beds

Source Calculated from the Hellenic Statistical Authority and the Hellenic Chamber of Hotels

A dynamic analysis based on Table 2 time series data, moreover, reveals that the tourism polarisation phenomenon is not only evident throughout the study period, but actually becomes more intense over the years. As such, the first five regions have managed to improve (as a group) their share in the country's total tourism guest nights and hotel beds by 4.63% and 1.38%, respectively, against the other eight regions (except for Epirus, and Western Macedonia in the case of hotel beds). This improvement is mainly due to the South Aegean and Crete, which together increased their share in the above indicators by 6.95% and 4.10%, respectively.

The continuous concentration of tourism activity is also evidenced by the gradual increase in the value of the Gini coefficients for all four tourism indicators (see Table 1 and Fig. 2). Their evolution clearly indicates that regional tourism disparities have intensified over the years. Comparing their values, however, we see that the Gini coefficients of inbound tourism guest nights are consistently larger than those of total tourism guest nights and hotel beds, while those of domestic tourism guest nights have consistently lower values. In other words, inbound tourism, which, as previously said, constitutes the larger proportion of tourism demand, is highly concentrated among the regions. In contrast, domestic tourism is more dispersed, thus generating fewer disparities.

The spatial concentration of tourism activity occurs in both wealthier and less prosperous regions. In particular, two out of the top five regions, Attica and South Aegean, are the wealthiest in Greece, with a GDP per capita steadily above the national average throughout the study period (see Table 3). On the other hand, tourism activity is simultaneously concentrated in less prosperous regions, such as Crete (sixth position in GDP per capita) and Central Macedonia (eighth place), helping them keep up with economic growth. In this respect, tourism polarisation contributes to both economic convergence and divergence.

Nevertheless, tourism's capacity to drive economic convergence does not appear feasible with respect to the poorest or economically lagging regions, such as the North Aegean, Eastern Macedonia and Thrace, Epirus, and Western Greece. These regions, albeit rich in natural and cultural resources, perform poorly in all tourism indicators ranking at the last positions in most years (see Table 2). Moreover, they even tend downwards in these indicators, with the exception of Epirus. Therefore, in conjunction with the above, the existing pattern of tourism's spatial distribution cannot be argued to ultimately lead to BRD.

5 Discussion

This study investigated the spatial distributions of both economic and tourism activity in Greece with the aim of ascertaining whether tourism contributes to BRD. Based on the results the following can be extrapolated. First, regional tourism disparities are larger than regional economic inequalities, a condition that has also been the case in relevant studies in China (Goh et al., 2014, 2015; Li et al., 2015, 2016). Moreover, there is a positive correlation between the Gini coefficient of GDP per capita with

Table 3 GDP per capita indices as compared to Greece (=100)

Regions	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Attica	130.89	132.70	133.40	133.74	135.56	134.97	135.44	134.21	135.04	135.35	134.91	135.73	136.50	136.85
South Aegean	113.65	111.35	111.05	113.29	106.95	107.36	107.23	106.50	110.83	113.26	111.64	107.50	106.17	107.81
Ionian Islands	101.09	98.51	98.14	99.61	94.24	94.33	89.35	90.16	90.28	93.42	91.68	91.03	90.58	93.08
Western Macedonia	91.33	86.80	82.43	76.67	82.22	88.32	95.45	110.86	110.04	109.41	104.96	97.71	96.60	91.48
Central Greece	96.77	92.21	90.30	89.51	87.12	88.73	89.78	90.53	89.04	87.29	88.51	90.45	90.92	89.75
Crete	90.30	89.13	87.03	87.79	86.70	86.23	83.36	81.30	83.23	85.88	85.76	84.09	84.84	85.41
Peloponnese	78.75	78.85	79.36	78.85	78.85	80.15	81.53	83.20	83.32	82.17	84.02	84.46	84.77	83.26
Central Macedonia	78.65	78.89	79.74	79.83	79.09	77.73	78.17	77.89	76.54	75.81	77.35	78.05	77.79	78.38
Thessaly	76.06	76.40	75.04	74.91	74.03	71.48	71.08	73.30	73.66	74.32	75.34	74.97	74.86	75.11
Western Greece	76.94	78.03	76.90	75.04	73.52	75.51	74.21	75.04	73.78	73.60	73.48	72.63	71.97	72.15
Epirus	72.63	70.55	69.39	68.48	67.99	70.88	71.80	70.74	72.11	72.00	71.36	71.58	70.27	70.32
Eastern Macedonia and Thrace	72.47	68.47	69.99	71.27	71.41	74.41	71.52	71.69	69.89	68.94	68.77	69.62	68.71	68.35
North Aegean	77.44	77.42	79.07	80.79	79.45	78.57	78.84	78.94	78.69	79.34	77.67	75.08	71.31	68.28

Source Calculated from the Hellenic Statistical Authority that of all tourism indicators, except for inbound tourism guest nights. Although this is not a cause-and-effect relationship, it still suggests that tourism activity in Greece enhances regional economic inequalities as it becomes more concentrated.

Second, this paper corroborates previous studies in Greece using older or static data (Gaki et al., 2013; Klouri, 2018) which found tourism activity to be considerably concentrated. It is, in fact, polarised both on the tourism demand and supply side, in five regions (South Aegean, Crete, Ionian Islands, Central Macedonia, and Attica). Third, it was found that regional tourism disparities have intensified over the years, as the Gini coefficients of all tourism indicators display an upward trend. This is in line with Liargovas et al. (2007) who, albeit using tourism investment as a proxy in their analysis, conclude that its allocation to each region created a process of divergence in tourism development. In contrast, Papatheodorou and Arvanitis (2014) argue that the Greek economic crisis (from 2009) positively affected only the spatial distribution of internal tourism, creating an upward trend in its Gini coefficient value, and did not change the existing patterns of domestic and inbound tourism. Nonetheless, the Gini coefficients of the latter two also increased, if slightly, during their entire study period (2005–2012), indicating a slow but gradual trend of divergence. This is substantiated by this study's more recent time series data.

Lastly, tourism activity in our case is concentrated in both wealthier and less prosperous regions, contrary to most of the relevant studies in other countries where its spatial concentration occurs in wealthier or more economically developed regions (e.g. Bohlin et al., 2016; O'Hare & Barrett, 1999; Wen & Sinha, 2009; Williams & Shaw, 1995). However, tourism in Greece does not seem to ultimately result in economic convergence. The reasons for this are (a) regional tourism disparities are consistently larger than regional economic inequalities; (b) tourism polarisation is becoming more intense over the years, positively affecting (enlarging) economic imbalances among regions; and, more importantly (c) the poorest or economically lagging regions cannot keep pace with tourism development as they perform poorly and even display (most of them) a downward trend in all tourism indicators. Thus, the existing pattern of tourism's spatial distribution reinforces regional economic inequalities, and therefore hinders, or at least does not promote, BRD.

In order to set this right, this paper suggests that domestic tourism is a more effective tool for BRD than inbound tourism as it has a more dispersed distribution (lower Gini coefficient values). This is also evidenced and advocated in relevant studies where regional economic and tourism inequalities are prominent (Goh et al., 2014, 2015; Haddad et al., 2013; Li et al., 2015, 2016; Seckelmann, 2002; Tosun et al., 2003). Papatheodorou and Arvanitis (2014), in contrast, maintain that Greek regions should aim for inbound instead of domestic tourism. It should be noted, however, that their analysis focuses on the impact of the economic crisis, which negatively affected domestic tourism and especially those regions that depended on it. Domestic tourism has since rebounded (at an average annual rate of 9% from 2012 to 2019 according to ELSTAT data) and, what is more, tends to favour less popular areas than mass tourism destinations.

Therefore, from a regional policy perspective tourism stakeholders should try to boost domestic tourism if their aim is to reduce spatial inequalities and achieve economic convergence. Undoubtedly, inbound tourism receipts constitute an important asset for the national economy as they comprise a considerable proportion of its total exports (26.9% in 2019 according to World Travel & Tourism Council (WTTC, 2021)). However, it is difficult for those regions that have been traditionally based on domestic tourism (e.g. Epirus, Western Greece) to compete with established destinations in inbound tourism. Domestic tourism, moreover, allows for income redistribution among regions, as Christaller initially stated in the polar periphery context.

Central government initiatives such as social tourism programs or 'Tourism for All', which subsidise vacations for the unemployed and low-income workers, are heading in the right direction, so long as the bulk of the domestic trips are to less visited regions. Furthermore, there should be a gradual detachment from the existing pattern of tourist development poles, which is mostly associated with mass tourism (Brenner & Aguilar, 2002; Tosun et al., 2003). Regions, and especially those that do not offer the three 's' tourism product (sea, sun, sand), should instead rely on the local endogenous development model. This model favours special interest tourism, as it is based on local participation and decision-making, local networking, and small-scale projects (Rogerson, 2002). The development of special forms of tourism (e.g. agri, eco, sports) will, in turn, enhance domestic tourism flows—as well as inbound tourism visits—to the less visited regions throughout the year.

6 Conclusion

This paper attempts to supplement the small body of relevant literature and address the research question of whether tourism reduces or reinforces regional economic inequalities. In relation to Greek studies, it also contributes by comparing the spatial distributions of economic and tourism activity, and by examining which form of tourism (inbound or domestic) is more efficient for economic convergence. Based on the research findings, this study adopts the second argument (tourism reinforces inequalities) as tourism activity in Greece gradually deepens divergence. From a regional policy perspective, domestic tourism is recommended as a more effective instrument for achieving BRD.

Assuredly, the present study has some limitations which need to be addressed. The main one is that the analysis of tourism's spatial distribution was based only on hotel accommodation data, as data for other types of lodging are too recent (short-stay establishments) or would bias the results (campsites). Nevertheless, most of the relevant studies use hotel beds (or rooms and employment) and hotel guest nights as a representative proxy of tourism supply and demand, respectively. Also, due to data unavailability tourism receipts were not used as an additional proxy of tourism demand. Lastly, it would be more appropriate to compare the Gini coefficients of GDP per capita with that of tourism GDP per capita when comparing the spatial distributions of economic and tourism activity, but unfortunately—as is also the case in other relevant studies—the latter data are not available at the regional level.

In closing, this paper examines the spatial inequalities in tourism at the regional (NUTS II) level. It would be interesting to investigate not only the inter- but also the intra-regional disparities using other methods of regional analysis, such as the Gini decomposition method or the Theil/MLD index. This would allow us to ascertain if overall tourism inequalities in Greece are also owed to within-region disparities. Also, there is a need to verify if the relationship between regional economic and tourism disparities is positive by applying advanced statistical methods.

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Are Tourism Ventures Included in Business Accelerators Fulfilling Their Financial Expectations?

Daniel Badulescu, Ramona Simut, and Alina Badulescu

Abstract Ambitious, growth-oriented start-ups represent an important driver of change and transformation in the global economy, including the "particular" tourism sector. These firms induce the evolution of the tourism industry, by transitioning from offering standard hospitality services to providing unique experiences to visitors. The real advantages brought by entrepreneurial initiative refer to enhancing factors that lead to economic growth, innovation and progress, and separating from factors leading to failure or mere survival of a firm. Supportive measures such as start-up accelerators, incubators and/or business angels are designed to stimulate and encourage development of new ventures, achieving growth targets and, implicitly, ensuring economic growth, general and individual prosperity. In this paper, we took into account a sample of tourism and hospitality associated activities firms and analysed the existence of a correlation between profit margin goals and the potential benefits that are typically associated with entrepreneurial accelerators. To this end, we relied on the database made available by the Entrepreneurship Database Program (EDP). Our results suggest that high-performance goals are related with not only the importance of suitable financing, mentorship, network development or business skills, but also an unconvincing alignment between the perception of entrepreneurial success, the expectations of young entrepreneurs and the requirements of business accelerator programs.

Keywords Small business · Tourism · Financial objectives · Business accelerators' benefits

JEL Classification L26 · L8 · M13 · Z3

D. Badulescu · R. Simut · A. Badulescu (✉)
University of Oradea, Oradea, Romania
e-mail: abadulescu@uoradea.ro

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_12

1 Introduction

Tourism is one of the fastest growing industries in the world: in 2019, the touristic sector directly or indirectly accounted for 10.3% of global GDP, 330 million jobs or 10% of total employment (World Travel & Tourism Council (WTTC) 2020). According to UNWTO, tourism is one of the world's major economic sectors, accredited in 2019 for approximately 7% of global trade. For some small countries, tourism represents over 20% of their GDP, generating a large number of jobs and involving many small and medium enterprises (SMEs) (UNWTO, 2021a). However, in 2020, tourism was one of the sectors most affected by the COVID-19 pandemic, this crisis severely affecting economies, living wage, businesses, public services and opportunities on all continents (UNWTO, 2021a, 2021b). Especially, international tourism was hit by an "unprecedented shock, challenges and an existential threat to the tourism sector" (UNWTO, 2021a). Due to the COVID-19 pandemic, international tourist arrivals (overnight visitors) decreased by 74% compared to 2019 leading to a fall in international to levels similar to those registered 30 years ago (UNWTO, 2021b), and even optimistic scenarios do not see a return to the figures for 2018–2019 earlier than 2024.

The negative impact of COVID 19 on SMEs' performance is considerable; some sectors, such as tourism are particularly affected, also contributing to reduced business and consumer confidence. More generally, SMEs in tourism are likely to be more vulnerable to "social distancing" than other companies, being significantly affected by the virus and the measures taken to contain it (OECD, 2020).

Without ignoring the terrible shock suffered by the global tourism industry caused by the COVID-19 pandemic, but at the same time confident that the gradual return of tourism will occur within a reasonable time, we emphasize the importance of understanding the challenges and transformation facing the SMEs from tourism in the current period.

Transformations within the tourism industry are underlined by two major processes: on the one hand, *existing firms* within the industry innovate and develop their offers in order to better exploit new opportunities and to respond to the changing demands of the market. On the other hand, *new firms* begin to exploit new opportunities, competing, complementing and occasionally replacing the offer of existing firms: in other words, an adaptation of Schumpeter's "creative destruction" (Schumpeter, 1975). Subsequently, new start-ups, more innovative and attentive to market opportunities, are required for an industry to adapt to the extended development of demand. Governments and private organizations, by stimulating the founding and function of incubators and accelerators, hybrid systems and business angel networks, encourage the entrepreneurial mindset in the tourism industry, by contributing to increase public and individual revenues, improve the economic status of undeveloped regions and encourage job creation and economic initiatives as a whole.

Nevertheless, we should not ignore that founding and launching a firm in a particular and constantly transforming industry, on a market subject to unpredictable changes (fashion, global challenges, the depletion and degradation of resources), is typically associated with a high degree of uncertainty (Badulescu & Badulescu, 2012). High-growth ambitions and enthusiasm cannot compensate the lack of experience, models and information on the dimensions and dynamics of markets and demand. Objectives, whether mere survival or targets to achieve, are essential in understanding the difficulties and constraints faced by such firms.

2 Measuring the Performance of Start-Ups

The performance of a business can be measured in terms of financial or non-financial indicators, as well as a combination thereof. Financial indicators are diverse: turnover, profit before taxes, returns on investment (ROI), returns on sales (ROS) or returns on equity (ROE), as well as the number of employees, the evolution of income in seasonal terms, the evolution of market share and income per employee (Orser et al., 2000; Robinson & Sexton, 1994). The most commonly used non-financial (but not subjective) measures are client satisfaction and loyalty, delivery time, waiting time and employees' turnover (Chong, 2008). Focused on achieving goals, most entrepreneurs and managers are interested in quantitative financial indicators and relegate non-financial indicators to the background. The explanation likely stems from (at least apparently) the objective nature of the financial indicators, as well as the ease of calculating and understanding. On the other hand, they are deeply rooted in historical data, are not publicly available, are (partially) confidential and their accuracy and actuality are not always certain (Brush & Vanderwerf, 1992; Covin & Slevin, 1989; Sapienza et al., 1988). Consequently, comparing results between sectors and among firms is rather difficult and easily contested. Non-financial indicators, while subjective, complement financial measures (Covin & Slevin, 1989) and aid entrepreneurs in forming a broader perspective on measuring and comparing firms' performance, particularly the efficient use of resources, preparing for change, and adapting to external pressure (competition, globalization and shifts in clients' preferences).

Acknowledging the above-mentioned limitations, entrepreneurs and SME managers adopt, in practice, a mixed approach, using both types of indicators. Moreover, entrepreneurs also employ a temporal perspective: yields are measured and interpreted on a certain timeframe, with respect to short- and long-term plans of the organization (Chong, 2008). Short-term indicators rely primarily on financial rentabilities, turnover, etc., while long-term measures are mixed, in order to better correspond to entrepreneurs' expectations, i.e., to provide useful information on the long-term survival of the organization (Birley & Westhead, 1994). Both types of information, through accumulation and correlation, can become a useful set of resources for anticipating future developments, planning growth and orienting the firm towards complex objectives (Barney, 1997; Haber & Reichel, 2005) or to a sustainable orientation of young businesses (Badulescu et al., 2015). In the tourism industry, similar to other fields, the increase in turnover and profits, overnight stays and supplementary services consumption are due to previous efforts and performance, the satisfaction, fidelity and recommendations coming from existing and former clients. Knowingly or unknowingly, most entrepreneurs take a holistic approach to financial and non-financial indicators, relying on both market shares and satisfaction, turnovers, profits or rates of return as measures of firm activity.

3 Business Accelerators in Stimulating the Performance of New Companies

Reshaping the entrepreneurial ecosystem and providing support structures to inexperienced businesses with a high-growth potential rely on a network of incubators, accelerators, business angels, co-working spaces and hybrid systems (Cohen, 2013; European Union/OECD, 2019).

The results of accelerator programs are, at least at first sight, encouraging. Studies show that companies participating in top accelerator programs register a higher rate of achieving specific key objectives, such as obtaining required financing, exit by acquisition and an increase in the number of clients. Accelerators train entrepreneurs and provide experience for future stages, whether opportunities or crises. Being mentored by experienced entrepreneurs is not only a chance to become part of a network which would propel them to higher business spheres. The educational value of accelerators is certain and likely stems from the intensive learning environment promoted therein. Accelerators have a positive impact with respect to stimulating the entrepreneurial environment and creating adequate support and financing structures, encouraging the growth of young companies and generating confidence in investors and creditors.

Several studies (I-DEV International, Aspen Network of Development Entrepreneurs, Agora Partnerships, 2014) suggest that the value of accelerators is better perceived by growth-oriented, small firms in their early stages, compared with businesses already in their growth and consolidation phase. The most appreciated services are business plan or strategy development and peer mentoring, while administrative, legal and office assistance, including pro-bono legal advice, Internet/e-commerce access or website development and accounting assistance have moderate scores. Usually, there is a definite overlap between the interest in services during the entry and exit phases, respectively. This could suggest that firms which join accelerator programs have realistic expectations regarding the advantages and added value of such programs, and that selection systems are well-calibrated. However, there do exist some dissatisfactions regarding certain expected benefits, such as raised capital and investment readiness support, which would suggest the existence of inadequate accelerators and selection programs, which are not quite useful to the growth of the new entries.

4 Research Methodology

Our research is based on data series made available by the Entrepreneurship Database Program (EDP), housed at Emory University, which includes application data collected from programs that opened applications during the 2013–2018 window; at the same time, included information also consists of the first year of follow-up data, from entrepreneurs who applied to a self-selected group of accelerator programs. The Entrepreneurship Database Program at Emory University has a date which is interrelated to a wide range of accelerator programs, in order to systematically collect data from entrepreneurs who apply to and, if selected, participate in these programs. This vast, prospective, data collection program is part of the Global Accelerator Learning Initiative/GALI (Entrepreneurship Database Program & Aspen Networks of Development Entrepreneurs (EDP), 2019, p. 3).

The main data and the synthetic information we have used is contained in the 2018 Report, which includes the analysis of 13,845 responses given by entrepreneurs who have applied for accelerator programs that started in 2013. We have selected 356 for-profit companies from the tourism and artisanal sector who applied for the EDP accelerator programs. This research has tried to find out whether there is a correlation between the profit margin aspirations expressed by entrepreneurs that activate in the tourism and artisanal sector and the potential benefits that are typically associated with entrepreneurial accelerators.

5 Results and Discussion

Table 1 outlines the structure of companies by the potential benefits that are typically associated with entrepreneurial accelerators. The companies have ranked these benefits in terms of "how important they are to the development and success of their venture", by using the Likert scale, where 1 is the most important and 7 is the least important.

According to the results presented in Table 1, we can say that most of the sampled entrepreneurs give very high importance to the potential benefits of network development (mode = 1—the most important) and securing direct venture funding, e.g., grants or investments (mode = 1—the most important). Also, entrepreneurs give relatively high importance to the business skills development, mentoring and connections to potential investors/funders (mode = 2—important). On the other hand, "gaining access to a group of like-minded entrepreneurs" and "awareness and credibility" are the least important of the seven potential benefits.

Figure 1 presents a similar summary across the importance of the potential benefits arising from taking part in accelerator programs that are typically associated with entrepreneurial accelerators. On the boxplot, we have the horizontal lines that represent the minimum value and the maximum value, the red line which represents the median, while the outer boundary of the boxes indicates the first and third quartiles.

Table 1 The importance of the potential benefits that are typically associated with entrepreneurial accelerators

		Network development	Business skills development	Mentorship from business experts	Access and connections to potential investors/funders	Securing direct venture funding	Gaining access to a group of like-minded entrepreneurs	Awareness and credibility
N–sample volume		356	356	356	356	356	356	356
Mean		3.42	3.87	3.32	3.75	3.81	4.94	4.88
Median		3.00	4.00	3.00	4.00	4.00	5.00	5.00
Mode		1	2	2	2	1	6	7
Std. Deviation		1.938	2.027	1.752	1.816	2.084	1.800	1.917
Skewness		0.294	0.061	0.380	0.084	0.138	−0.634	−0.475
Kurtosis		−1.124	−1.286	−0.855	−1.109	−1.285	−0.652	−1.008
Minimum		1	1	1	1	1	1	1
Maximum		7	7	7	7	7	7	7
Percentiles	25	2.00	2.00	2.00	2.00	2.00	4.00	3.00
	50	3.00	4.00	3.00	4.00	4.00	5.00	5.00
	75	5.00	6.00	5.00	5.00	6.00	6.00	7.00

Question "The following are some of the potential benefits that are typically associated with entrepreneurial accelerators. Please rank these benefits in terms of how important they are to your venture's development and success (1—the most important and 7—the least important)."
Source The Entrepreneurship Database Program at Emory University.

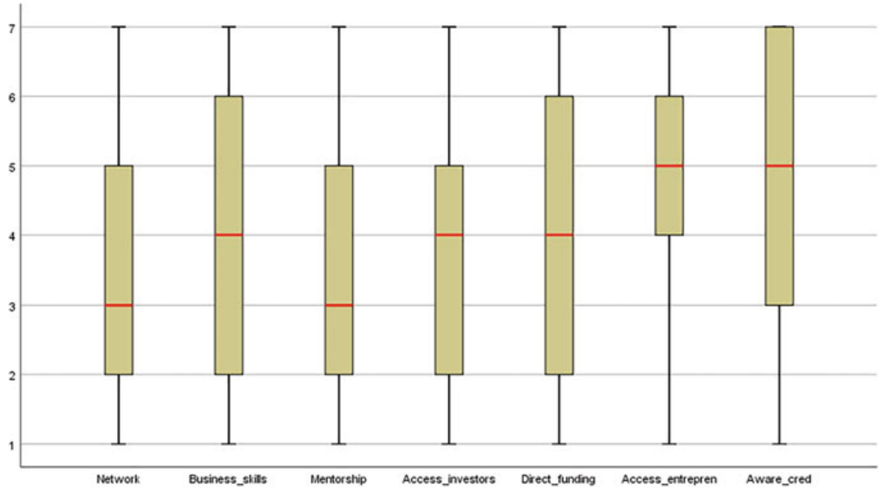

Fig. 1 Boxplot of the importance of the potential benefits (Likert scale analysis) *Source* The Entrepreneurship Database Program at Emory University

The results show that most entrepreneurs consider network development and mentorship as quite an important potential benefit (low median with wide range). According to the boxplot, we can say that only half of the entrepreneurs consider the business skills, the connections to potential investors and securing direct venture funding as important potential benefits (median = 4). The entrepreneurs from the tourism and artisanal sector consider gaining access to a group of like-minded entrepreneurs and the awareness and credibility as less important (high median with wide range). Based on these results, we want to determine how the average rank of the importance of these potential benefits is influenced by the profit expected by the entrepreneurs from the tourism and artisanal sector.

In order to understand the profit margin expected by the entrepreneurs, we considered six different target margins (no specific target, 0–5%, 6–10%, 11–15%, 16–20%, more than 20%) based on the following question: "What annual profit-margins would you be happy with achieving on average?" (Table 2).

Considering only the for-profit ventures from the tourism and artisanal sector, the largest groups are comprised of ventures that seek profit margins in excess of 41% (N = 147). The ventures with the margin objectives between 11 and 15%, on average, consider the networking benefits as one of the most important potential benefits (average rank = 2.81) and gaining access to a group of like-minded entrepreneurs as one of the least important potential benefits (average rank = 5.31). Regarding the ventures with no specific target, those with a profit margins objective between 6-10% and those with the highest margin objectives, we observe that mentorship benefits remains the most important potential advantage followed by the network. Also, in the case of these profit margins, gaining access to a group of

Table 2 The importance of the potential benefits depending on the profit margin—average rank

Profit margin (for-profit ventures)	N	Benefits from accelerator programs						
		Network	Business skills	Mentorship	Investors	Direct funding	Entrepreneurs	Awareness
		Average rank						
No specific target	112	3.38	4.26	3.19	3.63	3.76	4.95	4.84
0–5%	4	4	3.75	3	5	5.5	3.75	3
6–10%	50	3.42	3.52	3.08	4.24	4.46	4.56	4.72
11–15%	16	2.81	4.06	3.13	3.63	4	5.31	5.06
16–20%	27	3.33	4.22	3.56	3.19	4.04	4.44	5.22
More than 20%	147	3.51	3.62	3.48	3.76	3.53	5.15	4.95
Total	356	3.42	3.87	3.32	3.75	3.81	4.94	4.88

Note N_i—absolute frequencies
Source The Entrepreneurship Database Program at Emory University

like-minded entrepreneurs is considered one of the least important potential benefits together with the awareness and credibility (e.g., association with a recognized program, press/media exposure). Entrepreneurs whose profit objective is between 16 and 20% give higher importance to investors (access and connections to potential investors/funders). Thus, network development (e.g., with potential partners and customers) and mentorship are considered as being the most important potential benefit that is typically associated with entrepreneurial accelerators. This network development can be useful to entrepreneurs, given that they can grow the level of credibility and visibility of their company, and because network development can provide resources that would not be available at all in market, such as reputation, contacts with customers and suppliers.

In order to find whether there is a correlation between the profit margin aspirations expressed by entrepreneurs from the tourism and artisanal sector and the potential benefits that are typically associated with entrepreneurial accelerators, we will use two nonparametric tests. One of the most used parametric tests, which determine the association between two variables, is the Pearson correlation. In the case of nonparametric tests, the most known are the Spearman rank correlation coefficient that was first studied by Spearman (1904) and Kendall's Tau coefficient proposed by Kendall (1938). Because in this study we have 6 variables that are measured on a scale that is ordinal, we will use the Spearman Rank Correlation coefficient and Kendall's Tau coefficient (Table 3).

Spearman's rho and Kendall's tau correlations suggest significant relationships between the profit margin objectives and some of the potential benefits that are typically associated with entrepreneurial accelerators in our sample. We found a significant correlation at the 0.01 level (1-tailed) between the profit margin objectives and securing direct venture funding ($p = 0.003$), and a significant correlation at the

Table 3 The relationship between the profit margin and the potential benefits from accelerator programs

Benefits from accelerator programs		Profit margins	
		Kendall's tau_b	Spearman's rho
Network development	Correlation coefficient	−0.047*	−0.056*
	Sig. (1-tailed)	0.1	0.1
Business skills development	Correlation coefficient	−0.047*	−0.059*
	Sig. (1-tailed)	0.1	0.1
Mentorship from business experts	Correlation coefficient	−0.057*	−0.071*
	Sig. (1-tailed)	0.1	0.1
Access and connections to potential investors/funders	Correlation coefficient	-0.006	-0.006
	Sig. (1-tailed)	0.4	0.4
Securing direct venture funding	Correlation coefficient	−0.143***	−0.175**
	Sig. (1-tailed)	0.003	0.003
Gaining access to a group of like-minded entrepreneurs	Correlation coefficient	0.109**	0.128*
	Sig. (1-tailed)	0.02	0.02
Awareness and credibility	Correlation coefficient	0.009	0.011
	Sig. (1-tailed)	0.4	0.4

Note Correlation is significant: ***$p < 0.01$ (1-tailed). **$p < 0.05$ (1-tailed). *$p < 0.10$ (1-tailed)
Source Authors' calculation using the Entrepreneurship Database Program at Emory University

0.05 level (1-tailed) between profit margin objectives and gaining access to a group of like-minded entrepreneurs ($p = 0.02$). In the case of the securing direct venture funding objective, we have a negative correlation. Because the scale of the potential benefits that are typically associated with entrepreneurial accelerators is from 1 = most important to 7 = less important, and in the case of the profit margin, we have 1 = 0-5% and 5 = more than 20%, we can conclude that when the profit margin objective increases, the direct funding importance also increases. Regarding the gaining of access to a group of like-minded entrepreneurs, we have found a positive correlation. Therefore, we can conclude that the higher the profit margin objective is, the smaller the gaining of access to a group of like-minded entrepreneurs becomes. Mentorship from business experts ($p = 0.1$), business skills ($p = 0.1$) and network development ($p = 0.1$) are significant correlations with the profit margin objectives at the 0.01 level (1-tailed). Also, in these three cases we find a negative correlation. So, we can conclude that the higher the profit margin objective is, the higher the importance of mentorship, network development and business skills becomes.

6 Conclusions

Globalization, technology, changes in consumers' preferences and other critical factors contribute to the success or failure of tourism firms, leading to an increased interest of researchers, decision makers and entrepreneurs in understanding the means to develop and exploit the competitive advantages of a business, destination or policy (Ritchie & Crouch, 2003). This concert influences the way we understand the performance of a firm, and how it is measured and managed. Although traditional indicators, measuring the performance of a firm, (i.e., financial indicators), are most often discussed (and their importance, accuracy and ease of comparison should never be ignored), a number of researchers refer to their incompleteness and occasional unsuitability. This is of particular relevance in a field such as tourism, which is equally traditional and innovative, challenging and subject to rapid change (Avci et al., 2011; Badulescu & Badulescu, 2014; Dimanche, 2014; Ilies et al., 2017; Katsoni & Sahinidis, 2015).

In our paper, using the database provided by the Entrepreneurship Database Program (EDP), we took into account a sample of firms active in tourism and hospitality-associated services and analysed the existence of a correlation between profit margin goals and the potential benefits that are typically associated with entrepreneurial accelerators. Our findings suggest that, when the profit margin objective increases, the importance of finding suitable financing, mentorship, network development and business skills increases as well. On the other hand, "gaining access to a group of like-minded entrepreneurs" and "awareness and credibility" are perceived as far less important in obtaining a high profit margin. The results not only confirm, to some extent, previous studies in the field, but also show a lack of congruity between accelerators' objectives and firms' expectations, as well as specific traits of tourism firms compared to the general mean, which we intend to approach in future studies.

Acknowledgements "Data provided by the Entrepreneurship Database Program at Emory University; supported by the Global Accelerator Learning Initiative". Any interpretations or conclusions that are drawn from these data are to be attributed entirely and solely to the article's authors and not to the Entrepreneurship Database Program or to the Global Accelerator Learning Initiative.

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A Targeted Multi-parameter Approach of Greek Start-Ups, Related to Tourism, Culture, and Leisure

Konstantinos Giannopoulos, Paris Tsartas, and Konstantinos Anagnostelos

Abstract It is generally accepted and obvious that start-ups today are a huge part of global entrepreneurship. In recent years, you have seen a strong interest in start-ups, their financing, and their viability as most of these businesses do not survive. Regarding Start-up companies worldwide, a fact that is a need to investigate is what is happening in Greece with start-ups and especially with start-ups in the field of Greek Tourism, Culture, and Leisure. The following article is quantitative research about Greek Start-ups and answers questions such as what are the products and the services they offer, how they are related to Tourism and Culture, how much is the percentage of turnover, and how much is income from Tourism. This article is a targeted multi-parameter approach of Greek Start-Ups related to Tourism, Culture, and Leisure, and also an investigation of their sustainability.

Keywords Tourism · Innovation · Start-up · Entrepreneurship

JEL Classification Z32 Tourism and Development

1 Introduction

Tourism in the post-war period, especially after 1970, is one of the most dynamic and fastest-growing sectors of the world economy.

A special feature of this sector is that its operation is linked to the internationalization of a large number of productive sectors as well as service sectors of the economy. Thus, it can contribute to economic development at three levels in tourist areas: income generation, job creation, and tax revenue. In addition, it expands the productive base of these areas and also affects the development of other sectors of the local economy (Agriculture, Commerce, Construction, etc.).

K. Giannopoulos (✉) · P. Tsartas
Harokopio University, Athens, Greece

K. Anagnostelos
National and Kapodistrian University of Athens, Athens, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_13

The investigation and the research of what is happening in Greece with start-ups and especially with start-ups in the field of Greek Tourism are a very important issue for Greek tourism and the Greek economy as a whole.

2 Literature Review

I. The meaning of Entrepreneurship

In his attempt to capture the historical evolution of the business development debate over time, Albert Link identifies two important trends in entrepreneurship theories: theories that study the development of business action on its part supply, and those studying it on the demand side (Link, 2007).

According to Link, supply-side theories focused on the following question: Given the trends and the form of demand for products and services, what is the role of the entrepreneur in the market? These theories, therefore, focus on the role of the entrepreneur in the production and distribution of products and services for which there is a defined market. The word "entrepreneur" has French roots and means the intermediary or otherwise the person who mediates.

The entrepreneur by definition assumes risk if he "buys at a certain price and sells at an uncertain, unspecified price, therefore operating under high risk conditions" (Konstandelou, 2013).

Theories that deal with the phenomenon of entrepreneurship from the demand side emphasize the role of the entrepreneur in changing the very nature of demand for existing goods and services by introducing new goods and services or new combinations of products and services to the market. These theories essentially answer the question: Given the supply of existing products and services, what is the role of the innovative entrepreneur in the market?

The concept of the innovative entrepreneur was dealt with by Joseph Schumpeter (1883–1950) stating that the innovative entrepreneur succeeds in upsetting the balance of the market system by creating new combinations, which may include the following:

(a) The introduction of a new product or an existing product of new quality.
(b) The introduction of a new production process.
(c) The development of a new market.
(d) The utilization of new natural resources and materials.
(e) The change in the structure of an industry (Foss & Klein, 2002).

According to Schumpeter, the entrepreneur is the one who carries out the above changes and has the following characteristics:

- He is creative.
- He is not (necessarily) an inventor, but he is a man of action.
- He is not a capitalist or a manager, he borrows capital to implement his idea and he takes the risk of his investment.

- He is probably born with the gift despite acquiring it in the course of his life.
- He does not aim at profit but has as motives: (a) gaining independence through the creation of his own business, (b) the challenge of victory, and (c) the joy of creation.
- He is vulnerable to the profits he makes, as it is threatened both by imitators who want a share of the profits and by its own employees who claim a share of success by demanding an increase in their salaries (Foss & Klein, 2002).

II. **The definition of entrepreneurship**

Innovative entrepreneurs are found in all sectors, such as education, medicine, and research, the private and public sectors, and have common features. Newer approaches to entrepreneurship give the innovative entrepreneur the following characteristics: modernity, organization, creativity, risk-taking, and wealth creation.

Specifically, according to Karl Vesper:

- The innovative entrepreneur is the one who combines resources, such as labor, capital, and materials, in order to increase their total value. He is also the person who introduces change, innovation, and new ways of acting.
- The science of psychology considers that such a person is motivated by specific reasons, such as the need to create or achieve something, to experiment, to complete a task, or simply to escape the jurisdiction and control of others.
- For some business people, the innovative entrepreneur can be considered a threat, a competitor, while for others, it can be an ally, partner, customer, or supplier, which finds better ways to utilize the available resources and possibly offers jobs that society needs (Vesper, 1989).

For Robert Ronstadt, the term entrepreneurship refers to the dynamic process of creating incremental wealth. Wealth is created by individuals who take the risk of participating, have the time and will, or provide value to a product or service. The product or service is not necessarily completely new or unique. The value they acquire is created by the ability of the innovative entrepreneur to identify and combine appropriate resources and skills to produce them in a different way (Ronstadt, 1984).

Robert Hisrich and Michael Peters combine all the above traits of the entrepreneur in the following definition: Entrepreneurship is the process of dedicating time and effort to create something new, which has value, through the undertaking of the relevant economic, psychological, and social risk. This process is expected to reward the person involved by offering them monetary benefits or personal satisfaction and independence (Hisrich & Peters, 1998).

III. **Motives for entrepreneurship**

There are three main motivations for individuals to take business action:

(a) The desire to take matters into their own hands.
(b) The need to promote their own ideas.
(c) The prospect of satisfactory monetary gains.

The first motivation (desire to take matters into their own hands) does not necessarily mean that these people find it difficult to work together or intolerant when they are under the authority of a third party. On the contrary, from a very early stage in their careers, they seek to start their own business or suffocate in their work environment. Others seek independence in their professional life, something that can be achieved by starting their own business (Konstantelou, 2013).

People seek to take matters into their own hands when they experience negative situations in their personal or professional lives. For example, businesses are set up by people who have either recently retired, been forced to relocate for family reasons, or have recently been fired.

A significant percentage of people trying to start their own business had parents who highly valued the independence provided by their own business.

The second motivation (the need to promote their own ideas) applies both at the individual level and at the level of a business. Some people are naturally anxious, and when they realize an opportunity for a new product or service, they do not leave it untapped. In a corporate environment, there are usually specific procedures followed to turn an idea into a marketable product. Many times, however, the corporate environment proves hostile to anything new. When this happens, employees who came up with the original idea often get frustrated and look for alternatives to further develop it. So they often leave the business and decide to pursue their idea as part of their own business. Especially employees in the fields related to Research and Development (R&D) as well as marketing have more opportunities to be confronted with new ideas and to realize in time the possibilities and opportunities that are presented to them (Konstantelou, 2013).

The third incentive (the prospect of satisfactory monetary gains) ranks last in the list of incentives for entrepreneurship as often it does not take place. In developed countries with a significant number of large companies, the average entrepreneur does not enjoy more monetary earnings than an executive with similar responsibilities working in a large company. On the other hand, some entrepreneurs report that their profits from their entrepreneurial activity may eventually be significantly reduced in the event of losing control of their business due to the sale or acquisition or merger with another business. All the above motivations regarding the decision of the candidate entrepreneur to undertake business action are directly related to his cultural background and specifically to his culture, his personal and family experiences, and the standards of the social environment. In a cultural environment where individuals are encouraged to take business risks and start their own business, more start-ups are created than in an environment that is skeptical of such actions. American culture, for example, has a very positive view of people's efforts to take control of their lives and seize the opportunities presented for professional recognition and satisfactory monetary gains. In other countries, doing business is not viewed positively, and a potential failure is usually seen as a major setback (Konstantelou, 2013). In a similar way, a significant impetus for entrepreneurial activity is given by the educational system of a country, which from a very early age can instill in young people the idea that entrepreneurship can be an important step in their career.

4. The entrepreneurs' characteristics

There are several empirical studies that explore those characteristics that distinguish individuals who engage in business activities. Such characteristics concern: (a) the family environment of the entrepreneur, (b) his education, (c) his personal values and personality, (d) his age, and (e) the development of his professional career.

Regarding the role of the family environment, research initially focuses on whether the subsequent birth order of each entrepreneur is a determining factor in his decision for entrepreneurial action. The hypothesis of work is that first-timers may receive more care from the family and therefore gain more self-confidence from an early age, which is a prerequisite for doing business.

Empirical studies do not seem to have reached specific conclusions regarding the correlation between the entrepreneur's birth order and entrepreneurship (Hisrich & Peters, 1998).

Another area of research concerns whether the professional activities and social profile of the entrepreneur's parents encourage his business decision. There seems to be a significant correlation between the professional profile of the entrepreneur's family and his decision to start a business. In particular, empirical studies show that entrepreneurs, compared to other categories of employees, are more likely to have parents in the same profession, which is interpreted as an important driving force for them.

In general, the family and the relationships that its members maintain with each other seem to play a major role in supporting or not supporting young entrepreneurs and especially women. The supportive relationship with the parents and especially with the father proves to be very important for women entrepreneurs, as they are largely identified with him. An additional positive factor for them is whether they grew up in an urban environment, which usually proves to be more supportive of doing business.

Regarding the level of knowledge of entrepreneurs, research converges on the fact that young entrepreneurs have an educational background and give special importance to it. This happens not only at a young age before starting a business, but also during the business venture as a percentage of entrepreneurs, regardless of gender, state the need to gain further knowledge on issues related to entrepreneurship, such as financial management, strategic management, and marketing.

Regarding the personal values of young entrepreneurs, it is argued that the latter has a different attitude toward the nature of the administrative process and the operation of the company in general. The flexibility and passion of the entrepreneur for his venture, his creativity as well as his persistence in it despite any difficulties and adversities are often values that distinguish successful entrepreneurs. At the same time, they differ from the bureaucratic organization, design and rationality that usually distinguish the professional managers of a large organization.

However, research that has extensively investigated the characteristics of people involved in the business has not resulted in a clear and absolute distinction between the characteristics of entrepreneurs and these managers, arguing that this distinction is difficult (Deakins & Freel, 2007).

Empirical research on the personality traits of entrepreneurs, which is largely based on the work of David McClelland, has highlighted a set of key characteristics for successful entrepreneurs. These features are presented below.

- Initiative and positive thinking.
- Ability to identify and seize opportunities.
- Need to continue positive examples of previous generations through imitation and creation of new achievements.
- Making and keeping commitments.
- Undertaking measurable risks.
- Self-confidence.
- Flexibility.
- Efficiency.
- Ability to control its immediate environment.
- Tolerance to ambiguity.
- Vision.
- Creativity.
- Innovation.

(McClelland, 1961).

In any case, any assumptions concerning the weight and importance of the personal characteristics and abilities of entrepreneurs should not ignore the factors of the external environment that may influence the decision for business action. Also, the fact that entrepreneurship is a dynamic process of learning and development on the part of entrepreneurs results in the acquisition of knowledge and experiences that can shape the behavior of the entrepreneur over time.

5. Innovation

Innovation is the conception of original ideas, methods, designs, and patents that can be used for the benefit of the company. It is the commercialization of a new technology and is considered the main comparative advantage of organizations for business activity. Businesses innovate to seek to improve efficiency, expand and grow, the pressure of competition, the tendency to modernize, progress, open up favorable prospects, and the feeling of respect for the consumer public who is always looking for something new (Holevas, 1995).

The innovation process concerns the ways in which the company utilizes the resources at its disposal to take advantage of opportunities and stimuli arising from scientific and technological research, but also the needs of the market to develop a new product or service.

The European Commission, launching the Europe 2020 strategy to prepare the EU economy for the next decade, has made the effort to develop innovative action a top priority at the highest political level and promoted stakeholder partnership across Europe. The new strategy is expected to replace the Lisbon Strategy, which has driven economic reforms in member states and boosted employment.

In principle, the regional dimension of the new strategy can be directly linked to research and development policy, as well as to this innovative action, especially in cutting-edge technologies, while bridging the gap between scientific knowledge and the market, so that innovation to be transformed into any kind of competitive product.

6. Start-Up companies and their characteristics

A start-up is a business that is created and developed based on a scalable business model. Start-up companies promote a new service, idea, or invention and seek rapid and widespread market impact. Start-up companies offer a unique new idea, targeting a wide range of investors with a guarantee of rapid growth and promoting their product or service in anticipation of a quick return on investment.

Steve Blank states that "start-ups are organizations created to look for a recurring and evolving business model, which also marks their differentiation from the existing even start-ups that run their business model" (Blank, 2010).

Paul Graham states that "a business is considered a start-up not because it belongs to the tech industry but because you grow fast. There are companies that have existed for 5 years and can still be considered start-ups" (Graham, 2012).

The characteristics of a start-up company are based on three axes: it is new, innovative, and has the potential to exponentially increase its activities in relation to the human resources it employs. So by this, we mean that it is almost always a company that offers an innovative technological solution through an innovative business plan.

The main characteristics that we observe in start-ups are the following:

- **Innovation** that is the key determinant of start-ups. Start-up companies offer solutions to specific problems and meet the needs and desires of their customers, where it is usually related to technology products and services.
- **The Financing** that constitutes the "lung" of the implementation and development of the start-up.
- **The Fastest Growth** Start-up companies have no geographical restrictions and are designed to grow rapidly. A new business does not necessarily mean that it is part of the newcomer, nor does it necessarily have to be technological or have an investor to develop an idea. An important element is its growth speed.
- **The High Degree of Failure** Start-ups have high failure rates, but those that survive have a higher average growth rate than older companies.

Start-ups, which are considered vital to an economy you consider successful, have a different goal than established companies. They want to maximize their ability to survive in the long run (Archibald, Thomas, & Johnston, 2002).

In recent years, you have noticed a strong interest in start-ups, their financing, and their viability as most of these businesses do not survive.

The Greek economy and the Greek tourism product are no exception.

7. Tourism and Greek Economy

Tourism is a multilevel socio-economic phenomenon, inextricably linked to the free time of modern man and the "development" of modern urban-industrial societies—but also of all those societies that he touches with his presence, either directly or indirectly. Increasingly "globalized" concerns the whole of the modern world. Tourism activities represent a personal interruption of daily social connections, a change, and, thus, a sense of psychological freedom (Terkenli, 2007).

The tourism development of the period 1960–1980 was largely supported by the demand for holiday tourism (mainly during the summer and winter season) as well as to a lesser extent by the demand for business travel. The main features of this form of tourism that still prevail to this day are in terms of demand for mass organized holiday tourism by tour operators and in terms of supply, the model of the organization of tourist resorts, in which dominates the large number of accommodations of different types and specifications (hotels, apartments for rent, etc.) (Tsartas & Sarantakou, 2016).

After 1980, however, a number of new and diverse characteristics of tourism products appear, which are added to the dominant product until then, that of the holiday trip (Kokkosis, Tsartas, & Griba, 2020). Tourism again acquires a social and cultural character, while at the same time emphasis is placed on "travel-meaning" and not on "travel-escape" (Tsartas, 1996).

Tourism in the post-war period, especially after 1970, is one of the most dynamic and fastest-growing sectors of the world economy. A special feature of this sector is that its operation is linked to the internationalization of a large number of productive sectors as well as service sectors of the economy. Thus, it can contribute to economic development at three levels in tourist areas: income generation, job creation, and tax revenue. In addition, it expands the productive base of these areas and also affects the development of other sectors of the local economy (Agriculture, Commerce, Construction, etc.). In Greece, tourism is one of the most important sectors of the Greek economy (Sarantakou, & Tsartas, 2015). According to INSETE, (Ikkos & Koutsos, 2020). The basic figures are the following:

Greek Tourism—Basic Figures 2018

Total Contribution to GDP	30,9% [INSETE]
Total Contribution to Employment	25,9% of total employment [WTTC]
Total Employment	988.600 [WTTC]
International Tourism Receipts	15,6 bn. € (cruise receipts are not included) [BoG]
International Tourist Arrivals	30,1 mi. (cruise passenger arrivals are not included)
Average per capita tourism expenditure	520 € (cruise receipts are not included)
Seasonality	54,8% of international tourist arrivals are recorded in July - August - September
Concentration of Supply	70% of hotel beds are concentrated in 4 areas of Greece [HCH]
Hotel Capacity	10.121 hotels / 798.650 beds [HCH]
Top 5 airports (in international tourist arrivals)	Athens (8.121.761), Heraklion (3.319.392), Rhodes (2.362.308), Thessaloniki (2.162.117), Corfu (1.509.219) [AIA, Fraport Greece & Civil Aviation Authority]

8. Start-Ups in Greece

It is generally accepted and obvious that start-ups today are a huge part of global entrepreneurship (Katsoni & Sahinidis, 2015). In recent years, you have seen a strong interest in start-ups, their financing, and their viability as most of these businesses do not survive. In Greece, Tourism and tourism companies in general are a pillar for the Greek economy, both in terms of income and employment. Regarding Start-up companies worldwide, a fact that is a need to investigate is what is happening in Greece with start-ups and especially with start-ups in the field of Greek Tourism. Tourism in the post-war period, especially after 1970, is one of the most dynamic and fastest-growing sectors of the world economy. A special feature of this sector is that its operation is linked to the internationalization of a large number of productive sectors as well as service sectors of the economy. Thus, it can contribute to economic development at three levels in tourist areas: income generation, job creation, and tax revenue. In addition, it expands the productive base of these areas and also affects the development of other sectors of the local economy (Agriculture, Commerce, Construction, etc.). The investigation and the research of what is happening in Greece with start-ups and especially with start-ups in the field of Greek Tourism are a very important issue for Greek tourism and Greek economy as a whole, and, thus, future research about start-ups, their financing, as well as their viability is considered essential.

3 Research Method

The research method for the following article is quantitative research (Questionnaire) addressed to the Greek start-ups, which includes questions on the specific characteristics and parameters of the Greek Start-Ups related to Tourism, Culture, and Leisure.

The questionnaire included the following questions:

1. Title/Name of Start-Up.
2. What is the object of the start-up, the products and/or services offered?
3. To which sector is your Company's turnover mainly related?
4. Is Start-up related to Tourism and Culture?
5. What percentage of your turnover comes from Tourism/Culture?
6. What percentage of your income comes from Tourism?

The database used as well as the start-up companies surveyed emerged from the National start-up registry—the official record of start-up in Greece (elevate-greece.gov.gr).

4 Research Results

Among 332 companies, 90 companies responded. The field of start-up companies is the following:

- Advertising & Marketing (AdTech).
- AgriTech/FoodTech.
- Art, Cultural, and Creative Industries.
- Entertainment/Media (Games, Sports, Social).
- Environment and Energy (GreenTech, CleanTech).
- FinTech—Financial Services (WealthTech).
- Human Resources.
- InsurTech—Insurance.
- LegalTech/RegTech.
- Life Sciences (MedTech, HealthTech, BioTech).
- Logistics and Transportation.
- Manufacturing.
- Maritime.

- Mobility.
- Real Estate (PropTech, Construction).
- RetailTech—E-Commerce—FashionTech.
- Security.
- Travel/Hospitality/Leisure.

To the question “Is Start-up related to Tourism and Culture?” 76.3% answered that they are not related with Tourism and Culture and the 23.7% answered that are related with Tourism and Culture.

To the question “What percentage of your turnover comes from Tourism/Culture?” 77.3% answered from 0 to 10 and 14.4% answered from 50 to 100%.

To the question “What percentage of your income comes from Tourism?” 78.4% answered 0–10% and 10.3% answered 50–100%.

A very interesting fact that emerged from the above research is that companies related to other sectors and not tourism sector stated that part of their turnover comes from Tourism as well as part of their income.

More specifically, these companies declare that they belong to the following sectors:

- Environment and Energy (GreenTech, CleanTech).
- Entertainment/Media (Games, Sports, Social).
- Life Sciences (MedTech, HealthTech, BioTech).
- Advertising and Marketing (AdTech).

5 Conclusions and Suggestions

Entrepreneurship in tourism depends on several parameters regarding taxes and growth, environment, culture, transportation, security, etc. In Greece, Tourism and tourism companies, in general, are a pillar for the Greek economy, both in terms of income and employment. Also, due to its complex interconnection with other productive sectors, there is a need to record it as a whole, and according to the results, we realize the importance of the Tourism “Multiplier” and its effect on economic development.

Economic activities related to tourism are developed, and the direct and indirect tourist consumption increases, resulting in the creation of an expanded tourist circuit in an area. In addition, through the competition in the domestic market, the prices are better and there is a variety of goods and services available.

Future research about start-ups—related or not related to tourism—their financing, and their viability is very important. The investigation and the research of what is happening in Greece with start-ups and especially with start-ups in the field of Greek Tourism are a very important issue for Greek tourism and the Greek economy as a whole.

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The Strategy of Tourism Products Complementarity in Destination Promotion: Eurocity Chaves-Verín

Dália Liberato, Anabela Peixoto, Pedro Liberato, and Elisa Alén

Abstract The process of tourism destination governance should result from the link between local authorities, communities, and the business sector, aiming at the sustainable development of the region on the economic, environmental, and social levels. Another essential factor is the complementarity of tourism products, especially when combined with an innovation factor. The Bio-Healthy Plans aim to ensure complementarity in the supply of all the region's resources: mineral-medicinal water, gastronomy, wines, nature, culture, health and well-being, as an innovative product, fostering the "rediscovery" of natural mineral water consumption as part of healthy diets and programs. Tourism governance also has a fundamental role, by preserving local identity and interests in a sustainable way, since sustainability is the basis for the local development of a territory. The main objective of this article is to understand the tourism potential of the border destination Eurocity Chaves-Verín as a health and wellness destination and the importance of the tourism offer complementarity visioning the sustainable governance of a tourism destination. A qualitative methodology was used, by conducting interviews with public and private entities. The literature review discussed concepts of tourism governance, the complementarity of tourism products, tourism and health and wellness activities, and bio-healthy plans. The results show that the thermal offer, despite being perceived as unique in the destination, is not mentioned as the main purpose of the visit in the Destination Tourism Monitoring study. The goal of promoting the destination with the integration of all tourism products offered in the region is consensual. Additionally, the importance of

D. Liberato (✉) · P. Liberato
School of Hospitality and Tourism, Polytechnic Institute of Porto, CiTUR researcher (Centre for Tourism Research, Development, and Innovation, Portugal), Vila do Conde, Portugal
e-mail: dalialib@esht.ipp.pt

P. Liberato
e-mail: pedrolib@esht.ipp.pt

A. Peixoto
School of Hospitality and Tourism, Polytechnic Institute of Porto, Vila do Conde, Portugal

E. Alén
Faculty of Business Sciences and Tourism, University of Vigo, Ourense, Spain
e-mail: alen@uvigo.es

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_14

involving all stakeholders in the strategic planning, the destination promotion, and the design of innovative tourism products is recognized.

Keywords Tourism products · Healthy plans · Eurocity · Governance · Tourism strategy

JEL Classification Z32

1 Introduction

The border between Spain and Portugal (commonly known by locals as Raya/Raia) was established by the Treaty of Lisbon in 1864 and the additional decision of 1926; in terms of rhetorical organization, the border is represented as a historical fact, where the closeness of the relationship between the region and the border is stated, and the existence of the border in this area has marked the way of life of the different peoples established here throughout history (Prokkola & Lois, 2016). Many studies have recognized the importance of remaining border lines and border culture as tourism attractions and as resources for regional tourism development (Gelbman & Timothy, 2010; Liberato et al., 2018, 2020; Nilsson et al., 2010; Prokkola, 2007, 2010; Timothy, 2001), but the issue of border heritage remains understudied (Prokkola & Lois, 2016).

At the EU's internal borders, municipalities and other actors take advantage of the border location for the development of tourism attractions. Local actors have the primary role in implementing these projects and managing border heritage, but the EU determines the priorities of the initiatives (Amante, 2010; Liberato et al., 2018; Lois, 2013; Prokkola, 2010).

Water, History, Culture, Nature, Gastronomy, Wine, Health and Wellness Tourism, and the complementarity between them can effectively culminate in the growing competitiveness of the destination, being the regions associated with the provision of health and wellness tourism services able to develop complementary tourism products, based on the diversity of endogenous resources present in their territory (Liberato et al., 2020), as is the case of the Eurocity Chaves-Verín (Table 1).

In the study by Liberato et al. (2020), the authors consider that Thermalism, Health, and Wellness; Birdwatching Route; Ham BTT Route; Smuggling Route; Wine and gastronomy; and the Bio-Healthy Plans are the dominant products of the tourism destination. The thermal offer in the region complements the remaining products. The planning of the bio-healthy plans offer also intends to associate and complement all the other offers already planned in the region, enhancing globally the experience of tourism for this destination. Still, the inland tourism can integrate several products and tourism experiences in an articulated way and not only rural tourism products. It can eventually add thermal, nature, adventure, urban, and family tourism, among others, beyond the segmentation of the tourism system itself (Pereiro, 2019). Inland tourism is a strategy of diversification and multifunctionality of many

Table 1 Tourism resources of the eurocity

Nature	Historical-cultural	Gastronomic
-Water -Mountain plateaus of Trás-os-Montes -Tâmega River -Thermal and water route -Tâmega eco-fluvial path -Chaves Cycle Path -*Birdwatching* Route -Ham mountain bike route -(…)	-Historical, Artistic, Architectural, Cultural Heritage -Thermal Baths (Thermal Heritage) -Festivities and Pilgrimages -Crafts -Caminos de Santiago (Way of Saint James) -Smuggling Route -Castles Route -National Road 2 (Km 0) -Urban route of Verín -Urban route of Chaves -Vidago urban route (…)	-Typical Gastronomy/Local Products -Wines from Monterrei and Chaves -Wineries and Gastronomic Fairs -Healthy Bio Plans -(…)

destinations and allows a territorial, social, and economic distribution of tourism benefits.

This research has the following general objective, within the framework of cross-border tourism: to understand the tourism potential of the border destination Eurocity Chaves-Verín as a health and well-being destination. As specific research objectives, it aims to understand if the Eurocity Chaves-Verín is perceived by stakeholders as a destination of Health and Wellness and discusses the creation of bio-healthy plans as a differentiating element of the destination.

The article is divided into three fundamental parts. The literature review discusses the strategic importance of the valorization of border territories as tourism destinations and the tourism resources that should be offered in a complementary way. The methodology presents the interview script applied to stakeholders in the Eurocity Chaves-Verín, and the subchapter of the results presents the different perspectives of the interviewees on the theme in the region. The conclusions frame the results in the literature and discuss prospects for the region, in the context, on the one hand of the complementary supply of tourism products as a strategy for enhancing the tourism experience, and on the other, its enhancement in a development perspective based on the pillars of sustainability in tourism.

2 Literature Review

The border, according to Lacoste (1993), is a line of separation and contact between two or more states, where the existence of a discontinuity between the spaces of each country is manifested, not only due to territoriality, but also due to cultural, religious, or other references; borders have been conceived as institutions that serve to mark the operation of barriers between states, impose control over the flow of people, regulate border trade, or to indicate the platform and facilitate contact and exchange (Moral-Cuadra et al., 2019).

From a theoretical point of view, the definition of the border is no longer thought of only in terms of administrative lines and macropolitical institutional practices, but also considering the social, political, and cultural processes of border reconstruction and the different visions of the world and the other that come into play in local, regional, national, state, and international settings (Pereiro, 2014)

Understood, thus, the definition of the border, as a symbolic, social, and mental limit, it shows the meaning of the relations between us and the others. It marks not only a geographical space, but also a cultural, social, political, and economic one, affirming a certain national identity, associated with the idea of territorial sovereignty. It represents the exercise of power over a territory, symbolizes, and makes visible the power of the state on the margins creating specific and border cultures, as is the case of the Eurocity Chaves-Verín: Border that was historically built with its inhabitants trying to shape and adapt themselves strategically, according to shared interests and needs.

One of the characteristics of borders is sometimes its ambiguity as a shared space, which creates hybrid identities, arising from intercultural sharing. These identities intend to present themselves as a unique tourism product in border regions, where the culture and identity of both sides of the border are related in an authentic way (in historical terms), as is the case of the Smuggling Route. This route is constituted as a tourism offer of the region, which geographically involves both sides of the border and the local inhabitants, who provide the experience of the history of their own trials experienced in times past.

In the Iberian case, a third country is identified, between Portugal and Spain, which is the "raia" (border), sculpted by the sculptor time and inhabited by humans who have suffered the wars between states and the often-threatening changes of political regimes. The "raia" is becoming a cultural and natural heritage, and consequently a tourism-culture product (Pereira & Pereiro, 2014), which is characterized by mobility and the experience of crossing borders. Border regions have established a unique cross-border cooperation (CBC), where tourism is the most popular objective of the fifty-four European Groupings of Territorial Cooperation (EGTC) operating in Europe (Studzieniecki, 2016).

Some authors consider that territorial cooperation is the basis of border tourism and its development between countries (Studzieniecki, 2016), which is directly related to the territorial development of the border region, with strategic actions at the level of spatial planning, and in some social and economic dimensions, defining long-term guidelines to reduce the barrier effect and improve territorial capital along the border space (Kurowska-Pysz et al., 2018). In the Strategic Agenda of the Inland Border Territories (2013), it can be read that local cross-border governance implies the search for alternative formulas to manage the problems of citizens and territories located in the border spaces, where the dry stripe of Portugal and Galicia can rely on a reinvention of ruralities in crisis, as a strategic point for the sustainable development of the region, namely for tourism enhancement. With the entry of the two countries in the European Union, cross-border cooperation has become a development opportunity to compete by cooperating, in which it is assumed the need for this impulse to be carried out by local governments, as strategic nuclei for the development of their territories, and that they also carry it out in the format of cooperation networks and epistemic communities (or learning communities). This governance model aims to promote alternatives to traditional local development (public, private, and associative) and expand the territorial scope and dimension of the networks' strategic alliances and, consequently, the possibilities of participation in regional development projects, community initiatives, and strengthening social cohesion, promoted by the EU. Cross-border governance is presented and discussed as an alternative to the inland territories of Trás-os-Montes, favouring new centralities for the Iberian Northwest, which, complementary to the Euro-region Galicia-North of Portugal, allow to take advantage of the knowledge and cooperation possibilities in the NUT II of Galicia, North of Portugal, and Castilla y León (Eixo Atlántico, 2013). Governance deals with the processes and practices implemented by the political system and the public sector to address the social issues of the public and private spheres. Associated with this, although distinct, the concept of governance is understood as a form of collective awareness about the processes of governance that make decisions for the community. The strategic complementarity between governance and tourism results in Tourism Governance, the process of organizing tourism in which governments, communities, and the business sector of each tourism destination are involved. In tourism, governance essentially takes five forms: associative (association between the several entities), promotion, decentralization, networks, and also tourism policy. For an effective governance, it is necessary to stimulate the perception of social responsibility of the community, so that local people receive and participate in tourism, with the purpose of developing value in their region (Dominguez, 2018). One of the prerequisites for the viability of the network model by Dominguez (2018) is the adoption of a decentralized tourism planning management policy, with the involvement of local authorities to enable them to take decisions in situ, planning tourism where it is going to take place. For such decentralization to happen, it is essential to include "insiders" and "outsiders" in this process, since the borders represented on maps are no obstacle to interaction and reciprocal influence between local authorities and territories (Dominguez, 2018).

The public and private sectors must interact in tourism development according to a model of networked operation, with a global vision in which land borders do not determine or build human walls and ensure that local governance acts at each stage of the tourism process, so as to safeguard local identity and interests—economic, environmental, urbanistic, educational, entrepreneurial, and humanizing. Tourism Governance is, thus, allied to the ideals of sustainable development promoted by the concept of Corporate Social Responsibility, in which the ideal of sustainability is seen as a key to the local development of a territory, as well as to the preservation of its resources and the well-being of its population.

In the study conducted by Moral-Cuadra et al. (2019) with the objective of knowing the behaviour of border visitors in border destinations, it was found that there is a positive influence of border tourists' attitudes on the perceived value in the border destination, as well as their satisfaction is positive with the border destination, and that there is a positive influence of border tourist satisfaction on their loyalty to the destination.

3 Methodology

The methodology used in this research includes two moments. It begins with the literature review, i.e., the theoretical study of the existing specific literature to understand the themes and concepts necessary for the development of the study. This is followed by the development of the model used for application to the case study: Eurocity Chaves-Verín. In the present case, the qualitative methodology was employed, using the exploratory scientific research technique throughout semi-structured interviews (Table 2).

Twelve interviews were conducted with representatives of destination management entities and companies operating in the tourism sector and in the Eurocity Chaves-Verín region (see Tables 3 and 4).

Table 2 General objective and specific objectives

General objective	Specific objectives
To understand the tourism potential of the border destination Eurocity Chaves-Verín as a health and wellness destination	1.1: Understand if the Eurocity Chaves-Verín is perceived by *stakeholders* as a health and well-being destination 1.2: Understand the creation of the bio-healthy plans as a differentiating element of the destination

Table 3 Interviews with the destination management entities

No. interviewee	Entity	Representative	Interview date	Interview duration
E1	CIM Alto Tâmega	First secretary	18/06/2020	In-Person 31:35
E2	Eurocity Chaves-Verín	Executive secretary	24/06/2020	In-Person 53:29
E3	Municipality of Chaves	Vice president	10/07/2020	In-Person 01:07:02
E4	Chaves Tourism Office	Councillor for tourism	10/07/2020	In-Person 40:05
E5	Monterrei Tourism Office	Information technician	14/08/2020	Written reply
E6	Municipality of Verín	Vice president	22/09/2020	Via zoom 18:20
E7	Tourism Office of Verín	Councillor for tourism	22/09/2020	Via zoom 14:24

Table 4 Interviews conducted with companies at the destination

No. Interviewee	Entity	Representative	Interview date	Interview duration
E8	Hotel Premium Chaves	Director	26/06/2020	In person15:40
E9	Authentic	Manager	06/07/2020	Via Zoom 26:42
E10	Petrus Hotel	Director	10/07/2020	In person 42:13
E11	Parador de Monterrei	Director	28/09/2020	Written reply
E12	Parador de Verín	Director	28/09/2020	Written reply

4 Results

The interviewees are unanimous when they refer that the Vision of the destination is the thermal water. A joint work is being developed on both sides of the border, which provides a unique destination for health and well-being, based on excellence.

"Today we have managed to get the Municipality of Verín and the Municipality of Chaves to work together, they have a solid strength. There was once a division in what had to do with strategies and policies. Today the ambition is joint, it is collective" (E6). "The Eurocity coordinates the territories of Chaves and Verín with the brand image and offer for the territory" (E5). "We want to continue to have a destination positioning that crosses the border, in international markets, because we have tourism products such as golf and thermal tourism, which captivate tourists all year round, and we want to position the region as a safe destination, wellness, that will be well treated and that will have all safety issues ensured. We have many tourism products of excellence. To achieve excellence is not from one day to the next" (E2). "Slogan 25 h, one destination two countries, the idea of promotion is very focused on health, spas, trails, nature, and contemplation, and it is not currently focused on golf, gambling (casino), or museum visits. At this moment, it is focused on the water in its route and in complementary products" (E3). "I would say that for Alto Tâmega our vision is water and well-being territory. In practice, it is to recover the reasons why the territory was always visited since the historical phase of the Romans. People came to the territory because they recovered energy and they improved their health conditions. If we look at more recent times, Vidago and Pedras Salgadas also had this aspect of healing and promotion of well-being and health. So, what we want is that the territory is seen in this perspective, as a territory that promotes the well-being of people in its different aspects. The tourist will have this vision, and we should increasingly empower the actors so that it works in an integrated way; we, intermunicipal community, organize the offer in terms of systematization of products and then we should achieve the promotion everywhere, presence at fairs, video production, and sponsorship of many activities" (E1).

"Everything that is done in tourism must be done in a transversal way, we have the potential of the waters, but to the waters we must add other tourism resources in order to attract visitors" (E7). "It is a work that is being done. There is a perspective throughout the region to design products very associated with wellness in a perspective of quality and more comprehensive than what would be wellness and treatment only. In a perspective of wellness promotion, it implies getting everything that is bio. Therefore, at different levels, we have this type of positioning and so does the Eurocity" (E1). "Thermal tourism is one of the most potentials in the region, so all potentialities are welcome for its development" (E5).

There are several entities working in the process of design and creation of products in the destination and territory, but the interests are common, "all aim at promoting tourism" (E3). And, at this moment, the main tourism product is the Thermal.

A variety of attractions in the destination and dominant products enhance the involvement of tourists and prolong their stay. "There is a wide variety of attractions from culture, history, sports, art, …, the idea of generating content, aims precisely at prolonging the stay, more attraction, and loyalty. The dominant products are the water and the treatments offered in the spas, complementing them with the gastronomic culture" (E12). "We could do more work, we need to bet more on some points such as nature tourism, and we focus on what is already a tradition, here in the hot springs and in Verín at Carnival, but Nature Tourism should be better used; to do mountain bike trials and canoeing, there should be a greater commitment" (E8). "There is a variety of attractions, but there is no one to enhance the activities that prolong the tourists' stay, the dominant products are the thermal spas, gastronomy, and culture" (E9). "Many, in all segments, nature, culture, gastronomy, thermal, and active tourism, we have all the segments in the region, but they are not yet converted into products, designed in order to enhance the tourism experience" (E10).

It is considered by several interviewees that it would be positive to move towards an integration of promotion of the territory, i.e., to integrate all the municipalities of Chaves and Ourense, "within the strategies of the Eurocity" (E6) "expand the Eurocity EGTC to a Euro-region, or a Euro-regional Alto Tâmega Ourense EGTC" (E1).

The cooperation also exists in terms of the involvement of local business entities "we involve all the tourism companies" (E2). However, they consider that there is still a lot of work to be done and have difficulty in understanding the strategy adopted, even considering that "each one works on an aspect of an entire destination".

It would be necessary to "improve promotion and communication at the destination, create and update tourism products" (E2), "invest in training the actors" to promote the destination, in a quality destination, and "it is necessary to know how to sell this quality in international markets", which is a difficulty in the destination. The entities have difficulty in entering the large agencies to sell their products, so that "the help of the regional institutions would be necessary" (E9).

5 Conclusion

According to Cunha (2007), tourism attractions are mainly based on nature, history, and culture, but it is the natural elements or factors that mostly originate the structuring and organization of tourism destinations, which is distinctive for the Eurocity Region, for its high landscape value, and natural factors such as water. The term "wellness" was first defined as a state of optimal physical, mental, and social well-being. With the boom of wellness tourism in recent years, the diversification and quality standards of this product have increased tremendously. Standards that the destination highlights with an offer of unparalleled quality. The Eurocity has nine hot springs and a river (Tâmega) that crosses the region as an axis of union between the two sides of the border. A region of significant renown on the European continent, recognized due to its current use of water, either for treatment or as bottled water, being the most prominent hydro-mineral springs, Cabreiroá, Sousas, Fontenova, Fonte do Sapo, Caldeliñas, Campilho, Vidago, Caldas de Chaves, and Vilarelho da Raia.

Wellness tourism has, thus, become a comprehensive concept that includes the following dimensions: self-esteem, exercise, spirituality, stress management, love, nutrition, emotion, friendship, self-care, work, social identity, local safety, and institutional and personal concern. And it covers some specific activities such as health promotion treatments, environment, healthy diet, relaxation, social activities, and the experience of unique tourism resources of the chosen destination. The wellness value of tourism destinations should be promoted through marketing strategies so that consumers begin to recognize the importance of healthier lifestyles. This recognition will lead to greater demand for those services and ways of being that contribute positively to their well-being and consequently to greater benefits for those destinations. Tourism can, therefore, be promoted as a healthy way of life, with positive benefits for tourists and residents (Pyke et al., 2016).

Wellness tourism allows achieving a balance between body and mind, and individuals achieve their psychological needs through leisure activities. Leisure activities bring obvious benefits to personal well-being as they can help reduce the pressure of life and work. The diversity of leisure experiences influences the quality of life and life satisfaction; leisure experience can improve life satisfaction and expand circles. In this respect, leisure can be considered a source of psychological well-being (Chen & Li, 2020). Happiness is an important psychological indicator of people's quality of life. It can be assessed in terms of life satisfaction and positive and negative emotions on the psychological level. Happiness is the subjective degree of evaluating the overall satisfaction of individuals. Happiness also includes two dimensions, cognition and emotion (Chen & Li, 2020).

The basic research question proposed in this work was: Does the Eurocity Chaves-Verín identify itself as a Health and Well-being destination? Yes, it is identified, it has natural resources for that. It is seen by the agents of the destination as the main product, and, at this moment, there is a clear bet for the development of the destination. "Thermal tourism is one of the most potential in the region" (E5). The unique and differentiating aspect of the destination is the thermal wealth, it is inimitable, it is not possible to replicate, and it is the nature that offers “The only one is the water, we have water at 76 ºC, no one else does, so it is incomparable” (E1). “There are several differentiating aspects such as the thermal, gastronomic, and patrimonial wealth” (E5). “I would say that for Alto Tâmega our vision is the territory of water and well-being. In practice, it is to recover the reasons why the territory was always visited since the historical phase of the Roman occupation. People came to the territory because they recovered energy, they improved their health conditions” (E1).

Considering the Specific Objective 1.1: To understand if the Eurocity is perceived by stakeholders as a Health and Well-being destination, the interviewees consider the Health and Well-being tourism product as a differentiating element of the destination. Although there are many other very interesting tourism products, this one has the ability to make the connection between them. “Four Products: Thermal Water, Gastronomy and Wine, Nature, and Immaterial Cultural Product (Smuggling) and Material (Fortifications, Castles, and Fortresses) (E2). The interviewees refer that “the thermal issue is perceived as unique in the destination” (E9). “We intend the territory to be seen as a health and well-being destination” (E1). “It is the thermal tourism product. Chaves has the second largest thermal spas in the country, we have a very large mineral-medicinal water thermal component” (E1). “Thermal spas, tourists understand perfectly” (E10). However, Health and Wellness Tourism is not mentioned as the main purpose of the visit in the Destination Tourism Monitoring Study.

Specific Objective 1.2: Understand the creation of the bio-healthy plans as a differentiating element of the destination. The bio-healthy plans are created around the richness of the mineral-medicinal waters existing in the region. They promote the alliance of the practice of healthy lifestyle habits with the ingestion of waters, a healthy diet, and the practice of physical exercise. In the full promotion of a healthy body and mind, they can be implemented “at the destination or at home” (E2). Thus, they confer the characteristic of a differentiating product, since it includes water, local products, and local cooking methods, adding, in a differentiating perspective, the learning process at the destination and the continuing practice at home.

Allied to all the differentiating products of the region, to the historical-natural heritage, and to the historical-cultural heritage, we cannot fail to mention that the destination under study is a border destination. The tourism development of the Euro-region does not include only the attractiveness. It is necessary to aggregate and involve the agents and the local population in order to define development strategies of a border and cross-border tourism that is oriented to the Euro-regional, Iberian, European, and global markets (Pereira & Pereiro, 2014).

Being a border destination increases its attractiveness and competitiveness and provides more differentiation components. “Our differentiation is border tourism, border products, which allow tourists to know two countries in one destination, enjoy 25 h in one day in the Eurocity. This trip in time, by the difference in time zone, allows experiences that are not possible anywhere else as the case of the Smuggling Route, or the possibility of taking a route through the mineral-medicinal springs, uniting the thermal part of two countries around their springs, as differentiating products” (E2). Thus, borders and adjacent regions often function as popular tourism destinations and attractions, and many regional tourism economies are based almost entirely on the existence of a political boundary (Timothy & Teye, 2009). This is most evident when borders themselves become an attraction and when they create unique advantages on opposite sides that make borders an important destination (Timothy et al., 2016).

"Border destination, the complementarities and contrasts that exist in this border destination" (E2).

For border tourism to be materialized, it is necessary that an integration process occurs between territories, with tourism appearing as a significant part of this integration, creating positive results for both regions: employment opportunities, improvement of the local economy, increase in the standard of living of the local population, and creation of new market opportunities (Liberato et al., 2018).

For this reason, the process of tourism governance of a destination should be the result of links between local authorities, communities, and the business sector, with a view to the sustainable economic, environmental, and social development of the region. The destination competitiveness must include its conservation. The governance models should be joint, providing for joint promotion, tourism policies, vision, image, and brand, with a view to positioning the destination in a unique and innovative way in the market and ensuring its competitiveness, within the specificity of its supply.

Acknowledgements The authors acknowledge the financial support of CiTUR, R&D unit funded by the FCT—Portuguese Foundation for the Development of Science and Technology, Ministry of Science, Technology and Higher Education, under the scope of the project UID/BP/04470/2020.

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Exploring Stakeholders' Perspectives on Hotel Design

Panagiota Anastasiadou, Efthymia Sarantakou, Evridiki Maniati, and Evangelia Tsilika

Abstract This study investigates the current defining parameters shaping hotel design and planning, exploring the views of the key stakeholders involved in hotel design. Hotel design and planning are analyzed by a number of exogenous and endogenous tourism development parameters including tourist motivation, destination socioeconomic and cultural characteristics, and institutional framework. The methodological approach used is threefold. First, the qualitative approach, involving an analysis of the relevant published scholarly literature, reveals cross-national parameters shaping the prevailing design for professional tourist accommodation developments. Second, previous studies and secondary data are analyzed to frame the case study of Athens in terms of understanding tourism development patterns and drawing upon the institutional framework and guidelines governing the tourist accommodation units design towards obtaining critical information. Third, in-depth interviews of key informants are conducted using a structured technique. The sample consists of three main groups of experts involved in the hotel design process; the owners, the managers, and the architects or designers. Findings of the current research point out to a significant number of particularly complex aspects and parameters to be complied with, in order to update and modernize tourist accommodation establishments and meet modern-day tourism essential requirements. In addition, this study goes on to argue that it is necessary to establish a deeper multilateral engagement and cooperation of the broader group of the relevant stakeholders.

Keywords Hotel design · Tourist accommodation · Sustainable design · Tourism planning · Architecture

P. Anastasiadou
Hellenic Open University, Patra, Greece

E. Sarantakou (✉) · E. Maniati
University of West Attica, Egaleo, Greece
e-mail: esarantakou@uniwa.gr

E. Tsilika
Independent Researcher, Nea Smyrni, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_15

JEL Classification L83 · Z32

1 Introduction

Designing hotels is a key factor to the competitiveness of a business, especially when it combines functionality, operation, and concept (Frangou et al., 2015; Ransley & Ingram, 2001). Effective hotel designing is a complex teamwork. The owner, the manager, the architect, and the marketing team must make the best decisions, taking into consideration a number of internal and external factors (Pannell Kerr Forster Associates, 1993a).

External factors affecting the design of tourist accommodation are the predominant market demands and trends, competition, technological evolution, as well as current special circumstances, such as the COVID-19 pandemic (Xyptera et al., 2021). A compound approach of the complexities of the external factors reveals the main international trends in designing tourist accommodation and infrastructure. In the last 15 years, hospitality shows rapid changes and diversity. From short-term rentals (Gourzis et al., 2019) and sustainability issues (Maleviti et al., 2012) to the continuously increasing technology impact (Vardopoulos, 2021), hotel designing never ceases to evolve (Penner et al., 2013; Rontos et al., 2016). Internal factors—at a local and national level—are related to the legislative and development framework, the specific characteristics of a place, as well as the financial dynamics and the perspectives of those involved (West & Purvis, 1992).

The main hypothesis of this paper is that the rational design of a hotel can best be achieved with the cooperation of all stakeholders, *i.e.,* the state, industry, hoteliers, and architects/designers, and with their deep understanding of the external and internal factors affecting the design (Doğan et al., 2013). The basic research questions were as follows:

- Who is involved in hotel design?
- How do those involved in hotel design perceive the influence of external factors?
- How do those involved in design address internal factors?

2 Considerations on Hotel Design

2.1 Hotel Design Parameters

Hotel design and planning is the process of creating a hosting space, based on specific parameters that affect the final result (West & Hughes, 1991). The term design may refer to both the exterior (Tsilika, 2021) and the interior of the building (Krstic et al., 2016; Tsilika, 2014), the furniture and other necessary equipment, the landscaping (Weller, 2008), the lighting (Mansfield, 2018; Tsilika, 2018), and the creation of the brand/image (Tsilika, 2008). It is imperative that the design and layout of a hotel achieve the delicate equilibrium between aesthetics and practicality (Lee, 2020). Design is influenced by factors such as image, style, operating efficiency, customers' comfort, company policy, location, budgets, and logistics (Ransley & Ingram, 2001). Although the currently published scholarly literature is reporting the significance of the design dimension for both enterprises and customers (Ransley & Ingram, 2001; Sop, 2020), the parameters affecting the hotel design have not been sufficiently explored (Sop, 2020). Nevertheless, the literature review and analysis has borne fruit, revealing certain prevailing directions and patterns.

There has been a great deal of discussion about the value of design in buildings and more specifically about the role of design, aesthetics, and the atmosphere shaped in a tourist accommodation context (Alfakhri et al., 2018; Vardopoulos & Theodoropoulou, 2019). In a more techno-economical approach, the relationship among building design, user satisfaction, and property financial and marketing performance in hotels has been explored, in an effort to quantify the effect that design has on the overall business performance (Lee, 2011; Penner et al., 2013; Zemke & Pullman, 2008). Ransley and Ingram (2001) emphasized the functional and economic dimension of design, stressing that "successful" hotel design can reduce construction and maintenance costs. Pannell Kerr Forster Associates () argued that the prime requisites of hotel planning are to ensure the right interaction among the various functions within the hotel and to ensure the right allocation of space for specific areas. A series of recent studies examined the hotel design under the influence of a number of exogenous factors that shape the patterns of tourist consumption (Lee, 2020; Zemke et al., 2017, 2018), while other contributions connected the design with hotel marketing and branding strategies (Baek & Ok, 2017; Kirima et al., 2017; Piramanayagam et al., 2019). Bjorklund and King (1982) followed a consumer-based approach to assist in the design of hotels. Alfakhri et al. (2018) explored the effect of hotel design on customers' perceptions and their consumption experiences. Baek and Ok (2017) argued that design is crucial in consumers' decision-making, in terms of quality expectations and emotional arousal. Lee (2020) pointed out that hotel undertakings invest in architecture and product design to satisfy customers' motivations. Issues related to the need to adopt environmental design were also considered by previous studies (Benson, 2014; Su, 2012). Evidently, current hotel designs considered climate responsive design strategies and apply specific energy efficiency technologies and protocols (Bodach et al., 2016). Previous studies have emphasized on the effects of artificial intelligence and hotel-related robotics on an organizational level (Tussyadiah, 2020). The coronavirus pandemic has set new standards in hotel design (Sanjeev & Tiwari, 2021; Xyptera et al., 2021). A series of recent studies has provided evidence supporting that the adoption of artificial intelligence and robotics at the hotels can also help towards visitors and staff of the frontline protection (Jiang & Wen, 2020). Other studies examine the endogenous parameters that influence the design of hotels; planning, buildings legislations, etc. According to Pannell Kerr Forster Associates (1993a), national and local legislation affect the size and type of development, layout, and materials, which adds to Sarantakou's (2016) concluding thoughts critically reviewing the architecture of tourist development checked against the legislative developments. Alonso and Ogle (2008) focus on the importance of design between small- and medium-sized hospitality industry enterprises and tourism activities, while Sarantakou (2010) brings to light the effect of the profile of the business owner on the long-term viability of hotels. Understandably, hoteliers' and designers' views on hotel design have been assessed only to a very limited extent and can only be considered a first step towards a more profound or conclusive understanding of the hotel design dynamics, leaving scope for the current research (Pannell Kerr Forster Associates, 1993a; Sop, 2020).

2.2 Parameters of Current Hotel Design in Athens

Athens, the capital of Greece, is the country's most populous city and one of the world's oldest cities, with a history of more than 3,400 years. Athens is now a cosmopolitan metropolis with a population of over 3 million people, spanning an area of about 40 square kilometers. At the heart of Greece's economic, financial, industrial, political, and cultural life, Athens offers a unique blend of rich archeological sites, numerous museums varying from archeology and folk art to contemporary art and music, and, most importantly, a vibrant cultural life in the fields of performing arts, music, and visual arts (Sarantakou & Xenitellis, 2019; Sarantakou et al., 2018; Vitouladiti et al., 2018).

Surrounded by the sea, the city of Athens is a popular tourist destination for domestic and international visitors, both as a city of destination, as well as the major gateway towards the Greek mainland and islands. Over the last 20 years, there has been a significant improvement in Athens' hotel and accommodation infrastructure, with many newly built hotels sprouting up around the city center and the coastal suburbs. The Olympic Games in Athens in 2004 provided a significant boost to the city's hotel industry, and almost all hotels and other types of accommodation now provide a wide range of amenities to satisfy even the most discerning clientele.

The Administrative Region of Attica in 2019 counted 675 hotels of 33,127 rooms and 62,899 beds (*Evolution and Features of the Greek Hotel Sector 2015–2019*). The majority of Athenian hotels are located in the city center: near the Acropolis, in Plaka, in the area around Omonia square, in Kolonaki at the Lycabettus hill slopes, around the Parliament square, as well as along Syngrou Avenue (Koutoulas et al., 2009; Lamnatos & Mitoula, 2020; Skoultsos & Tsartas, 2010).

Albeit the ongoing European crisis, the data for the Athenian hotel industry point to a dynamic—but constant—growth in the tourism sector, which is partly attributed to elevating the hotel establishments appeal and enhancing the overall experience for guests (Tsartas et al., 2017a, 2017b; Vardopoulos et al., 2020). That being said, the city of Athens was chosen for the case study, not only because it is a tourist destination of national and international importance, not only because current data reveal that currently is a tourist destination with significant tourist flows, but also because it is a European metropolis with sufficient prospects of development, sharing common characteristics and combining certain criteria to a number of other cities in Greece and Europe securing extrapolation of the results.

During the research reference period (2015–2019), hotel design in Athens was affected by several external and internal factors that generally influenced the capital city tourism development. The most important of these factors are analyzed as follows:

Quantitative and qualitative changes in tourist demand

After a period of social unrest and economic crisis between 2008–2013 (Chatzidakis, 2016; Karytsas et al., 2019.b), Athens shows a constant regeneration as a tourist destination which culminates during the reference period (2015–2019) (Tsartas et al., 2017; Vardopoulos & Theodoropoulou, 2018). Several quality changes in Athens tourism also took place (Karytsas et al., 2019a; Skoumpi et al., 2021). Specifically, in the International Airport of Athens, international arrivals have increased from 2.5 million in 2012 to 4.2 million in 2015 and 8.8 million in 2019 (15th Visitor Satisfaction & Hotel Performance Survey, 2019). An increase in Tourism is linked to the opening of the capital towards new markets. Athens is no longer only a stop-over destination, but also a city break, a meeting place, an incentive, a congress and event destination, and a youth tourism destination (14h Visitor Satisfaction & Hotel Performance Survey, 2018; Sarantakou & Xenitellis, 2019; Skoultsos & Tsartas, 2009, 2010). Travelers visited Athens in 2018 mainly for leisure, since only 13% visited the city for professional reasons. 49% of leisure tourists were families arriving mainly from the USA, Germany, the UK, France, and Italy, and 45% were people between 35–50 years old (*Evolution and Features of the Greek Hotel Sector 2015–2019*, 2020).

Increase of competition

Tourism recovery of Athens was followed by a boost in construction, which initially focused on upgrading the existing hotel infrastructures (renovating, upgrading, and expanding existing facilities) and then on building new hotel units (*Evolution and Features of the Greek Hotel Sector 2015–2019*, 2020). In order to address increasing competition, hoteliers invest in upgrading their hotel's category or they join hotel chains. According to the Hellenic Chamber of Hotels, during the four years between 2015 and 2019, 4★ and 5★ hotels in Attica showed an increase ranging from 19 to 25%, while a significant increase of approximately 48% was noted in 5★ hotels (*Evolution and Features of the Greek Hotel Sector 2015–2019*, 2020).

Changes of the legal framework on hotels

During the reference period, there were some significant changes on the legal framework concerning the establishment of tourist accommodation (*Hellenic Government Gazette Issue A No 155/30–07-2014*; *Issue A No 201/16–09-2011*; *Issue A No 230/07–12-2016*; *Issue A No 24/13–02-12*; *Issue A No 249/25–11-2011*, 2011) that had specific objectives: to create a business-friendly environment and to attract tourism investments (Sarantakou & Tsartas, 2015a, 2015b). The role of the state is reduced, and the engineer now has the responsibility to follow urban planning and operational standards. Licensing became simpler and quicker. New simplified technical and operational requirements (*Hellenic Government Gazette Issue B No 10/09–01-2015*) give the designer more freedom in hotel interior designing (Sarantakou, 2017a, 2017c). In 2013, building amnesty (*Hellenic Government Gazette Issue A No 174/08–08-2013*) offered the opportunity to tourist accommodation units to increase their capacity (Sarantakou, 2017b, 2017d).

Increase of the sharing economy accommodation

Sharing economy accommodation is estimated to have a share of €1.38 billion to €1.46 billion in the Greek tourism industry (Katsoni, 2017, 2019), while it competes with all types and categories of tourist accommodation. Since 2013, Athens has shown a significant development in sharing economy accommodation. Only via the Airbnb platform, the number of residences officially rented in Athens has risen from 500 in 2013 to 12.000 in 2018. Tourists that choose the market of accommodation sharing belong, mainly, to the group of the millennial city break travelers. 71% of Airbnb users visiting Athens for the first time choose Airbnb due to low cost, but also because they seek authentic experiences (Avdimiotis & Poulaki, 2019; Varsanis et al., 2019). Properties that use Airbnb extend in 25 neighborhoods of Athens, out of which 69% are outside the traditional touristic areas. This results in new touristic areas emerging in the city, such as Koukaki and Exarchia (Balampanidis et al., 2021; Sarantakou & Xenitellis, 2019).

3 Methodology

Following the literature review, for the scope of the current research, a complex qualitative approach was carried out by conducting two rounds of interviews in three groups of key informants and stakeholders, and subsequent successive content analysis, in an attempt to explore current mindsets and practices in the hotel design field. As a first step, a group of experts on the tourism market and tourism planning (Group A) was asked to reflect their personal experiences, perceptions, and beliefs, using a set of open-ended and behavior-based interview questions in relevant areas for the study undertaken. Group A included representatives of the tourist institutions involved with tourist accommodation issues and procedures; the Hellenic Republic, Ministry of Tourism (https://mintour.gov.gr/en/archiki-english/), the Greek National Tourism Organization (http://gnto.gov.gr/), and the Hellenic Chamber of Hotels (https://www.grhotels.gr/). The sampling process for Group A did not aim to achieve a representative sample, but was used as a strategy in order to provide more accurate and acceptable results (Vardopoulos & Theodoropoulou, 2018). This was made possible using the purposive sampling technique (Vardopoulos, 2017, 2018, 2019; Vardopoulos, Konstantopoulos, et al., 2021; Vardopoulos, Tsilika, et al., 2021) with the concept of saturation as a guiding principle (Guest et al., 2006; Marshall et al., 2013; Miles & Huberman, 1994) in the sampling of the group of experts, who were considered experts (typically individuals with a doctoral degree or at least five years of experience) due to their experience and expertise in the subject being studied. The experts gave vital insight and guidance to this study; however, it should be noted that they may have completely different perspectives on the topic being discussed; they were not asked to endorse the study's methods or findings individually or collectively.

Through analyzing data coming from the first step interviews, the research topic was narrowed down, providing a better defined conceptual framework, while setting the stage for the second step of the research design. The second step involved asking in person a set of more specific semi-structured questions to two particular parties of key informants; hoteliers (Group B) and architects/ designers (Group C). Group B individuals were selected by stratified purposeful sampling method, including three stratums; businessmen representing tourist accommodation developments in Athens classified into 1. Comfort (3★), 2. First Class (4★), and 3. Luxury (5★) rank (of the European Hotel stars Union Classification System). The three lists were pulled up by the Hellenic Chamber of Hotels (https://www.grhotels.gr/), counting only the newly established or recently renovated (last five years) developments. In total, 90 hotels were identified. Of these, a total of 33 affirmative responses for participation in the study were received (representing a response rate of 37% per cent). Among the respondents, 12 establishments were 5★ hotels, 12 were 4★, and 9 were 3★ (Table 1).

Group C sampling involved developing a list of architects/designers working on tourist accommodation establishments (in every way applicable) from hotel industry-related exhibition catalogs. Consistent with the assumptions and objectives set for the present study, haphazard sampling (Etikan, 2016) was used aiming at achieving depth of understanding, on the condition that each participant will provide unique and rich information of value to the study. 40 architectural/ design studios were listed and later approached, of which 7 positively responded to the call for participation in the study.

Despite the limitations arising from each sampling technique used, it must be borne in mind that filling the questionnaire was quite demanding, in terms of concepts

Table 1 Hotels sample analysis

3★,4★, and 5★ Hotels in the city center and southern suburbs of Athens, newly established or recently (last 5 years) renovate * Hotel Chamber Greece	90	
Tourist accommodation establishment participated	**33**	–
Athens city center	22	–
	–	9 (5★)
	–	4 (4★)
	–	9 (3★)
South suburbs of Athens	11	–
	–	3 (5★)
	–	8 (4★)

Table 2 Group C sampling in numbers

Groups	Number of interviews
Group A; experts	7
Group B; hoteliers	33
Group C; architects and designers	7

and certain nuances, and a considerably time-consuming process, which few were willing to face. Thus, experts' knowledge and understanding are considered adequate for this study.

Semi-structured interviews were framed within the following essential pillars:

- The respondent profile (including—but not limited to—socioeconomic and cultural characteristics) and the hotel they own/operate or have designed.
- The objectives served by the design.
- Drawbacks faced during the implementation of the design.
- The parties involved in the design.
- Views regarding the current needs of the modern-day tourists.
- New design trends in the tourist accommodation establishments.

The survey was conducted from May to June 2019. A total of 47 interviews were conducted (Table 2).

Data collected were then subject to content and descriptive analysis towards summarizing data points in a constructive way: (a) presented in textual, tabular, and graphical forms to make it easier to understand and more interesting to read; (b) through the emerging patterns, generalizations are drawn, and theory is generated.

4 Results

The answers concerned a total of 33 accommodation units at the City Center and the Northern and Southern suburbs of Athens. Among them, 12 units were classified as 5★ hotels, 12 were 4★, and 9 were 3★ (Fig. 1).

Regarding the type of each business, the majority were family businesses, while some were private or public (limited) companies.

Respondents were mostly males (91%), working as hotel managers (75.76%), or engineers (18.18%), while approximately one-third were business owners, acting as hotel managers (Figs. 2 and 3) (Marco & Katsoni, 2021).

The majority were university graduates in tourism-related disciples or had tourism-related qualifications through special training. As far as hotel guests were concerned, tourists mainly travel for pleasure (60%), while fewer visit the city for business reasons (40%). Those who mostly visit the destination are families or couples, followed by individuals, travelers with friends, or those traveling among colleagues.

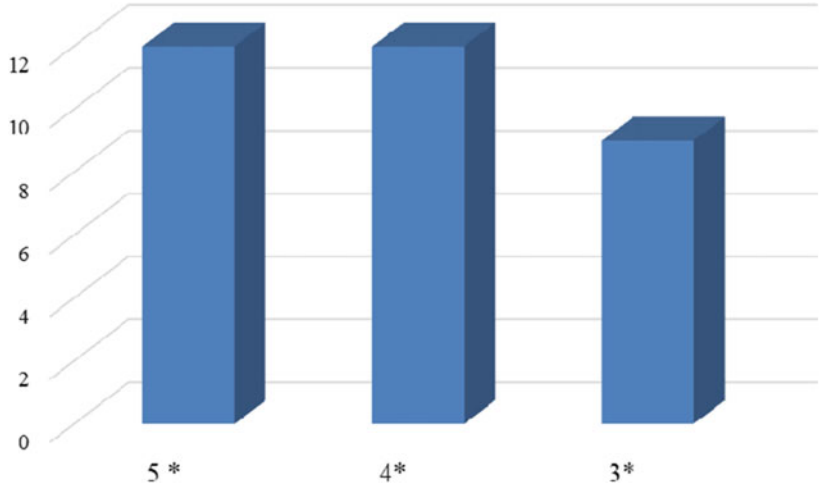

Fig. 1 Tourist accommodation establishments in Athens

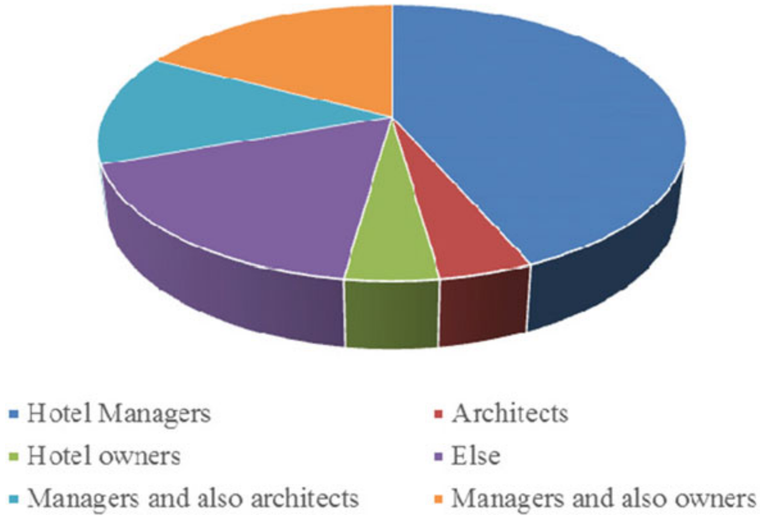

Fig. 2 Respondents' professional profile (Center and Northern Athens)

The average stay is between 2 and 2.5 days, as it is still considered a *«stop-over»* destination. Visitors make a short stop in Athens for sightseeing, before or after their trip to the islands, or for business purposes. The average stay rises a bit because resort hotels situated in Athens attract families for a longer stay.

Predominantly, the lodging choice depends on the location, the reputation, the image of the hotel online (e.g., Visitor's reviews, etc.), its services, as well as its modern design. Most participants consider that "Athens City center" or "The

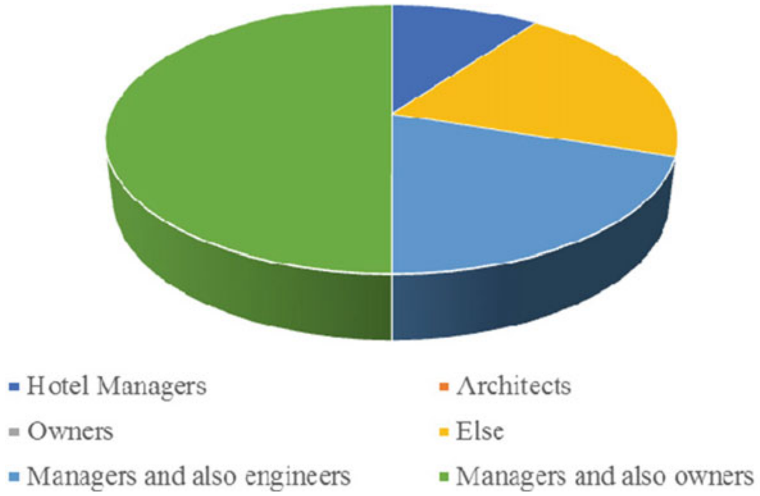

Fig. 3 Respondents' professional profile (Southern Athens)

Seafront" is preferred by tourists; however, in addition to the location of the hotel, emphasis is given by hotel owners and managers on improving the hotel image, the services provided, and the design of their units. Those aspects are considered to provide an advantage between units within the large competition of the Athens hotel sector (Fig. 4).

The objectives served by design, for both existing accommodation units, as well as for newly built ones, were to provide a better quality of services, to increase profits,

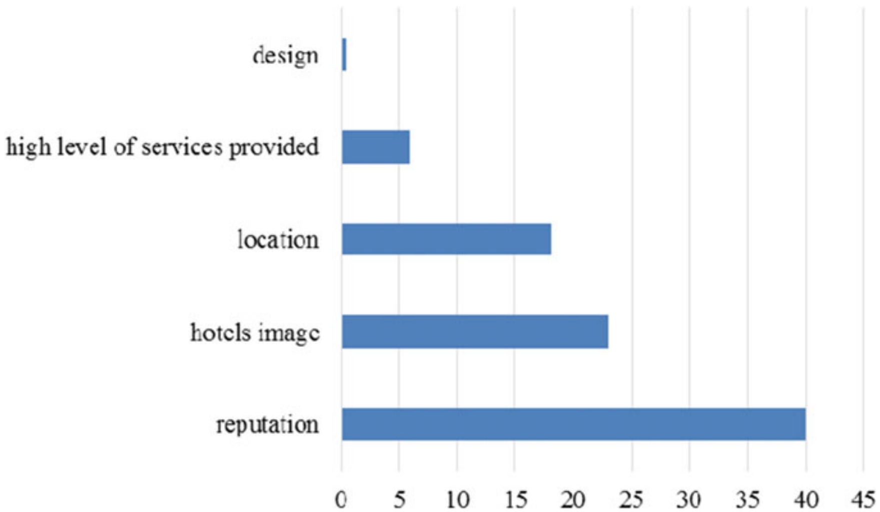

Fig. 4 Reason(s) for choosing accommodation unit in Athens

to promote the opening to new markets, and increase customers' loyalty. All the above were equally taken into consideration. Other important objectives for which hoteliers invested in the upgrade of their units were the alignment with the current institutional framework and the harmonization to modern architectural design trends.

Most respondents believe that to maintain competitiveness, a hotel must constantly search for renewal. Respondents also converge on the fact that every 8–10 years, the interior must be redesigned and that every 1–3 years, a change on equipment should take place.

After the improvements were made, most city centers and northern Athens hotel participants faced a positive outcome in terms of increased reservations. Results indicate increased profits, bookings, and reputation status of the facility, as well as reduced operating costs. Moreover, the quality of services and the work environment have proved to give excellent results.

However, most respondents of Athens beachfront units answered that, after the renovation or upgrade of their unit, they did not witness considerable improvement. Although many "very good" or "excellent" ratings were recorded post changes, regarding the reputation, the services, or the working environment, the impression of many managers in the southern suburbs regarding the results of the interventions was that results are yet to be seen in monetary terms.

Investing in designing and renovating tourist accommodation takes place mainly during tourism growth periods. Therefore, larger unit changes have taken place, at least twice in the last twenty years. The first improvement took place during the period of the Olympic Games of Athens, in the years between 2003 and 2007, which was a favorable financing period, while the second phase of interventions occurred sometime during the last five years.

When tourism grows, the financial reserves that are created allow the owners to finance the interventions with their own resources. Only two cases have requested a financial support through granting programs when needed, additionally to their own resources.

Most hoteliers have experienced delays in completing their work due to bureaucracy in issuing building permits, while, according to many respondents, a lack of know-how on the part of hotel owners was no longer a setback.

Small land-owning prevails in Greece. At the same time, there are many legal binding provisions when it comes to upgrading or changing the category of an old hotel. The initiative of the Hellenic Chamber of Hotels on certifying "boutique hotels" has helped a lot in this direction. Many hotels chose to invest in redesigning so as to become boutique hotels.

Answers reveal the need for experts involved in the design of hotels. In most cases, entrepreneurs collaborate with a specialized technical team that includes an architect-engineer, while, during the last decade, the presence of mechanical or electrical engineers appears to become more and more necessary, to ensure technological evolution and the harmonization with the legal framework. In some cases, based on the financial capacity of the company, branding and promoting the renovated unit are assigned to a group of marketing consultants and designing hotel interiors to an interior designer. On the other hand, new hotels consider the promotion of their modern image as a part of the very concept of their investment.

All respondents recognize that the current trend in the hotel industry of Athens, as in other urban European destinations, is the renovation of old degraded hotels or the design of new boutique units, with personalized services and modern design. Today's visitors are much more informed and require a unique experience during their stay. They also require a high level of services provided; therefore, architects must pay a great attention to interior designing.

Finally, this research highlights a concern of hoteliers regarding the development of short-term rental accommodation through sharing economy platforms (such as Airbnb) in Athens. Short-term rental accommodation has the flexibility to follow all new design trends and not to strictly follow the same technical and functional specifications that hotels are obliged to respect.

5 Conclusions

The research hypothesis was that hotel design depends to a great extent on the perspective of the main parties involved, such as the state, the accommodation industry, and the architects-designers, and on their deep understanding of the external and internal factors affecting the design. To evaluate this hypothesis, a qualitative research was conducted on these three groups of key informants in 3★, 4★, and 5★ hotels in Athens that had recently invested in design.

A first, basic finding of this research is that investing in design is a constantly recurring phenomenon for tourism accommodation developments so as to maintain competitiveness. Also, the tourist market analysis proved that the need for functionality and the need for better legislative provisions constitute the main factors for the design of a hotel unit.

All questioned hoteliers that had recently invested in modern design for their hotel establishments admit meeting the objectives set. However, despite customers' positive reaction and hoteliers' belief that design is one of the reasons modern-day tourist chooses a hotel, it is not yet established in the mind of the latter that it could be considered as one of the principal factors affecting the success of their business. In other words, for most hoteliers, design is not connected to the image or the reputation of their hotel, which they all believe plays the most significant role in the tourist's choice of accommodation. Architects and tourism experts, on the contrary, are already conscious of the significant role design plays in modern tourism and promote this very idea in many ways.

All three groups believe that current trends in hotel design in Athens are: (a) creating small hotel units like boutique hotels, (b) providing tailor-made services, and (c) promoting a unique design or a design that highlights features of the local architecture. These trends, along with the simplification of the legal framework and the growth of competition, motivated many small hotel units' owners—currently the majority in Athens—to invest in design. Short-term rentals are not obliged to follow technical and operational provisions and are, thus, much more flexible in following these new design trends, while giving customers a *"homy feel"* hosting experience.

The current research also shows that hotel designing is a demanding and complex process. Stakeholders nowadays have realized the need to work with a group of experts, consultants, and engineers. In this framework, the cooperation among hoteliers, architects, engineers, and marketing consultants is established to achieve a design that works for the overall business concept.

Finally, literature has shown that there is a serious gap in studying the internal factors that affect hotel design and, more specifically, the viewpoints of those involved in it. Our study contributes towards this field by arguing that it is necessary to establish a deeper multilateral engagement and cooperation of the broader group of all relevant stakeholders.

Acknowledgements Thanks to Professor Paris Tsartas, HUA, for the insightful and constructive comments through which the paper was greatly improved. Thanks to the interviewed experts who also offered helpful comments. Thanks to the anonymous reviewers, whose suggestions helped improve this manuscript.

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Are DMOs the Key to Developing Business Tourism in South Africa and Africa?

Nosiphiwo Mahlangu

Abstract Business tourism is a lucrative, fast-growing segment in tourism, known as the world's largest industry sector. Countries rely heavily on investment in infrastructure to support the development of the business tourism sector and to ensure sustained growth, and many destinations use Destination Management Organisations (DMOs) and Convention Bureaus (CBs) to provide leadership. These organisations are also tasked to actively promote the destination for leisure travel such as cultural tourism, ecotourism, and activities, and it's necessary to understand the distinct requirements that set business tourism development and promotion apart from leisure tourism. South Africa has tremendous opportunity, with both urban and off-the-beaten-track attractions to attract meeting and convention traffic to the continent, but what is hindering us, and is there a simple solution to this problem? Multi-method qualitative research was employed to investigate the roles and functions that DMOs perform to develop business tourism at four major conference centres across destinations in South Africa. This included understanding the challenges faced within the varied destinations. Data was collected through interviews with a sample of nine major DMOs at various levels in the country. Strategic documents and website content were also analysed as a supplement to the primary data. Results revealed the importance of especially DMO stakeholder engagement, marketing, identification of opportunities to host business tourism events within the destination, and bidding support as the main roles and functions that need to be performed to ensure sustained growth of business tourism in South Africa. Recommendations are made in the form of an innovative business tourism framework depicting the interaction between DMOs at the national, regional, and local levels, and with the various industry stakeholders for cities conference centres/off-the-beaten-track locations to be used in the future.

Keywords Destination management organisations · Business tourism · Convention bureaus · South Africa · Urban and rural business tourism · Business tourism model

N. Mahlangu (✉)
Unisa, Pretoria, South Africa

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_16

JEL Classification O1 Economic Development · O19 International Linkages to Development · Role of International Organisation · O2 Development Planning and Policy · O21 Planning Models · Planning Policy

1 Introduction

Over the past fifty years, tourism has grown to become one of the major industries in the world playing an important role in the economies of many countries, particularly in developing countries (Balli et al., 2015; Jesus, 2013; Samimi et al., 2013; Tugcu, 2014). It has become the world's fourth-largest export industry after food, fuels, and chemicals (Ramphul, 2017) and has emerged as a vital sector in the process of economic development (Banu, 2016). Tourism is a sector that supports policymakers in overcoming problems such as unemployment and fiscal and monetary instabilities through the supply of foreign exchange which can be used for financing of domestic/foreign debts, creating regional employment opportunities that are crucial in coping with unemployment, and promoting transportation, construction, accommodation, and the food/beverage sectors which in turn foster economic growth by providing added value (Tugcu, 2014). It is one of the key drivers of economic expansion and employment creation in South and Southern Africa (Kirsten & Rogerson, 2002; Rogerson, 2014).

One of the sectors within the tourism industry which is considered to be large and continuously expanding is the meetings, incentive, conference, and exhibition (MICE) industry, which has become integral to the travel and tourism industry (Banu, 2016; Para & Kachniewska, 2014; Schroeder et al., 2014; Sumithra & Mishra, 2016). The growth of the industry can be attributed to various factors including globalisation and growth of technological and business advancements (Para & Kachniewska, 2014). It presents efficient utilisation of human resources, technological know-how, and assets; decreases seasonality; and increases brand awareness, while also adding to the development of a knowledge-economy (Para & Kachniewska, 2014; Schroeder et al., 2014; World Tourism Organisation, 2014) as well as stimulate the use of natural and cultural recreational resources, which enables the growth of the tourism sector as a whole (Aburumman, 2020). This has resulted in one of the main directions of modernisation and an increase in competitiveness of any country's tourism in the diversification of additional services which results in the encouragement of business tourism (Nicula & Elena, 2014). Business tourism plays an important role when contributing to a destination's tourism economy, and with business tourism on the rise, there is continued room for growth, and the key to stimulating national economic growth (Aburumman, 2020; Banu, 2016; Donaldson, 2013; Para & Kachniewska, 2014; Schroeder et al., 2014).

The South African Government has realised the potential of business tourism and established a South African National Convention Bureau in 2012 to attract business tourism events to the country and continent. This study seeks to determine has the establishment of this Convention Bureau within South Africa Destination

Management Organisation (DMOs) the key to developing business tourism in the destination, how does the DMOs function, and can this model be applied to the rest of the continent?

2 Literature Review

Business tourism, also known as MICE tourism, is a relatively new segment that arose from the increase in the number of conferences and exhibition enterprises (Chiu & Ananzeh, 2012). It's a large and fast-growing segment (Chiu & Ananzeh, 2012; Pearlman & Mollere, 2009) that has become important to the economic sector of many parts of the world and in the modern global market (Kumar et al., 2014). Some analysts argue to situate business tourism as a complex phenomenon that sits at the heart of the global economy (Rogerson, 2015). It constitutes an essential component of the contemporary international tourism economy, accounting for one-quarter of all tourism in some destinations (Rogerson, 2015). Business tourism is considered as one of the most desirable forms of tourism development at destinations worldwide (Dragićević et al., 2012). It is regarded as a high-quality and high-yield sector; it can be positioned as a key part of an economic development strategy and is much more resilient to the type of events and economic downturns that affect leisure tourism (Rogerson, 2019). Therefore, the number of destinations that realise the benefits of business tourism development is continuously increasing, thereby also increasing competition (Dragićević et al., 2012).

Business tourism has been defined as a trip which is undertaken with the purpose of attending a meeting, as part of an incentive, conference, and/or exhibition (MICE). It can be said that mankind has been gathering to confer since the beginning of civilisation. Lawson cited in suggests that there are several factors that facilitated the rapid growth of the MICE industry in the second half of the twentieth century:

- Expansion of the government and quasi-government organisations, together with an increasing need for meetings between private and public sectors.
- Growth of multi-national corporations and pan-national agencies, necessitating more inter-regional and interdepartmental meetings.
- Changes in the use of product launches, sales techniques, and sales promotion meetings.
- Developments in association interests, cooperatives, pressure groups, and professional groups.
- The need to update methods and information through in-company management training, continuing professional development, and attendance at scheduled or ad-hoc meetings.
- Development of subject specialisation (conferences create a platform that enables experts to pass on information).

The surge of demand for conferencing and business events resulted in many cities throughout the industrialised world and later the developing world to recognise the potential economic benefit of hosting the conference, equipping themselves with purpose-built conference centres often capable of hosting different types of national and international events and in which several thousand of delegates can attend. The growing international significance of business tourism is a direct consequence of new organisation structures of production and processes of globalisation (Rogerson, 2015).

Benefits and Challenges of Business Tourism

Business tourism is one of the most significant modern means to bring economic and social development at not only a micro level but also at a macro level (Seymour, 2016). According to Rogerson (2015), activities of business tourism are considered as a fundamental construction of "the network society" as well as the knowledge-economy. It leads to an increased need for updates and knowledge transfers. On a micro level, business events firstly contribute to tourism spend in a destination (Seymour, 2016). The MICE industry has a positive reflection on the economy especially in the off-peak seasons. Besides the economic benefits, there are numerous related social and cultural benefits for the hosting destination including augmentation of exchange commutation of ideas and information; forums for continuing education and training; and adoptive business connections and technology adoption.

As one of the primary motivations for a community to develop any industry is the economic benefits (Roger & Davidson, 2016b), a large number of large-scale infrastructure projects relevant to business tourism have been undertaken throughout much of the Pacific rim and Asia, in the former East European countries, in the Middle East, and in a number of African countries (particularly South Africa), as well as in South America. Numerous reasons exist for such investments that are mostly being funded by the government and other public sector funds (Roger & Davidson, 2016b). This includes countries and destinations having an active leisure tourism sector and developing much of the infrastructure for this sector which is the same such as airports, communication facilities, 3–5-star hotels, attractions, and trained staff, which is a requirement to attract international conference business. Destinations see business tourism as a complement to the leisure tourism business in the same way that developed destinations do. Conference and business tourism are of high-quality, high-yield end of the tourism spectrum, which brings large economic benefits for developed and developing countries. The benefits include foreign exchange earnings and year-round jobs. There is also a potential for future inward investment from conference delegates who liked and were impressed by what they have seen in the country, while attending a conference, meeting, or event and return to set up a business operation or persuade their own employers to do so. There is also a prestige associated with being selected to host a major international conference or event, and some less developed countries may see this as a way to gain credibility and acceptance on the international political stage.

Roger and Davidson (2016b) explain that the foreign currency which is injected into the destination is money that is spent by visitors to the city; this means that it is "new" spending that is coming into local businesses. For nations that are greatly dependent on foreign earnings, a single international conference can make a substantial impact on the national economy (Roger & Davidson, 2016b). Business tourism delegates also arguably spend more than other tourists on a per-capita basis (Morrison, 2013). Stimulation of investment is also another economic benefit; the stimulation of investment by stating that the development of the business tourism industry can be induced by the local and national governments to make infrastructure improvements such as better roads, water and sewage systems, public transport and telephone networks, and electricity supply, all of which can improve the quality of life for the residents as well as facilitate a further expansion of the MICE industry at the destination (Roger & Davidson, 2016b).

There are also other benefits to the destination besides economic benefits. Hosting destinations and conference venues also have a chance to showcase their skills and capabilities to attract future mega events to the destination and to build up a good sense of excitement, community, coherence, and pride (Kumar et al., 2014). MICE events are considered to be able to be an image-enhancement tool or as the image-makers of modern tourism, and hence, this is why countries compete to host these events (Chiu & Ananzeh, 2012; Seymour, 2016). The value of business events goes way beyond tourism. Events are one of the most important forms of training and post-tertiary education. Furthermore, they encourage networking in a particular field and increase the level of knowledge of a particular discipline. They can develop and establish particular industries (Seymour, 2016). Business events can also be used as a powerful means of microeconomic development or social responsibility, where business event organisers can be coaxed into making use of emerging service providers, mentor the youth, and encourage them to enter the industry, and using congresses as a platform for tours to exciting experiences on the outskirts of a destination and as a key selling point for local art and crafts (Seymour, 2016).

Importantly, the MICE industry can also have negative impacts on and present challenges to a destination. The public funds needed to subsidise the development and facilitate the development of infrastructure necessary for the operation of a significant MICE industry can cost national and local governments a great amount of money and can require a substantial outlay of funds long before the first business event arrives in the destination. In order for a destination to be able to equip itself to receive a large number of delegates, the government may need to improve airports, roads, and other elements of infrastructure. The government might also be required to provide investment incentives, tax breaks, and other financial advantages to conference centres and hotel developers as an example (Roger & Davidson, 2016b).

Use of Destination Management Organisations to develop Business Tourism

Business tourism does not develop organically at a destination but rather requires coordination and integration of different suppliers. This is done mostly through the use of Destination Management Organisations (DMOs). DMOs are teams of tourism professionals that coordinate and lead tourism stakeholders. Effective destination management involves long-term tourism planning and continual monitoring and evaluation of the outcome from tourism efforts (Morrison, 2013); they manage a destination by coordination and integrated management of the destination mix (attractions and events, facilities, transportation, infrastructure, and hospitality resources), all towards a common goal (Papadopoulou, 2016). DMOs need to incorporate the use of social media network sites and rely greatly on other organisations and facilities to execute the business tourism event in a satisfactory way to the client and delegate, in order to fulfil their roles while, competing with technology, as it is being used as a substitution for travel, with organisation opting to use video conferencing and teleconferencing as a convenient alternative to traditional business events (Morrison, 2013).

The DMO needs to work with numerous stakeholders from both the demand and supply sides in order to ensure that a destination can host a MICE event. The demand-side is represented by the consumer-travellers, who seek for travel service and products to satisfy certain needs. The supply-side is the travel and tourism industry, which seeks to stimulate demand for services and products (Pike, 2012) and also seeks to fulfil the tourists' needs. This required industry cooperation is an essential part of the industry, but perhaps is also the greatest challenge for MICE tourism. It is vital for the success of MICE that stakeholders coordinate in the delivery of their product (Mistilis & Dwyer, 1999). The coordination of production, supervision of local managers, meeting with consultants, purchasing of supplies, product serving, and marketing all require visits from company officials, technicians, or sales personnel (Rogerson, 2015).

A DMO while completing their roles should be able to improve the profitability of the business sector, which is the lifeblood of any destination's tourism industry, and should ensure that there is a responsible and sustainable balance between socio-cultural, economic, and environmental impacts of tourism (Carter & Fabricius, 2007).

DMOs perform the upper-level process of coordinating and integrating the management of demand and supply, resources, and function (Pearce, 2015). Morrison (2013: 7) defines destination management as "a professional approach to guiding all of the efforts in a place that has decided to pursue tourism as an economic activity".

Morrison (2013) expresses that DMOs are scattered throughout the world and span over many different organisational types and sizes. These are several types of DMOs, and they are categorised depending on their geographic region (UNWTO, 2007):

- National Tourism Organisation (NTOs) or Authorities (NTAs): They are responsible for the management and marketing of tourism at a national level.
- Regional, provincial, or state DMOs (RTOs): They are responsible for the management and marketing of tourism in a geographical region defined for that purpose (e.g. province, state, or country.)
- Local DMOs (LTOs): Responsible for a smaller geographic area or town/city. This form of local level DMOs usually operates tourism information office frequently with a retail shop.

The types of DMOs include the entities at four geographic levels namely country; state, province, and territory; region; and county/city (Morrison, 2013). However, Kozak and Baloglu (2011) argue that a DMO is known by a variety of names such as convention and visitor bureaus (CVBs) or authorities, tourist organisation, tourist bureaus, councils, tourist offices, and so forth. DMOs are normally funded by the government or tax money (Kozak & Baloglu, 2011).

The structure the DMO takes will be dependent on the governmental administrative structure. There are both strengths and weaknesses in whether a DMO should be either a public or private controlled organisation.

A DMO seeks to coordinate decision-making on management, design, and organisation of relationships in the network, on which the economic performance of the DMO and its stakeholders depends. Bregoll (2012) stresses that the difficulties of coordination and control have the potential to undermine a strategic approach.

It should be noted that tourism businesses will cooperate, as well as compete simultaneously with other companies and build a complex and dense system of inter-organisational relationships (Wang, 2008). In a hyper-competitive tourism sector, pure competition at a destination level is not the only way to achieve a sustainable competitive advantage; on the other hand, in many cases, collaborative and cooperative logics should be undertaken by decision-makers both within destinations (i.e. between private and public stakeholders) and among destinations (e.g. between NTOs and relevant DMOs).

Strategy formulation of DMOs is influenced by government policy. The tourism public policy can help the cause and consequences of the policy decision-making process. Tourism policy-making is inherently a political activity, which is affected by the formal structure of the government and hence a wide range of influencing factors (Page, 2015). According to Hall and Jenkins (as cited in Page, 2015), public policy in tourism is whatever governments choose to do or not to do, as it is a function of three interrelated issues according to the intention of political and other key factors; the way in which the decision and non-decisions which are required to be made; and the implication of these decisions.

Business Tourism in South Africa and Africa

There has been an acknowledgement of the global meetings industry, as Africa is becoming a preferred destination for conferences. There have been major international convention centres built in many countries including Ghana, Ethiopia, Morocco, Kenya, South Africa, and most recently Malawi (Rogerson, 2019). However, the spatial distribution of conferences in Africa by international association discloses that a large degree of business tourism events are clustering in South Africa (Rogerson, 2019). South Africa has gone from 86 associate meetings in 2011 to making 108 bids for meetings, incentives, conferences, and exhibitions in 2018/19, up from 94 the previous year, with the proposals total R2.5 billion, with the potential to bring 80,429 delegates to South Africa and generate 501 event days between 2019 and 2024 (South African Tourism, 2020).

3 Methodology

Primary and secondary data were collected and analysed, thus, making it a multi-method qualitative study. The study gathered information from respondents via telephone interviews, email, and face-to-face interviews. Triangulation was done through checking presentations and strategic documents provided, comparing against what the participant had described in the interviews, as well through the information available on the website of participants.

Non-probability sampling and convenience sampling were used. The researcher strived to contact the CEOs of the sampled companies, as it is assumed their opinions can be generalised as the opinions of the company as they are the ultimate decision-makers of the company. In the case where a CEO was not available, the manager in charge of business tourism was approached. Thus, expert sampling was used.

A total of 13 respondents were interviewed. The interviewed respondents were from a national, regional, and local level; they differ as some DMOs have convention bureaus and other DMOs do not.

The fact that South Africa's major business tourism provinces namely Western Cape, Kwa-Zulu Natal, and Gauteng have one regional DMO each and there is only one national DMO for South Africa restricted the possible number of participants. Furthermore, within these regions, very few LTOs were found that actively promote business tourism and would possibly have a formal strategy in place.

The use of only experts can result in saturation which forms an important part of the scientific process of a qualitative study, this is where no new information is achieved. This supports the small number of participants where the "how" and the "why" of research are more important. The fact that organisations at all three levels (national, regional/provincial, and local) and of varied nature/functions were included could also be regarded as a strength of the sample. Therefore, the participant profile is as follows illustrated below (Figs. 1 and 2).

The secondary data was collected after the interviews were conducted and data from the interviews had been categorised. The aim of the secondary data was to verify information provided in the interviews. Secondary data was collected by means of the Internet focusing on the websites of the interviewees. Documentation provided by the interviewees was also collected (Table 1).

The criteria for the selection of the secondary data sources were as follows:

- Websites were required to be the official websites of the DMOs or convention bureaus.
- Websites should have been updated in the last three years.
- Other sources should have been updated in the last five years.
- Strategies should have been updated in the last 15 years.

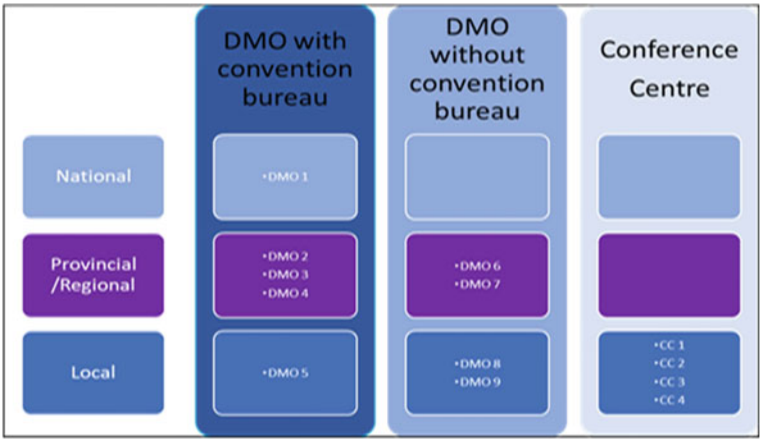

Fig. 1 Participant profile

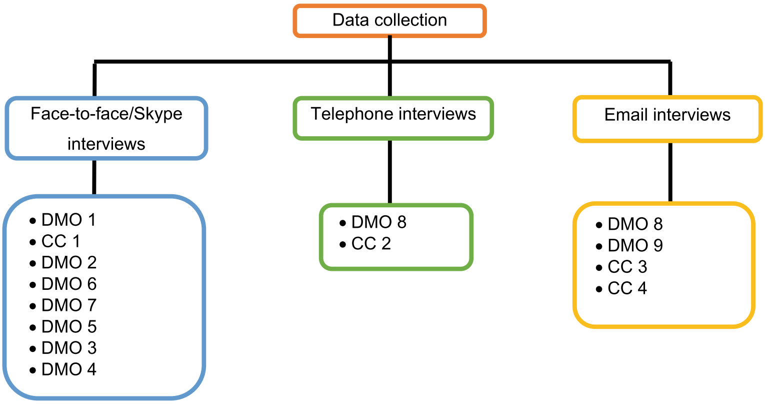

Fig. 2 Data collection process

4 Results

There are different DMO models implemented by destinations in order to lead, develop, and control business tourism. These models are created to ensure the facilitation of business tourism activities. Participants from convention bureaus and convention centres were asked whether they are a division of the DMO in their region. DMO1 stated:

> there are different models of DMOs we are a DMO and South African Tourism (SAT) is a DMO and SAT markets and sells South Africa as a business event destination, as a leisure destination and with the Grading Council with quality assurance. So, we are not outside, we are a business unit of SAT. So, as a convention bureau inside the DMO the reason why we have a brand as a convention bureau is because that what is around across the world…This

Table 1 Secondary data sources

Source	Number	Participant
Websites	13	DMO 1–9 CC 1–4
Tshwane Tourism Association meeting presentation	3	DMO 1 DMO 2 DMO 5
Strategic documents	4	National government, DMO 1 (2015) DMO 3 (2016/17) DMO 2 (2013)
SANCB Factbooks	4	DMO 2 DMO 4 DMO 7 DMO 3
South Africa Bidding report	1	
Total	**25**	

is our model, then you find…let's take for example Germany because that is also a country. Germany convention bureau is standalone entity, so they are basically the considered the DMO for conventions and meeting in business events industry/meeting industry for Germany

The nationwide business tourism model was launched in April 2012 due to the National Department of Tourism (NDT) noticing a strategic gap as stated in the NTSS of 2012 that there is "No coordinated effort at national level to attract international events". The action determined by the NDT was that the NCB would be responsible for business events, bid coordination and support, and the development and roll-out of a significant business tourism and events strategy. Former Minister of Tourism Martinus Van Schalkwyk told delegates at the opening of Meetings Africa 2012: "The NCB will add considerable value to the country's business tourism industry…(it) will strengthen and support efforts already being made to drive expansion in business tourist arrivals to make South Africa a truly global force….South Africa is also well-placed to play host to any local or international MICE event. We have world-class business and conference facilities complimented by excellent leisure tourism attractions and hospitable, welcoming, skilled and competent people".

This unique role was also expressed by DMO1 which defined the DMO as a specialised "vehicle that actually markets and sells South Africa as a business event", with DMO8 stating that "DMOs play a major role because it gives a total picture, whereas individual business is concentrated on their businesses."

The convention bureau deals with all the business tourism activities and renders specific services to the business tourism sector only. This model enables the DMO to go beyond the mere support of bids making sure that they attract bids to the country, but they also provide other services which include delegate boosting, on-site events services, and site inspection support.

The business tourism development strategy was adopted on a national, provincial, and local level, as DMOs 2, 3, 4, and 5 all stated that their CB forms part of the existing DMO within their region. According to DMO1, DMOs can only establish convention bureaus if they comply with specific criteria/services and are able to "render those services specifically on a region and a city level" (DMO7). The criteria include the following:

- Recognition by the local authority as the CB;
- Minimum budget/staffing;
- Scope of programming;
- Memberships: e.g. ICCA, EXSA, SITE, and SAACI;
- Agreed fees for certain marketing activities; and
- Active participation in key programmes, e.g. IMEX, Meetings Africa, or a minimum of two international sales missions per year

In cases where a CB has not been established within a DMO, due to various reasons such as financial and human resources, a business events unit within the DMO is required to perform the business tourism function for that particular region. DMO7 expressed that such a unit does not have the "additional resources" as a convention bureau and therefore cannot "spread your net or cast your net even wider in attracting more". This statement is corroborated by DMOs 6, 7, 8, and 9's websites: these four DMOs do not have a CB within their organisation. Their websites do not offer/or state services offered for business tourism. These websites only show suppliers such as venues and accommodation establishments which individuals can contact to make arrangements for a business tourism event. This differs from DMOs which have CBs within their organisation as they have a tab that links to their CB division, listing the services on offer specifically for business tourism. DMO3 was an exception as this website does not show any information on business tourism or suppliers which can assist with hosting a business tourism event in the destination. DMO3 also does not offer a link to the region's convention bureau.

The unique roles performed by CBs include conducting research in order to generate leads that will bring the event to the destination. Also compiling of bids; conducting familiarising trips; as well as connecting the client and service provider with each other in order to ensure that an event can be hosted. However, they are also required to perform "traditional" DMO roles such as marketing the destination and bringing together all the stakeholders which will be essential to provide a seamless experience and meeting once in the destination. The destination needs to be marketed to potential clients as clients will not choose a destination if they do not have any knowledge of the destination but most important have a positive association with the destination. This finding affirms the statements made by UNWTO (2007) and Morrison (2013) that the image of a destination is fundamental for attracting visitors to a destination (UNWTO, 2007) and awareness is an attribute which is related to the tourists' knowledge of the destination (Morrison, 2013). These factors do not guarantee the success of a destination, but, however, need to be in place for a destination to succeed.

Strategy and Policies

The strategy for the NCB has been aligned with the South African government's National Development Plan (NDP) (DMO1) as stated in South Africa's Tourism strategic plan 2012–2020: "SA Tourism is entrusted with a critical mandate of contributing towards creating an environment for sustainable employment and inclusive economic growth through tourism. SA Tourism has specifically interrogated and aligned its role to the National Development Plan 2030."

The NCB firstly defends the international association segment, by focusing on lead generation by attending trade shows and performing sales activities. Lead generation also includes the use of international sales representatives. The focus is also on local associations which have links to international associations in order to assist in bringing association meetings to South Africa. The local industry is included as suppliers for support services. Growth of the African association segment is fostered by establishing an African association for association executives, targeting African roadshows, and having sales missions focusing specifically on the African market. Lastly, NCB focuses on the improvement of South Africa's ICCA (International Congress and Convention Association) and Union of International Association (UIA) rankings improving the economic impact of the sector on the country and the number of delegates coming into the country as well as determining the return of investment (ROI) and the total number of business events hosted.

NCB attracts business events by targeting and focusing on a number of specific industries and sectors regarded as key in the South African economy including business process outsourcing, manufacturing, creative industries, information and communication technology, mining and metals, and lastly life sciences.

However, it seems like this strategy for the different industries per province isn't applied as CC1.

The national strategy is also called for the establishment of a coordinating forum. The SANCB's support service, known as the Business Events Coordinating Forum, was formed as one of Cabinet's resolutions (DMO 1). This forum consists of all the qualifying CBs. Regions that do not have a CB are represented by Provincial Tourism Boards (PTO) and business event units in City Tourism Organisations.

The coordination forum holds status meetings quarterly to discuss "where are we, where do we go, and what media buy do we do together" (DMO1). The coordination forum plays a number of important roles within the business tourism sector mainly

- Coordination: It ensures that the national, provincial, and local DMOs are working together and that there is a lack of conflict when it comes to hosting and bidding for events.
- Financial bidding requirement/restrictions: It ensures that no association bidding happens unless it has gone through the forum. This ensures that a region/city does not offer to bid for events where the country cannot afford, and the county is not committed.
- Joint marketing: As all public DMOs share only one budget, the forum decides on joint media purchasing.

- One bid per country: This ensures that there is only one bid from the country for association meetings and events. This is done through bid-off (cities bid against each other internally), blocking of events if another region/city has been put in or generated the lead. This ensures that the mandate of industry development in certain areas is met.

Other methods that are included to increase business tourism mentioned by DMO9 and DMO1 are by having the headquarters of companies/city in your country, which guarantees that meetings and events will be held at your destination. DMO1 also mentioned there is a five-year ambassador programme where individuals are identified, empowered, and enabled to possibly bring bids to the destination.

The Tourism Act 2014 (Act No 3 of 2014), NTSS, NDP, and SAT strategic plan all serve as a guideline for provincial and national DMOs to create business tourism strategies for their particular region. However, not all DMOs have created a business tourism strategy as of yet, with three out of the nine DMOs yet to create a business tourism strategy. It is important to note the development of the strategy had extensive stakeholder input and the strategy was developed as a "South African events strategy and not as a South African National Convention Bureau strategy" (DMO1). Two participants (DMOs 6 and 7) at a regional level that do not have a CB expressed that they do not have a business tourism strategy, but are working closely with the NCB and "feed off that main strategy…almost like giving it legs" (DMO7). However, not all DMOs followed the national tourism strategy. DMO9 stated that they formulated their own business tourism strategy with the help of their local university and input for stakeholders to develop a first-of-its-kind in South Africa: a living conference centre where all the accommodation products, all venues, conference venues, and suppliers participate in hosting medium to bigger sized conference and events in the town.

Business tourism in South Africa has been developed by the NCB putting together a strategy to ensure that the business tourism sector has grown and that each province should focus on and align themselves with certain industries as stated in the NTSS. This aligns with Papadopoulou (2016) who stated that the NTO is responsible for the management and marketing of tourism at a national level and further emphasised by Page (2015) who stated that strategy formulation of DMOs is influenced by government policy. The South African tourism business strategy is meant to ensure that resources are used in a correct manner and reduce wastefulness.

The role of the NCB in ensuring that the right cities and provinces bid for suitable events is an important and unique aspect of the DMO's role in the business tourism context. As knowledge transfers into a particular area and investment opportunities are created, this very important by-product of business tourism is strengthened. If events go to cities and provinces, the benefits of that particular event are not as extensive as they potentially can be, if the event is not aligned with core industries within that province. As stated by Seymour (2016), the most important factors are social responsibility and skills development. However, it seems that it is not always the case, as in some instances events which would be most beneficial in one area are hosted in another, for example, the biggest ports conferences being held inland and not at a coastal city. However, it is important to note that the client has the final say in which province or city they would (which is often politically driven). Therefore, the coordinating forum's role in ensuring that events are aligned to the NDP is limited to determining where the event can be held.

Research and lead generation also form an important part of the development of business tourism. DMOs/CBs play an essential role in searching for possible events that will best suit the destination as well as developing relationship with clients. The process from lead generation to the actual hosting of the event can take up to 10 years. In this process, the DMO/CB might be required to put together a bid that has all the required supporting documentation along with a formal document or a presentation given to the potential client. The selection committee of the client might also require a site visit of the destination (this includes the hotel, venue, and surrounding attractions) depending on their needs to ensure that the destination is best suited for their event. Here, collaboration is essential at the different levels to organise the logistics of these visits to leave clients with the best impression of the destination. Dwyer and Mistilis (1999) stated that it is vital for the success of MICE that stakeholders coordinate in the delivery of their product. Wu and Zhang concur that comprtition amoungst conventions and tourism stakeholders is a growing concern; whether the synergy between tourism and the convention industry is good or not is largely dependent on the degree of their coordinated relationship. Therefore, various tactics are employed to ensure that the selection committee has a seamless experience and a preview of what the delegates would experience once they are in the destination.

Once the event has been won, the DMO/CB provides services to the client to ensure that the organisation of the event runs smoothly. They have to ensure that the best suppliers are used, but also they are mandated to create jobs during the development of SMME businesses which goes along with hosting an event. As stated by Roger and Davidson (2016b), there are a variety of intermediaries that work on behalf of the buyer, as business tourism events are complex and require technical knowledge. They also provide delegate boosting—this is the marketing of the event to ensure that the event is well attended by the delegates. When the event arrives, they assist with airport welcoming and information provision for the delegates.

DMOs/CBs are mandated to provide a great deal of support to stakeholders and have to facilitate constant communication among the stakeholder at various levels within the destination.

Therefore, the roles which DMOs/CB perform in order to develop business tourism in a destination are represented in the table below, and these roles form the foundation of the conceptual framework.

Taking both the literature and empirical findings into consideration, Fig. 3 presents a conceptual framework for the unique roles and functions that have to be performed by DMOs/CBs to develop business tourism in a destination.

Lead generation, marketing, and communication are performed by all DMOs on all levels. There is top-down communication (national to local DMO) as well as bottom-up communication (local DMO to national DMO). Essential is a business tourism strategy at a national level that is adapted by provincial and local DMOs to suit

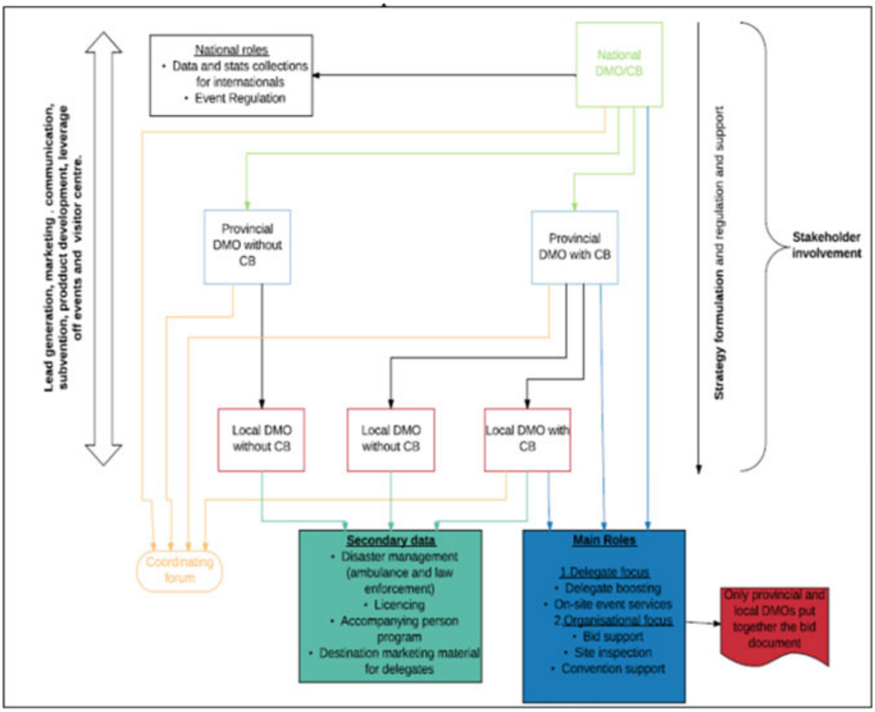

Fig. 3 Framework of DMO/CB to develop business tourism in a destination. *Source* Researcher's own construct

their product offering and industries which are predominate within their region. The national strategy should be created through stakeholder involvement. The national DMO/CB should also provide support as well as regulate how provincial and local DMOs/CBs operate.

To ensure the transparency, coordination, and communication of all DMOs/CBs, a coordinating forum should be formed. A coordinating forum should encompass the national CB, all provincial tourism boards regardless of whether they have a CB within their DMO or not, and lastly local DMOs which have CBs within their organisation. The coordinating forum should be able to determine where the destination is at the moment, and where it would like to be. This will entail a strategic evaluation of leads being pursued and RFQs sent out. The coordinating forum ensures that the best possible DMO/CB for the particular event assembles the bid. The budget and how the money will be spent are also determined. Areas in which the DMOs will collaborate in marketing are also determined.

Roles performed by DMO/CB are also illustrated above. The National DMO/CB performs a function that is not performed by other DMOs/CBs. This is the compilation of statistics such as the number of events held in order to determine the destination's ranking on an international platform. Provincial and local DMOs/CBs assist the national DMO/CB with this function by sending the necessary information to the national DMO/CB. The unique main roles played by DMO/CB in order to develop business tourism can either be organisational and/or delegate focused. These roles are distributed among the DMOs/CBs depending on what has been determined by the coordinating forum. These are, however, secondary roles that are performed mostly (but not exclusively) by local DMOs. Functions that DMOs perform all take place hand-in-hand with stakeholders, as the tourism industry is a product that is an amalgamation of tourism products, and the success of the business tourism event is dependent on the cohesive working of all stakeholders.

5 Conclusion

This study seeks to determine has the establishment of this Convention Bureau within South Africa Destination Management Organisation (DMOs) the key to developing business tourism in the destination. The number of business tourism events has increased tremendously in South Africa since the establishment of the Convention Bureau within the DMOs. A clear business tourism strategy needed to develop with a long-term focus needs to be created which has clear roles and responsibility of each stakeholder outlined, with a focus on urban and rural locations. This strategy will, however, not be successful if it is not supported from a national level and filtered down to the ground level where the business tourism will be experienced. This model is succeeding in South Africa and can be used across the African continent.

The results of the empirical research and subsequent framework on unique roles and functions performed by DMO in order to develop business tourism are limited to the organisations and respondents targeted in this study. Thus, the results are confined to the population as delineated and cannot be generalised to apply to all destination management organisations and convention bureaus in the business tourism sector. Comparable research on the roles and functions that DMOs perform to develop business tourism within a destination will have to be done in other DMOs and CBs to determine the roles and functions to be performed in that particular destination which will result in the development of business tourism in that particular destination.

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The Visitor in Slovak Rural Tourism in Turbulent Times

Andrej Malachovský

Abstract Slovakia underwent a series of fundamental changes in the structure of society in the twentieth century and after the year 2000. The population of Slovakia in 1919 after the establishment of Czechoslovakia was 2.94 million, currently reaching 5.5 million. The social and economic structure of society has changed significantly. A large part of the population has stopped living the original rural lifestyle, and social ties in society also changed significantly. Part of the population has moved from villages to cities. Despite these changes, Slovakia is a rural country from a European perspective. Formally up to 80% of the rural population formally lives in Slovakia. However, there is the potential for the development of rural tourism for both domestic and foreign visitors. Interesting and diverse nature and traditional culture are a prerequisite for the development of tourism in the countryside. In the past, however, there was also a significant impact on the character of rural settlements in Slovakia. There are more than 60 mountains in Slovakia and the country is visually attractive, suitable for the development of rural tourism. The aim of this paper is to analyse the visitor in rural tourism in Slovakia in terms of his views on the quality of services, including the evaluation of statistical data on rural tourism in comparison with the development of tourism in Slovakia.

Keywords Rural tourism · Visitor · Tourism statistics · Sharing economy · Turbulent times

JEL Classification Z30 · Z32 · Z38

This article was created with the grant support of the VEGA agency within the project VEGA 1/0368/20 Sharing economy as an opportunity for sustainable and competitive development of tourist destinations in Slovakia.

A. Malachovský (✉)
Matej Bel University, Banská Bystrica, Slovak Republic
e-mail: andrej.malachovsky@umb.sk

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_17

1 Introduction—Rural Tourism in the Conditions of Slovakia

Interesting and diverse nature as well as traditional culture are preconditions for the development of tourism in rural areas of Slovakia. However, the characteristic features of the rural settlement have been significantly impacted because of the significant economic backwardness and poverty of the Slovak population in the past. Only a small number of the original wooden, stone and clay houses have been preserved, and the development of rural areas has been influenced by individual housing construction before the year 1989 and in the past 30 years by the construction of "satellite towns"—which are not typical for rural settlement. As regards architecture, the countryside in Slovakia is not as specific or unique as, e.g. in Austria, Switzerland, Italy or Bavaria. The historical background mentioned above had its impact also on the local communities living in the Slovak countryside which do not always have historical ties with the original region. Many of the traditions have been abandoned and, in comparison with the mentioned countries also, the continuity and connection to agriculture production in local communities have been interrupted. It implies different product features and also partially modified profile of a domestic and foreign visitor in rural tourism in Slovakia. These changes are the result of the indicated significant change of social and economic structure of the Slovak society, at which it is difficult to find a parallel in European conditions. This change is continuous also in the last decades when the priority of economic development is the industry and only to a lesser extent development of the countryside and agriculture. Such economy direction brings quite fast economic growth, however, its consequences in a significant population decline in the regions which are off traffic routes and big centres of economic development.

2 Literature Review—The Visitor in Rural Tourism

The individual rural regions are competing with each other for a higher number of guests and overnight stays as well as for a higher number of same-day visitors. In comparison with the exposed tourist destinations where the visitors are not as welcome as they used to be before, the situation in rural tourism in Slovakia is relatively stable. English terms "overtourism" and "unbalanced tourism" apply to only a small number of rural settlements with extremely high attractivity. Therefore, it is useful to know the profile and typology of the visitors in rural settlements in order to adapt and create offers effectively and thus achieve reasonable costs, revenues and profit (Almeida et al., 2014). Linking these interconnections with economic rules creates a basis for the long-term prosperity of rural regions and business enterprises.

In tourism development, it is necessary, for the visitor's benefit, to take into account environmental, social, cultural and economic aspects. A set of simple rules is required to satisfy a rural tourism customer (UNWTO, 2004):

- To sleep in comfortable beds for a reasonable price.
- To use clean bathrooms.
- To eat food typical for the country (region)—simple, but well prepared.
- To enjoy the scenery, sights and typical features of the country.
- To learn about the history and culture of the country the guests are visiting.
- To experience an active holiday (golf, walking, fishing, skiing, etc.)
- To buy crafts/souvenirs in the country and general goods.
- To enjoy the music, dancing and theatre of the country.
- To travel without limitations and safety worries.
- To experience a friendly attitude of people employed in tourism.

A rural traveller is usually a highly educated, experienced member of higher socio-economic groups (Arbogast et al., 2017; Eusébio et al., 2017).

There are three main segments of rural travellers. These include older generations, younger generations and families with children (Frochot, 2005; Hjalager et al., 2018).

Older generations. Rural tourism is particularly popular with quite older Europeans aged between 50 and 70. They have more free time and money than other groups. Their children often moved away. They are usually experienced travellers who enjoy calm rural surroundings and they are looking for a new experience. They want high value for the money and they are willing to pay more for the authentic experience. Older travellers in general look for a higher level of comfort than the young ones. Several authors recommend to focus on this group as it is the most numerous segment of rural tourism. At the same time, this segment requires a high standard of comfort. It is recommended to use the Internet and traditional media for advertising (Fong & Lo, 2015; Fotiadis et al., 2014; Frisvoll et al., 2016). The generally available information on the ageing population in Europe and increasing of the share of this segment is also worth mentioning. The situation in Slovakia is even more critical, and compared to other European countries, the ageing of the population is significantly faster due to the low number of children born.

Younger travellers in rural areas are the second-largest segment. They often used to travel as children and they studied abroad. This group wants to discover and explore new destinations. There are two basic groups of young travellers. The first one is characterized by high income but lack of time. They are young professionals, but their time for travelling is limited. Mostly they are aged between 31 and 44, and they often travel as a pair; however, there are also individual travellers. They look for unusual experience ("once in a lifetime") and they want to make as much of their holiday as possible. Comfort is important for them (Jarábková, 2018, 2019).

The second large group of young travellers includes youths with lower daily budgets and a sufficient amount of free time. They are usually aged between 18 and 30 and they are often not demanding travellers, looking for experience at a reasonable price. Their daily budgets are low but they travel for a longer time. These travellers opt for cheaper accommodation. They want to get engaged with local communities and experience local life. Some of them are interested in voluntary work in community or environmental projects (Rid et al., 2014; Ruiz-Martínez & Esparcia, 2020). In European conditions, local food and typical regional meals are recommended.

The third-largest segment for rural tourism is families with children. Family travel is a big, growing segment. It includes parents, grandparents, children and grandchildren, sometimes also several generations. Tourism in rural areas is popular among families. They are more aware of quality and price. They expect facilities of good quality and they want to balance safety and entertainment. Families travel mostly at holiday time and they combine entertainment and sightseeing. The product is intended to be a set of unforgettable experience, possibly also educational activities and competitive games for children (Lewis & D'Alessandro, 2019; Ruiz-Martínez & Esparcia, 2020). However, these activities must be relatively safe. It is recommended to offer special bonuses and all-inclusive prices for families with children. The family tourism market is quite broad. Within Slovakia, its potential is given by short distances between regions and attractive offers. This creates excellent preconditions for spending leisure time, in addition to the classic main holiday by the sea abroad, for weekend holiday stays, extended weekends or short-term holidays for the Slovak citizens.

In relation to visitors' typology, in rural tourism, we assess and measure their satisfaction. Therefore, it is important to find out when the visitor is satisfied. The visitor is satisfied when the quality he experiences on the spot matches his expectations. Most of all he notices details in the hotel/destination, reliability of service provider, the willingness of the staff, credibility and empathy (Pesonen et al., 2011).

Global efficiency refers to the effort of organizations to use common characteristics for the effective production and promotion of products and services that will exceed national boundaries. Customer convergence expresses the idea that the habits and patterns of buying behaviour of customers from different countries are becoming more and more similar (Polo et al., 2012; Sanagustin-Fons et al., 2018).

Frequent use of new information technologies also reduces the interest in authentic experience connected with staying in the countryside and in the nature. This phenomenon is a serious challenge for all service providers in the region in the future and is directly linked to the motivation in tourism (Kastenholz et al., 2018; Martínez Matiza, 2020).

The basic incentive of the participant's decision-making is the impulse based on needs. The need is a subjectively perceived lack of something that is important or necessary for human life. Needs are socially conditioned.

Motives are incentives leading to action to satisfy the need. The motives are positive (encouraging) and negative (repulsive), so they are often contradictory. Positive motives prevail in rural tourism (Chin, & Lo, 2017; Ilbery et al., 2007).

Tourism drew its attention to motivation in the 1960s, at the time of its rapid development.

Motives for participation in tourism were and still are very diverse:

(a) in the 1970s three basic groups of motives were recognized—health care, prestige and education;
(b) in the 1980s, the motives included experience, spontaneousness, relaxation, activity and nature;

(c) in the 1990s, there were holiday (tourist) motives (rest, relaxation, education, health, activity, experience and adventure) and non-tourist motives (business and economy, politics and religion) (Ramkissoon, 2020).

Motivation and classification of visitors according to the types are consequently related to the process of market segmentation, which is based on dividing the market into different segments according to different criteria. Segmentation is a tool for distinguishing the needs of consumers of a particular product or service and thus the means for discovering business opportunities. A frequent reason for segmentation is the premise: It is better to satisfy part of the market than poorly satisfy the whole market (Pina & Delfa, 2005).

The concept of segmentation for the needs of accommodation establishments or destinations in rural tourism involves significant problems emerging from the fact that segmentation is a two-way process: from the market towards the service provider and from the service provider towards the segment. From this point of view, there are several stages that are necessary for defining the segmentation strategy in rural tourism (Jepson & Sharpley, 2015). First of all, it is necessary to define the market where we intend to operate, identify sufficiently large homogenous groups of consumers as regards the level of their needs and desires and determine the profile of the segments—defined in terms of their different attitudes in behaviour, demographic and psychographic characteristics.

For the needs of rural tourism, the criteria of effective segmentation can be defined primarily in terms of segment measurability, productivity, accessibility, sustainability, stability over time and the ability to compete with other service producers (Cahyanto et al., 2013).

3 Methodology

The methodology used in this article includes a critical literature review, work with strategic documents and national statistics. The sources for relevant literary research come from online bibliographic databases, e.g., Science Direct, Emerald and EBSCO, and from academic search engines, such as Google Scholar and others. The bibliographic sources in this research include articles published in scientific magazines, books, scientific journals, corporate publications, on websites and in online magazines. The criteria for this choice of literature were based on the subject importance and on the research. The selection of literature and sources is not exhaustive, given the scope of the article. The methodology of the research included also a questionnaire focused on customers' satisfaction with accommodation establishments services. The respondents answered 17 questions regarding their satisfaction with services in accommodation establishments of rural tourism. The online pilot survey was conducted in August–September 2020 and 892 respondents took part in it. The data obtained were assessed and processed in a summary table. 119 accommodation establishments of rural tourism cooperated on the research.

4 Results—Consumer Buying Behaviour and Changes of Visitor Attendance in Rural Tourism in Slovakia

In the last years, in rural tourism, significant changes have occurred regarding supply as well as demand. For assessment of its evolution, we have taken into account a time sequence of data since the year 2008 (before the global economic crisis) when the peak of economic growth was reached in tourism and also in rural tourism (Table 1).

In 2008, the number of accommodation establishments in rural tourism reached, 194 and during the crisis, it dropped down to 149 in 2011. A significant increase occurred after the quantitative monetary easing of the ECB in 2015 when the number of establishments rose to 289 and in 2020 reached the level of 310 establishments (Table 1). In the reference period, the increase in the number of accommodation facilities in rural tourism is by 59.8%. During the same period, the number of all accommodation establishments in Slovakia increased by only 25.4% (Table 2).

In this period, the number of bedrooms in rural tourism accommodation establishments had a similar evolution, and it rose from 1 706 in 2008 to 2 935 in 2020 (Table 1). This is an increase of 72% due to strong economic development after 2015. The number of bed places in accommodation establishments of rural tourism also fluctuated in the reference period until 2015 and subsequently sharply rose to 8 328 bed places (Table 1). Between 2008 and 2020, the number of bed places in rural tourism increased by 85.3%. In comparison, the total number of bed places in Slovakia increased by only 11.2% by 2020 (Table 2).

The visitor attendance evolution in rural tourism in Slovakia was also interesting (Tables 1 and 2). The assessed period can be considered as extremely successful for rural tourism. The number of guests as well as the number of nights spent in tourist accommodation (overnight stays/guest nights) rose significantly. Between 2008 and 2020, the number of guests grew from 102 to 189 thousand (Table 1). It is a rise by 85.3%, while this increase was higher than 88% until 2019 (Table 2). It was mainly the number of domestic visitors which rose significantly up to number 142 thousand in 2020. The growth of the number of foreign visitors was above average until the pandemic outbreak in 2019—in this year, it reached the number of 57 thousand. Compared to the initial number in 2008 (23 thousand guests), this is an increase by 248%.

The domestic guests in particular significantly contributed to maintaining the performance of rural tourism after the pandemic outbreak. However, the decrease in the number of foreign guests was notably smaller than for aggregated tourism data in Slovakia. Between 2008 and 2019, the total number of guests in Slovakia increased by 57.6%. However, when assessing tourism data in Slovakia, in 2008–2020, there is a drop of −21.4%; year-on-year 2020/2019 decrease by even −50.1% (Table 2).

The development of overnight stays number in rural tourism was positive. It rose from 251 thousand in 2008 to 435 thousand (Table 1). It is an increase by 73.3%. As regards the number of nights spent in tourist accommodation, the tourism as a whole in Slovakia rose till 2019 by 42%, but it dropped by −44.7% between 2019 and 2020

Table 1 Capacities and performances of accommodation establishments (AE) in rural tourism in Slovakia in 2008–2020

Indicator/Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
No. of AE	194	176	161	149	222	215	207	289	277	272	295	305	310
Percentage change	–	**−9.3**	**−8.5**	**−7.5**	**49.0**	**−3.2**	**−3.7**	**39.6**	**−4.2**	**−1.0**	**8.5**	**3.4**	**1.6**
No. of bedrooms	1 706	1 666	1 595	1 522	2 161	2 097	1 986	2 349	2 456	2 649	2 855	2 914	2 935
Percentage change	–	**−2.3**	**−4.3**	**−4.6**	**42.0**	**−3.0**	**−1.0**	**−5.3**	**18.3**	**4.6**	**7.9**	**2.1**	**1.0**
No. of bed places	5 094	4 954	4 647	4 440	6 121	5 905	5 652	6 768	6 995	7 925	8 203	8 305	8 328
Percentage change	–	**−2.7**	**−6.2**	**−4.5**	**37.9**	**−3.5**	**−4.3**	**19.7**	**3.4**	**13.3**	**3.5**	**1.0**	**1.0**
Total No. of guests (thous.)	102	79	80	72	75	79	65	86	114	151	178	192	189
Percentage change	**–**	**−22.8**	**1.5**	**−10.2**	**4.4**	**4.7**	**−17.1**	**32.3**	**32.5**	**32.5**	**17.9**	**7.9**	**−1.6**
Domestic guests (thous.)	79	63	65	59	59	63	54	71	93	118	128	135	142
Percentage change	**–**	**−20.7**	**4.7**	**−10.4**	**1.3**	**5.2**	**−13.8**	**31.5**	**32.3**	**26.9**	**8.5**	**5.5**	**5.2**
Foreign guests (thous.)	23	16	15	13	16	16	11	15	21	33	50	57	47
Percentage change	**–**	**−30.0**	**−10.6**	**−9.3**	**18.0**	**2.6**	**−29.7**	**36.5**	**32.8**	**57.1**	**51.2**	**14.0**	**−6.0**
Total guest nights (thous.)	251	195	195	174	179	181	147	196	268	360	408	431	435
Percentage change	**–**	**−22.5**	**0.0**	**−10.8**	**2.9**	**1.5**	**−18.8**	**33.2**	**36.6**	**34.3**	**13.3**	**6.9**	**0.9**
Domestic guest nights (thous.)	187	150	154	134	138	140	118	157	215	272	310	335	352
Percentage change	**–**	**−19.6**	**2.7**	**−13.1**	**2.6**	**2.1**	**−16.2**	**33.1**	**37.1**	**26.5**	**14.0**	**8.1**	**5.1**
Foreign guest nights (thous.)	64	45	41	40	41	41	29	39	33	88	98	96	83
Percentage change	**–**	**−31.2**	**−9.5**	**−1.8**	**3.7**	**−0.3**	**−27.7**	**33.7**	**34.4**	**66.0**	**11.4**	**−2.0**	**−3.5**

Source Statistical Office of the Slovak Republic, 2021, own processing

Table 2 Comparison of the growth of capacities and performances of rural tourism (RT) and tourism in Slovakia in the years 2008–2020

Indicator/Year	2008	2019	2019/2008 Percentage change	2020	2020/2008 Percentage change	2020/2019 Percentage change
No. of AE in rural tourism	**194**	**305**	**+57.2**	**310**	**+59.8**	**+1.6**
No. of AE in tourism	3 434	4 487	+30.7	4 307	+25.4	−4.0
No. of bed places in RT (thous.)	**5 094**	**8 305**	**+63.0**	**8 328**	**+63.5**	**+0.3**
No. of bed places in tourism (thous.)	188	219	+16.5	209	+11.2	−4.6
No. of guests in RT (thous.)	**102**	**192**	**+88.2**	**189**	**+85.3**	−1.6
No. of guests in tourism (thous.)	4 083	6 433	+57.6	3 210	−21.4	−50.1
No. of guest nights in RT (thous.)	**251**	**431**	**+71.7**	**435**	**+73.3**	**+0.9**
No. of guest nights in tourism (thous.)	12 464	17 704	+42.0	9 791	−21.4	−44.7

Source Statistical Office of the Slovak Republic, 2021, own processing

(Table 2). In terms of the number of guest nights, the success of rural tourism in Slovakia was mainly due to the domestic guests and their overnight stays.

These data show, as in the capacity indicators evolution, that after 2008 there was a crisis until 2015, similarly to tourism and the economy as a whole. The recovery from the 2008 crisis was relatively long also in rural tourism. The development after 2020 is interesting. The rural tourism proved to be a stable component of tourism in Slovakia. It retained its visitor attendance in terms of the number of guests and overnight stays. The reason for this stability is probably its highly seasonal character during the summer period when anti-pandemic measures were relaxed and the service prices were lower. The family character of business can also play an important role.

The analysis of the shares of domestic and foreign guests in the year sequence 2008–2020 plays also a very important role in the assessment of the development of rural tourism in Slovakia (Table 3). In 2008, there were 525 guests and 1 294 overnight stays per one accommodation establishment of rural tourism in 2008. Till 2015, the evolution was quite fluctuating. In 2015, the number of guests per accommodation establishment in rural tourism dropped to 298 and the number of overnight stays per accommodation establishment to 678. Subsequent development until 2019 was extremely successful. The number of guests per accommodation establishment increased to 630 per year and the number of overnight stays per accommodation establishment to 1 413 per year (Table 3). The daily average per accommodation

Table 3 Share of domestic and foreign guests in rural tourism in Slovakia in the years 2008–2020

Indicator/Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
No. of guests per AE per year	**525**	**449**	**496**	**483**	**338**	**367**	**314**	**298**	**412**	**555**	**603**	**630**	**610**
Share of domestic guests (%)	77.5	79.7	81.3	81.9	78.7	79.7	83.1	82.6	81.6	78.1	71.9	70.3	75.1
Share of foreign guests (%)	**22.5**	**20.3**	**18.7**	**18.1**	**22.3**	**20.3**	**16.9**	**17.4**	**18.4**	**21.9**	**27.1**	**29.7**	**24.9**
No. of guest nights per AE per year	1 294	1 108	1 211	1 168	806	842	710	678	968	1 324	1 383	1 413	1 403
Share of domestic guest nights (%)	**74.5**	**77.0**	**79.0**	**77.0**	**77.1**	**77.3**	**80.3**	**80.1**	**80.2**	**75.6**	**76.0**	**77.7**	**80.9**
Share of foreign guest nights (%)	25.5	23.0	21.0	23.0	22.9	22.7	19.7	19.9	19.8	24.4	24.0	22.3	19.1

Source Statistical Office of the Slovak Republic, 2021, own processing establishment is less than 2 guests and 4 nights. Although this is a relatively small number, it proves that these establishments are mostly small facilities with the family business, and during the pandemic time, they were quite stable compared to the hotel industry in Slovakia.

The share of domestic guests and their overnight stays exceeded 80% only in years 2014–2016 (Table 3). During the 2020 pandemic, the share of domestic guests returned to above 75% and the share of overnight stays above 80%. In the long run, domestic guests are proving to be a significantly more stable market segment in the current turbulent economic and social environment of the globalized world.

With regard to conducted analyses, the share of performances of accommodation establishments of rural tourism in Slovakia in the total performances of tourism evolved logically in a similar way (Table 4). The share of the number of accommodation establishments rose continuously. It increased from 5.6% in 2008 up to 8.1% in 2020. The share of the number of guests also grew significantly. It reached 2.5% in 2008 and then fell to 1.7% in 2014. By 2019, it had risen to 3%. In 2020, the share of guests in rural tourism in Slovakia grew to 5.9%, as tourism as a whole recorded a sharp decline during the pandemic. The share of overnight stays evolved similarly. The recovery after the 2008 crisis was quite lengthy. Before the pandemic outbreak in 2020, the share of overnight stays of rural tourism in the total performances of tourism increased significantly.

Table 5 contains the outcomes of a pilot satisfaction survey with the services of accommodation establishments in rural tourism. The survey was conducted online. The respondents answered 17 questions regarding their satisfaction with service quality in accommodation establishments in rural tourism. There were 892 respondents of the survey—441 of them were Slovak, 262 Czech and 189 came from other European countries. 119 accommodation establishments in rural tourism participated in the research.

The opinions of domestic Slovak guests, Czech guests and guests from other European countries were evaluated separately. The Czech guests represent an important traditional clientele in Slovakia, so it is necessary to pay special attention to them. At the same time, their opinions are partly different from the opinions of domestic guests and from other foreign guests.

Regarding the cleanliness of the accommodation, the Czech guests were the most satisfied (89%) and the Slovak guests were the least satisfied (76%). Similarly, the Czech guests were mostly satisfied with the room equipment (72%). Guests from other European countries had probably higher expectations of room equipment—only 65% expressed satisfaction with this attribute. These guests were the least satisfied also with the room temperature during the accommodation time—only 67% were satisfied. This factor is probably influenced by the concentration of demand in the summer months. The high level of satisfaction (up to 82%) was with the peace in the accommodation facility, which is a similar level of satisfaction as with the cleanliness of the rooms. As regards the comfort, the guests from European countries were also the least satisfied. The level of satisfaction with the quality of the breakfast menu (food and drinks) was significantly high, with guests from Europe being the most satisfied. Similarly, European guests significantly positively rated the

Table 4 The share of the performance of rural tourism accommodation establishments (AE) in the total performance of accommodation establishments in Slovakia in years 2008–2020

Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Share in the total no. of AE (%)	5.6	5.3	5.2	4.9	6.1	6.2	6.2	7.8	7.9	7.8	7.9	8.0	8.1
Share in no. of guests	**2.5**	**2.3**	**2.4**	**2.0**	**2.0**	**1.9**	**1.7**	**2.0**	**2.3**	**2.8**	**2.8**	**3.0**	**5.9**
Share in no. of guest nights (%)	2.0	1.9	1.9	1.6	1.6	1.6	1.4	1.6	1.9	2.4	2.4	2.4	4.4

Source Own processing

Table 5 Evaluation of guest satisfaction with the services of accommodation establishments in rural tourism in Slovakia

Factor/Satisfaction (%)	Domestic guests	Czech guests	Foreign guests	Total
Cleanliness—satisfied	**76**	**89**	**85**	**83**
Cleanliness—unsatisfied	24	11	15	17
Room equipment—satisfied	**67**	**72**	**65**	**68**
Room equipment—unsatisfied	33	28	35	32
Room temperature—satisfied	**72**	**67**	**63**	**67**
Room temperature—unsatisfied	28	33	37	33
Peace—satisfied	**82**	**80**	**85**	**82**
Peace—unsatisfied	18	20	15	18
Comfort—satisfied	**71**	**74**	**67**	**71**
Comfort—unsatisfied	29	26	33	29
Breakfast—satisfied	**82**	**85**	**88**	**85**
Breakfast—unsatisfied	18	15	12	15
Building appearance—satisfied	**71**	**77**	**78**	**75**
Building appearance—unsatisfied	29	23	22	25
Interior—satisfied	**75**	**79**	**84**	**79**
Interior—unsatisfied	25	21	16	21
Price/performance—satisfied	**70**	**76**	**80**	**75**
Price/Performance—unsatisfied	30	24	20	25
Parking—satisfied	**92**	**90**	**94**	**92**
Parking—unsatisfied	8	10	6	8
The internet—satisfied	**88**	**85**	**82**	**85**
The Internet—unsatisfied	12	15	18	15
Staff—satisfied	**76**	**79**	**71**	**75**
Staff—unsatisfied	24	21	29	25
Dealing with problems—satisfied	**78**	**82**	**85**	**82**
Dealing with problems—unsatisfied	22	18	15	18
Attractiveness of nature—satisfied	**67**	**78**	**86**	**77**
Attractiveness of nature—unsatisfied	33	22	14	23
Complexity of services in the area—satisfied	**71**	**76**	**79**	**75**
Complexity of services in the area—unsatisfied	29	24	21	25

(continued)

Table 5 (continued)

Factor/Satisfaction (%)	Domestic guests	Czech guests	Foreign guests	Total
Overall experience of the stay—satisfied	**73**	**78**	**84**	**78**
Overall experience of the stay—unsatisfied	27	22	16	22
Booking via online sharing platforms	**47**	**56**	**63**	**55**
Direct booking of the stay	53	44	37	45

Source Own processing

building appearance (78%), the interior (84%), the price-performance ratio (80%) and the parking options (94%).

The domestic guests were most satisfied with the Internet connection (88%). The Czech guests expressed the highest level of satisfaction with the willingness and friendly attitude of the staff in accommodation establishments (79%). As regards dealing with problems, the guests from the European countries were most satisfied (85%). The attractiveness of the surrounding nature was also very positively perceived mainly by European (86%) and Czech guests (78%). The European guests were significantly satisfied also with the complexity of services (79%) and with the overall experience of the stay (84%).

For booking the stay, the online platforms of sharing economy are extremely important for the European guests (63%) and for the Czech guests (56%). Based on the successful development of rural tourism in the crisis period of the 2020 pandemic, we can assume that the sharing economy has played an important role in maintaining performance in this sector.

From the overall point of view, Slovak guests were most satisfied with the parking possibilities (92%) and least satisfied with the room equipment (67%). Czech guests also most valued parking options (90%) and room cleanliness (89%). The situation is similar for European guests, where several factors were significantly positively evaluated.

To sum up, guests expressed a high level of satisfaction. Only a few questions were problematic. Accommodation establishments in rural tourism offer a simple standard of services with reasonable quality and price. However, it is necessary to take into account the fact that demands for quality of services in the globalized world will increase.

5 Conclusion

The issue of the visitor in rural tourism is richly dealt with in the available current literature. Not only the characteristics, but also the essential features of buying behaviour have been changing in the recent years. The reason is the globalizing economy and crises in the political, economic, social, ecological, technological but also health-care fields. For this reason, we describe the present time as turbulent, characterized by significant and rapidly emerging influences of the external environment.

Despite this, the rural tourism in Slovakia has recorded remarkable successful development since 2008. Although the visitor attendance after the 2008 crisis had decreased until 2015, the development was similar in terms of the total performance of tourism. Since 2015, the rural tourism in Slovakia has been significantly and continually growing. This positive trend continued also during the pandemic in 2020. In this period, there was a sharp drop of 50% in the performances of tourism in Slovakia. However, in this turbulent time, the performances of the rural tourism were maintained. The reason is the seasonal nature of performances, especially during the summer season, but also the stability of market segments of domestic, Czech and European visitors. The pilot satisfaction survey proved a remarkably high level of visitors' satisfaction with the services of accommodation establishments in rural tourism. Online booking platforms of the sharing economy and the family nature of business also had a significantly positive impact on the high use of rural tourism establishments during the 2020 pandemic.

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Accessibility as a Competitive Advantage of a Tourism Destination—Opportunities for Slovakia

Ľubica Šebová, Radka Marčeková, and Alena Kaščáková

Abstract The scientific goal of the article is to examine the degree of adjustment of the tourism offerings for physically disabled visitors in Slovakia and to find out the connection between the accessibility of tourism facilities and the destinations' attendance. We want to emphasize the need to improve the country's accessibility in tourism for visitors with disabilities, to wipe off the borders among visitors, benefiting the whole country, which can be a competitive advantage on the international tourism market. Our research used theoretical research methods, exploratory statistics, and correlation analysis to evaluate the accessibility of the offer in all self-governing Slovak regions—a total of 8 regions. We use evaluation criteria that are relevant in terms of tourism offerings. We examine the possibilities of barrier-free accommodation, catering, public transport, sports and recreational facilities, cultural-historical and cultural enlightenment facilities, zoos and botanical gardens, caves, accessible bike paths, hiking trails, ski slopes and cross-country trails, organized events for health and social events, and travel agencies specializing in offerings for people with disabilities. The research sample consists of 11,281 facilities of tourism offered in Slovakia. The results of the research points to an insufficient rate of accessibility of the country (19.7%) for visitors with physical disabilities and the need for higher investments in debarierization of the environment, which can make the whole country more attractive and increase its competitiveness as a destination on the international tourism market.

Keywords Accessibility · Competitiveness · Offerings · Tourism

JEL Classification I14 · L83 · Z32

Ľ. Šebová (✉) · R. Marčeková · A. Kaščáková
Matej Bel University in Banská Bystrica, Banská Bystrica, Slovakia
e-mail: lubica.sebova@umb.sk

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_18

1 Introduction

Evaluation of the tourism offerings for visitors with disabilities in Slovakia is a current topic, as the number of people with disabilities is constantly growing. Discussions at the national and international level focus on the need to remove barriers of various kinds. We want to emphasize the need to change the current situation in tourism to suit everyone without distinction. Healthy, disadvantaged, young, seniors, people with sudden and temporary restrictions to the possibilities of movement and orientation, parents who accompany a child in a stroller, people with optimal weight, but also the overweight. We want to contribute to the scientific and professional discussion on the importance of adapting the primary and secondary offer of tourism for the most vulnerable so that not only the target group, but also Slovakia as a country will be competitive in the international tourism market benefits from new opportunities.

2 Literature Review

More than 15% of people in the world suffer from some health disadvantage (WHO, 2011a, b, 2020a, b, https://ec.europa.eu, 2018). According to the data of the European Health Survey EHIS 2014, almost 54% of the population of Slovakia suffers from long-term chronic diseases or health problems (Statistical Office, 2015) and their prevalence is increasing (http://www.who.int, 2018). It is related to the prolongation of the average life expectancy of the world's population, which increases the incidence of chronic non-transferable diseases, however, modern medicine offers better options for diagnosis, control, and registration of the people with disabilities (Repková & Sedláková, 2012).

They are still a minority in society and are often marginalized. Daily, they face barriers that prevent them from carrying out normal activities and integrating with healthy people. The World Disability Report (www.who.int, 2011a, b) highlighted the need to destigmatize the lives of people with disabilities. The need for debarierization also affects tourism, as disabled visitors are a large segment and their participation in tourism presupposes a specific approach to the creation of infrastructure and tourism products. In addition to a human approach, adapting tourism offerings also represents a business opportunity that will ensure the success of the stakeholders in the competitive market environment.

The integration of people with disabilities into society, the adaptation of the environment, and the travel possibilities of this segment of visitors have been among the topics discussed not only at the European Union level, but also in the international context for decades (Agovino et al., 2017; Ambrose and Michalidis, 2007; Buhalis & Darcy, 2011; Buhalis et al., 2005, 2012; Burnett and Bender-Baker, 2001; Chang and Singh, 2007; Darcy, 2010; Doubled, 2010; Hitsch, 2005; Linderová, 2018; Lyu, 2017; McCabe et al., 2012; McKercher et al., 2003; Minnaert, 2014; Minnaert et al., 2009, 2011, 2012, 2013; Özogul & Baran, 2016; Pezzo, 2010; Polat and Hermanes, 2016; Souza and Post, 2016; Steinfeld & Maisel, 2012; Westcott, 2004; Yau et al., 2004).

It is indisputable that people with disabilities are interested in traveling and have the right to travel, which is contained in the Global Code of Ethics for Tourism (UNWTO, Article 7, 2020), which calls for tourism for all people without distinction and for access to travel for families, young people, students, the elderly, and people with disabilities.

The adaptation of tourism offerings for people with disabilities is a part of social tourism, accessible tourism, resp. tourism for all. Definitions of social tourism are inconsistent and are subject to development. Minneart et al. (2013) perceive social tourism as a moral added value, which focuses on the benefit of the host and visitor from tourism. Authors emphasize the need for benefits not only for visitors and hosts, but also for the tourism destination. In terms of the benefits of social tourism for the destination, it can be about taking advantage of business opportunities by introducing innovations in the form of specific products, adapting tourism facilities and their products (Zenko & Sardi, 2014). Comprehensively, it can be stated that social tourism enables the participation in tourism of such groups of the population that are disadvantaged in society (Linderová, 2018). The available information and statistics show that the majority of visitors with disabilities are a part of a socially weaker class in society (WHO, 2020b).

Accessible tourism, sometimes referred to as barrier-free tourism, resp. universally accessible tourism is defined as a form of tourism that makes travel destinations accessible to visitors with limited mobility, resp. with limitations of sight or hearing and allows them to function independently, with dignity, with their own capital through universally designed projects and products. It also affects seniors, visitors who travel with children in prams, and its aim is to preserve the three basic pillars of travel: independence, equality, and dignity (Darcy & Dickson, 2009). An important representative of accessible tourism in Europe is ENAT—European Network for Accessible Tourism (Accessible Tourism in a Nutshell, 2010, p. 3). It seeks to develop accessible tourism, in particular, by providing a wide range of information for visitors and experts in the field (www.accessibletourism.org, 2016).

The European Union most often deals with the concept of tourism for all, which includes the participation of all people with or without disabilities in tourism. It concerns low-income families, young people, the elderly, and people with disabilities, meaning people with physical, visual, hearing, cognitive, intellectual, or psychosocial disabilities that may be permanent or temporary (Takayama Declaration, UNESCAP, 2009).

The members of the European Union's advisory body—the European Economic and Health Committee (EEIG), concluded in 2003 that it was essential to develop sustainable tourism for all and called on NGOs to bring together disadvantaged citizens, European institutions, national governments, regional and local authorities, as well as tourism businesses to join the effort to make Europe a world tourism center that is a barrier-free and a sustainable space accessible and open to all. Emphasis is placed not only on the accessibility and sustainability of tourism, but also on the need for changes in people's mentality, the need to provide up-to-date information, awareness, and management of tourism for disadvantaged visitors (ENAT, 2007, p. 12).

The European Commission and the European Economic and Social Committee have recognized not only the societal value of tourism for all, but also its potential economic value in terms of income generation, job creation, and regional development (Griffin and Stacey, 2011).

From the previous definitions, the link between social tourism, accessible tourism, and tourism for all is clear. We understand tourism for people with disabilities as a part of social tourism (Linderová, 2018), as well as accessible tourism. We again perceive social tourism and accessible tourism as subcategories of a broader concept—tourism for all. Its aim is not only to create specific conditions for disadvantaged groups of visitors, but also to create uniform conditions for participation in tourism for all groups of visitors—even for those who have individual needs due to a certain disadvantage (Leidner, 2006).

We define tourism visitors with disabilities as a complex of activities aimed at satisfying the demand of people with disabilities associated with travel and stay of such persons outside their place of residence, usually in leisure time in order to achieve a comprehensive experience. This segment has the potential to grow and with it a willingness to spend more on tourism than non-disadvantaged visitors (Yau et al., 2004; UNWTO, 2015). This assumption is not valid in terms of tourism participation in Slovakia which is the result of the frequent inclusion of people with disabilities among socially disadvantaged visitors.

The requirements of the segment of visitors with disabilities in tourism relate mainly to better access to transport, accommodation, catering, access to water, national parks, and cultural attractions. Accessibility not only concerns people with physical disabilities. Care must be taken to make facilities and objects accessible to the blind, hearing, and otherwise disadvantaged visitors (Özogul and Baran, 2016).

The World Tourism Organization (UNWTO) defines people with disabilities as individuals "whose handling and orientation ability, respectively movement in a normal environment is limited. These are people who have special requirements when traveling, choosing accommodation facilities and other tourism services. They include people who require special care due to their state of health" (www2.unwto.org, 2005).

The definition of people with disabilities and their classification is complicated and inconsistent. The World Health Organization (WHO) distinguishes between health handicap and health disability (www.who.int, 1976). Disability is defined as a restriction or loss of ability to perform normal activities in a way that is normal for a person; handicap is understood as a disadvantage of an individual resulting from his disability and restricts or prevents the performance of activities that are perceived as normal by reason of sex, age, hygienic and cultural factors.

The World Tourism Organization (UNWTO) also defines people with disabilities as people who are prevented from full and effective participation in social life at the same level as healthy individuals due to environmental and attitude barriers (architectural barriers that hinder the people with disabilities, barriers for the visually impaired, such as the absence of a Braille menu, or barriers for the hearing impaired, such as lack of textual interpretation in the museum, a guide that does not speak sign language) (UNWTO, 2013, p. 14). These are obstacles by traveling, accommodation, and the provision of other tourism services. If a person with a disability is a representative of tourism demand, has a disability, he or she becomes a visitor with disabilities in tourism.

Although debarierization is aimed primarily at people with disabilities, it also benefits people who carry luggage or push a pram. Debarierization does not in any way limit the most numerous group of people without disabilities, on the contrary, it increases their safety and the overall attractiveness of the environment (Ministry of Transport, Construction and Regional Development of the Slovak Republic, 2011). However, it is most often associated with the removal of architectural barriers.

The most common problems perceived by visitors with disabilities include insufficiently adapted exteriors and interiors of accommodation and catering facilities, insufficiently accessible sanitary facilities, lack of barrier-free transport options, lack of reliable information on the accessibility of tourist attractions, resp. insufficiently trained staff in the question of the accessibility of tourism facilities (Clery et al., 2017).

Tourism offerings in destinations and their aspects were addressed by several authors. Foreign authors Morachat (2003) and Manoj and Babu (2008) divide tourism offerings into primary and secondary. Objects of the primary tourism offer are included in the following table (Table 1).

The secondary offer represents the material and technical support for the development of tourism. It includes accommodation and hospitality facilities, sports and recreational facilities, cultural and educational facilities, civic amenities. It represents the resources of tourism, which include reproducible goods created by man that require labor and capital to provide them (Mihalič, 2013). In order to satisfy the needs and expectations of visitors and a certain market segment, it is necessary to constantly develop and innovate the secondary offer of tourism.

The successful development of tourism for people with disabilities is conditioned by the legislative regulation of accessibility. Adherence to it significantly affects the attractiveness of the primary and secondary offers at the destination, which needs to be constantly developed and innovated.

Table 1 Objects of the primary tourism offer

Primary offer given by nature	Arboretum, botanical gardens, protected areas, caves, mineral and thermal springs, nature trails, natural and artificial water areas watercourses
Primary anthropogenic offer	Castles, chateaux and manors, sacral buildings and monuments, prominent buildings, monuments, memorial buildings and rooms, objects of folk architecture, open-air museums, technical monuments, archeological sites, cultural and educational facilities
Organized events	Cultural, sporting, business, religious, socio-political events

Source Own elaboration according to Morachat (2003), Manoj and Babu (2008), Gúčik (2010)

The basis of the competitive advantage of the destination is the primary offer (tourist attractions) and the secondary offer (tourism infrastructure and quality of its services). While the primary offer takes the form of competitive advantage in the uniqueness of the tourist attractions, the secondary offer represents a competitive advantage in terms of price level and quality of services (Gúčik, 2010). A destination may be competitive for one segment of visitors, while not others. In the conditions of demand, the preferences of visitors, awareness of the destination, and the image of the destination resonate (Dwyer and Kim, 2003). The conceptual apparatus of competitiveness of tourism destinations includes a number of indicators of local, regional, and national character. The most important interpret the relationships between the attractiveness of the destination and potential visitors, demand, and offer of services, as well as the attitudes of individual business entities operating in tourism. In addition to the mentioned indicators, there are other factors, and therefore, we must approach the evaluation of the competitiveness of the destination comprehensively and interdisciplinary (Bucher, 2015). The competitiveness of the destination is, therefore, not a matter of one or two factors. This is a complex problem with a large number of variables. Key factors include attractiveness, macroeconomic factors, innovation, strategic planning, destination image and branding, destination management, partnerships and cooperation, tourism prioritization, service quality, and last but not least, accessibility (Vanhove, 2017). If a destination wants to be competitive in the tourism market, accessibility is an important condition to achieve it.

3 Methodology

The scientific goal of this article is to examine the degree of adaptation of tourism offerings for the visitors with physical disabilities in Slovakia and to find the connection between the accessibility of the tourism facilities and the attendance of the destinations with the Slovak example.

This research evaluated the possibilities of visits of barrier-free accommodation and hospitality facilities, barrier-free public transportation, sport and recreation facilities, cultural-historical and cultural-educational facilities, ZOO and botanical gardens, caves, bike trails, tourist trails, slopes and cross-country ski trails, organized events for visitors with disabilities and travel agency offer, which specialize on visitors with disabilities throughout the territory of Slovakia. The research focused in each category on facilities with a summarization of their total number, the number of barrier-free and partially accessible objects and facilities, and their percentage share of the total number of objects (Table 2).

When evaluating accessibility, we took into account the information provided on relevant websites, which were compared to eliminate duplication. We verified the obtained information by a personal visit, by phone, resp. by photo documentation available online. In the survey of accommodation facilities, we included only hotels, boarding houses, and apartment houses as the most numerous categories of accommodation establishments in Slovakia, the numbers of which are listed by

Table 2 Evaluated objects and facilities in the context of the primary and secondary tourism offer

Evaluated objects and facilities	Assignment to the elements of the primary or secondary tourism offer	Degree of accessibility
Accommodation	Secondary offer	Completely and partially barrier-free
Hospitality facilities	Secondary offer	Completely and partially barrier-free
Transportation (station buildings, platforms)	Secondary offer	Completely and partially barrier-free
Sports and recreational facilities (swimming pools, aqua parks, football, hockey stadiums)	Secondary offer	Completely and partially barrier-free
Cultural-historical and cultural-educational facilities (castles, chateaux, churches, museums, galleries, open-air museums, theaters, cinemas)	Primary offer	Completely and partially barrier-free
ZOO and botanical gardens	Primary offer	Completely and partially barrier-free
Caves	Primary offer	Completely and partially barrier-free
Access to bike paths and hiking trails, ski slopes, and cross-country trails	Secondary offer	Completely and partially barrier-free
People with disabilities associations	Primary offer	Offer of organized events for people with disabilities
Travel agencies	Secondary offer	A specialized offer for people with disabilities

Source Own elaboration according to Linderová (2012)

the Statistical Office of the Slovak Republic on the website http://statdat.statistics.skstatdat.statistics.sk in the category Capacity and performance of accommodation establishments. The survey was conducted continuously over a longer period of time (2016–2020) in all (8) self-governing regions of Slovakia.

We consider all objects and facilities in which there is no barrier to access for the affected segment of visitors to be barrier-free. We consider as partially accessible objects and facilities in which there is a small barrier to access for people with disabilities, so it is accessible only for some of them, or access requires the assistance of another person (such as overcoming a step).

In the analysis, we evaluated the percentage of accessible objects and facilities to the total number of evaluated objects and facilities in the region according to

Table 3 Scale of the degree of adjustment of the tourism offer for visitors with physical disabilities in the self-governing regions of Slovakia

Share of accessible facilities and objects in their total number in the region (in %)	Qualitative evaluation
0–20	Unsatisfactory level
21–40	Basic level
41–60	Average level
61–80	Above average level
81–100	Excellent level

Source Own elaboration according to Linderová (2012)

individual groups, as well as the total percentage share of all accessible objects and facilities to their total number.

We added one point for each barrier-free, resp. partially accessible object or facility. We call such objects and facilities accessible. The maximum number of points determines the number of examined facilities in the region. We evaluated how many examined buildings and facilities are wheelchair accessible and partially accessible and we transformed the values into a percentage. Then we integrated the level of accessibility of offer for visitors with physical disabilities in the various regions to one of five possible levels (Table 3).

We assessed the level of adjustment of the tourism offer for the visitors with physical disabilities in Slovakia by a weighted arithmetic average, which takes into account the number of evaluated objects and facilities in the self-governing regions of Slovakia and the achieved level of adjustment of the offer in them.

The sample consists of evaluated objects and facilities of primary and secondary tourism offerings with the number of objects and facilities by regions, which are: the Bratislava Region (1,989); Trnava Region (1,881); Trenčín Region (845); Nitra Region (614); Žilina Region (1,760); Banská Bystrica Region (924); Prešov Region (2,663); and the Košice Region (605); a total of 11,281 objects and facilities of tourism offerings in Slovakia.

In addition to the method of observation and questioning, we used exploratory statistics (to express the absolute and relative frequencies of accessibility of objects and facilities in specific regions and in Slovakia in general and made a correlation analysis. From theoretical methods of scientific work, we used content-causal analysis, analysis and synthesis, induction and deduction, and comparison.

We used the correlation analysis (calculation of the tightness depending on the monitored variables) to detect dependencies between several variables. We were interested in the influence of the number of barrier-free accommodation (to December 31st of the specific year) in various regions on the number of visitors in accommodation establishments in the regions (for a specific calendar year). In the case of confirmation of dependence, we state that in the examined areas, it is important to focus on the availability of accommodation facilities, because their accessibility is related to their attendance.

We found a dependence between the number of accessible accommodation facilities and accessible hospitality facilities, respectively, other facilities within the primary and secondary offerings of individual regions. We have supposed that in regions where there are more accessible accommodation facilities for visitors with disabilities would also have more dining options, more options for time spent freely and generally can be better adapted. If the addition has not been confirmed, it could mean that the offerings of accommodation facilities do not correspond with dining options and leisure possibilities in the region.

We were interested in the relationship between the number of visitors in regions (for a specific calendar year) and the level of accessibility of regions (in %), as well as the relationship between GDP, expressed per capita in the regions, expressed in current prices in a particular calendar year (in %), which would express the relationship between the economic performance of regions and the level of their accessibility.

We consider it important to determine the impact (direct or indirect impact) of the examined variables and their intensity (strong, average, weak impact), or to identify variables that are not affected. To verify the agreement of the detected state and the assumption (we always examine the assumption that the characters A and B are independent), we use the method of Spearman's nonparametric correlation coefficient, which also verifies the degree of intensity of the dependence of the examined characters.

4 Results

A tourist destination where visitors have a choice with travel and stay becomes attractive for visitors with disabilities if it has significant and diverse potential with offerings that have adapted and accessible to them and its presentation on the market is capable of arousing interest (Pompurová, 2013). Slovakia is characterized by the diversity of offerings, which in terms of the international classification of tourist attractions according to IUOTO-WTO contains up to 38 of the 39 possible most sought-after tourist attractions (all except sea). The territory of Slovakia is divided into individual self-governing regions (8 regions: Bratislava, Trnava, Nitra, Trenčin, Banská Bystrica, Žilina, Prešov, Košice Regions).

Slovakia comprehensively achieved a 19.7% adjustment of the tourism offer for visitors with physical disabilities. This means that so far, the country has not even reached a basic level of adjustment, which can be considered an alarming situation that needs to be gradually changed. The comprehensive results of the adaptation of tourism offerings for physically disadvantaged visitors in all regions of Slovakia are summarized in Table 4.

By statistical evaluation of the results of the primary and secondary survey, we determined the dependence between the variables, which we assumed to confirm

Table 4 Evaluation of the level of adaptation of tourism offerings for visitors with disabilities in Slovakia by region

Name of the region	Number of evaluated facilities and objects of tourism (max. number of points)	Adjusted level achieved (%)
Bratislava region	1989	18.6
Trnava region	1881	20.6
Trencin region	845	29.8
Nitra region	614	19.1
Žilina region	1760	13.3
Banská Bystrica region	924	35.0
Prešov region	2663	11.0
Kosice region	605	40.0
Offering in Slovakia total	11,281	19.7

Source Own elaboration, 2019

the importance of achieving accessibility of tourism facilities with respect to the attendance of destinations. We were also interested in whether there is a statistical connection between the economic performance of the destinations at the level of self-governing regions and the achieved accessibility of facilities and objects in the area of the monitored destinations.

We verified the dependence of the variables using the statistical software IBM SPSS Statistics, version 25 (2020). We found out whether the influence is direct or indirect and what is its strength (strong, medium strong, weak). We used the Spearman rank correlation coefficient method to verify the impact and quantify it. It can range from -1 to $+1$. A value of -1 represents the highest negative and a value of $+1$ represents the highest positive dependence. If the dependence coefficient is in the range from 0 to 0.3, we speak of a weak dependence, in the interval from 0.3 to 0.6 with a medium strong dependence and in the interval from 0.6 to 1.0 with a strong dependence. We found a dependence between several variables: (1) the number of accessible accommodation facilities in the region and the number of visitors in the accommodation facilities in the region; between (2) the number of accessible accommodation facilities in the region, resp. (3) the number of accessible hospitality facilities in the region and other accessible facilities within the primary and secondary offer in the region; between (4) the number of visitors in regions in a specific calendar year and the level of overall accessibility of regions (in %); between (5) the economic performance of regions, expressed in GDP per capita in regions, expressed in current prices in a specific calendar year, and the level of overall accessibility of regions (in %).

The research results confirmed (in the calendar year in which the research was conducted) a strong direct dependence between the number of accessible accommodation facilities in the self-governing region and the number of visitors in accommodation facilities in the region (Table 5).

Table 5 Matrix of the correlation coefficient of the number of accessible accommodation facilities and the number of visitors in tourism in the regions

Researched variables	Number of accessible accommodation facilities in the region
Number of visitors in tourism in the region	0.642

Source Own elaboration according to the results of IBM SPSS Statistics, version 25, 2020

Table 6 Matrix of correlation coefficient of the number of accessible accommodation facilities and the number of accessible primary offer objects in regions

Researched variables	Number of accessible accommodation facilities in the region
Number of accessible primary offer objects in the region	0.648

Source Own elaboration according to the results of IBM SPSS Statistic, version 25, 2020

The result can be interpreted as the more barrier-free, resp. partially accessible accommodation facilities were located in the region in a specific calendar year, the more visitors visited this region.

Spearman's rank correlation coefficient also confirmed in a specific calendar year a strong direct dependence between the number of accessible accommodation facilities in the region and the number of accessible objects of the primary offer, which include cultural-historical and cultural-educational facilities, ZOOs and botanical gardens, caves, and organized events for people with disabilities in self-governing regions (Table 6).

The result can be interpreted that the more accessible accommodation facilities in the region in the examined calendar year, the more there were also accessible objects of primary offer in the region, which means that the visitor who decided to visit a particular region had more opportunities to spend free time in accessible facilities of the primary offer in the region, where he also had the opportunity to find suitable accommodation.

The results of the research confirmed that in the examined calendar year, there is a statistically weak indirect dependence between the number of accessible accommodation facilities in the region and the number of accessible objects and facilities of the secondary offer in the region after deducting accommodation and catering facilities. The objects of the secondary offer after deduction of accommodation and catering facilities include barrier-free possibilities of public transportation, sport and recreational facilities, cycling and hiking trails, ski slopes and cross-country trails, travel agencies (Table 7).

A moderate indirect dependence was confirmed between the number of accessible hospitality facilities and the number of accessible secondary offer facilities after the deduction of accommodation and catering facilities (Table 8).

In our opinion, indirect dependence points to a significant share of accommodation, but especially hospitality facilities in the total number of opportunities to use

Table 7 Matrix of correlation coefficient between the number of accessible accommodation facilities in the region and the number of accessible objects and facilities of the secondary offer in the region after deduction of accommodation and catering facilities

Researched variables	Number of accessible accommodation facilities in the region
Number of accessible facilities and secondary offer facilities in the region after deduction of accommodation and catering facilities	−0.223

Source Own elaboration according to the results of IBM SPSS Statistics, version 25, 2020

Table 8 Matrix of the correlation coefficient between the number of accessible hospitality facilities in the region and the number of accessible facilities and secondary offer facilities in the region after deduction of accommodation and catering facilities

Researched variables	Number of accessible hospitality facilities in the region
Number of accessible facilities and secondary offer facilities in the region after deduction of accommodation and catering facilities	−0.559

Source Own elaboration according to the results of IBM SPSS Statistics, version 25, 2020

the secondary offer in the region in the period under study and points to the need to complete other accessible facilities to make the offer of accessible facilities in the region comprehensive.

At the same time, Pearson's correlation coefficient in the examined calendar year confirmed a moderately strong indirect statistical dependence between the number of visitors in the region and the overall accessibility of the region (in %) (Table 9).

This result was surprising for us because we expected a moderate to strong direct dependence. Indirect dependence indicates insufficient marketing communication of specific accessible objects and facilities, as well as the entire region, which acts on the market as a destination not only for visitors with disabilities, but also for other target groups that can use accessible facilities. We consider the result to be an opportunity to streamline marketing communication not only at the level of the objects themselves, but also at the level of the destinations.

Weak indirect statistical dependence was also confirmed between the economic performance of regions in a specific calendar year, expressed in GDP per capita in current prices (in EUR) and the accessibility of regions (in %) (Table 10).

Table 9 Matrix of correlation coefficient between the number of visitors in the region and the overall accessibility of the region

Researched variables	Accessibility of the region (in %)
Number of visitors in the region	−0.542

Source Own elaboration according to the results of IBM SPSS Statistics, version 25, 2020

Table 10 Matrix of correlation coefficient between the economic performance of regions and accessibility of regions

Researched variables	Accessibility of the region (in %)
GDP/capita at current prices (in EUR)	−0.189

Source Own elaboration according to the results of IBM SPSS Statistics, version 25, 2020

Indirect dependence points to the need for higher investments in the debarierization of the environment, which can make the area more attractive not only for the visitors with disabilities, but also for other target groups of visitors.

With regard to the achieved result, it is necessary to try to improve the offer of tourism for visitors with physical disabilities in all self-governing regions.

Improving the conditions of travel and stay of visitors with disabilities in individual regions of Slovakia is conditioned by meeting the basic requirements. They emerge from the results of the primary research and are also supported by information available on the website of the National Council of Citizens with Disabilities (2011), socpoist.sk (2018) and employment.gov.sk (2018) and take into account the document of the Ministry of Transport and Construction of the Slovak Republic (2011). The proposals relate to the most important barriers for the physically handicapped, on which we built by defining the basic preconditions for travel and the participation of visitors with disabilities in tourism. These are physical, mental, financial, and information barriers. If a country wants to improve the accessibility of its services, objects, and facilities for physically handicapped visitors, it is important that barriers are gradually removed.

Physical barriers are perceived by all people with limited mobility. It applies to people who use wheelchairs, limb prostheses, walkers but also canes, crutches, various compensatory aids (after limb injuries), but even people with mental disabilities, the elderly, pregnant women, people accompanying a child in a pram or a small child under the age of three, people with luggage, with various diseases that have a negative impact on their mobility and obese people. This is an extremely large segment of existing and potential visitors in tourism. The advantage of debarierization is also that it does not limit in any way the largest group of people in society who are free of malfunctions, but on the contrary, also improves the safety and attractiveness of the environment (Ministry of Transport, Construction and Regional Development of Slovak republic, 2011). At the same time, all objects preventing hassle-free access, movement, and stay can be considered as physical barriers.

The most important prerequisite for the development of tourism for people with physical disabilities is the absence of architectural barriers. In the offer of tourism, architectural barriers apply to all buildings of accommodation, hospitality, transport, spa and wellness, sports-recreational, cultural, and educational facilities, as well as buildings of service providers—travel agencies and tourist information centers.

In addition to removing architectural barriers, it is important to eliminate psychological barriers that arise as a result of society's prejudices against people with disabilities and are manifested in different treatment in situations where another treatment is not desirable. At the same time, psychological barriers often occur in the work area. The Amsterdam Agreement (1999) gave the European Community the right to take measures to prevent discrimination, which was enshrined in Article 13 of the European Communities. In 2000, the European Community adopted two amendments to the article, which were adopted as directives. They state that employers must remove barriers and make appropriate adjustments to the work environment. They include the adaptation of premises and technical equipment, as well as the change of time standards for the performance of work, the redistribution of work tasks, and the provision of special training for employees with disabilities.

Psychological barriers can also arise in the process of providing tourism services due to insufficient preparation of employees for the visit of visitors with disabilities. Employees should receive training/regular trainings to meet the requirements of this specific segment of visitors.

Financial barriers are perceived by most people with disabilities in Slovakia as the most significant problem. Financial problems relate to the lack of financial resources for people with disabilities, who have minimal employment opportunities. Under such conditions, there is only a small proportion of people with disabilities who can afford to realize their travel plans. We note that there is a large disproportion between the financial resources available to people with disabilities and the prices of the products and services needed to improve, facilitate, and simplify their lives. As to the date of December 30th, 2019, the average amount of the invalidity pension, including also partial invalidity pensions, was EUR 275.54, the amount of the invalidity pension up to 70% was EUR 209.85 and the amount of the invalidity pension over 70% was set at EUR 379.95 (www.socpoist.sk, 2020).

Because fewer traveling needs are met, the participation of people with disabilities in tourism is extremely difficult. Most proposals to improve the offerings for people with disabilities are conditional on sufficient funding for their implementation.

Information barriers or the availability of public information for all people, including ones with disabilities, is a necessary condition for their full and equal participation for living in society. They help them with planning a specific goal of their trip, with time planning, with the selection of specific accommodation and hospitality facilities, with the planning of leisure activities, etc. For people with disabilities, it is not enough to know that the hotel has a wheelchair-accessible room, or the museum has wheelchair access. The physically challenged are interested in whether the object has a barrier-free access to all floors, whether access is only exterior or interior, to what extent is parking provided, whether handrails are available in sanitary facilities, etc. (Linderová, 2018). This information is often useful not only for visitors with disabilities, but also for families with small children, with a stroller, and other people with reduced mobility. Examples of suitable information accessibility can be drawn from abroad (Table 11).

Information on the accessibility of tourism for people with disabilities in the self-governing regions of Slovakia is currently not available in a comprehensive form on the Internet.

Table 11 Information on accessible facilities for disabled people abroad

Country	Web page
Austria	www.barrierfreierurlaub.at; https://www.wien.info/en/travel-info/accessible-vienna
Spain	www.accessiblespaintravel.com
England	www.visitengland.com/plan-your-visit/access-all/accessible-england; www.accessibleguide.co.uk
Poland	www.accessibletour.pl
Czechia	www.jedemetaky.cz; www.vysocinounavoziku.ji.cz; www.cestybezbarier.cz; www.presbariery.cz
Greece	www.accessgreece.com
Israel	www.israel4all.com
New Zealand	http://travability.travel/content/about-us
France	http://en.parisinfo.com; https://accessible.net
Countries of the USA, Canada, Europe, America, Asia and Africa	https://wheelchairtraveling.com

Source Own elaboration according to accessibletourism.org (2018), Linderová (2018)

5 Conclusion

This article focused on finding the accessibility of tourism offerings in Slovakia for visitors with disabilities. We found from the total number of 11,281 surveyed objects and facilities in Slovakia, less than 20% are fully or partially accessible. This means that the offering in Slovakia is still insufficiently adapted. In this paper, we used correlation analysis (calculation of tightness rates of dependence of monitored variables) to determine the dependence between variables in the analytical part of the publication, which we assumed to confirm the importance of achieving accessibility of tourism facilities with respect to attendance. We also searched for a statistical connection between the economic performance of destinations at the level of self-governing regions and the achieved accessibility of facilities and objects in the area of the monitored destinations. We achieved the set goal, which was to examine the degree of adjustment of tourism offerings for visitors with physical disadvantages in Slovakia and to find out the connection between the accessibility of tourism objects and facilities and the attendance of destinations.

Due to the large representation of tourism objects and facilities in the country and the diverse requirements for their adaptation depending on the specific type of disability that causes disadvantages, this article focused on adapting the offerings to visitors with physical disadvantages. Of all people with disabilities in the country, the people with physical disabilities are the most numerous. Requirements for customizing the offerings for this segment of visitors need and will be appreciated by other groups of visitors, including seniors, people with weight issues, people accompanying a pram, or a person with a disability, all persons who are less physically fit (children, individuals with current movement problems due to injury, acute deterioration of health, which also results in movement restrictions, etc.). The adjustment of the offerings for these segments of visitors does not cause any restrictions for healthy people, resp. for those who do not feel physical discomfort, on the contrary, such an adjustment generally makes the destination more attractive and enables better services provision. That is why the adaptation of tourism offerings for visitors with disabilities in Slovakia is urgent and desirable.

Further research is appropriate to focus on the accessibility of the tourism offer for other segments of visitors with disabilities, especially the visually and hearing-impaired visitors. Accessibility of the country in all aspects for various segments of visitors with disabilities can be a significant competitive advantage for the country in the international tourism market.

Acknowledgements This research was funded by the Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of Slovak Republic VEGA, Grant Number 1/0368/20 "Sharing economy as an opportunity for sustainable and competitive development of tourist destinations in Slovakia".

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Aviation Industry Crisis Management: Effects of COVID-19 Pandemic in Athens International Airport Environment

Evagellia Maslarinou, Maria Tsourela, Dimitris Paschaloudis, and Dafni-Maria Nerantzaki

Abstract The coronavirus COVID-19 is an ongoing pandemic that made the World Health Organization declare an outbreak. It changed the world permanently. COVID-19 pandemic is fast-moving, thereby it is important for organizations and businesses to have appropriate contingency plans and be ready to implement them in order to minimize impacts. Due to the high number and level of how the virus is contagious, many industries have suffered deeply. In the airline sector, the pandemic has thrown the industry into uproar and chaos as it was one of the highly affected industries, as soon as the news of COVID-19 became global. This paper focuses on the organizations operating in the Greek Aviation Environment. Quantitative research was conducted including only Leaders and Members of Crisis Management Teams of organizations and companies operating in the Greek Aviation Area. This research showed that most of them had designed the necessary plan for crisis management, which they implemented in order to minimize business "casualties". Also, it was revealed that both heads and members of the Crisis Management Teams are always alert and ready to act almost immediately, as the plan predetermines, and at all times in accordance with the international regulations and standards, and the respective directives set out by Government agencies.

Keywords Crisis · Management · Airport · Athens International Airport · COVID-19

JEL Classification M10

E. Maslarinou · M. Tsourela (✉) · D. Paschaloudis · D.-M. Nerantzaki
International Hellenic University, Business Administration, Serres, Greece
e-mail: mt@ihu.gr

D. Paschaloudis
e-mail: dim@ihu.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_19

1 Introduction

The airline industry is vulnerable to global incidents and has always been threatened by emergency contexts throughout history. Such emergencies and incidents are various in terms of armed conflict, terrorist attack, political unrest, economic recession, global pandemic, etc. (Rosenthal & Pijnenburg, 1991). These incidents generate uncertainties and bring a lot of impact on the industry and society. In this case, airlines are forced to take countermeasures including downsizing schedules, unloading assets, furloughing crews and retrenching budget, which often results in industry downturns (Sobieralski, 2020).

In December 2019, in Wuhan, China, an infectious disease (lately named as COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was first identified, which caused an acute wave of transmission over China. The virus was later discovered in many other countries and kept active and spread globally resulting in the ongoing COVID-19 pandemic worldwide. As of 27 November 2020, more than 61.1 million cases have been reported across 191 countries or regions, resulting in more than 1,435,000 death. The spread of COVID-19 forced governments to implement containment measures and took mitigation actions. The most common responses to COVID-19 include case-tracking, self-isolation and compulsory quarantine. In the meantime, public health prevention measures in terms of hands-washing, social distancing and wearing mouth caps were encouraged in many countries (Bedford et al., 2020). Air travelling during the COVID-19 pandemic is regarded as a major way to spread the virus globally. Therefore, a variety of transport policies were imposed to control the traveller movement in order to slow down the pace of pandemic propagation.

Barton (2004) defines crisis as a big, sudden event, which will possibly negatively affect adn organization ans its employees, as well as its financial situation and reputation. Fink (2002) studied several crisis types and concluded that they differ in terms of turnaround times. According to Glaesser (2006), crisis management is a systematic effort to both avoid crisis that may arise and manage an organization during one. The COVID-19 pandemic brought a huge impact on the industry, therefore, understanding their crisis management tactics could possibly provide more useful information for crisis management countermeasures (Watkins & Mohr, 2001). One of the most important dimensions of crisis management is the "official" organization's response to every incident that threatens its stability in every level (Henderson, 2007).

2 Methodology

For the current research, quantitative approach was followed. A structured questionnaire of five distinct sections was created and electronically distributed, in February 2021, to 46 members of crisis management teams employed in the aviation industry.

Majority of the questions were created on 5 points Likert scale. All questions were small, clear and completely understandable, while respondents were encouraged to answer as honestly and sincerely as possible. Before distributing the final questionnaire, a pilot questionnaire was given to three airport employees, not participating in the actual research, to find possible overlaps or misunderstandings of the questions. Statistical analysis was implemented with the JASP program.

The first section included questions related to crisis management, in order to capture how informed organizations are concerning crisis management. All respondents were asked about whether the organization they belong to has an institutionalized body for handling crisis situations. The second section included questions concerning the structure and procedures of the Crisis Teams. In particular, respondents were asked to report crisis management team meetings frequency, updates frequency, readiness level and so on. The third section was connected to the capabilities of Crisis Management Teams. They were asked to evaluate their response level in cases of emergency, how they recognize dangers, how they analyze data and finally how they check the result compared to the original expectations. The fourth section included questions about the Crisis Management Plans of each respondent's Team. They had to state whether their plans were in full accordance with International Standards and Laws. Also, they had to refer to whether an evaluation system measuring the effectiveness of each action exists. The fifth section included demographics.

All ethical rules, reassuring trustworthiness and validity of research, were ensured. In particular, participation was voluntary, anonymous, confidential and all gathered data were used solely for the purposed of the current research.

3 Results

Demographics

68.9% of the respondents were male and 31.1% were female. 2.2% were in the age group of 25–34 years old, 28.9% were 35–44 years old, 33.3% were 45–54 years old and 35.6% were above 54 years old. 6.7% were High School graduates, 44.5% had a Bachelor's degree, 46.7 had a Master's degree and 2.2% declared "other". 26.7% was employed in an airport, 22.2% in an airline, 31.1% were employed in ground handling and 20% answered "other". Finally, 37.8% were management members of their organization, 15.6% were team leaders, 28.9% were team members, 8.9% were in counselling and 8.9% stated "other".

Reliability

For the total of the questionnaire Cronbach a was equal to 0.785. Cronbach a for Questionnaire Section C provided the Tables 1, 2, 3 and 4.Since C1 Cronbach a is 0.81 > 0,70, it is considered reliable.

Since C2 Cronbach a is 0.83 > 0,70, it is considered reliable.

Since D2 Cronbach a is 0.77 > 0,70, it is considered reliable.

Table 1 C1. Chief of staff of crisis management team

Scale reliability statistics	Cronbach's α
Scale	0.812
Note Of the observations, 46 were used, 0 were excluded and 46 were provided	
Item reliability statistics	
If item dropped	
Cronbach's α	
C1.1	0.782
C1.2	0.737
C1.3	0.768
C1.4	0.769

Table 2 C2. Members of crisis management teams

Scale reliability statistics	Cronbach's α
Scale	0.827
Note Of the observations, 46 were used, 0 were excluded and 46 were provided	
Item reliability statistics	
If item dropped	
Cronbach's α	
C2.1	0.805
C2.2	0.805
C2.3	0.748
C2.4	0.767

Table 3 D2. Crisis management plan

Scale reliability statistics	Cronbach's α
Scale	0.773
Note Of the observations, 46 were used, 0 were excluded and 46 were provided	
Item reliability statistics	
If item dropped	
Cronbach's α	
D2.1	0.735
D2.2	0.717
D2.3	0.739
D2.4	0.733
D2.5	0.755
D2.6	0.755

Table 4 D3. Crisis management organization

Scale reliability statistics	Cronbach's α
Scale	0.908
Note Of the observations, 46 were used, 0 were excluded and 46 were provided	
Item reliability statistics	
If item dropped	
Cronbach's α	
D3.1	0.907
D3.2	0.892
D3.3	0.839
D3.4	0.883

Since D3 Cronbach a is 0.91 > 0,70, it is considered reliable.

Dimensions Analysis

Concerning the A1 dimension, Table 5 shows that 93.5% of the responses are positive.

Concerning the A2 dimension in 41.3% of the cases, there is an escalation of the situation in higher levels of hierarchy in command, in 37% of the cases there are differences depending on the severity of the danger and in 21.7% of the cases the units remain the same in every type of crises.

Section's (B) results show that in slightly above have of the cases (52.2%), the Crisis Management Team meets once or twice every six months, while 58.7% of respondents feel they should be updated once or twice in a monthly basis, in order to increase their readiness towards a crisis. Finally, concerning validation frequency of crisis management plans, for exploring possible weaknesses in procedures, 50% of the respondents' stated that they take place once or twice every month.

In the third section (C), where the questions are mostly about the Chief of the Crisis Management Team, the majority of the respondents (91.3%) stated that he/she is available for his/her team 24 h a day. Also, 89.13% state that he/she oversees and organizes all information that the crisis team must have. Lastly, 89.13% stated that he/she inspires and leads all unit members for achieving their goals.

93.43% of the respondents believe that they act based on the Action Plan and 76.1% propose alternative ways of handling crisis, after recognizing the dangers and difficulties of the situation. Lastly, 91.3% of the respondents analyze all data and spot

Table 5 A1 frequencies

A1	Frequency	Percent	Valid percent	Cumulative percent
Yes	43	93,478	93,478	93,478
No	3	6522	6522	100,000
Missing	0	0.000		
Total	46	100,000		

each and every problem, while 86.95% compare the result in relation to the original expectations and Plan projections.

Results from Section D, where Crisis Management Plans harmonization to standrads and regulations was investigated, showedthat in 35.5% of the cases, Crisis Plans preparation is solely based on International Standards and Laws. 77.26% of the respondents agree that they include a cross section sample of possible scenarios, while 69.56% of them believe that all action response standards are flexible and easily adjustable to evolving circumstances. Furthermore, 63% of them believe that Crisis Management Plans have verified connections of every possible crisis scenario to a corresponding action plan that will be activated as appropriate and 78.26% of them agree that warning protocolls, for alerting Crisis Management Team of an upcoming crisis, thus 67.4% believe that timestamps for re-establishing the previous existing situation, are in place. Lastly, 84.77% consider that response effectiveness' scientific evaluations at the end of crisis, in order to identify if and where current actions were insufficient are set in place.

89% of the respondents agree that there is actually an organized crisis management team and 87% of them state that there is a particular space for the team to work. 89% of them believe that communication channels are correct and in place and 78.16% agree the right amount of resources exist.

4 Conclusion, Capitalize the First Letter of Every Word in the Title

After analysing the results, it can be concluded that the majority of current research's participating organizations have an institutionalized unit that is in charge of Crisis Management. Concerning members responsible for resolving/managing a crisis, a scaling-up towards upper hierarchy management levels was observed, depending on each case's severity, while members in change changed, depending on risk weighting.

Concerning the criteria on which the severity of a situation is classified, there was a variety of answers. In most cases, the criteria were intensity and duration. An important factor was danger for the facilities and the organization's business systems. Concerning the Crisis Management Team and the frequency of their meeting, it was made clear that, when no crisis is apparent, they take place once or twice every six months, when team members feel that they should be updated once or twice every month in order to be ready to handle every possible crisis.

The vast majority seems to agree that the Chief of Crisis Management Team responds directly in cases of emergency and oversees the organization and information that all team members must have. It must be highlighted that the educational background of the members plays an important role in their ability to analyze every situation's data. COVID-19 pandemic showed the importance for every organization to have a crisis management team in order to be able to survive. Airlines faced an unprecedented crisis in serving passengers since they are always a place of "civilian traffic".

Acknowledgements This research was implemented for the completion of the master thesis of Mrs. Evagellia Maslarinou in the Master in Public Business Administration (MPA) of the Department of Business Administration of International Hellenic University, Greece.

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Smuggling Routes as a Valuable Asset for Tourism Development in Cross-Border Regions

Pedro Liberato, Mariana Torres, and Dália Liberato

Abstract Smuggling is defined as a set of clandestine exchanges of goods/products, between the population on both sides of the Portuguese and Spanish border, regardless of whether the products were legal or not, and taking advantage of the virtues of the border. It was considered a profession of risk, effort, and sacrifice, constituting an illicit import and export business between two countries, which included coffee, basic essential goods, and minerals. In these organizations, coexistence with the guards was compulsory so that the smuggled material could pass easily, and the set of daily activities generated group solidarity and collective complicity.

The overall objective of this study is to understand whether smuggling tourism is a strategic tourism product in the border regions of Portugal/Galicia as tourism destinations; to evaluate its real potential and understand which routes have been carried out to promote smuggling tourism, as well as the role of population in its valuation. In the present research, it was applied a qualitative methodology, and the main data collection instrument selected was a semi-structured interview.

The results show that smuggling tourism, if strategically designed, can be one of the main tourism products of the Portuguese/Spanish border. The tourist seeks to feel something similar to other people's sensations, and smuggling tourism provides these feelings, the pain, the fear, the honor, and the pride of being a smuggler. The routes recreation leads to the development of an integrated offer, and some of the companies dedicated to the subject are sponsored by municipal entities among other DMOs.

Keywords Smuggling tourism · Smuggling · Cross-border region · Tourism routes · North of Portugal · Galicia

P. Liberato (✉) · M. Torres · D. Liberato
School of Hospitality and Tourism, Polytechnic Institute of Porto, Vila do Conde, Portugal
e-mail: pedrolib@esht.ipp.pt

D. Liberato
e-mail: dalialib@esht.ipp.pt

P. Liberato · D. Liberato
CiTUR researcher (Center for Tourism Research, Development, and Innovation, Portugal), Coimbra, Portugal

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_20

JEL Classification Z32

1 Introduction

For centuries, smuggling and emigration have been the major economic activities in the border area separating Portugal and Spain, which involved several family members (Gonçalves, 2008). Smuggling was used, in the twentieth century, as the main source of survival of the population. It was a clandestine activity among the population on both sides of the border and was considered an honorable profession, but one of risk and sacrifice (Rovisco, 2009). The import and export between Portugal and Spain were an illegal transaction in the eyes of the State, where coexistence with the Fiscal Guard and the Civil Guard was something mandatory for the smooth running of transactions. Smuggling was an illegal transaction of products between the two borders of the Iberian Peninsula, until mid-1993 (Silva, 2009). The Portuguese population justified the practice of smuggling with the economic difficulties experienced daily (Simões, 2016). It was used for the population to escape extreme poverty (Godinho, 2009), becoming a subsistence strategy for local inhabitants (Antunes Simões, 2006). The smuggler has always been seen as someone who violates the laws and the proper functioning of the State (Zysman Quirós, 2009), becoming a criminal in the eyes of the Fiscal Guard (Aguiar, 2020). Over the years, smuggling has become an honored and respected activity, and the main activity of the border area (Lanero Tábuas et al., 2009).

The importance of smuggling is associated with the survival of the Portuguese and the Spanish populations, which can only be understood through the testimonies of former smugglers (Aguiar, 2020). The buying and selling of products was changed according to the change of smuggled products, readjusting the social hierarchies of the border area (Freire et al., 2009). Smuggling is the main source of income for the population, helping populations to overcome economic difficulties (Freire & Fonseca, 2009). Men played a central role in the development of smuggling, transporting the most varied products, being known for years as cross-border workers (Gomes, 2015). Smuggling was an activity that the population started at a very young age (Alves Pacheco, 2016), when they went to Spain to buy products to sell in Portugal (Aguiar, n.d.).

This study enriches the smuggling theme in Portugal and Spain, as well as tourism linked to this subject and its main added value. In the recreated routes, already promoted in the region, the tourist is offered the possibility to travel the paths that were once taken by smugglers, taking imitations of the traded goods, recreating the past of the Portuguese and Spanish population, marked by extreme poverty and absence of freedom, where memories are alive in the minds of those who practiced smuggling.

The setting up of museums and interpretation centers is pointed out as one of the main features for the legacy of smuggling to be successful, as well as smuggling practice recreation through documentaries showing the routes, where the smugglers themselves tell tourists, what they went through and the hard life they led during dictatorship period, wearing the clothes they used to wear. This allows tourists to get to know the rurality of the past, allowing smuggling to become a consumer product and a tourist asset for the region, as a complementary offer to other tourism products.

The overall objective of this study is to understand whether smuggling tourism is a strategic tourism product in the border regions of Portugal/Galicia as tourism destinations; to evaluate its real potential and understand which routes have been carried out to promote smuggling tourism, as well as the role of population in its valuation. In the present research, it was applied as a qualitative methodology, and the main data collection instrument selected was a semi-structured interview.

The paper is divided into three main parts. The literature review discusses the historical perspective of smuggling in the North Portugal-Galicia border region. The methodology presents the interview script applied to stakeholders and researchers, with responsibility in the tourism sector in the border region and the sub-chapter of the results presents the different perspectives of the interviewees on the issue in the region. The conclusions frame the results in the literature and discuss prospects for the region, in the development of proposals and infrastructures that ensure the historical appreciation of smuggling and the design of tourism experiences, with rigorous detail on the past experience of smugglers.

2 Literature Review

Smuggling has been present in Portugal since very early on, in the eleventh century, and has been considered one of the main professional activities on the border throughout history. It began to be practiced in Portugal and Spain in the first half of the thirteenth century when the first trade regulations between the two countries began to exist (Medina García, 2008).

Smuggling was divided into several types: small smuggling served as a complement to agriculture (Lavado Piedade, 2006), being a very profitable activity for the Portuguese economy (Lanero Tábuas et al., 2009); large smuggling, practiced by the population with greater economic power (Reis de Castro, 2019), was performed by large and small rural societies. This had the objective of collecting the greatest number of revenues so that they could invest in means of defense against the guards (Conceição Cabanas, 2009); cattle smuggling consisted of the illegal passage of cattle, which was difficult to control due to the high number of cattle that were transported (Pinheiro Campanha Baptista, 2004); survival smuggling was practiced by peasants on both sides of the border (Lanero Tábuas et al., 2009) and was also known as smuggling of basic necessities (Reis de Castro, 2019). These smugglers, also called belly smugglers, had no employer, and smuggling was the main means of survival (Conceição Cabanas, 2009); the lower classes practiced what is known as subsistence smuggling or family smuggling, and was practiced by women and children, who crossed the border in order to buy basic necessities (Domingues & Rodrigues, 2009); professional smuggling, which was practiced by street traders, who bought and sold on both sides of the Portuguese-Spanish border (Domingues & Rodrigues, 2009); traditional smuggling was also practiced by backpackers (Conceição Cabanas, 2009), these were the most important smugglers in history because their main objective was social integration and materials, becoming known for knowing the habits and routes of the tax and civil guards (Medina García, 2004); The gangs were composed of two or more smugglers who sold and bought coffee (Rovisco, 2009), where they would later make the crossings on horseback (Lanero Tábuas et al., 2009); nicknamed "carneiros" (sheep), these Galician smugglers were responsible for the creation of an emigrant trafficking network (Carretero, 2018), leading to an increase in wages and a decrease in the labor force in Portugal (Conceição Cabanas, 2009); smugglers for hire were responsible for subordinating the guards, so that the products were successfully transacted (Rovisco, 2014); smuggling by truck was carried out on dirt roads and with the help of tax guards (Domingues & Rodrigues, 2009); finally, the most demanding smuggling was smuggling by car, characterized by the high volume of cargo transported (Pinheiro Campanha Baptista, 2004).

Women, called "pisqueiras" (Carretero, 2018), also played a very important role in the practice of smuggling. They sold and distributed the products that were smuggled by their husbands (Medina García, 2004), but when the latter died or were forced to emigrate, the women smugglers assumed their role in this practice, smuggling coffee, oil, oranges, chocolates, among others (Carretero, 2018). Women smugglers were known as "carreiro" women and belonged to the age group born in 1940 (Rovisco, 2009), smuggling the products under the skirts they wore or the braids they made in their hair (Aguiar, 2016). This type of smuggling was directly linked to domestic subsistence until the early twentieth century (Valcuende del Río & Cáceres Feria, 2009).

The Fiscal Guard, in Portugal, and the Civil Guard, in Spain, was created with the purpose of supervising taxes and public revenues (Reis de Castro, 2019). The relationship between these and the smugglers was seen positively because smuggling was something useful not only for the smugglers, but also for the Fiscal Guard. The Fiscal Guard had the function of controlling the entry and exit of products and people illegally, guarding customs and warehouses, protecting trade and monitoring (Reis de Castro, 2019). In addition to this, they charged smugglers depending on the loads and the time of the month (Gonçalves, 2007), and their role was essentially to control the clandestinity felt in the Portuguese-Spanish border area (Castro, 2018). The Fiscal Guard posts were located near the border (Sarmento, 1994), trying to seize as many cargoes as possible, taking these seizures to auction (Domingues & Rodrigues, 2009).

The coexistence with the guards had high importance because they were responsible for all the existing inspection and reprehension (Alves Pacheco, 2016). Thus, the Fiscal Guards were seen by the border population as people from outside the community, regardless of whether they lived in the same village as them (Conceição Cabanas, 2009). The control of the Fiscal Guard dropped dramatically during World War I when it was more difficult to control smugglers (Reis de Castro, 2019). 1986 was the year in which the Fiscal Guard was officially extinguished due to Portugal's entry into the European Union and consequent Free Movement of People and Goods Agreement (Almargem, n.d.).

The subsistence crisis occurred during the First World War when impoverishment was felt among the population, while the wealthier classes had to resort to the illegal trade of products to survive. Here, smuggling began to be increasingly practiced in Portugal, at a time when the German population sought products such as wolfram in our country (Reis de Castro, 2019). It was in the nineteenth century that the products smuggled between the two countries of the Iberian Peninsula changed, with cattle, cereals, wine, hides, and fabrics giving way to products such as sugar, olive oil, confectionery, dried figs, and perfumery, products passed from Spain to Portugal before the Spanish Civil War (Godinho, 2009).

The dictatorships of Salazar, in Portugal, and Franco, in Spain, brought about numerous obstacles to the Portuguese and Spanish populations, who had to resort to smuggling as a means of survival. At this time, salaries decreased, and Salazar imposed a rationing regime, which aimed to ration and control the distribution and consumption of food products throughout the country (Freire & Fonseca, 2009). The border area was subject to increased control in order to prevent the exchange of foodstuffs between Portugal and Spain (Freire & Fonseca, 2009).

In 1936, smuggling became an element of huge importance for the survival of the population, at the time when the military coup d'état took place in Spain because of the Civil War (Antunes Simões, 2006). At this time, Franco established a system of food and essential goods rationing, causing the two states to be in harmony (Lanero Tábuas et al., 2009). Products were smuggled more from Portugal to Spain due to the geographical isolation and the living conditions of the Portuguese population (Freire & Fonseca, 2009). Coffee, in 1940, is the most sought after and smuggled product. Passing from Spain to Portugal, it served as the basis for the creation of roasting industries (Alves Pacheco, 2016). With the beginning of two wars, the Spanish Civil War and World War II, the borders were reinforced to control smuggling and persecute political refugees (Lanero Tábuas et al., 2009). The demand for tungsten and ore was accentuated, making the inhabitants of the frontier rich due to the high exploitation of tungsten in the mines (Carretero, 2018). Also, the Spanish Civil War was one of the main drivers of smuggling in the Iberian Peninsula, and products such as coffee and tobacco were passed across the border under the work clothes of the border population (Lavado Piedade, 2006).

After the war in Spain, the wages of the population fell, and there began to be a greater illegal crossing of people, making the smuggling of goods and people one of the main occupations of the border population (Godinho, 2009). During the post-war period, many Portuguese families engaged in smuggling, which became an echo of the poverty of the population (Carretero, 2018).

Smuggling loses strength in 1986, when the two countries in this study join the European Economic Community, and trade on the border starts to be legal, directly affecting the relationships that existed between the border population (Peres de Castro, 2003). This phase results in an increase in relations between the Portuguese population in general and the border population (Godinho, 2009), with smuggling becoming only part of the memory of the border population (Freire & Fonseca, 2009).

To honor smuggling, it is transformed into a tourist and heritage resource, building museums, symbols, statues, and monuments dedicated to the theme and developing routes that serve to reconstruct and preserve the history of an ancient and cherished practice (Hernández-Ramirez, 2017). These constructions are made with the purpose of tourists being able to feel what the smugglers felt, when they also choose to make the recreation of the routes, along the paths that were once used for the illegal practice of smuggling (Ferreira et al., n.d.). In Portugal, there are seven museums dedicated to the topic, and in Spain, there are five (Horta Rodrigues, 2013). Some Portuguese authors write about smuggling as the main theme of their books, a fact that also helps in the process of its cultural legacy, since the desire of tourists to recreate the routes that are described in the books is increased. After its disappearance, smuggling was transformed into an intangible cultural heritage, highlighting the memory of the border population (Ferreira et al., n.d.).

The main objective of smuggling routes is to recreate the history and memories of the population (Hernández Ramírez, 2011). They show values from an economic point of view, as well as the determination and courage, of those who traded products illegally. It is important to note that the main authors of these recreations are the smugglers themselves and their children who, with pride and honor, show tourists what they went through to ensure their own survival (Cunha, 2009). In this sense, the smuggling recreations are based on the memories of the population, marked by poverty and lack of freedom, and have as main objective to show tourists what happened at that time (Amante, 2017). Many of these visits are guided by former smugglers and tax guards, making the visit more interesting, and helping to promote and publicize the historical smuggling routes (Silva, 2009). Some feelings associated with the crossings are evidenced through actions (Cunha, 2009).

The border is a central point in the practice of smuggling and emigration. It delimits a place and the demarcation of two peoples, which should be seen as an area, having been the scene of commercial exchanges (Barañano et al., 2007). Cross-border tourism is considered a displacement of people from their place of residence to cross-border cities, while border tourism is the type of tourism that focuses on visiting the neighboring population in order to discover their cultures and customs (Jurado-Almonte & Pazos-García, 2018).

The Eurocity Chaves-Verín is a pioneer project in the Iberian Peninsula that aims to create a product that is focused on the border and the history of the population (Liberato et al., 2020a, 2020b). The border area shares historical, cultural, geographic, and economic values (Pereiro & Silva, 2000), making them continuous regions (Liberato et al., 2020a, 2020b).

Finally, emigration, seen as a threat to state sovereignty, was one of the most important phenomena of the twentieth century (Koser, 2010). After World War II, France was the main country chosen for the Portuguese population to emigrate, since wages were high and schedules were reduced (Aguiar, 2016).

Between 1950 and 1988, there were 1,275,000 clandestine movements in France and Germany (Baganha, 2015). Also, in the twentieth century, there was an increase in women's emigration, with more women emigrating than men (Pestana, 2011). In Portugal, in 1947, the Emigration Board was created with the aim of penalizing clandestine emigration and supporting the negotiation of agreements on emigration (Sobral dos Santos, 2014). In 1960, clandestine emigration began to be penalized in

Portugal, when the control over who entered and who left the country began to be reinforced at the border (Marques Santos et al., 2010).

3 Methodology

According to Vilelas (2017), an interview is a specific form of social interaction, with the main purpose of collecting data for an investigation. Its methods are characterized by direct contact between the researcher and the interviewees, but also by a weak directivity on his/her part, thus, if these methods are correctly applied, the researcher is able to obtain quite rich information (Campenhoudt et al., 2019). According to Manzini (2004), a semi-structured interview is the type of interview where the questions are previously designed. The interview is planned and theoretically prepared with technical skills regarding transcription and data analysis (Duarte, 2004). The interview is widely used in qualitative approaches, and the semi-structured interview is the most chosen because it allows for a more detailed analysis of the information (Liberato et al., 2018).

Flick (2004) characterizes the semi-structured interview as important because it does not limit the point of view or the way or sequence how certain issues are addressed, as well as the semi-structured interview does not follow a pre-established order in the formulation of the questions, there is greater flexibility in the answers provided by the interviewee. Table 1 shows the interviewees, the entity they represent, and the details of the interviews applied:

The interviews were conducted individually and in person, through the Zoom platform, but also in writing, and their recording was previously requested by each

Table 1 Interviews conducted

Interview no	Entity	Date	Duration
E1	Eurocity Chaves-Verín	06/03/2020	00:14:03
E2	FAUP (University of Porto)	21/04/2020	00:42:02
E3	UTAD (University of Trás-os-Montes and Alto Douro)	06/05/2020	00:47:02
E4	UTAD (University of Trás-os-Montes and Alto Douro)	07/05/2020	00:33:02
E5	Caminha Municipal Council	13/05/2020	00:54:08
E6	University of Minho	05/06/2020	01:07:30
E7	University of Extremadura	08/06/2020	00:16:02
E8	Montalegre City Council	08/06/2020	00: 26:09
E9	ISCET (Higher Institute of Business Sciences and Tourism)	19/06/2020	00:58:15
E10	ISCSP (Higher Institute of Social and Political Sciences of the University of Lisbon)	16/07/2020	Written reply

Table 2 Integrative categories of the interviews

Main categories	Subcategories
Contextualization of smuggling tourism	Smuggling Smuggling tourism Tourism potentiality of smuggling Development of smuggling routes
Evaluation of smuggling tourism	Constraints of this type of tourism Future projects Role of the population in the border region Tourism balance of smuggling

of the interviewees. Table 2 presents the two main categories and the subcategories applied throughout the interviews.

In the first phase, the interview focused on the contextualization of smuggling and smuggling tourism, being present the definitions and potential of this type of tourism, and it was important to understand if smuggling, smuggling tourism and the routes are factors of development in the destinations of the North of Portugal/Galicia border (Table 3).

In a second phase, an evaluation of smuggling tourism is made, where the interviewees point out some initiatives that have been developed regarding smuggling routes and also the constraints of this type of tourism. After this analysis, some future projects to be developed in the area are presented.

4 Results

Smuggling is a unique experience to the border, which is characterized by the commercialization of products outside the official framework of the two states, thus being considered an opportunity for the population of the border region (E1/E2/E5). Being an illegal passage of goods that has as authors the population of Portugal and Spain, which aimed at the survival of families, smuggling began to exist when the border was born, in the thirteenth century (E6/E7/E8/E9). In short, smuggling was an economic practice, which had as its main strategy the survival of the population of the region (E10).

Currently, smuggling tourism, although it is still not very sought-after tourism, is being highly valued in the border areas of the country (E4) and must be better exploited (E5). For smuggling tourism to be successful, it is necessary to convert it into a tourist product and promote it (E1) by making a theatrical recreation of what used to happen in the region, at the time of Salazar (E3).

From the perspective of one of the interviewees, smuggling tourism stems from the "cultural legacy of the smuggling phenomenon", and this is a way to boost the overland routes and revitalize them (E8). In short, smuggling tourism is a way for the population of the border region to define themselves, reactivating the routes they

Table 3 Rationale for the interview script

Questions	Authors
How do you define smuggling and smuggling tourism?	Medina García (2004), Peres de Castro (2003), Rovisco (2009), Godinho (2009), Dorfman (2009), Alves Pacheco (2016)
Do you consider that smuggling, smuggling routes and tourism are factors in the development of destinations in the northern border area (Portugal and Galicia)?	Ferreira, Monteiro, Neves, and Aguiar, (n.d.), Aguiar (2016), Alves Pacheco (2016)
What are the real touristic potentialities of Smuggling?	Antunes Simões (2006), Ferreira, Monteiro, Neves, and Aguiar (n.d.), Castro (2016)
Nowadays, is it possible to affirm that smuggling is one of the main sources of tourism? Or, could it be?	Amante (2017), Liberato et al. (2020a, 2020b)
What strategies have been developed, at route level, to make this type of tourism successful?	Cunha (2009), Amante (2017), Hernández-Ramirez (2017), Godinho (2003)
What constraints exist in Smuggling Tourism?	Antunes Simões (2006)
What projects could be developed to promote smuggling tourism?	Amante (2017), Hernández-Ramirez (2017), Godinho (2003)
What is the role of the population of the border regions, in the development of smuggling tourism?	Valcuende del Río and Cáceres Feria (2009), Cunha (2009)
Do you consider that the community of the border region has a fundamental and active role in the promotion of this type of tourism? Why do you think so?	Hernández-Ramirez (2017), Antunes Simões (2006)
What assessment can be made, at the tourist level, of smuggling in the context of the North Portugal/Galicia cross-border region?	Liberato et al. (2018, 2020a, 2020b)

used, and transforming them into routes for tourists to get to know a bit of their cultures and customs (E10). Smuggling, routes, and smuggling tourism are factors in the development of the northern border destinations. Smuggling only exists in the border area and, it is a single route, a single trail (E1). This is a type of tourism that lives from constructions and narratives, and it is possible to know the traces of the cultures of each region through the routes that are made, the gastronomy, the experiences and visits to places and museums that were built with the purpose of keeping alive the memory of smuggling (E2). The routes are something that remains in people's memory. They mark experiences and sensations and are usually extraordinary routes. The routes speak, they tell us things that sometimes cannot be explained (E6). It is necessary to transform smuggling tourism into a new resource (E7) and an attraction that is based on the recreation of various moments (E8). The big problem in smuggling tourism is the lack of collaboration of local entities (E9), it is necessary that local politicians use their power to promote this type of tourism as a driver of local and regional development, which aims to attract people by their curiosity to know the main secrets of a practice that was illegal (E10).

Being smuggling a tourism product, it is necessary, at this moment, to produce innovative concepts and experiences both on the Portuguese and Spanish sides. It is necessary to use the memories that are present in the population, such as the products that were smuggled, the emotions that the smugglers felt when they were caught by the guards or when they were forced to flee from them. It is necessary to invest in socio-cultural animators because the population is still able to remember the teachings and the history (E8). The important thing is for tourists to follow the routes that were formerly used by smugglers, such as the tungsten route, which was a product widely used in Portugal (E9). It is necessary to invest in museums and theatrical performances of this ancient practice (E10) (Table 4).

5 Conclusions

Tourism is one of the main sectors of economic activity with greater relevance at the national and international levels. Currently, tourism and smuggling in Portugal come together with the sole purpose of recreating the routes used in the past and show the Portuguese population what was smuggling and the customs of the population of border regions (Aguiar, 2016). Smuggling, with the opening of the border, decreased dramatically, since it is currently possible to acquire any type of product legally in Portugal and Spain.

The interviewees were carefully selected, and all are connected to smuggling in some way, either because their ancestors were smugglers or because of their interest in the border area. Their desire to see smuggling tourism as a successful tourism product helped to conclude that this study adds value to their future, and to the future of the Portugal/Spain border area. Smuggling tourism is certainly a growing tourism experience, which needs to be strategically promoted, before the memories still present among the population fade away, and its emblematisation and heritage patrimonialisation is possible, through its cultural legacy (Amante, 2017).

Some of the interviewees gave an idea of what smuggling was, even though it was not possible to travel to the border region, through the testimony they gave, the adventures they shared with us, and that had been passed on to them by their parents. In the Chaves-Verín Eurocity, when the smuggling route of Vilarelho da Raia was carried out (Liberato et al., 2020a, 2020b), and in the Memory and Border Space, in Melgaço, it was possible to understand a little of the memories and these well-known customs. Smuggling tourism, if well developed, can be one of the main tourism products of the Portuguese and Spanish border. It is possible, during the routes and the tourists' experience, to improve their feelings toward the routes. The development of routes must be properly developed and exploited, and the fact that smuggling and smuggling tourism are directly linked to the population and what they experienced in the past, is a key point in the promotion and implementation of smuggling tourism (Cunha, 2009). The border population despite sometimes not

Table 4 Summary of the results of the interviews

Topics	Conclusions	Interviewees
Smuggling	– Exclusive experience of the border – Characterized by the commercialization of products – Objective the survival of families – Illegal crossing of goods – Born at the frontier, in the twelfth century	E1/E2/E5 E6/E7/E8/E9
Smuggling tourism	– Not highly sought after, but valued in border areas of the country – It is necessary to convert it into a tourism product – Derived from the cultural legacy of the smuggling phenomenon – Shape of the riparian population to define itself	E4 E1 E7 E10
Development factors	– Tourism of living constructions and narratives – Economic development role – Routes mark experiences and sensations – Turning smuggling into a resource – Lack of collaboration of local entities – It is necessary to transform this tourism into a driver for local and regional development	E2 E4 E6 E7 E9 E10
Potentials of smuggling	– Genuine product – Tourism is different from what people usually do – Miscellaneous offer – Present in the memories, legends, and beliefs of the population – Focusing on the musealization and theatricality – Recordings used in tourism	E1 E5 E1 E7 E10 E8
Main source of tourism	– May be one of the main factors in the development – Transforming smuggling into something sustainable – Inland territory added value – Combine this tourism with nature or gastronomic tourism	E1 E7 E8 E2

(continued)

Table 4 (continued)

Topics	Conclusions	Interviewees
Development at route level	– Start creating tourism packages that include the routes linked to smuggling – Unique application of this Iberian asset (Smuggling) to UNESCO – Explore the routes on foot and at night – To make the population of the border region proud of what is being done for them – Involve the local population	E1 E6 E4 E6 E8
Constraints of smuggling tourism	– Time – Few smugglers – Lack of supply – Lack of local interlocutors – Night rides are more genuine, but more dangerous	E8 E9 E3/E1 E6 E8
Future projects	– Museum construction – Intangible Heritage of Humanity – Living history – School of smugglers – Route staging	E3 E1 E3 E1 E6
Role of the population in border regions	– Important and unique role – True protagonists – Principal transmitter of the stories – Null role in promoting smuggling tourism	E1 E10 E5 E7
Key and active role of the population in border regions	– Fundamental and active role – Important role of word-of-mouth dissemination – Main population concerned – Radian population is a marketing asset	E1/E3/7 E4 E5 E8
Tourism balance	– Positive balance – Peak demand between May and September (seasonality) – Product with a lot of potential – People seek the Memory and Border Space, to learn about the past of the border population	E5/E8 E8 E1 E5

wanting to talk about the past, when they speak, it is with pride of what they did and what they went through. The tourist seeks to feel something similar to sensations of other people, and smuggling tourism is a type of tourism that provides these feelings, pain, fear, honor, and pride of being a smuggler. In the routes that are recreated today, the tourist is offered the possibility to travel the paths that were once performed by smugglers, taking replicas of the traded goods (Amante, 2017). It is on these routes that it is possible to recreate the past of the Portuguese population, marked by extreme poverty and lack of freedom (Hernández-Ramirez, 2017), alive in the memories of those who practiced smuggling (Aguiar, 2016).

The main entities, based in the North of Portugal, understand that smuggling tourism if not quickly developed and well exploited, may be forgotten, because the population is aging, and without them, memories disappear. They understand that smuggling tourism has a diverse offer and that the most important thing is that this is a genuine and familiar product, passed from parents to children. It can be associated with other types of tourism such as gastronomic, in the perspective of enriching the tourist experience. The creation of tourism packaging in Portugal will be determinant, including smuggling routes, carried out on foot and at night, increasing the sense of danger felt by smugglers (Antunes Simões, 2006).

The recreation of the routes leads to the development of the integrated offer, and some of the companies dedicated to the theme are sponsored by municipal entities. The construction of more museums and interpretation centers is pointed out as one of the main points for the successful cultural legacy of smuggling, as well as the creation of a smugglers' school (artistic perspective) in order to pass on knowledge to younger people so that smuggling is not forgotten (Antunes Simões, 2006). The film festival held every year in Melgaço, which aims to promote smuggling tourism, could be used as an idea for different points along the Portuguese border. It is possible to recreate the practice of smuggling through documentaries that show us the routes themselves, but also documentaries where the smugglers themselves tell tourists, and also the inhabitants of the border area, what they went through and the hard life they led during Salazar's dictatorship, wearing the clothes they usually wore. This allows tourists to get to know the rurality of the past, allowing smuggling to become a consumer product (Amante, 2017).

It is important that the border population does not forget what they have gone through and that they transmit all the memories and sensations experienced, so that smuggling tourism and smuggling can continue as a cultural legacy, in the region, nowadays, and in the future of Portugal and Spain, highlighting the history of the border regions. The population likes to talk about what they lived through, although they don't do it with just anyone. These are considered an asset in marketing and territorial promotion, being the main source of dynamism in disclosure. It is possible, with the creation dedicated to the theme of smuggling, that the population gains more confidence and willingness to talk about what they have experienced. And it is possible, with this construction, that people become more interested and willing to carry out activities related to smuggling, to discover for themselves what smuggling represented among the population. There are numerous types of routes that are connected to smuggling. These routes can be made on foot, through the paths that tell stories, paths where tragedies happened as the death of a Tax Guard or the death of a smuggler. And it is these little curiosities that make the tourist want to know more and more about the practice of smuggling, wanting to discover disgust and discontent, but also the joy experienced by smugglers. There is nothing like hearing from the smuggler's own mouth during these tourism routes, all the stories and memories that are still present among the population. In Castro Laboreiro (Portugal), there is a museum dedicated to smuggling which, initially, the population did not have much confidence in but, as they observed some initiatives, they began to leave belongings connected to the practice outside the museum so that they could help show tourists what smuggling was. People become so involved in these projects that shame gives way to curiosity and the desire to help make all museums and documentaries successful, and they end up feeling proud of what they did in the past.

Not all interviewees were able to give a tourism balance. Despite this, this is a positive balance in the cross-border region, although smuggling tourism is not a mass tourism. This could be a challenge to local entities, even if there are no economic values of what smuggling was in the past. It is necessary to create tourism packaging involving smuggling tourism.

Based on the limitations that were mentioned, some proposals with possible future applications were found. In academic terms, it is recommended the development of studies on the relationship between emigration and smuggling, studies that deepen this theme, smuggling tourism, because in reality they are scarce, and that describe and investigate the memories of the population so that the tourist experiences and hears almost lost stories. It is through these memories that it is possible to captivate the tourist, who is interested in facts and real events. In addition, future studies should focus not only on the border North of Portugal/Galicia, but also on the remaining border territory of Portugal.

To promote and develop smuggling tourism, it is advisable to create smuggling routes at various points of the Portuguese/Spanish border, being also interesting to build theaters that demonstrate the different steps of smuggling, as well as the creation of living history (Antunes Simões, 2006). The routes created can be transformed into mountain safaris, performed in 4×4 vehicles, or can be done through hiking along the border of Portugal/Spain. The holding of meetings between smugglers, so that they can share what they have been through, their memories, their stories, and the pain they have felt. It is very important that, for smuggling tourism to be successful, people feel proud of what is being done for them, to honor them. Therefore, it will also be beneficial to organize conferences where the speakers are the smugglers, and where there will be role-playing by the smugglers, with the presentation of documentaries and books related to smuggling.

The creation of literary packaging will also be an added value for smuggling tourism. It will be interesting to create a tourism product that includes the smuggling route, being these crossings made on horseback or donkey, or in a barge, as well as the theatricalization of moments spent by smugglers and tax guards (Aguiar, 2016). Additionally, the proposal of tourism packaging that merges smuggling tourism with wine tourism, gastronomic tourism, and, in the region of the Eurocity of Chaves-Verín, can be associated with smuggling tourism, spa tourism, very popular in this cross-border region.

In terms of dissemination of smuggling tourism, it would be a bet to make documentaries and short videos, which portray what was this practice, where the smugglers themselves describe the memories they retain, given the importance of the involvement of the population in these promotions. Therefore, it is important to apply questionnaires to tourists during the tourist routes, to understand what points need improvement, and their realization outside these recreations, in order to understand what should be created in the future to complement this type of tourism.

It is concluded that smuggling tourism can become a successful product in the border region of Portugal/Spain, with the sharing of the population, the pride they feel, and the willingness of tourists to participate in the history of the old smugglers. Smuggling is and always will be a source of pride of the cross-border population, representing their traditions and their stories.

Acknowledgements The authors acknowledge the financial support of CiTUR, R&D unit funded by the FCT—Portuguese Foundation for the Development of Science and Technology, Ministry of Science, Technology and Higher Education, under the scope of the project UID/BP/04470/2020.

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Digital Transformation of Tourism

Smart Tourism Technologies: How Effective Are They for Millennial Tourists?

Aggeliki Mitala, Aggeliki Konstantoglou, Dimitris Folinas, and Thomas Fotiadis

Abstract Millennials are the fastest-growing segment of the tourist market, which is expected to reach its peak in the next decade. It is likely to be a strong lever for the tourism sector, and therefore, a very lucrative target market for travel and tourism businesses. Smart tourism is a concept created by smart technologies: it enhances the interaction of people with objects, connects the digital world with the real world, and supports people's holiday experiences with technological elements. The purpose of this study is to investigate whether the facilities provided by smart tourism technologies in a destination affect the level of millenials' satisfaction, their intention to visit a destination again in the future, and their intention to recommend a destination to their loved ones. First, the new market of millennial tourists is examined and their special characteristics, desires, and preferences are identified. The technological solutions and capabilities of smart tourism technologies are recorded. Then, the results of a survey conducted in the period September–August in Greece are presented and analyzed. From the analysis of the results, it was observed that the characteristics of smart tourism technologies (STT) that have a greater impact on visitors' satisfaction are the convenience of information, interactivity, and personalization. Moreover, it was discovered that the STT feature with the greatest impact on the intention to revisit a destination in the future is the accessibility facilities, while the feature that has a great impact on the intention to recommend a destination to other people in one's social network is the convenience of information sharing.

Keywords Smart tourism technologies · Millennial tourists · Survey · E-tourism

A. Mitala
Open Hellenic University, Patra, Greece

A. Konstantoglou
Democritus University of Thrace, Xanthi, Greece

D. Folinas (✉)
International Hellenic University, Thessaloniki, Greece

T. Fotiadis
Democritus University of Thrace, Xanthi, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_21

JEL Classification L83 · L81 · L86

1 Introduction

In recent decades, technological advances have significantly changed the tourism industry and tourists' preferences. New technologies refer in particular to any form of digital media that can be used, either autonomously or as part of an integrated technology system, for the purpose of searching, accessing, collecting, and exchanging information. Technology and the internet have changed the role of the tourist, travel planning and the tourist's experience, as well as the behavior of other tourists. On the one hand, tourists rely on technology to search, book, obtain, and exchange travel experiences; on the other, tourism entrepreneurs rely on technology to advertise, customize, and design products, facilitating the booking process and interacting with tourists.

Millennials are considered a very dynamic tourist market. This category was also initially referred to as Generation Y, which represents the demographic group that follows Generation X. Millennials were born between the early 1980s and the mid-1990s. In 2018, this generation was 18–34 years old.

Young people today have different priorities in life compared to their parents. While previous generations have focused on buying a home and car, millennials reject these traditional achievements, placing much more importance on intangible moments that enrich life, such as travel experiences. Millennials see travel as a necessity, making it an integral part of their lives. According to the American Travel Agents' Company, in 2016, millennials took 44% more vacations and travel time than the average Baby Boomer. They are now the fastest-growing demographic group for the international travel market, accounting for about 20% of the whole market. Travel is now considered an excellent opportunity to develop life and work skills. Millennials see experience as the new social currency (Global Blue SA, 2018). The search for new experiences is a fundamental desire that can be observed in all moments of life. Technology and the fast-paced, digitized world serve this need well, creating opportunities for interactive high-tech experiences through the use of smartphones (Veiga et al., 2017).

According to the CBI (2020), millennials form the fastest-growing demographic market in tourism, accounting for 40% of global international travel in 2017. This market is expected to peak in the next decade, which makes it likely to be a powerful lever for the tourism sector, and therefore, a very lucrative target market for travel and tourism businesses. Half of all luxury travel worldwide has already been made by millennials, who travel more often than any other generation on an annual basis (35 days on average). They also tend to extend their stay at one place and make spontaneous holiday bookings such as weekend breaks. Thanks to the great growth of this market segment, the experience and guided tour sectors are booming (CBI, 2020).

Using this perspective as a framework, the paper analyzes the current impacts of technology on tourism, as well as on millenials' behavior and preferences. This specific topic is always relevant as the rapid and continuous technological changes taking place have an equally continuous and significant impact on every aspect of the tourism product. Many studies focus on the specific uses of new technologies, such as mobile telephony and social media in the tourism industry, while other research focuses on a more general overview of e-tourism models. However, the effect of the introduction of new technologies on millenials' preferences does not seem to have been adequately studied.

The main purpose of this research is to analyze the individual aspects of the supply and use of new technologies in the tourism industry and to draw conclusions about the effects of the introduction of new technologies on millenials' preferences and the choices of tourism companies.

2 The Tourism Market Segment of Millenials

Millennials are looking for new travel destinations and exciting activities that give their vacation a unique feel. They still visit the top attractions of a city, but they get acquainted with destinations by immersing themselves in the local culture, e.g., in bars and restaurants, to ensure an authentic experience. For this generation, sharing experiences on social media preserves valuable memories, and it also nurtures their carefully crafted online identity. Instagram, Facebook, and Snapchat are also important factors in choices made about how and where to travel. Instead of relying on traditional sources of information, social media shapes millenials' decision-making processes (Global Blue SA, 2018).

A particular marketing approach indicates a number of features of the millennials' generation. They represent an active audience that wants to gather experiences. They then share these experiences with friends and family online; such experiences are also an inspiration to other people of their generation. They prefer to be actively involved in marketing campaigns and are willing to provide personal data only to brands that prove they can provide tangible benefits in exchange for this information, e.g., special offers and discount coupons corresponding to shopping preferences, for friends and family, and for the online communities to which they belong. For them, shopping has become a social experience and they are involved in many aspects of the community they belong to, to a much greater degree than previous generations. At the same time, they prefer group work to individual work and represent a well-informed audience in a critical sense, who is well aware of their consumer rights.

The tourist consumption behavior of young people has decisively influenced a number of issues related to tourist products that have been specially designed by hotel chains and tourist accommodations. Young people's preferences regarding the use of "gadgets" also signal companies' marketing policies in the hospitality industry, as well as in certain service sectors (e.g., air transport). So far, studies have shown that the consumer behavior of young people is constantly changing. There is a noticeable change specifically concerning internet privacy; millenials prefer social announcements that replace classic ones, such as "banners", due to the fact that smaller sizes are more suitable for smartphone devices.

At the same time, the widespread use of images and their dissemination through social networks is constantly gaining ground. In particular, Instagram is a media channel commonly used by millennials. However, the increasing use of mobile devices is causing concern among travel service providers when it comes to platform optimization. Facebook is an information retrieval tool for a large number of customers. This is especially true for millennials—62% of this market is used to searching online for any type of product before buying it online; 58% of consumers who want to buy or book a product first visit the relevant company's social media profile on the internet; 80% consult other customers' reviews (Buhalis & Wagner, 2013). According to Sofronov (2018), young travelers today are changing their expectations and show great enthusiasm. They are not limited to one place or even one continent. They are looking for adventure; the desire to experience the best possible travel opportunities along with access to immediately available and modifiable options is very important to them.

Millennials do not hope to become elite or be top social influencers: they create their own identity themselves. Social media plays a huge role in how they see the world and themselves in this world. It is significant that almost 50% of millennials turn to individuals instead of businesses for travel advice. For this reason, it is imperative that hotels offer the best possible experience to each guest because that guest could be the link to any number of other bookings.

Technology is not something new to millennials and tourism providers need to keep up with the times and technology. Attention should be paid to the development of facilities that meet the expectations of this category of customers, such as smartphone booking applications, room service from an accessible tablet in the hotel room, extensive reward programs, etc. In the age of permanent online connectivity, the relationship between supplier and consumer must be reliable. Social media has an extremely important role to play: a hotel unit can attract new customers by promoting services and interacting with those who spend a lot of time on this kind of network. The number of people who spend time on social media every day is a very important market segment. Millennials have travel apps on their mobile phone, preferring to make bookings online, and they do extensive internet research before completing the booking for a particular accommodation. For a hotel, it is disadvantageous if the site is not optimized for mobile phones. A hotel app would be an added advantage that can prove to be very profitable. Millennials want to have all the information they need in their hands. They do not like to ask other people for information about the hotel or what they can do outside the hotel. Everything must be available through their smartphones.

3 Technological Solutions and Capabilities of Smart Tourism Technologies (STT)

Initially, the term "smart technology" (implying the word 'intelligent') usually described a new product, referring to the environment, condition or movement of technology, which is adjusted to specific functions or circumstances. Smart technologies are used particularly in e-shopping in a variety of sectors, including finance, retail, and tourism (Alt & Klein, 2011). Specifically, in the field of tourism, intelligent systems have been formulated as autonomous systems that can predict/anticipate and meet users' needs (Gretzel, 2011; Gretzel et al., 2015).

Given that consumers play a participatory role in the production and consumption process (Buhalis & Law, 2008), it has become crucial for businesses to use technology to attract consumers on a more personal basis. In this spirit, Gretzel (2011) emphasizes the potential of smart technologies and systems to meet personal and occasional tourism needs.

The tourism industry as a fast-growing market has always been at the forefront of technology; for this reason, there is growing interest in developing synergies between technology and tourism (Buhalis & Law, 2008). More recently, the advent of Web 2.0 and the range of social networking applications has brought about even more drastic changes, turning the internet into a vast expanse for empowered consumers, social interactions, and collaborations. Based on the increasing needs of consumers and rapid technological developments, companies have tried to identify new ways of innovation by adopting smart technologies that facilitate experiences and meet the demands of modern consumers in the tourism market (Neuhofer et al., 2015).

The latest technologies used in the field of mobile telephony, such as location-based services, environment-based services and users' internet searches, as well as augmented reality applications, are increasingly being applied to help tourists navigate and identify the information they need in order to make reservations (Yovcheva et al., 2013).

Through a range of devices, platforms, and software applications, businesses and consumers are interconnected in the travel process, resulting in more meaningful interactions and convergence of people, using technology that creates a more individual and "personalized" tourism experience (Neuhofer et al., 2015). A number of studies have presented innovative solutions for the application of smart technology in the field of tourism. Seoul, for example, adopts a combination of information and communication technologies that include a visitor's site with an interactive map containing information before arrival, using Facebook and Twitter for customer engagement, and a mobile application that acts as a city guide. Montreal offers an interactive video that transports tourists to virtually different destination experiences, while Las Vegas offers personalized itineraries and New Zealand presents an interactive route planner with customizable maps, prices, and activities (Buhalis & Wagner, 2013).

Another example is the CRUMPET system, which aims to provide new information and integrated services by combining the four main aspects of tourism:

personalized services, "smartware" using multi-agent technology, location services, and mobile data communication. These are just a few examples that show how tourists can be transformed into connected and active participants in a technologically advanced service environment through the use of technology (Neuhofer et al., 2015). Information and communication technologies (ICTs) play a core role in facilitating business-to-consumer interaction platforms, through which dialogs take place. In this way, personalization can be promoted, with more meaningful experiences created for each individual consumer (Neuhofer et al., 2015).

4 Survey: Identifying the Impact of STT in the Millennials' Tourism Market Segment

Research Methodology

The purpose of this study was to investigate whether the facilities provided by Smart Tourism Technologies (STT) in a destination affect the level of visitor satisfaction, the intention to revisit the same destination in the future, and the intention to recommend a destination to other people in the same social networks. The dimensions of STT that were studied for the purposes of this survey are as follows (Chen-Kuo, Liu, Kang, & Dai, 2020):

- Information: Information represents a combination of the quality, reliability, and accuracy of the information received from STT in tourist destinations. Information is important and can directly affect tourists' attitudes toward destinations. When STT provide relevant, adequate, and accurate information on activities, accommodation, and transportation, the time and effort expended to search for this kind of information is reduced and tourists are more satisfied with their experience. Being well informed stimulates the rational judgment of tourists toward the destination and helps them to make effective decisions.
- Accessibility: Accessibility represents the degree to which travelers can have easy access and make use of the information offered at the destination, using different types of Smart Tourism Technologies. Accessibility determines the usability of STT. People tend to have a better view of the destination when STT are affordable and very easy to access.
- Interactivity: Interactivity is defined as a factor that provides real-time information and renders travelers' communications as direct transactions. In social media services, when tourists perceive a high level of interactivity, they tend to adopt the service, and have greater communication with tourism service providers.
- Personalization: Personalization refers to a traveler's ability to receive specific information that suits their travel needs using various types of STT.
- Security: Security is defined as keeping personal information secure when using various types of STT. Tourists tend to use STT in a destination when they feel that their personal information is safe.

A quantitative survey was conducted toward this purpose, using the questionnaire proposed in the survey by Chen-Kuo, Liu, Kang, and Dai (2020). The questionnaire consists of two sections. The first section lists the demographic characteristics of the participants (gender, age, educational level, marital status, income), while the second section analyses visitors' views on Smart Tourism Technologies through 29 questions formulated on a five-point Likert scale (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, and 5 = Strongly agree). In greater detail, the questions used in the questionnaire that correspond to each dimension used in the conceptual model are as follows:

- Information = Questions 1–5
- Accessibility = Questions 6–10
- Interactivity = Questions 11–14
- Personalization = Questions 15–17
- Security = Questions 18–22
- Satisfaction with the destination = Questions 23–25
- Intention to revisit the destination in the future = Questions 26–27
- Intention to recommend the destination to others = Questions 28–29.

The questionnaire was distributed electronically through the Google Forms platform to more than 500 people, applying the random sampling technique. The research involved a total of 97 people over the age of 18, who completed the questionnaire correctly.

The statistical analysis of the data was performed using statistical processing software (SPSS version 25). The analysis was based on indicators for descriptive statistics with the presentation of frequencies and relative frequencies or mean values (MV) and standard deviations (SD); inductive statistical tests were also used for the investigation of possible differences in terms of the demographic features, and also for the relationship between the features of STT (information, accessibility, interactivity, personalization, security) and tourists' satisfaction, intention to revisit the destination in the future, and intention to recommend the destination to other people. More specifically, Pearson's correlation coefficient and multiple linear regression were used to examine the relationship between the STT features (information, accessibility, interactivity, personalization, security) and tourists' satisfaction, intention to revisit and intention to recommend a destination to other people. The reliability of the questionnaire was investigated using Cronbach's reliability coefficient α which ranged between 0.858 and 0.951.

Findings

Table 1 presents the demographic features of the participants of the survey.

More specifically, from the 97 participants, 55 (56.7%) were women and 42 (43.3%) were men. Regarding the age distribution of the sample, it was observed that 22.7% (n = 22) were up to 30 years old, 30.9% (n = 30) 31–40 years old, 26.8% (n = 26) 41–50 years old, and 19.6% (n = 19) 51 years old and over. Furthermore, the analysis of the demographic data showed that 27.8% (n = 27) of the participants had completed only primary education, 30.9% (n = 30) secondary education, and

Table 1 Demographic features of the survey sample

		ν	%
Gender	Male	42	43.3
	Female	55	56.7
Age	Up to 30 years old	22	22.7
	31–40	30	30.9
	41–50	26	26.8
	51+	19	19.6
Level of education	Primary school	27	27.8
	Secondary school	30	30.9
	Tertiary studies	16	16.5
	Master's	18	18.6
	PhD	6	6.2
Marital status	Unmarried	40	41.2
	Married	26	26.8
	Divorced	25	25.8
	Widower	6	6.2
Approximate monthly household income	Up to 1000	31	32.0
	1001–2000	45	46.4
	2001 or more	21	21.6

16.5% (n = 16) were graduates of tertiary institutes. Moreover, 18.6% (n = 18) had a master's degree and 6.2% (n = 6) had a doctorate. The results regarding participants' marital status showed that 41.2% (n = 40) were unmarried, 26.8% (n = 26) were married, and 25.8% (n = 25) were divorced, with the lowest participation rate recorded for widows (6.2%, n = 6). Finally, the monthly family income data showed that 46.4% (n = 45) of the sample had an income of 1001 2000 euros, while 32% (n = 31) stated that their income was up to 1000 euros per month. A smaller percentage declared income of 2001 euros or more per month (21.6%, n = 21).

The following tables present the findings in summary form (Table 2) and in greater detail (Table 3), for the descriptive analysis regarding the questions that evaluate visitors' views on the convenience of STT in terms of all the dimensions used in the conceptual model (Information, Accessibility, Interactivity, Personalization, Security, Satisfaction with the destination, Intention to revisit in the future, and Intention to recommend the destination to others).

Relationship of Smart Tourism Technologies in tourists' satisfaction, intention to revisit a destination and intention to recommend a destination to other people

The analysis showed that the information facilities provided by STT in a destination are associated with an increased level of satisfaction ($r = 0.939$, $p < 0.01$), an increased likelihood of a future visit to the same destination ($r = 0.902$, $p < 0.01$) and an

Table 2 Descriptive results for all the dimensions in the questionnaire

Dimensions	Average value	Standard deviation
Information	3.3	1.3
Accessibility	3.3	1.3
Interactivity	3.3	1.3
Personalisation	3.3	1.4
Safety	3.3	1.3
Satisfaction with the destination	3.3	1.3
Intention to visit again in the future	3.3	1.3
Intention to recommend to others	3.2	1.5

increased probability to recommend the destination to other people ($r = 0.925$, $p < 0.01$. Similarly, the analysis showed that the accessibility facilities provided by STT at a destination are associated with an increased level of satisfaction ($r = 0.933$, $p < 0.01$), an increased likelihood of a future visit to the same destination ($r = 0.920$, $p < 0.01$) and an increased probability of recommending the destination to other people ($r = 0.906$, $p < 0.01$).

The analysis of the interactivity provided by STT showed that it is positively correlated with the level of visitors' satisfaction ($r = 0.922$, $p < 0.01$), intention to visit the same destination in the future ($r = 0.889$, $p < 0.01$) and intention to recommend the destination to other people ($r = 0.896$, $p < 0.01$). Similarly, the personalized services that visitors receive at a destination through STT are associated with an increased level of satisfaction ($r = 0.936$, $p < 0.01$), intention to revisit the same destination ($r = 0.898$, $p < 0.01$) and intention to recommend the destination to other people ($r = 0.910$, $p < 0.01$).

Finally, the analysis showed that the security provided by STT is associated with an increased level of satisfaction ($r = 0.933$, $p < 0.01$), intention to visit the same destination in the future ($r = 0.893$, $p < 0.01$) and intention to recommend the destination to other people ($r = 0.907$, $p < 0.01$).

The above-mentioned points are summarized in Table 4.

Multiple linear regression analysis was used to investigate which features of STT are most important in predicting visitor satisfaction, intention to revisit a destination and intention to recommend a destination to others. The analysis showed that features of STT explain 91.5% of the variability for visitor satisfaction (adj $R^2 = 0.915$, $F(5,91) = 207.9$, $p < 0.01$). Among the characteristics of STT that are important in predicting visitors' satisfaction are the ease of obtaining information ($b = 0.338$, $p < 0.01$), interactivity ($b = 0.200$, $p < 0.05$), and personalization ($b = 0.318$, $p < 0.01$).

Table 3 Results of the dimensions analysis

Statements about the "Information" dimension	Average value	Standard deviation
When I travel, Smart Tourism Technologies provide me with general information about the destination	3.3	1.4
When I travel, Smart Tourism Technologies provide me with useful information about local attractions in the area	3.3	1.3
When I travel, Smart Tourism Technologies provide me with useful information about local restaurants in the area	3.4	1.4
When I travel, Smart Tourism Technologies provide me with useful information about various activities in the area	3.4	1.4
When I travel, Smart Tourism Technologies provide me with useful information on how to get around in the area,	3.3	1.6
Statements about the "Accessibility" dimension		
When I travel, I can use Smart Tourism Technologies anytime, anywhere	3.3	1.4
When I travel, I can use Smart Tourism Technologies easily	3.3	1.4
When I travel, I can locate Smart Tourism Technologies easily	3.2	1.6
When I travel, I can search for information without any complicated registration process	3.3	1.5
When I travel, I can access Smart Tourism Technologies easily from a variety of related sites	3.3	1.5
Statements about the "Interactivity" dimension		
When I travel, I can find reviews from other travelers using Smart Tourism Technologies	3.4	1.4
When I travel, Smart Tourism Technologies meet my needs	3.3	1.4
When I travel, the Smart Tourism Technologies that I use are interactive	3.3	1.5
When I travel, it is easy to share tourist information content through Smart Tourism Technologies	3.3	1.4
Statements about the "Personalisation" dimension		
When I travel, Smart Tourism Technologies allow me to get information on exactly the issue that interests me	3.3	1.4
When I travel, the tourist information provided by Smart Tourism Technologies meets my needs	3.3	1.5
When I travel, I can interact through Smart Tourism Technologies to receive information tailored to my specific needs	3.2	1.6
Statements about the "Safety" dimension		
When I use Smart Tourism Technologies, I do not worry about third parties collecting of too much of my personal information	3.3	1.5

(continued)

Table 3 (continued)

Statements about the "Information" dimension	Average value	Standard deviation
When I use Smart Tourism Technologies, I believe that my privacy is protected	3.4	1.4
When I use Smart Tourism Technologies, I do not worry about the security aspect of sensitive information	3.4	1.4
My personal information is unlikely to be subject to misuse and unauthorized access during a transaction using Smart Tourism Technologies	3.3	1.4
Smart Tourism Technologies provide adequate security to protect my personal information	3.4	1.3
Statements about the "Satisfaction with the destination" dimension		
During my visit to a destination, I consider it necessary to use the services of Smart Tourism Technologies	3.2	1.4
My overall experience using Smart Tourism Technologies influences my assessment of the destination	3.2	1.5
The overall experience I gain from the destination is influenced by Smart Tourism Technologies	3.4	1.4
Statements about the "Intention to visit again in the future" dimension		
I will return to a destination that provides reliable Smart Tourism Technologies.	3.3	1.3
The absence of Smart Tourism Technologies would prevent me from visiting it again	3.3	1.4
Statements about the "Intention to recommend" dimension		
I would suggest a destination to my friends that provides reliable Smart Tourism Technologies	3.2	1.6
The non-existence of Smart Tourism Technologies would prevent me from recommending a destination to other people	3.2	1.5

Correlation of tourists' satisfaction with intention to recommend a destination to other people and intention to revisit in the future

The results of the correlation between tourists' satisfaction, intention to revisit the destination in the future and intention to recommend the destination to others are given in Table 20. The analysis showed that visitors' satisfaction from a destination is associated with both an increased likelihood of a future visit to the same destination ($r = 0.874$, $p < 0.01$), as well as with an increased probability of recommending the destination to others ($r = 0.918$, $p < 0.01$). Visitors' satisfaction explains 76.1% of the variability of the intention to revisit in the future (adj $R^2 = 0.761$, $F(1,95) = 306.6$, $p < 0.01$). The increase in satisfaction by one unit is related to the increase in the intention of revisiting a destination in the future by 0.824 units ($b = 0.824$, $p < 0.01$).

Table 4 Results of Pearson's correlation coefficient between the dimensions related to Smart Tourism Technologies and tourists' satisfaction, intention to visit the same destination in the future, and intention to recommend the destination to other people

		Satisfaction with the destination	Intention to visit again in the future	Intention to recommend
Information	Pearson r	0.939**	0.902**	0.925**
	p	0.000	0.000	0.000
	N	97	97	97
Accessibility	Pearson r	0.933**	0.920**	0.906**
	p	0.000	0.000	0.000
	N	97	97	97
Interactivity	Pearson r	0.922**	0.889**	0.896**
	p	0.000	0.000	0.000
	N	97	97	97
Personalisation	Pearson r	0.936**	0.898**	0.910**
	p	0.000	0.000	0.000
	N	97	97	97
Security	Pearson r	0.933**	0.893**	0.907**
	p	0.000	0.000	0.000
	N	97	97	97

Correlation is significant at the 0.01 level (2-tailed)

5 Conclusions

The purpose of this study was to investigate whether the facilities provided by Smart Tourism Technologies at a destination affect the level of visitors' satisfaction, their intention to revisit the destination in the future, and their intention to recommend it to other people in their social networks. The results of the research showed that security, easy access to obtain information, accessibility, interaction, as well as the personalized services that visitors receive at a destination through Smart Tourism Technologies, are all associated with an increased level of satisfaction, an increased likelihood of revisiting the destination in the future, and an increased likelihood of recommending the destination to others.

From the multivariate analysis, it was observed that the characteristics of Smart Tourism Technologies that have a greater impact on visitors' satisfaction are ease of obtaining information, interactivity and personalization. The feature of Smart Tourism Technologies that has the greatest impact on the intention to revisit a destination in the future is the ease of accessibility, while the feature that has a greater impact on the intention to recommend a destination to others is information. These results confirm findings from related research that show that Smart Tourism Technologies are important in increasing visitors' satisfaction, as well as greatly increasing the likelihood of the intention to recommend a destination to others and revisiting it in the future (Wang, 2012; Chen-Kuo, Liu, Kang & Dai, 2020).

In summary, it could be said that this study revealed that most tourists have a positive intention to use Smart Tourism Technologies. Technological evolution can create specific activities and experiences for tourists through the development of Smart Tourism Technologies. It has also transformed smart tourism into a measurable model and recognized the importance of the five dimensions of Smart Tourism Technologies (information, accessibility, interactivity, personalization, and security).

Future studies could investigate whether there are also other factors that affect the experience and use of Smart Tourism Technologies. A similar study could also be conducted in the future with a target group of people over the age of 60.

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Exploring Collective Memories in a Smart City Environment

Konstantinos Koukoulis and Dimitrios Koukopoulos

Abstract Within a city, there are numerous places of memory. Places that touch the heart of several and diverse groups of people. For example, fans of a football team may be interested in the memories that the former team headquarters encapsulate, whereas refugee descendants may care more about places that were significant for their ancestors who were settled in a city. Such places of memory are often forgotten by the city residents and remain hidden to the city visitors. Could we exploit these places to enhance tourism in a city with the use of technology? In this work, we demonstrate a trustworthy participatory platform that can be used to manage and disseminate stories about places that are related to the collective memory of specific groups of people. Stories of places are uploaded by people that are familiar with their history. Visitors can access these stories either by using a portal or a mobile app. The portal may be informative for a pre visiting search and the mobile app may be used during their visit providing route recommendations, thematic routes, and meaningful information about the places. We also present a case study about the forgotten places of a refugee group that is now hidden within a city. Our study suggests that such a system can be used to exploit the hidden collective memory of a city promoting tourism development of local societies.

Keywords Collective memory · Smart services · Thematic routes · Recommendation systems · Smart cities · Mobile applications

JEL Classification Z other special topics

K. Koukoulis (✉) · D. Koukopoulos
Department of History and Archaeology, University of Patras, Agrinio, Greece
e-mail: kkoukoulis@upatras.gr

D. Koukopoulos
e-mail: dkoukopoulos@upatras.gr

D. Koukopoulos
Hellenic Open University, Patras, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_22

1 Introduction

"I was born in a city where the cultivation of tobacco was the main occupation. Being in your city feels familiar. I instantly recognize the tobacco warehouses on my walks. I feel like home". "My grandmother was a refugee. She came to Greece after the war and stayed in a settlement for refugees. I have visited her many times. When I see such settlements, I remember her. I wonder about the people that lived there". These are two testimonies taken from people that came to the city of Agrinio in Greece for professional reasons, and during their visit, they noticed that something in the city was familiar to them. The first person easily recognized the infrastructure that is related to tobacco because he was a member of a community that did the same. The second person is a refugee descendant. Why do both feel this familiarity with spots that exist away from home? Could it be a way to assist these persons to discover more places that they may like to see? Would it be useful to provide them with additional information for these places? This familiarity that they feel comes from their participation in a certain collective memory. The collective memory establishes a relationship and an identity between physical spaces and individuals (Leite, 2009).

By focusing on a city space, we seek to explore the connections between the cultural heritage of a city and the collective memory. Is there a way to preserve and use this collective memory for the benefit of tourism development of a city? Can we use technology to achieve such a goal? Can we use the context of a smart city toward this goal? This work presents a system that focuses on the collective memory of groups of people that is related to places in the city. Stories of places are uploaded by people that are familiar with their history. Visitors can access these stories either by using a portal or a mobile app. The portal may be informative for a pre visiting search and the mobile app may be used during their visit providing route recommendations, thematic routes, and meaningful information about the places.

The rest of the paper is structured as follows. In Sect. 2, we deal with the essence of the collective memory and its association with the city space. Then we analyze terms such as cultural tourism and heritage tourism placing collective memory in this context. Finally, we deal with technical terms such as smart city and recommendation services that are used for the implementation of our system. In Sect. 3, we present the system architecture analyzing its users, the databases used, and the services that are provided. In Sect. 4, we demonstrate the use of the system providing three case studies for three users roles. In Sect. 5, we present an evaluation. Finally, in Sect. 6, we end up with a discussion.

2 Literature Review

Several researchers agree that it is difficult to define the concept of cultural tourism due to the difficulty of defining the concepts of culture and tourism (Christou, 2005; Mousavi et al., 2016; Richards, 2003). However, there are many definitions available.

According to such a definition, cultural tourism can be defined as "the movement of persons to cultural attractions away from their normal place of residence, with the intention to gather new information and experiences to satisfy their cultural needs" (Lutz, 1999). For the needs of this work, we will adapt the definition given by (World Tourism Organization, 2019): "Cultural tourism is a type of tourism activity in which the visitor's essential motivation is to learn, discover, experience, and consume the tangible and intangible cultural attractions/products in a tourism destination. These attractions/products related to a set of distinctive material, intellectual, spiritual, and emotional features of a society that encompasses arts and architecture, historical and cultural heritage, culinary heritage, literature, music, creative industries, and the living cultures with their lifestyles, value systems, beliefs, and traditions". Practically, cultural tourism is a motivating activity that leads the tourist to consume several tangible and intangible assets of a specific area. But cultural tourism is not focused on the past as heritage tourism does. The National Trust for Historic Preservation defines heritage tourism as "travelling to experience the places and activities that authentically represent the stories and people of the past" (Gibson, 2015).

Halbwachs states that memory is "a reconstruction of the past using data taken from the present" (1980). Collective memory refers not only to the present, but mostly to the past also. It is a memory shared by a group which shapes the social identity of its members (Hirst & Manier, 2008; Wertsch & III, 2008). But is a memory somehow related to places? Halbwachs in his work states: "It would be very difficult to describe the event if one did not imagine the place" (1980). The same author notes "when a group is integrated into part of the space, it transforms that space in its own image, but at the same time it bends and adapts to the material things that resist it". This comment may suggest that a place can determine a group, and a group can determine the place. But Halbwachs was not the only one that talked about collective memory and place. Nora stated: "A lieu de mémoire (place of memory) is any significant entity, whether material or non-material in nature, which by dint of human will or the work of time has become a symbolic element of the memorial heritage of any community" (Nora, 1989). Bajc suggests that experiencing the collective past is integral to specific forms of tourism, particularly what is called 'heritage tourism' (2006). The same researcher states: "thinking about collective remembering in relation to tourism directs our analytical focus to the authority of experiencing the past in a specific tourist place in the present".

The focus of this work is to introduce services in the context of a smart city. But what is a smart city. Many researchers state that many definitions exist but no one is universally accepted yet (Borda & Bowen, 2017; Camero & Alba, 2019; Cocchia, 2014). Camero and Alba (2019) believe that maybe a smart city is not a conceptual object, a goal or a status. They state that all definitions include the importance of information technology, the use of open data, and targeting citizens and sustainability. As about cultural heritage connection to the smart city paradigm, Angelidou concludes that "cultural heritage is not systematically exploited and formally incorporated in smart city initiatives, despite the fact that it offers and array of opportunities for smart city development, while significant technological advancements have taken place in the cultural heritage domain in recent years, as well" (2017).

A thematic route connects natural or artificial attractions, on the basis of a certain theme, that is accessible by a form of transport aiming at raising interest, education, development of cooperation, protecting new markets, fitting the trends, etc. (Nagy et al., 2012). Recommender systems are those systems that "have the effect of guiding the user in a personalized way to interesting or useful objects in a large space of possible options" (Burke, 2002). There are many applications that provide recommendation services in a smart city context. In (Koukoulis et al., 2019), the researchers thought of the city as an open museum providing recommendation services to their system users. In Ringas and Christopoulou (2013), the system provides recommendations of memories similar in theme and location. In Batet et al. (2012), they provide personalized recommendations of cultural and leisure activities for tourists on site. Ontheroute is a user-oriented route generator integrated with city transportation data to improve the visitor experience (Yıldırım et al., 2020). Christodoulou and Ringas developed CLIO which invites people to share personal memories and interact with the collective city memory (Christopoulou & Ringas, 2013; Ringas & Christopoulou, 2013). That system was asking users to contribute content and it was able to recommend memories close to the users. In a small city, most places are accessible on foot being within a close distance. CLIO recommends places close to the visitors. In the same direction, CultureGate is a participatory platform that can provide places to the visitors with the use of a filter (Koukopoulos & Koukopoulos, 2016).

3 The System

The proposed system, which is called CrowdPower, is based on works of (Koukoulis et al., 2018; Koukoulis & Koukopoulos, 2019). Koukoulis et al (2018) proposed and implemented a trustworthy mobile crowdsourcing system for collective memory management based on the needs of users. That system hosted stories of refugees that were connected to places presenting them using maps. Koukoulis and Koukopoulos (2019) stressed the strength of the proposed system creating and using an evaluation methodology that assesses such a system in terms of system services and system stakeholders' real impact. Here, we have extended the systems proposed in Koukoulis et al. (2018), Koukoulis and Koukopoulos (2019) in a way that focuses on city stories related to specific places.

In this work, we deal with stories that carry the collective memory of specific city spots. We will call those places from now on as cmPOIs (collective memory points of interest). Stories about cmPOIs uploaded by people that are familiar with their history. Visitors can access these stories either by using a portal (Fig. 1) or a mobile app.

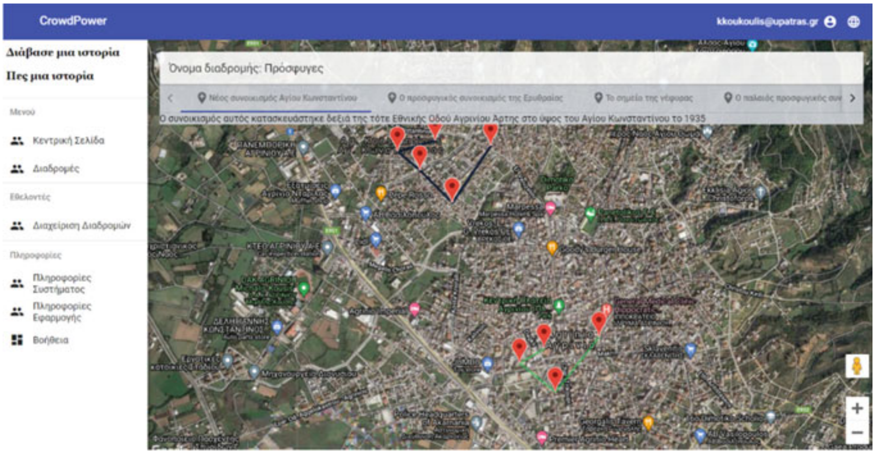

Fig. 1 Desktop application of Crowdpower

3.1 Architecture

CrowdPower is a system that consists of three modules (Fig. 2). The Database module contains several databases: Contributed content DB, Published content DB, Visitor Content DB, Credential DB, and Security Content DB. An Access Manager is being used to facilitate the Application Module access to data and at the same time records all database connections to Security Content DB. The Application Module consists of two different interfaces: a portal and a mobile app. Both interfaces can be used by any user role to facilitate their use of any service they require.

For the prototype implementation, we used open-source technologies available on the Internet. For the databases, MariaDB was used and a filesystem was hosted

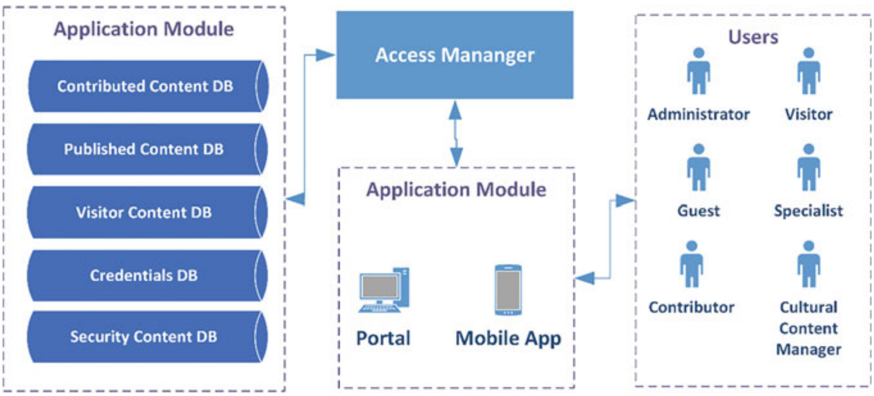

Fig. 2 System architecture

in an apache server. The Access Manager was being built with PHP as a set of services. The Application Module was created with Ionic Framework (version 3), a technology that can produce apps for any mobile. Angular6 was used for the portal implementation as a single page application installed on an Apache web server. The system was tested on a smartphone with android 7.0, and for the development, a computer with the operating system Windows 10 and equipped with an i5 CPU and 8 GB ram installed was used.

3.2 Users

The system supports four types of registered users with the use of a custom version of the RBAC model (Ferraiolo & Kuhn, 1992). It also supports unregistered users (Guests) that can access limited system content. For example, they can see stories about a cmPOI using their smartphone or their desktop computer. Registered users can access specific services:

- *Administrator*: is a user that is responsible for the system administration and system maintenance. He is the one that assigns the role of the Cultural Content Manager.
- *Cultural Content Managers*: are responsible for supervising the system content and assigning the specialist role to users.
- *Specialists*: rate and annotate stories that are uploaded by Contributors. They create thematic routes for the public using the published stories of the Contributors. They are specialists in the field of local history.
- *Contributors*: are people that voluntarily add content to the system. They can add stories to the system. They are people that are familiar with the local history of the targeting collective city memory.
- *Guests*: are all users that are unregistered to the system. They can use either the desktop or the mobile app to search and view stories. They can also explore thematic routes or get recommended routes by the system.
- *Visitors*: any user that registers becomes a Visitor. Visitors can perform any action that a guest does and additionally they can comment or rate stories and routes.

3.3 Databases

The database content is mainly produced by Contributors who can upload their content in various media types such as images, audios, videos, texts, coordinates (stories about cmPOIs). On the other hand, any other user can upload content only in the form of text. Data contains context attributes related to content (such as story title and story description) and model (such as viewing rights and user roles). All content can be classified in several databases:

- *Contributed Content DB* holds stories uploaded by Contributors. These stories can be published by them anytime they want.
- *Published Content DB* contains stories that are published by the Contributors after stories have been reviewed by the Cultural Content Managers. It also contains any annotation or comment made by the Specialists. Cultural Content Managers have the right to delete or unpublish any story that contains offensive material.
- *Visitors Content DB* contains all content that is created by the visitors. They can comment or rate stories and routes. They can mark a route for a future visit and record their visit.
- *Credentials DB* contains data regarding authentication and user's role information.
- *Security content DB* is for security purposes and contains a recording of user actions in the system.

3.4 Services

All services are offered through mobile and portal interface. A description of provided services is as follows.

Core services are provided to all system users aiming to assist them in all basic actions:

- *System Registration* facilitates the users to register and obtain a role. Users are by default Visitors, but they can ask the Cultural Content Manager the role they desire (Contributor or Specialist).
- *Authorization* facilitates the Cultural Content Manager to assign roles. This service also cooperates with the Access Manager to securely provide data only to the specific roles.
- *Help* is provided to all users in a separate screen on both mobile and portal interface.

Data services

- *Story Search* is available to all registered users. They can search for stories using a keyword within a search box. As a result, this service provides a list of stories to the users.
- *Map service* provides a map to the users containing all stories. Filters can be applied to refine the cmPOIs on the map.
- *Story View* helps all users access the details of the published stories (story title, description, related media files, and people).
- *Material download* helps Visitors download any provided piece of data.
- Social Media Sharing is a service that provides story dissemination to existing social networks and is available to all users.
- *Authoring* allows Cultural Content Managers to ensure the quality of the published material. They can delete that is irrelevant or offensive, or unpublish it, proposing changes.

Contribution services are for all roles except Guests. Users can only manipulate the data they own.

- *Add new stories* allows Contributors to add stories or routes about cmPOIs.
- *Update* service allows any change to inputted data.
- *Edit* service helps Contributors edit their uploaded unpublished stories and Specialists to alter any of their annotations.
- *Delete* service allows the deletion of data that they uploaded. For example, specialists can delete their annotations, whereas contributors their routes or stories.
- Publish and Unpublish Services allow Contributors to make their stories available to the public and vice versa.
- *Rating* is for all users. They can rate stories, cmPOIs or routes.
- *Annotation* can be made by Specialists or Cultural Content Managers.

Route Services are about the management, creation or dissemination of routes.

- *Thematic routes* can be created by Specialists and are provided to Guests or Visitors. Visitors can follow thematic routes on site, share them within the system or the social media, rate and comment on them. Guests can only view the published thematic routes.
- *Recommendation of routes*. This service allows Visitors to find routes according to their needs. For example, they can ask the system for a recommendation of a route that contains cmPOIs near them or cmPOIs related to filter options.

4 Case Study

In order to demonstrate the system, we present a case study. It contains three scenarios that are about cmPOIs in the city of Agrinio. These cmPOIs are related to the refugees that came to Greece in the first quarter of the twentieth century from Asia Minor and cmPOIs that are related to the period where tobacco was in the focus for the city of Agrinio.

4.1 A Contributor Adds Stories About CmPOIs

In this scenario, a contributor uses the desktop interface to add stories related to specific places in the city. This type of user needs to be registered in the system. The role is being given to him by the Cultural Content Manager. In Fig. 3, the Contributor has selected “Manage stories” from the side menu. We can see that She/he has already added six stories. All the stories are published, so everyone can see them. She/he is able to unpublish, delete or view (and change) any story she/he wants using the action buttons.

In Fig. 4, the user chose to “Add new story”. The user needs to fill in all basic story information (title, description, and coordinates of the specific place). When she/he

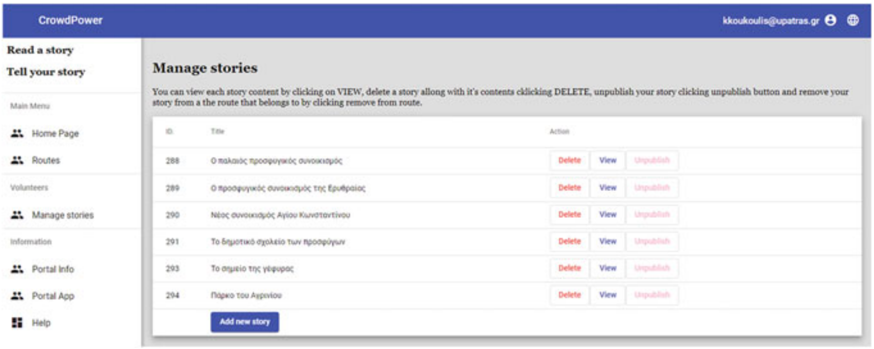

Fig. 3 A Contributor selects the place on a map for cmPOI

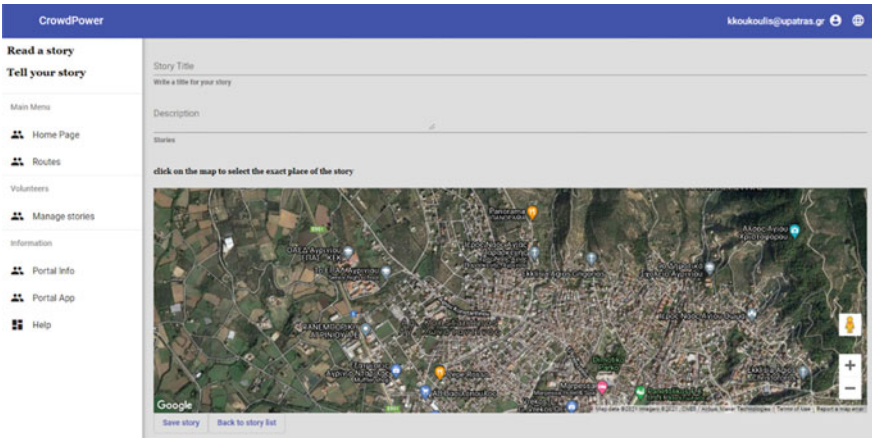

Fig. 4 A Contributor adds story details

finishes this, she/he can save the story by clicking on “Save story”. This story will be stored as unpublished.

4.2 *A Specialist Creates a Thematic Route Using the Desktop Interface*

The person that can create thematic routes is the specialist. In this case study, a Specialist uses the desktop interface to create a thematic route.

In Fig. 5, a Specialist has already chosen Route Management from the side menu. She/he can now see the routes that she/he has already created and the number of the containing stories that each route has. Pressing Add route, the user can fill in basic

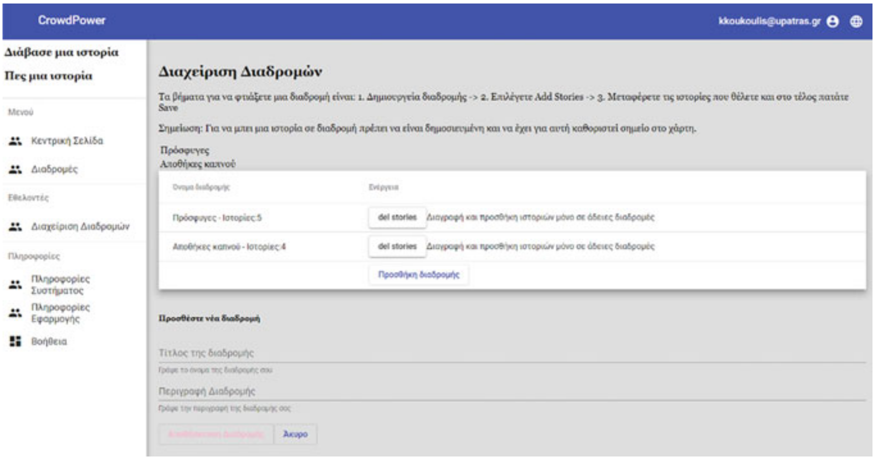

Fig. 5 A Specialist accesses thematic route management

route information and press save. An empty route is now created. She/he must delete the contained stories of a route by pressing "Dell stories" in order to be able to delete the route or to put another set of stories in it.

In Fig. 6, the user has clicked the "Add stories" button that belongs to an empty route and a list of all the available stories appears. She/he can drag and drop any story she/he desires to the empty space next to finish creating the route.

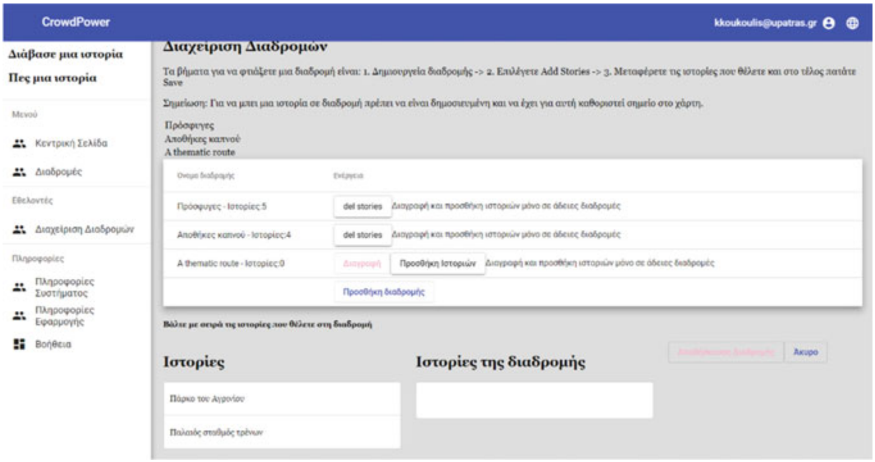

Fig. 6 A Specialist adds stories to a route

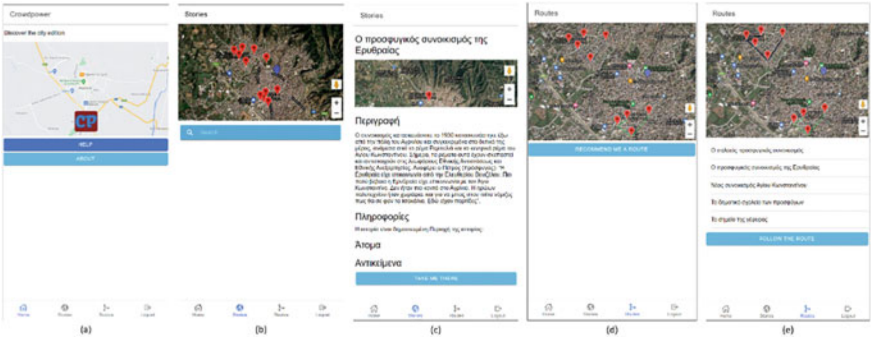

Fig. 7 A Visitor on site

4.3 A Visitor Uses the App for a Tour

In this example, the user is a Visitor. She/he is onsite somewhere in the city and wants to start his tour. This tour may contain a single story or an entire route.

After the user logs in to the system, she/he can see the welcome screen (Fig. 7a). It displays a welcome message, an image, and an access link to the help page. At the bottom of the screen, a number of choices are available (Home, Stories, Routes, and Logout).

By pressing the stories button, the user can see a map that contains all the cmPOIS. Below the map, there is a search box (Fig. 7b). The user can tap on a cmPOI to see the story details (Fig. 7c). At the end of the story, there is a button with the label “Take me there”. By pressing this button, the user gets instructions to access the cmPOIs location. The search box produces a list of stories with the use of a keyword. The user can see the details of the story by selecting it from the list.

Assuming that the user wants to follow a route, she/he should tap on the “Route” button at the bottom of the screen. A map containing all published thematic routes appears (Fig. 7d). The user can tap on a thematic route to get the list of the contained stories (Fig. 7e). She/he can tap on a story to read the details. Below the list of the stories, there is a button labeled “Follow this route” that initiates the tour starting from the first cmPOI. The “Recommend me a route” button (Fig. 7d) displays a route to the nearest cmPOIS that the user can follow.

All cmPOIs are presented using a red balloon. The current location of the user is presented with a blue balloon.

5 Evaluation

System evaluation was assigned to a group of eleven postgraduate students of the Department of Cultural Heritage and New Technologies of the University of Patras specialized in cultural heritage digital systems. They were asked to find similar systems to CrowdPower concerning the provision of digital collective memory services in a smart city environment setting that can be exploited for tourism development in the form of thematic routes and compare their features. Table 1 presents student findings regarding systems features that deal with collective memory in an urban environment. System 1 (s1) is Clio (Ringas & Christopoulou, 2013) and System 2 (s2) is Ontheroute (Yıldırım et al., 2020).

The key feature that is provided by s2 is the integration with data taken from the public transportation system of the city. This feature is not provided by CrowdPower because we are targeting small cities with no major infrastructure of public transportation. All three systems allow users to comment or rate content, display locations on maps, use real-time location detection, and provide registration services. For s2 audio is provided in the form of audio guides, while in the other two systems, audio can be contained as the content of a POI (can be a testimony, a song, etc.). CrowdPower provides stories and route management services through the portal. For s1 and s2, it is not clear how the story management is achieved.

The presented system evaluation strengthens the hypothesis that Crowdpower can provide urban services dedicated to collective memory in an efficient way facilitating tourism development in a city environment.

Table 1 Comparison of CrowdPower in relation with to Clio (S1) and Ontheroute (S2).

Services and basic features	S1	S2	Crowdpower
Registration is available	✓	✓	✓
Annotation capability	✓		✓
Rating service	✓	✓	✓
Information about POIs	✓	✓	✓
Audio is available	✓	✓	✓
Help is provided at any form			✓
Thematic routes are provided		✓	✓
Recemented routes are provided		✓	✓
Public transportation data integration		✓	
Mobile app is available	✓	✓	✓
Desktop interface is available			✓
Real time location detection	✓	✓	✓
Directions to POIs are provided	✓	✓	✓
System is participatory	✓		✓
Maps are used to display POIs	✓	✓	✓

6 Dissuasion and Conclusion

This paper presents a participatory prototype system that can be used to manage and disseminate stories about places within a city that are related to the collective memory of specific groups of people. The system can assist the tour of Guests or Visitors in a city context providing them stories and routes about places that are loaded with memory. Stories are uploaded to the system by citizens and routes are created by Specialists, A system prototype utilizing most of the services was implemented to demonstrate the strength of system services in real conditions. Evaluation results suggest that the proposed system has all the necessary services to support fundamental tasks for collective memory management in an urban environment.

"Heritage tourism is based upon the concept that each community has a story to tell" (Green, 2010). There can be a system that can provide services to city visitors concerning the collective memory of the city. But there is a basic concern in this effort: "When developing thematic routes, especially those based on heritage elements, there are a number of special aspects which have to be taken into account, like authenticity and local initiation" (Nagy et al., 2012). Mijatović says that "city public policies should be focused on re/defining the city identity, based on the collective memories of people, cultural heritage and a common consented vision of future" (2014). Such a system cannot succeed without the participation of the local community. The system could easily support more user roles. For example, we could add the role of "Guiding assistants". These users could be people that are familiar with the city and the stories that are contained in the system. They could assist the visitors during their tour for free or with a fee.

As future work, we intend to fully implement all proposed system services and evaluate them onsite involving tourists and locals. Also, we are going to study the development of educational scenarios based on thematic routes designed for students aiming at the promotion of intergenerational dialog.

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Robots on the Tourist Industry—A Review for Future Research Directions

Dimitrios Belias and Labros Vasiliadis

Abstract Robots were originally designed to carry out simple tasks. However, during the past years, robots have been used also in the workplace. An example is the hospitality and tourist industry where robots are used in some services, such as refectories, housekeeping, and receptions. However, the use of robots in hotels is in its initial stage. For this reason, the aim of this paper is to examine the current literature and to indicate future directions for research. From the research made, it is understood that there are some research gaps that need to be examined. For example, future research needs to focus on why there is high employee turnover in departments with robots and what the hotel managers can do to deal with this issue. Also, three is a need to better understand why consumers may trust or not trust the use of robots. Finally, there is a new area of research that future research can focus on. This is the use of robots for social distancing in hotels to ensure the health of customers for the hotels working in the post-Covid-19 era.

Keywords Robots · Hotel industry · Research · Adaptation

JEL Classification L1 · M1 · M16

1 Introduction

Machines and technological innovation have been for a long time part of our daily routine since the era of the Industrial Revolution. Nowadays, in the era of ubiquitous technology and amidst a transition period, we are experiencing a similar situation, which, this time, concerns intelligent machines and processes (Markoff, 2017).

D. Belias (✉)
Department of Business Administration, University of Thessaly, 41500 Larissa, Geopolis, Greece
e-mail: dbelias@pe.uth.gr

L. Vasiliadis
Core Department, National and Kapodistrian University of Athens, Athens, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_23

As detailed below, "ubiquitous technological revolution and evolution" will soon allow for the placement of machines and related equipment anywhere, even in the human body. Robots are expected to become assistants and, in the long run, human associates. Robots are a reality but still, they are far away from claiming that they have become a norm in businesses (Levine & Mackey, 2017; Burell et al., 2018). Robots have started replacing employees in many tasks (Hofmann et al., 2020). The outcome is that there is an increase in the use of robots not only in various sectors such as manufacturing, health care, but also in the hospitality and tourism industry (Murphy et al., 2017).

Indeed, one sector which may be affected by the introduction of robots into the workplace is the tourism sector (Ivanov et al., 2018a, b), where there is evidence that robots have a positive impact on service quality (Belias, 2019a, b). Most of the time, robots are used for routine tasks in hotels and other tourist businesses, such as housekeeping activities (Murphy et al., 2017), although there is a growing number of cases where robots have been used for advanced frontline tasks, which include activities that involved engagement with the customer, which includes serving food (Belanche et al., 2020).

At this point, it is important to remark the fact that the use of robots in tourism is a new phenomenon, something which means that there is a need to better understand issues such as the changes in the workplace from the use of robots (Belias, 2019a, b), in which tourist operations that robots can be useful and productive (Belanche et al., 2020), the factors which affect the customer's intentions to use robots (Ivanov & Webster, 2019) and the economic impact from the use of robots on the tourist industry (Ivanov & Webster, 2020). It is understood that there are many areas of research that need to be taken into consideration, as the academic research on robots is gaining momentum. Murphy et al. (2017) has referred on the fact that the future of robots and how they will affect the tourist industry difficult to predict. For this reason, there is a need that the academia has to position itself at the forefront of the robotic era in the tourist and hospitality industry. Hence, there is a need to understand where research on this field stands today and what are the future directions.

2 Methodology

The methodology used in the present paper is a thorough literature review, followed by its critical analysis. The sources of literature review were derived from high-quality scientific journals, books, conference proceedings, business reports, etc. The authors have used a variety of sources based on their accessibility provided by the affiliated institutions. The selection criteria of these literature sources were based on the relevance to the topic of the paper, the date of the publishing (focusing on the most recent research), and the validity of the bibliographic sources.

Therefore, this paper aims at producing research into the existing literature review. For this reason, it will make a thorough examination of the papers that have been produced on this issue and to examine their outcome so as to make recommendations for future research. The criteria used for the selection of the papers are based on the topic and the year that was published (after 2016).

3 Literature Review

3.1 The Role of Robots in Today's World

In general, human societies are moving the information society in the knowledge society and the knowledge society in the "ubiquitous present knowledge" society. Robots today have advanced because of the latest advantages in new technologies, including artificial intelligence and machine learning (Markoff, 2017). It is not a surprise that the EU's robotic strategy emphasizes the fact that robots will be established in the upcoming years in many sectors and workplaces (Chiacchio et al., 2018).

Recent developments in service robotics, in particular, in the area of health care and personal care, are characterized as particularly important and show that in the near future systems can be built with even greater autonomy and complexity, as well as more human-centered applications. As is already the case, in the "omnipresent society" people will not only communicate with each other (human to human), but will also communicate with machines (machine-to-machine). It is important to mention that in 2020, there are about 50 billion "intelligent objects" that can interact with each other and work together with people.

Communications developments will lead to the widely-anticipated "Internet of Things" (IoT), a system based on autonomous communication between physical objects (Hoffmann & Prause, 2018). The use of robots will be linked in many ways to the "Internet of Things" and this linking process will bring about many changes to the "old" network society. The way mobile phones and laptops can be wearable have already become part of our everyday life. This is an indication that consumers are getting familiarised with the use of robots in their daily routines (Lacity & Willcocks, 2015).

Future advances in the field of robotics will lead to the rise of robots providing services of associates and assistants, domestic services, care services, construction services, pet care services, telepresence services, and game robots. These robotic applications will mimic the behavior of humans and animals, and the web of things and the applications of ubiquitous technology will allow them to communicate with each other.

3.2 The Use of Robots in Tourist Industry

From the previous section, it is understood that there is a growing interest in the use of robots from both academia and practitioners, while government organizations are also interested in this field. The reality is that robots are used in several sectors such as manufacturing (Manyika et al., 2013), health care (Choi et al., 2017), space exploration (Manyika et al., 2013), and many other sectors where robots are mostly used in jobs where there is a high risk for the employees or on routine tasks where there is not much interference with the customer (Murashov et al., 2016).

The important thing, however, is that in any scientific research and technological implementation, the goal should always be to serve human needs and to improve the quality of life. However, it will be very difficult for technology and its applications to once be able to replace the ability of critical thinking, the drawing of conclusions, and the decision-making of the developing human mind. Artificial intelligence, increased virtual reality, home robots, and cloud computing, to name just a few of the new technologies that are being developed today, tend to evolve into irreplaceable elements of humans' everyday life. This is what many believe, including investors who are channeling billions into researching and developing these systems. Shifting jobs to production in low-cost economies can reduce up to 65% of labor costs. However, the use of robots can reduce costs up to 90%. China has announced that it will equip its factories with advanced robots, as workers' salaries are rising, technology is evolving, and the economy is developing from products and services. Guangdong Province has pledged to invest $154 billion in robot jobs. At the same time, in Britain, according to a PwC report, more than one third of jobs are characterized by a high-risk "roboticisation" (Works, 2017).

Nonetheless, from the above researches, we have noticed that robots are used in difficult tasks such as the assembly lines in factories. However, it is important to wonder what happens when it is about the use of robots on services, in this case, in hospitality and tourism services. Works (2017) indicates that robots can be used also on services, where there is an interaction with the customer.

From what was written in the introduction, research on this field is in its very early stages and it seems that academia is trying to understand the role of robots in the tourist sector. For example, Ivanov and Webster (2019) have remarked that much of the research in this field today focuses on engineering and on robot design rather than on the impact that robots have on the workplace and on service quality. Other researches, such as Wirtz et al. (2018) and Murphy et al. (2017), have named this concept as rService (robotic service). However, it is important to note that Gretzel and Murphy (2019) refer that still there is a lack of empirical evidence and of research paradigms, hence they refer to a topic that is mostly discussed from "a utopian perspective". Of course there are some researches that present empirical evidence—as they are examined in the upcoming chapter—but still what Gretzel and Murphy (2019) are trying to say is that it is too early to make concrete conclusions on the use of robots.

Surely understanding robots is not an easy task. For example, there are ethical issues as raised from van Wynsberghe (2016) for the ethics of using robots on care services, though that van Wynsberghe (2016) concludes with the argument that robots can be used on service-related services as long as their design relies on the CCVSD (Care Centered Value Sensitive Design) model where robots are able to respond on customer needs and to handle them with care. Another issue is job replacement, which has been emphasized by many authors and surely requires a lot of attention.

The appearance of robots in the workplace has created many questions among the workers, managers, and the academia (Belias, 2019c). A future in which robots would continue to develop primarily to play complementary roles would imply the fewest challenges for society as people would not be compelled to compete with robots and automatic machines, and traditional roles would still continue to suffer greatly.

However, economic pressures and pressures for productivity gain may favor a substitution approach whereby people and groups of workers will be replaced by robots and automated machines (Dekker et al., 2017; Katz et al., 2015). The use of robots in tourism can create several issues regarding job replacements and the use of robots in the frontline of tourism services.

Kazandzhieva and Filipova (2019) have remarked the fact that the tourist service is an industry that is dominated by human labor and interaction with the customers. Therefore a possible replacement of human labor from robots is expected to create reactions not only from the side of the employees, but also from the customers who often enjoy the interaction with the human element of the tourist service. However, despite the above, Kazandzhieva and Filipova (2019) have also claimed that robots cannot interpret sophisticated communications, nor do they have cultural understandings, which is important for the tourist industry, which means that a potential replacement of labor from robots may bring a negative aspect on the quality of services, while the customers will always seek for the “human touch” on services.

However, Tussyadiah (2020) contradicts the above arguments by claiming that there are already examples of successful installation of robots in the tourist industry, mostly in hotels, but also that Artificial Intelligence and Machine Learning have contributed so that the robots have a genuine response to customers needs. The following figure indicates areas of tourist operations that the robots can perform (Fig. 1).

Tussyadiah (2020) seems to agree with other researches (such as Borghi & Mariani, 2020), as new technologies and innovation are coming to the surface, the more the robots will be able to perform frontline duties in the tourism sector like human labor does.

Nonetheless, still there are some issues to be resolved for the use of robots, they are.

The overwhelming majority of people do not have any interaction with robots, but this is going to change as people and machines interact in the workplace. The indirect effects of machine-to-machine communication are not yet widely known but may be significant in the tourist sector (Kazandzhieva & Filipova, 2019). New arrangements should be introduced for testing and pilot applications of the ergonomic and

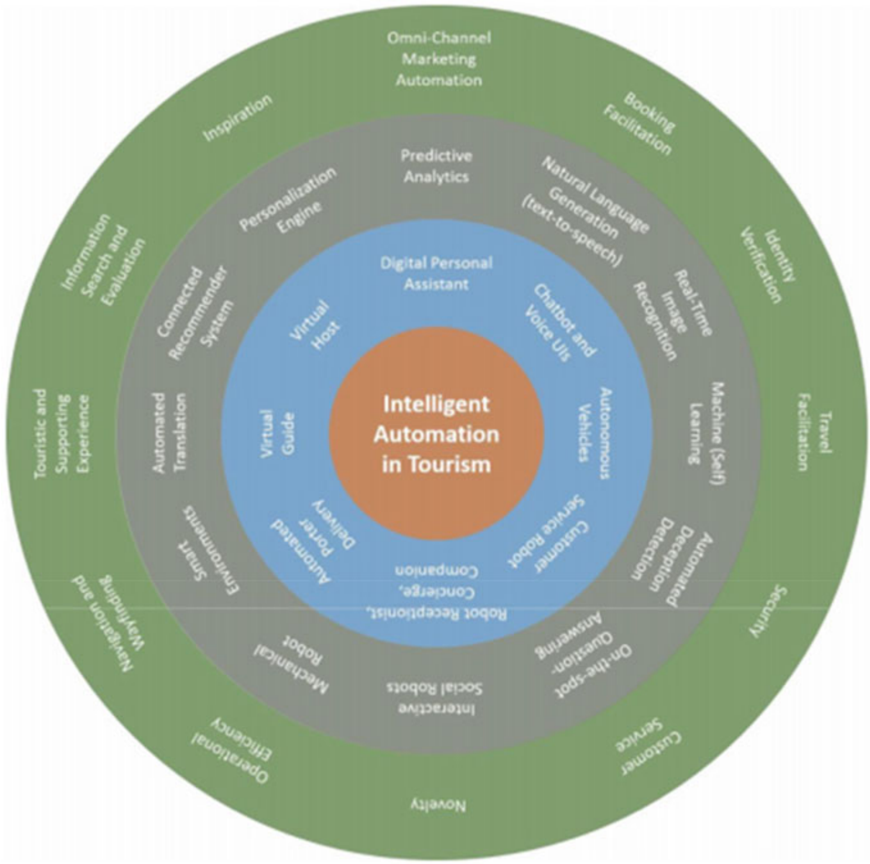

Fig. 1 Applications of automation in tourism experiences. *Source* Tussyadiah (2020)

logistical arrangements for autonomous robots in the industrial and service sectors, and for specific training programs for workers engaged in planning, handling, and maintenance of robots, as well as of those working in the same place like these.

The effects of robotics on the zeal and well-being of employees and executives are not widely known. The field of health and safety at work should pay particular attention to the psychosocial factors associated with robotics (Melander & Lingegård, 2018).

Due to the varying degree of development of different applications, it is not possible to establish uniform guidelines for the management of security issues and risk management. In some applications, the issue of safety and security has been addressed professionally, but there are some robotic applications that do not yet have a satisfactory level of security. More analysis must be carried out to identify dangerous and unsafe activities of autonomous robots, particularly in the tourist sector (Papathanasiou, 2017).

As robotics applications in the field of professional services are a relatively recent development, legal liability in the event of public accidents is not clear. Before the new technology comes into play, the issue of liability from a legislative point of view should be explored more extensively (Bogue, 2016; Melander & Lingegård, 2018).

As far as it is understood from the current research, robots have a lot to offer, but also there is a need to better understand several issues such as the level of acceptance from customers, the outcome on the workplace, and the impact of service quality to provide more empirical evidence.

However, since research on the use of robots on services is an ongoing phenomenon, there is a new trend which is the use of robots in the Covid-19 pandemic. First of all, since most of the hotels are closed or they have reduced their operations due to the lockdowns, is it understood that it is not easy to make any empirical research. However, it seems that the pandemic of Covid-19 can be a reason behind the breakthrough of robots in the tourist industry. Seyitoğlu and Ivanov (2020) argue that robots can create what they call a "technological shield" which will contribute to social distancing between the employees and clients but it will replace the lack of physical and emotional connection between the employees and the customers. Hence, robots can contribute to the efforts made by tourist companies to cope with the negative effects of social distancing (Zeng et al., 2020), while there is an indication that customers will prefer hotels that are using robots so to ensure their health during the Covid-19 pandemic (Shin & Kang, 2020).

3.3 Examination of the Current Literature

The use of robots in tourism is a rather new concept, which means that the results from the existing research are pretty limited. For example, Ivanov et al. (2018a, b) claims that there is a growing number of hotels which adopt robots, while tourists seem to have a positive view on the use of robots, though Tussyadiah and Park (2018) seem to disagree with that since their research indicates that tourists are not so excited from robots. Another study made by Stringman and Gerdes (2017) claims that the use of robots can take place in services as a secondary role such as welcoming the clients, hence they contribute in minimizing the cost of operation. On the other hand, Tussyadiah (2020) argues that there are already several case studies which indicate that the use of robots can bring positive results for the hotels which are using them, but still there is a need for more empirical research, while Kazandzhieva and Filipova (2019) indicates the fact that it is not clear whether robots can have a real value and contribution. Overall, there is a feeling that there is a need for more research and empirical evidence. For this reason, the upcoming pages will make an analysis of some key researches and then it will discuss what are the potential gaps for a future research.

At this point, the author has made a list of the existing empirical evidence that exists on the use of robots in tourism, so as to understand where the current research stands and how it may develop in the future. For this reason, the papers are analyzed not only in terms of field of research, but have also been categorized in three research areas, which are (a) robot acceptance and adaptation, (b) service quality, and (c) impact on workplace (Table 1).

From the above empirical researchers, it seems that there is not a clear direction over what to study, though it seems that the changes in the labor markets and concerns over the loss of job positions (Tung & Law, 2017) along with the adaptation levels and how the consumers will regard them (Ivanov, 2018; Ivanov & Webster, 2017) are fields which need to be examined in the future. More precisely, the key research interests and gaps are:

Concerns on labor issues: Despite the overall positive impact from the use of robots (Stringam & Gerdes, 2017), it seems that there is a tendency for higher turnovers on hotel departments which are using robots and anxiety among the employees about

Table 1 Existing empirical evidence which exists in the use of robots in tourism

Authors	Methods used	Conclusions	Area of research
Ivanov et al. (2018a)	Quantitative research in a sample of 260 Russians aged 18–30 years old	The respondents are positive about the use of robots from hotels. The research indicated that there is a high degree of acceptance for robots for various functions of a hotel such as payments and logistics. However, robots are not suggested for massage and for guars. Males respondents are more positive about the use of robots rather than female consumers	Robots acceptance and adaptation
Kuo et al. (2017)	A mixed-methods approach, combining an expert panel and semi-structured interviews using a SMART SWOT ranking survey in a sample made of 53 hotel owners who are using robots and robotic experts in Taiwan	The outcome was a positive one. There are some environmental factors that may push the need for robots such as the aging population which pushes the need for robots	Robots acceptance and adaptation

(continued)

Table 1 (continued)

Authors	Methods used	Conclusions	Area of research
Ivanov et al. (2018b)	A quantitative research made in a sample of 393 Iranians so to evaluate their beliefs for the use of robots from hotels	Overall the participants had a positive view on the examined issue. The positive views were driven mostly from a variety of fields such as a positive attitude toward the overall use of robots, the fact that the respondents recognized the benefits from the use of robots, and the respondents understand the differences between the use of robots and of having human employees. Finally, the respondents understand the social skills of robots	Robots acceptance and adaptation
Tussyadiah et al. (2020)	An online questionnaire was developed which was answered on two batches made from 268 and 357 respondents respectively	Trust has an important role in the acceptance of robots from travelers. The research has identified the variables which affect trust such as the negative perceptions toward the use of technology. On the other hand, the respondents seem not physical forms of robots, which is a factor that do not affect their trust	Robots acceptance and adaptation

(continued)

Table 1 (continued)

Authors	Methods used	Conclusions	Area of research
Yu and Ngan (2019)	The aim of this study is to understand the perceptual differences which exist between the smiling behaviors with head inclinations displayed from robots who have human characteristics and the employees in hotels, while it examined the gender and cultural variables as determinants. The research was quantitative and it had 233 participants	The research indicated that male and female customers deriving from different cultural backgrounds regard the robot and human personnel with varying degrees of head tilt very differently	Robots acceptance and adaptation
Pinillos et al. (2016)	The authors have made an experiment which resulted in quantitative metrics and some qualitative data, based on the interaction of a robot with the clients and the feedback given from the clients	The performance of robots was satisfactory. Nonetheless, there is a need to make some improvements in their operations	Service quality
Tussyadiah and Park (2018)	The authors have made an online survey in a sample of 841 consumers in Britain along with a laboratory experiment which has used biosensors so to evaluate the automatic emotional reactions from the use of robots	The key success factors of a robot depend on its ability to cope with the customer's needs with intelligence and on security	Service quality
Tussyadiah and Park (2018)	This paper has conducted two studies; the first an online experiment and a laboratory experiment using measurements of automatic emotional reactions via biosensors	The research indicated that the participants had a positive view for the use of robots, while the use of robots created positive emotions among the participants	Service quality

(continued)

their future in the workplace. This is an issue which has not been examined so much (Li et al., 2019), while future research must not only confirm the above conclusion, but also examine how the hotels can keep those employees and ensure that they will be positioned somewhere else. This is an important research field that needs more research.

Table 1 (continued)

Authors	Methods used	Conclusions	Area of research
Tung and Au (2018)	This research is a qualitative research made on the customer reviews on four hotels (Hotel New York, Aloft Cupertino, Henn-na Hotel Japan, and Marriott Residence Inn LAX)	The reviews are mostly positive, while an important input of this research is that the customers and the robots can co-create novel services	Service quality
Qiu et al. (2020)	A research framework was developed based on the findings of in-depth interviews and of the related literature. A scenario-based experiment and questionnaire survey were used to validate the proposed model of research	The findings indicate that robots have a positive relationship in customer–robot rapport building and the hospitality experience	Service quality
Lu et al. (2019)	The aim of this research is to test the multi-dimensional Service Robot Integration Willingness (SRIW) Scale which is made from 36 items. Its purpose is to examine the willingness of consumers to use robots. The instrument included variables such as performance efficacy, intrinsic motivation, anthropomorphism, social influence, facilitating condition, and emotions	The research indicated that SRIW is a reliable research instrument that can be used in future research. Also, the research indicated that performance efficacy, intrinsic motivation, facilitating conditions, and emotions are positive antecedents; whereas anthropomorphism is the prominent impeding determinant of consumers' acceptance of service robots	Service quality

(continued)

Table 1 (continued)

Authors	Methods used	Conclusions	Area of research
Choi et al. (2020)	A qualitative review based on the analysis of 1,498 reviews from nine robot-staffed hotels in Japan	A semantic network analysis indicated that there are noticeable differences. The Japanese guests indicated that there were more emotional responses to their interaction with the robots, while the non-Japanese guests indicated that they have valued the technical and functional aspects of robots and not much of the emotional responses	Service quality
Li et al. (2019)	An empirical research with a quantitative research made in a sample of 468 employees who are working as full-time hotel employees in five-star hotels operating in China	The research provided evidence that the use of Robots and AI increases employee turnover intention. This relationship was found to be moderated from organizational support and from having a competitive psychological climate	Impact on workplace

(continued)

Consumers trust robots. While there are researches indicating that consumers trust robots (Park, 2020; Qiu et al., 2020), there is still evidence that there is a place for improvements (Pinillos et al., 2016) and that customers trust needs to be better analyzed and understand in terms of their perception for the use of robots (Tussyadiah et al., 2020), while there is a need to understand why customers do not want to see robots on certain services such as massage and security (Ivanov et al., 2018a). Overall, the researches indicate that the academia has started understanding

Table 1 (continued)

Authors	Methods used	Conclusions	Area of research
Stringam, and Gerdes (2017)	A qualitative research which involves interviews with hotel personnel and a quantitative research based on secondary data	Robots are expected to bring changes in the job functions and skills for hotel employees, who will have to develop new skills. The clients will have to do the same. Also, the robot adaptation depends on the size and the structure of the hotel; larger hotels are more efficient in terms of adapting robots	Impact on workplace/robots acceptance and adaptation
de Kervenoael et al. (2020)	Mixed methods (equation modelling and semi-structured interviews) focus on the intentions of customers in relation to the use of robots in hospitality services, in terms of what is the impact on their experience on the hotel	The intention to use social robots is driven not onlyby the need to leverage service quality, but also by two other factors which are empathy and information sharing	Robots acceptance and adaptation/service quality
Dogan and Vatan (2019)	The research was conducted using 18 interviews with hotel managers in Turkey	The participants had a positive perception about the use of robots in hotels, but they regard that robots should be used mostly in departments where the interaction between the guest and the employee is low. Hence, housekeeping is the ideal service for using robots	Service quality /impact on the workplace

(continued)

Table 1 (continued)

Authors	Methods used	Conclusions	Area of research
Park (2020)	The aim of this paper was to develop a model for measuring the trust of consumers toward robots used in services	The research's results relied on two studies. The study indicated that tourist consumers seem to trust robots, while this model has a high rate of reliability to be used in future research	Robots acceptance and adaptation/service quality

the relationship between robots and customers, but still there is a need for further research in this field to have a better understanding on this issue, especially on the factors affecting the perceptions of customers toward robots and where variables will determine the levels of acceptance but also why they want the robots only in certain operations.

4 Conclusion

History has taught us that new technologies not only bring new benefits and new possibilities, but also new costs and threats. Everyone agrees that the pace of change is accelerating and the future will become increasingly incomprehensible to us, especially in the field of robotics and TN where new inventions and innovations occur almost every week. Some of the benefits that these developments bring with them are improving health, comfort, productivity, and safety, as well as collecting more useful data, information, and knowledge for people and organizations. Negative consequences include privacy and data protection challenges, excessive expectations, and growing technological complexity. The author has made a thorough investigation of the existing literature on the case of robots and how they can be used in hotels. Indeed, the findings indicate that there is a limited amount of empirical evidence. However, a future direction can be on the fields of the changes that the robots will bring on the labor markets and how they can be adapted from both the clients and the hotels.

From the examination of the current literature, the author has concluded two key areas where there is a need for future research. The first one is the field of the impact on the workplace, where the direction for future research lies on understanding why there is a high level of turnover on departments using robots and secondly what are the practices used by companies to retain those employees and what is the effect of those practices. The second area of research is to better understand the consumers attitude toward the use of robots in hotels and what determines their trust in robots. Also, future research needs to focus on why consumers do not want the use of robots on some services. Finally, besides the above directions, there is a need to produce empirical evidence in terms of whether robots can contribute in social distancing and ensuring the health of the guests of hotels in the post-Covid-19 era.

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Computational Methods for Evaluating Web Technologies and Digital Marketing Techniques in the Hospitality Industry

Constantinos Halkiopoulos and Dimitris Papadopoulos

Abstract The implementation of information and communication technology (ICT) has aided in the efficient management of the hotel industry and is a crucial component of commercial hotels' competitiveness and success. Hoteliers benefit from the usage of ICT on both a strategic and operational level. The official websites of business hotels are key points of contact for digital marketing since they communicate the hotel businesses' identity and brand services to potential tourists. Consumer perceptions and behavior are influenced by the quality of information on facilities and services, as well as the quality of supporting material (pictures and videos) and supporting information systems (e.g., online booking systems). Websites should be appealing, simple to navigate, and suitable with mobile devices; they should also incorporate integrated booking systems and social media links to improve direct sales volume-reservations. The purpose of this research is to examine the official websites of Hotel Units located and operating in Greece. More precisely, we analyzed, assessed, and evaluated aspects such as website optimization, domain trust flow, domain referral flow, relevant websites, affiliate social networking, organic web keywords, and expected monthly SEO clicks. Additionally, computational approaches were used to analyze and evaluate the data variables acquired. This study intends to answer questions regarding the state of the tourism industry's websites, the latest technology they use to maintain a strong online presence, and ways to optimize their interaction in order to attract more potential customers-tourists. In conclusion, hotels' ICT integration requires quick attention. Although the majority of hotels utilize ICT, there is no evidence of both awareness and comprehension of the benefits associated with acquiring a competitive edge. Additionally, while they recognize and embrace the relevance of the official website, numerous flaws in the design, booking tools, and actual efficacy of these internet technologies have been detected.

C. Halkiopoulos (✉) · D. Papadopoulos
EDILAB, Department of Management Science and Technology, University of Patras, Patras, Greece
e-mail: halkion@upatras.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_24

Keywords Computational methods · Digital marketing techniques · Hotel industry · Website evaluation · Web technologies · SEO · Social media · Online reservation systems

JEL Classification Z32 · M31 · M37 · L86

1 Introduction

Since ancient times, man has desired to travel to other lands in order to learn about various civilizations and customs distinct from his own. A few years later, this demand was dubbed "Tourism". According to the United Nations World Tourism Organization (UNWTO), tourism is a social, cultural, and economic phenomena that includes individuals traveling to nations or locations other than their permanent home for personal or professional reasons. These individuals are referred to as visitors (who may be tourists or excursionists), and tourism refers to the activities they engage in while there, some of which may entail tourism expenditures. It is worth noting that tourism is a service-oriented business that necessitates the use of current information and communication technologies through the growth of e-commerce. The Internet has fundamentally altered how tourism information is delivered and how travelers arrange their journeys (Middleton & Clarke, 2012). In other words, it is the primary source of travel information, as the majority of travelers are "dependent" on technology, relying on it to find and plan their journeys.

2 Literature Review

eTourism

Rapid advancements in telecommunications and information technology in recent years have resulted in the creation of networks and, as a result, the Internet, a collection of thousands of connected computer networks deployed around the world. The Internet provides an infinite number of options. Until recently, it was believed improbable that one could buy online for a whole week. Today, this concept is increasingly becoming a reality, making it hard for businesses and sectors to ignore, since the degradation of shops occurs gradually. Now, prospective visitors may plan their trips online. This means that they are becoming increasingly busy on a daily basis, requiring more and better information. "As a result, there is a trend away from traditional trip packages, which are developed by tour operators and resold by travel agencies, and toward the 'Do it yourself' approach." Consumers, in particular, may get the necessary information on their own and purchase the tourism services that are most appropriate for them. As a result, e-tourism has dominated the tourist sector. This topic describes the travel options made available to individuals by the Internet and other technologies. Consumers may obtain information, do searches, compare prices, and select any tourism service they desire. Online buying for tourism services is increasing, as e-tourism influences all aspects of tourism, from travelers to providers (Crouch & Ritchie, 1999).

Airline's control 50% of the overall market, which makes them extremely powerful. This is owing to the growth of low-cost carriers, such as certain airlines, who operate without a physical store and provide tickets at rock-bottom costs, therefore increasing competition. Then it is the turn of hotel units, followed by car rental firms and ferry companies that offer Internet-based services and products (Gross & Brown, 2006). Finally, it is discovered that consumers prefer individualized offer packages over mass-produced equivalents. E-tourism encompasses all intranet, Online, extranet, and internet applications, as well as related strategy and marketing concerns (Katsoni, 2011).

eCommerce

E-commerce is a fundamental application of technology today, impressing and raising the public's attention. However, it has altered the structure and fundamental principles of the financial system, rendering conventional methods of company management and operation ineffective. E-commerce, colloquially referred to as e-commerce, e-comm, or eCommerce, is the distant supply of products and services by digital means. In other words, it is based on electronic data transmission and does not require the partners, vendor, and consumer, to be physically present. It encompasses the development, advertising, sale, delivery, and servicing of products and services, as well as the payment for those items and services. Additionally, the breadth of electronic transactions has expanded with the advent of the internet (Gibbs & Kraemer, 2004). E-commerce enables people to purchase conveniently outside of their own country. Online purchasing appears to be largely motivated by the shopper's need for time efficiency. Online shopping experience immediately enhances a consumer's desire to utilize the Internet to purchase items (Kasemsap, 2018).

E-commerce has become important in determining an organization's future viability (Holsapple & Singh, 2000; Kasemsap, 2018). E-commerce has enormous potential to help small and medium-sized businesses (SMEs) thrive in both developed and developing nations (Kurnia et al., 2015; Kasemsap, 2018). Much of the existing literature on SMEs' adoption of e-commerce technologies attempts to explain e-commerce adoption behavior in terms of technology adoption, drawing on theoretical frameworks such as the Theory of Reasoned Action (Ajzen & Fishbein, 1975; Kasemsap, 2018), the Theory of Planned Behavior (Ajzen, 1991; Kasemsap, 2018), the Technology Acceptance Model (Davis, 1989), and the Diffusion of Innovation (DOI) (Rogers, 1995; Kasemsap, 2018). Gibbs and Kraemer (2004) stated that the extent to which e-commerce adoption is impacted by national variables such as government policy and e-commerce law varies across ten different nations. The following qualities demonstrate the significant importance of e-commerce:

– In the tourist sector, there is a geographical divide between supply and demand. Potential buyers can be found at any latitude and longitude, necessitating trading at various times.

– The tourism product is a combination of services and tangible goods. Effective collaboration, coordination, and communication between tourism businesses are critical components of providing a high-quality product.
– The tourist product's useful life is limited.
– The information is constantly present throughout the tourism process.
– The timely provision of accurate information to the appropriate customer at the appropriate time is a competitive advantage for businesses.

To operate properly and effectively, the tourist sector requires accurate information on the presence and availability of tourism items, as well as supply–demand synchronization. In other words, a system for the effective interchange of knowledge and economic resources is required in the tourism industry (Valeri & Katsoni, 2021).

eTourism and Social Media

The onset of the social media era implies a shift in user preferences, needs, and behavior. Consumers frequently use the Internet to buy purchases and even to plan their next vacation. The same holds true for the hotel industry, all the more so when one considers that social media has no geographical boundaries and thus an infinite reach. A classic illustration of the internet environment's significance is the TrustYou survey, which revealed that 95% of tourists utilize online services such as TripAdvisor to book their next hotel stay. According to the survey, 95% of travelers use the Internet to make hotel reservations. It is a well-known fact that the Internet is a source of contention for its users. The same is true for social media, which attracts a diverse range of viewpoints. Wherever the tourist is, easy access to information about tourist products and services is provided without charge. Due to the Internet's global accessibility, new markets are being created and existing ones are being expanded. Additionally, as a result of the cheap cost, the items become more appealing, increasing the number of travelers. It is possible to obtain specialized services and tailor a vacation package to each tourist's lifestyle, preferences, and points of view. Direct and rapid communication is another advantage of social media. This is accomplished through constant contact with customers at any time and through the provision of high-quality services. Additionally, various social ties are formed, i.e., contact with numerous different cultures.

Travelers have access to the internet tourism industry, which includes official government and state tourist websites, social media profiles, and online booking platforms, among others. More precisely, the social networking pages that show in visitors' search results are becoming an expanding part of the tourism industry. Xiang and Gretzel utilized terms linked to tourism, such as hotel, activities, shopping, and nightlife, in the Google search engine, which travelers are likely to have used prior to their trip. They examined the proportion of social networking sites that appeared in Google's search results, as well as the sort of social networking sites that showed. According to research, when a person looks for travel information in a search engine, a significant amount of social media content shows. Virtual communities accounted for the largest percentage, followed by websites that collect evaluations from people who have visited a location (e.g., TripAdvisor) and personal blogs. In

2011, it was discovered that social media pages have a beneficial effect on tourist websites, resulting in increased visitors (Xiang & Gretzel, 2010).

Social media is being utilized by an increasing number of tourists worldwide. According to ITB's 2015–2016 research on global tourism trends, social media impacts 14% of all international travel and passengers' destination and lodging selections. According to survey statistics, 70% of tourists are active users of social media. Additionally, it is found that tourists prefer websites such as TripAdvisor, travel blogs, and forums over social media. Finally, when it comes to the different alternatives available in the tourist industry, studies reveal that social media has a greater influence on location selection (40%), lodging selection (30%), and vacation type selection (20%).

Earlier in 2012, research performed in the United States revealed that Facebook was the preferred social media platform for travel reasons. Respondents were placed top with 73%, followed by YouTube with 13%, and MySpace with 4%. Only 1% of respondents picked TripAdvisor. Nusair and others contended that the findings contradicted news reports and pieces in commercial magazines that rated TripAdvisor as the top travel channel. As a result, it is natural that in an ever-changing field like social media research in tourism, various findings would be given in the same or comparable research. The sample size and features, the manner in which the sample is selected, the method of the survey, the date of the survey, and the location of the survey all have an effect on the findings.

Travelers seeking information about their journey turned to social media, which aides them greatly in ensuring they picked the correct location, accommodation, and other selections. Social networking platforms can be utilized at any point throughout the journey, including before, during, and after. Their usage, of course, varies according to stage and the unique requirements of each visitor. However, it is becoming increasingly clear that a rising percentage of passengers globally are use social media at some point throughout their voyage. This stage may entail choosing a place, writing comments and reviews, uploading photographs and videos, and interacting, among other things.

Tourists may use social media to share photographs and thoughts, provide comments, and recount their trip experiences. All of this is viewed as a resource for future tourists. Thus, travelers may get knowledge and suggestions not only from relatives who have visited a location, but also from internet users from all over the world—research indicates that obtaining information prior to a trip is the primary reason for utilizing social media. Along with the foregoing, tourists consult brochures, guides, faxes, and seek information by phone, e-mail, and global distribution systems.

Social media information may be quite beneficial throughout the vacation, offering directions to destinations, alternative activities, and restaurants, among other things. As a result, administrators of social media travel sites should regularly update and verify their material. This is to ensure that it is beneficial to tourists during their journey (Murphy et al., 2000). Especially during the journey, when tourists are out of their "comfort zone" and may be unfamiliar with the local language and geography, the information must be tailored and current. Throughout their journey, passengers may get information through brochures, guides, signs, maps, kiosks, hotel TV channels, and some mobile apps, as well as by telephone, fax, e-mail, websites, and mobile applications.

Social media is no more a static platform, thanks to contemporary programming languages. It is dynamic and collaborative, with numerous interactions. On social media, everyone may contribute to the creation of content. Similarly, individuals may participate actively in both the consumption and development of travel information on the internet. Thus, following a recent trip, travelers choose to upload photos to their profile, blog, or various online communities, write reviews about their experience on various social networking platforms (e.g., TripAdvisor), to rate restaurants, accommodations, and activities, and to inform other travelers about their upcoming trip.

Tourism and Webpage

For its part, the entrepreneur "exploits" the function of social media, which appears to be "conquering" the world. Nowadays, depending on conventional marketing channels such as television advertising or newspaper advertising is insufficient. If an entrepreneur wants to flourish in the new competitive climate, he must stay current on market trends and maintain a social media presence for his firm. The entrepreneur must establish his business's presence on social media. The finest hotels are racing to capitalize on new innovations in digital marketing and obtain direct reservations in order to achieve a competitive edge. However, because the Internet is the "place" for a wealth of information, the business may slip overlooked amid the sea of alternatives. Digital marketing experts have the knowledge and know-how essential to overcome this barrier. They are familiar with particular techniques for differentiating the firm in the digital microcosm and ensuring greater income. Remarketing is one of these methods.

Remarketing is a technique that involves displaying advertisements to a target demographic that previously visited a website while simply perusing the Internet. It is no secret that social media platforms utilize algorithms, and as a result, it is easy to learn about the ordinary user's preferences in the modern day. This information significantly enhances the likelihood of success when conducting a focused advertising campaign. In terms of tourist businesses, their image and competitiveness are improving, as their presence on the Internet has become critical. The financial benefits of selling tourist items online (e.g., plane tickets) are increased, and the tourism industry's position in domestic and international marketplaces is strengthened. Through engagement and information collection, customer demands are better understood. Advertising costs are decreased because everything is now accomplished via simple post and no brochures are required.

Finally, "positive noise" is generated. Through the use of social media, a tourism firm may generate joyful noise (the so-called "buzz"). There is a potential, in particular, of getting trustworthy data and public perceptions about the company's name (brand name), operations, and profile. This manner, the messages disseminated are more believable, resulting in the development of a devoted following.

ICTs for the Hotel Industry

The adoption of information and communication technologies (ICTs) contributed to the successful management of the hotel industry and constitutes a crucial factor for a hotels competitiveness and success. ICTs use enhances hotels performance at both strategic and operational levels. In his study regarding the impact of ICTs usage on performance of Jamaican hotels identifies as major antecedent of hotels' performance ICTs availability, integration, and intensity. There is a substantial annual investment in ICTs in order to improve hotels operations (Panteli et al., 2021). Implementing ICTs encompasses many benefits, as increases hotel's productivity and revenue, as well as customer satisfaction (Halkiopoulos et al., 2020). The adoption of ICTs contributes to hotel's financial empowerment, as it supports the operational related cost reduction while improved service quality leads to customer satisfaction, thus increased profitability (Aziz et al., 2012).

The most common ICTs used in the hotel industry are computer reservation systems (CRS), Customer Relation Management (CRM), Enterprise resource planning (ERP), Supply Chain Management (SCM), Project management Systems (PMS), Knowledge Management systems (KMS), and office automated Systems (OAS) that are linked to the hotels Front Office. Katsoni (2011) provides an extensive analysis of the use ICTs systems in the tourism industry. Hotels must invest in the appropriate computer hardware and software as well as telecommunication systems in order to receive, store, and analyze data to support management and planning and decision-making process. The use of ICTs provides hotels multidimensional support, in order to forecast tourists' trends and reservation demands, revenue, reservation, and yield management (Halkiopoulos et al., 2021). Yield management increases occupancy rates thus profitability. ICTs can lead to formulate optimal strategies to improve the hotel industry. The decision to implement ICTs depends on how hotels owners and managers are aware of them and on the degree that they perceive the potential benefit of using them. Hotel Industry chains are more innovative and adapt to new technologies than smaller lower tariff hotels. Small family-owned hotels are reluctant to adopt ICTs due to technophobia in a research on Slovenian hotel sector (Mihalič et al., 2015) have identified that hotel managers should become more ICTs aware as ICTs provide added value to hotels. The pinpoint that investment in ICTs will not show positive results immediately but once integrated can lead to competitive advantage (Katsoni & Dologlou, 2017).

Official Hotel Website

Official hotel websites are the key point of digital marketing communicating hotels brand identity and services provided to potential tourists. The quality of the information regarding facilities and services, as well as the quality of supportive material (photos and videos) and supportive tools (reservation systems) affect consumers' perceptions and behavior. Websites should be attractive, easy to navigate, compatible with mobile devices, and to maximize their effectiveness should incorporated booking systems and links to the hotels social media. By using a well-designed website hotel can increase volume of direct sales. Loyalty programs via official hotels website can maximize direct bookings. Hotels are not utilizing their websites in full potential to effectively marketing their services to potential tourists (Panas et al., 2020).

3 Research Design—Methods

Purpose of the Research

In order to examine the use of web technologies by hotel units it was decided to research in order to record the hotel industry in Crete Island. Hotels have been categorized based on their official category using the star rating system, resort location, and size-number of rooms and beds. By visiting each hotel official website, we evaluated the responsiveness of its design as well as the link with official business profiles in social media, Facebook, Twitter, Google+, Instagram, Pinterest, and YouTube. Considering the critical nature of implementing contemporary web technologies / information technology services, as well as the usage of social media, that a modern hotel unit should adopt, this research seeks to determine the utilization rate of the tools and services stated above. As a result of what has been reported thus far and the current knowledge base, the research topics that will be explored can be described as follows (Fig. 1):

Research Questions:

- [RQ1] What Web technologies do hotel units adopt?
- [RQ2] Do Hotel Units have a prominent presence on social networks?
- [RQ3] Is the use and utilization of innovative internet technologies as well as digital marketing strategies proportional to the category (*) to which the hotel units belong?
- [RQ4] What online booking information systems do Hotel units use, depending on the category to which they belong.

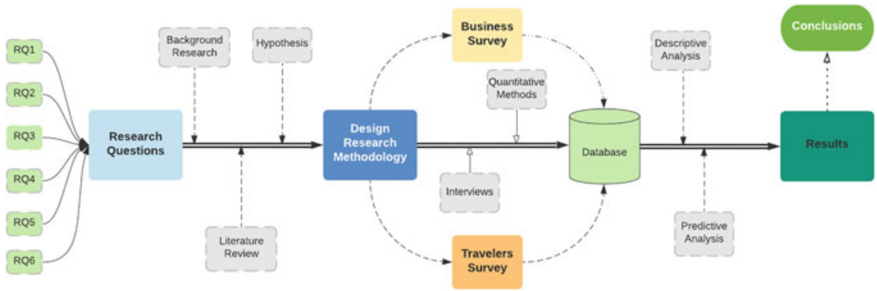


Fig. 1 Flowchart of Research Methodology

Descriptive Analysis

The data analysis step involved pre-processing, coding, and entering data acquired in the field (web technologies) into a Weka knowledge database (Machine Learning Software in Java). Each category of variables is analyzed using a different type of statistical analysis, both descriptive and inductive. Additionally, each group of variables was analyzed using a different statistical approach (descriptive/inductive). To investigate the possibility of a relationship between categorical variables, both descriptive (frequency tables—percentages, bar graphs, and pie charts) and inductive methods (parametric Pearson Chi-Square and non-parametric Likelihood ratio Fisher's exact test and Linear-by-Linear Association) were used.

Data Mining Analysis

Data mining is the process of extracting information or patterns from databases by grouping or categorizing them and applying the principles of statistics, artificial intelligence, machine learning, and database systems. Its objective is to have the information collected and the standards that emerge in a framework that is intelligible to the individual in order to assist him in making the proper judgments. We will use two critical knowledge mining techniques to this data set: categorization through decision trees, a technique that organizes data into predetermined categories—classes. Because classes are specified prior to the data, it is frequently referred to as supervised learning. Additionally, the Association Rule, a model that detects particular forms of data correlation, is studied.

Decision Trees

The most often used induction algorithms are decision trees, which have been utilized successfully in a variety of disciplines. It is an approximation approach for functions with different goal values. Their result is a tree structure that concisely reflects the data used to generate the laws. Each node in the tree represents a condition that determines the value of an instance of the instances, and each branch that branches out from this node indicates a separate value for that attribute. The Symbol A tree representation is a pair composed of constraints on feature values. Each route from the root to a leaf denotes a limitation on an attribute's value. The tree expresses the meeting of various intersections since it covers all conceivable—alternative paths. The major advantage of Decision Trees is that they are easily interpretable. The authors used the J48 Decision Tree Algorithm to analyze the data set for this study. The following decision trees illustrate the outcomes (J48).

Association Rules

Rakesh Agrawal introduced association rule mining in the early 1990s as a market basket analysis approach with the goal of discovering connections between things in a database. The Association rule correlates the form $X \rightarrow Y$, where $X \subseteq I$, $Y \subseteq I$, and $X \cap Y = \emptyset$. We will call the first member of the rule a hypothesis and the second a conclusion. $X \rightarrow Y$ applies to all transactions D with confidence c. If c% of transactions in D contains X, they also contain Y. Rule $X \rightarrow Y$ has supports if s%

of transactions in D contain X ∪ Y. The correlation rules are sentences of the form {X1, …, Xn} → Y, which means that if all X1, …, Xn are found in the basket, then it is possible to find Y. Of course, a simple reference to such a rule is meaningless unless it is supported by quantitative measures of the connection rules discovered (Boutsinas et al., 2008). Support and confidence are two such quantities, which are defined as follows:

Support: expresses the probability that the basket {X1 … Xn, Y. Is found in the Database and is equal to the ratio of the records containing {X1 … Xn, Y} to the total number of records. Confidence: expresses the probability that Y is found in a basket containing {X1, … Xn} and is equal to the ratio of records containing {X1 … Xn, Y} to the total number of records which include Xi.

Authors applied data mining method in this study.

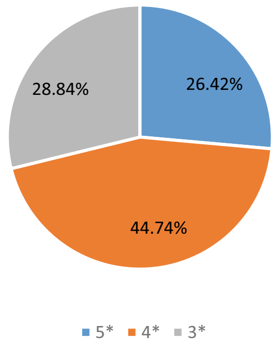
4 Results

Sample Characteristics

In the present work, firstly, the web technologies incorporated by the central information websites were studied. Secondly, the existence of digital marketing tools and applications in 371 hotels in the wider geographical area of the island of Crete (Fig. 2). The final sample of the present study consisted of hotel units based on the category of stars to which they belong, namely 5*, 4*, and 3* stars. In addition, the online presence of these hotel units on popular Social Media was studied: Facebook, Instagram, Twitter, YouTube, Google+ και LinkedIn.

Most hotel units that joined the knowledge base were 4* ($N = 166$) with 45% of hotels, followed by 3*($N = 107$) with 29% of hotels, and 5* ($N = 98$) with 26% of hotels. Regarding the online presence on the social network Facebook based on the category of stars (*), the research showed that a percentage close to 84% ($N = 82$) 5* hotels owned a Facebook page, in contrast to a percentage of 16% (N = 16) that did not hold. 4* hotels ($N = 118$) with a percentage of 71% owned a Facebook page,

Fig. 2 Hotel units sample [based on star (*) category]



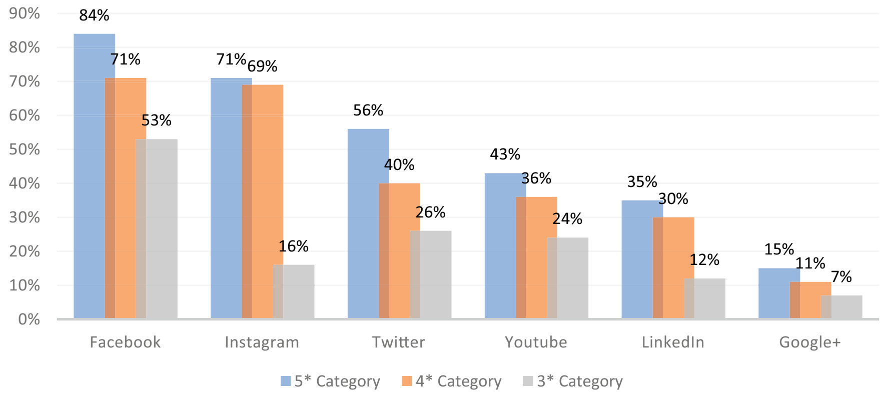


Fig. 3 e-Presence of hotel units on SMNs

while hotels of a similar category ($N = 48$) with 29% did not own. Other hotels of category 3* ($N = 57$) with 53% owned a Facebook page, while hotels of a similar category with a percentage of 47% did not own ($N = 50$).

Based on the above, the rule extracted is that in the total of hotel units of all categories, about half of the hotels have an online presence compared to the rest they do not have (Fig. 3).

Regarding the online presence on the social network Instagram based on the category of stars (*), the research showed that a percentage close to 58% ($N = 71$) 5* hotels owned an Instagram presence, in contrast to a percentage of 42% ($N = 41$) that did not hold. 4* hotels ($N = 115$) with a percentage of 69% owned an Instagram page, while hotels of a similar category ($N = 51$) with 31% did not own. Other hotels of category 3* ($N = 17$) with 16% owned an Instagram page, while hotels of a similar category with a percentage of 84% did not own ($N = 90$). According to the foregoing, the rule that is exported is that the greater the star rating of a hotel unit, the more regular its online presence appears to be via the social network Instagram (Fig. 3).

The following research question is on how CMS (Content Management System) technologies are used. A content management system (CMS—Content Management System) is a software application that manages content, documents, data, and organizational activities. Web Content Management (WCM) is a type of content management system (CMS) that aims to ease the process of publishing web content on websites and mobile devices, by allowing content creators to submit content without having technical knowledge of HTML or the ability to upload files. Numerous web-based content management systems are available, both free and commercially licensed. However, this is an area where OSS (Open-Source Software) has surpassed proprietary bonding in terms of market share. The simplicity of these systems is due to the fact that an element of the content management system is stored and maintained at the Sub-document (or component) level, allowing for better content reuse. The current effort attempted to investigate the central presence site of the sampled

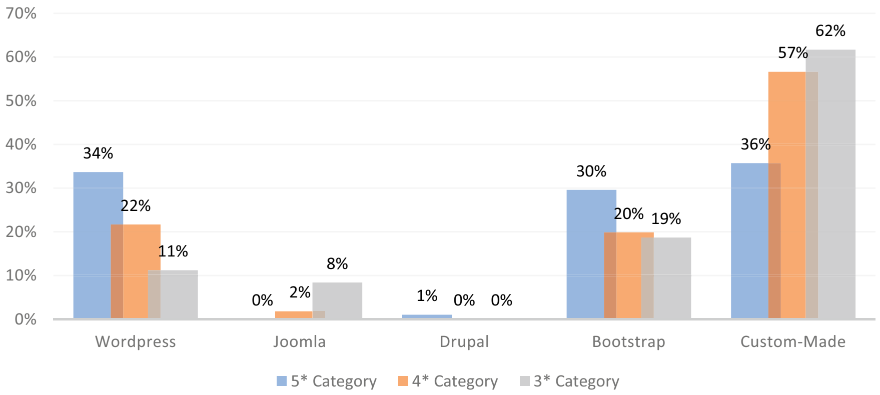


Fig. 4 CMS and custom-made web platforms

hotel units using a specialized tool for analyzing internet technologies (Wappalyzer) in order to determine whether or not to use a CMS or Custom-Made system.

The sample of hotel units observed that their official websites had been implemented based on content management platforms such as WordPress, Joomla, Drupal, and Bootstrap. In the first question, the platforms on which the main websites of hotels have been implemented based on their category (*) where the following conclusions were drawn:

- Use of platforms by hotel units (5*): according to the diagram (Fig. 4), a percentage of 36% of the hotels in this category do not use any of the platforms mentioned above (Custom Made), while a percentage of 34% make use of WordPress platform. In addition, 30% use Bootstrap, 1% use Drupal, and none of the hotels in this category use Joomla.
- Use of platforms by hotel units (4*): according to the diagram (Fig. 4), a percentage of 57% of the hotels in this category do not use any of the platforms as mentioned above (Custom Made), while a percentage of 11% use it WordPress platform. In addition, 20% use Bootstrap, 2% use Joomla, and none of the hotels in this category use Drupal.
- Use of platforms by hotel units (3*): According to the diagram (Fig. 4), a percentage of 62% of the hotels in this category do not use any of the platforms as mentioned above (Custom Made), while a percentage of 22% use it WordPress platform. In addition, 19% use Bootstrap, 8% use Joomla, and none of the hotels in this category use Drupal.
- In conclusion, it was observed that the hotel units of Crete, based on their category (*), do not use any online platforms such as CMS (WordPress, Joomla, Bootstrap, Drupal), in their majority, but use custom-made solutions. Most modules make extensive use of CMS platforms (WordPress, Bootstrap), while fewer (if any) use Joomla and Drupal CMS platforms.

The next question here concerns adopting an online booking system of the hotel units of the sample based on their category (5*, 4*, and 3*). The options that a hotel unit has for choosing an Online booking system are through:

- third party internet services such as Booking.com, Hotels.com, and Trivago.com [Public Solution = The hotel reservation system is based on a large booking platform such as Booking and Trivago]
- shared booking software (SaaS—online booking engine) [Shared Solution = hotel reservation system, implemented by an external provider, and the user can make a reservation through the official site of the hotel unit, for instance webhotelier.net etc.]
- private software program—hotel unit booking machine through which hotel unit reservations are made [Private Solution = the same hotel unit has implemented the hotel reservation system on its own, and the user can make its reservation directly].

The above options concern three separate ways in which the online reservations of the respective hotel unit are made.

On the official website of each hotel unit, it can be ascertained whether the reservation system is used by the specific company which belongs to one or more of the above three (3) categories [Private, Shared, or Public]. Then the hotel units were analyzed based on their category (5*, 4*, and 3*), and the online booking system they have where the following rules were extracted (Fig. 5):

- Hotel units of category 5* ($N = 62$) with a percentage of 63% do not have their reservation system (Public/Shared). While a percentage of 37% of hotel units of the same category ($N = 36$) has a reservation system [Private].
- Hotel units of category 4* with a percentage (57%) ($N = 95$) does not have their reservation system [Public/Shared], in contrast to a percentage of 43% of

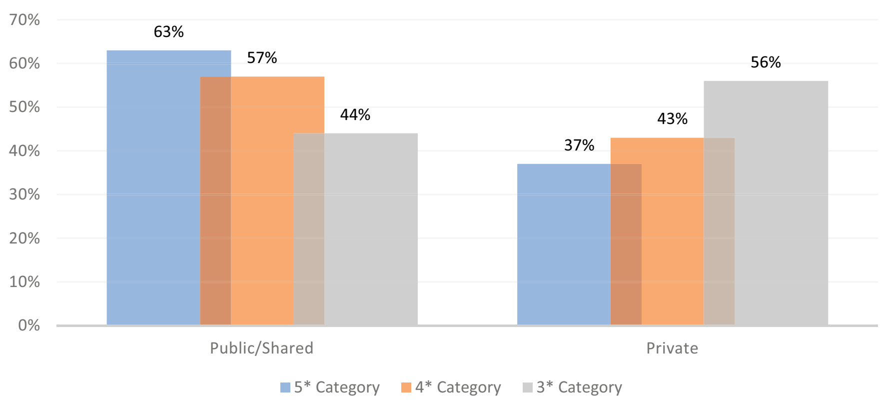


Fig. 5 Hotel online reservation systems/platforms

hotel units of the same category ($N = 71$) which has an online system [Private] reservations.
- Hotel units of category 3* with a percentage of 56% ($N = 60$) have their reservation system on the official website of the type [Private]. In comparison, respectively a percentage of 44% ($N = 47$) of the same category of hotels does not have its reservation system.

A basic rule that can be deduced from the above is that most 5*, 4* hotels do not have their Online booking system instead of most 3* hotels that have an online booking system. [Private]. The hotel units were then analyzed based on their category (5*, 4*, and 3*), on whether their online booking system is [Shared]. The conclusions that emerged are summarized below (Fig. 5):

- Hotel units of category 5* ($N = 62$) with a percentage of 63% have a [Shared] reservation system.
- Hotel units of category 4* ($N = 92$) with a percentage of 55% have a reservation system [Shared].
- Hotel units of category 3* ($N = 69$) with a percentage of 64% do not have a reservation system type [Shared].

The rule that can be deduced from the above is that the majority of 5*, 4* category hotels in the sample in this survey have a Shared online booking system instead of most 3* hotels that do not have a corresponding booking system. Then a corresponding analysis was made of the hotel units based on their category (5*, 4*, and 3*), compared to whether the online booking system is [Public]. The conclusions that emerged are summarized below (Fig. 5):

- Regardless of the star category, the reservation system of most hotel units is [Public], i.e., it is based on a comprehensive online booking platform such as Booking and Trivago.
- Most 5* and 4* hotels have their booking system, unlike 3* hotels.
- The majority of 5* and 4* hotel units in the present study sample have a [Shared] reservation system on its official website, in contrast to the 3* category hotel units.

Next, we proceeded to the Classify tab of the WEKA data mining software, applying the J48 algorithm from the trees.

Tree1

=== Run information ===

Scheme: weka.classifiers.trees.J48 -C 0.25 -M 2.

Relation: kriti-weka.filters.unsupervised.attribute.Discretize-B5-M-1.0-Rfirst-last-precision6-weka.filters.unsupervised.attribute.Remove-R33-weka.filters.unsupervised.attribute.Remove-R19-32.

Instances: 371 | Attributes 18: [id][category][Facebook][Ffollowers][google][Twitter][Tfollowers][Tfollowing][tweets][Instagram][Ifollowers][Ifollowing][Itweets][linkedin][pinterest][youtube][Ysubscribers][cms].

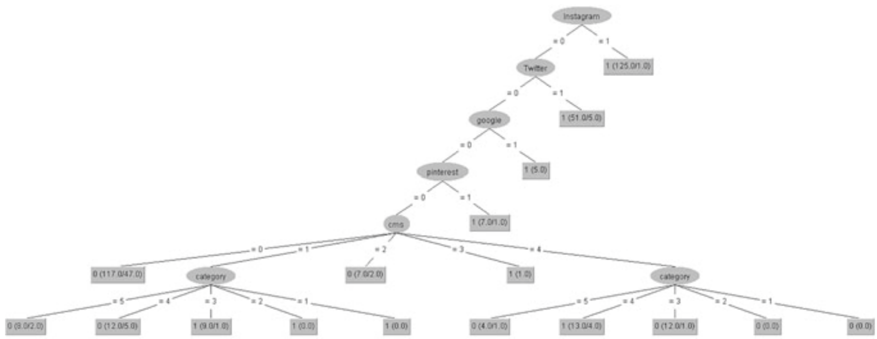


Fig. 6 Decision Tree 1

=== Detailed accuracy by class ===

TP rate	FP rate	Precision	Recall	F-measure	MCC	ROC area	PRC area	Class
0.877	0.245	0.613	0.877	0.722	0.588	0.820	0.603	0
0.755	0.123	0.933	0.755	0.834	0.588	0.820	0.894	1
Weighted avg	0.792	0.160	0.835	0.792	0.800	0.588	0.820	0.805

=== Confusion matrix ===

Based on the above decision tree, a key route observed is that those hotel units that do not have a presence on social networks have not chosen implementations of modern content management platforms for their main website (Fig. 6).

Tree2

=== Detailed accuracy by class ===

TP rate	FP rate	Precision	Recall	F-measure	MCC	ROC area	PRC area	Class
0.930	0.500	0.838	0.930	0.882	0.490	0.798	0.896	0
0.500	0.070	0.721	0.500	0.590	0.490	0.798	0.606	1
Weighted avg	0.817	0.386	0.807	0.817	0.805	0.490	0.798	0.820

=== Confusion matrix ===

Based on the above decision tree, a key route observed is that those hotel units that do not have a presence on the YouTube platform make little use of social networks, as a result of which they show few followers in the official accounts (Fig. 7).

Fig. 7 Decision tree 2

Tree3

=== Detailed accuracy by class ===

TP rate	FP rate	Precision	Recall	F-measure	MCC	ROC area	PRC area	Class
0.907	0.536	0.797	0.907	0.848	0.423	0.752	0.831	0
0.464	0.093	0.684	0.464	0.553	0.423	0.752	0.589	1
Weighted avg	0.774	0.402	0.763	0.774	0.759	0.423	0.752	0.758

=== Confusion matrix ===

Based on the above decision tree, a key route observed is that all hotel units that have a presence on the Twitter platform make little use of this social network, having few tweets and Twitter Followers, although they make more use of other social networks (Fig. 8).

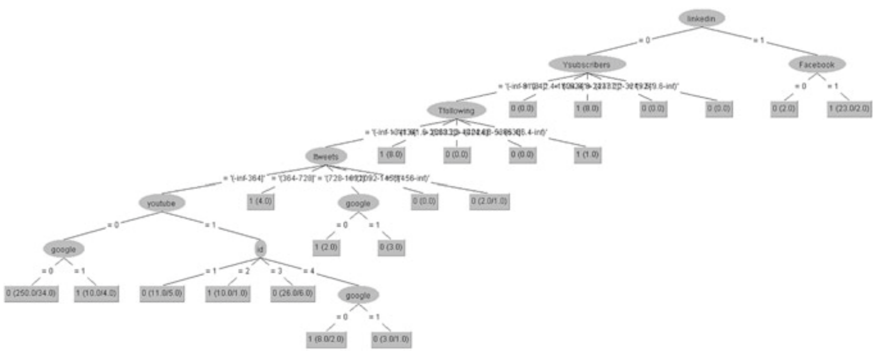


Fig. 8 Decision tree 3

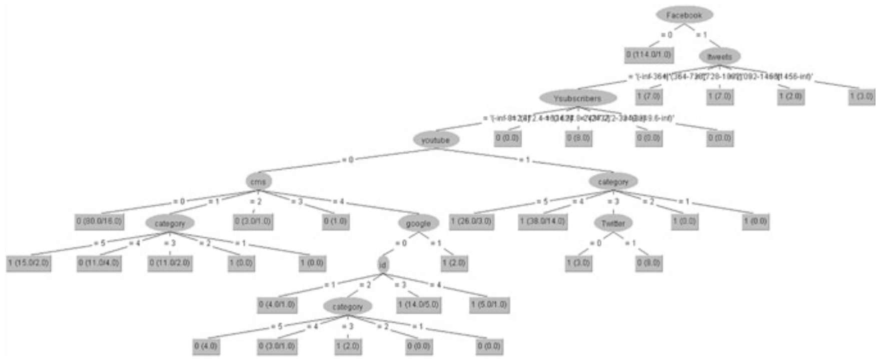


Fig. 9 Decision tree 4

Tree4

=== Detailed accuracy by class ===

TP rate	FP rate	Precision	Recall	F-measure	MCC	ROC area	PRC area	Class
0.882	0.296	0.854	0.882	0.868	0.596	0.869	0.910	0
0.704	0.118	0.752	0.704	0.727	0.596	0.869	0.764	1
Weighted avg	0.822	0.236	0.820	0.822	0.821	0.596	0.869	0.860

=== Confusion matrix ===

Based on the above decision tree, a key route observed is that all hotel units that have a presence on the Instagram platform make extensive use of this social network and other social networks and adopt a large percentage of CMS technology on their main website (Fig. 9).

Associate

The Apriori algorithm was applied through the Weka software, where the following correlation rules were generated in evaluative order. Based on the following rules (Fig. 10), some conclusions are described below:

- Hotels that use Twitter and have a few Tweets have a few ConnectedPages
- Hotel units that have few Ysubscribers have few ConnectedPages with their main website
- Hotel units that have few tweets and backlinks have few pages linked to their main website
- Hotel units that have few tweets and few followers have little penetration in social networks
- Hotel units that choose modern platforms for their main website have a strong presence on social networks.

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1.tweets='(-inf-130600]' 370 ==> Tfollowers='(-inf-33000]' 370 <conf:(1)> lift:(1) lev:(0) [0] conv:(1)
2.Tfollowers='(-inf-33000]' 370 ==> tweets='(-inf-130600]' 370 <conf:(1)> lift:(1) lev:(0) [0] conv:(1)
3.Warnings='(-inf-15020]' 369 ==> CriticalErrors='(-inf-1451.2]' 369 <conf:(1)> lift:(1.01) lev:(0.01) [1] conv:(1.99)
4.CriticalErrors='(-inf-1451.2]' 369 ==> Warnings='(-inf-15020]' 369 <conf:(1)> lift:(1.01) lev:(0.01) [1] conv:(1.99)
5.Organickeywords='(-inf-1451.2]' 369 ==>CriticalErrors='(-inf-1451.2]' 369 <conf:(1)> lift:(1.01) lev:(0.01) [1] conv:(1.99)
6.CriticalErrors='(-inf-1451.2]' 369 ==>Organickeywords='(-inf-1451.2]' 369 <conf:(1)> lift:(1.01)lev:(0.01) [1] conv:(1.99)
7.Organickeywords='(-inf-1451.2]' 369 ==> Warnings='(-inf-15020]'369 <conf:(1)> lift:(1.01) lev:(0.01) [1] conv:(1.99)
8.Warnings='(-inf-15020]' 369 ==> Organickeywords='(-inf-1451.2]'369 <conf:(1)> lift:(1.01) lev:(0.01) [1] conv:(1.99)
9.tweets='(-inf-130600]' ConnectedPages='(-inf-52400]' 369 ==>Tfollowers='(-inf-33000]' 369 <conf:(1)> lift:(1) lev:(0) [0]conv:(0.99)
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12.Warnings='(-inf-15020]' 369 ==> CriticalErrors='(-inf-1451.2]' 369<conf:(1)> lift:(1) lev:(0) [0] conv:(0.99)
13.Ffollowers='(-inf-513035.4]' 368 ==> Tfollowers='(-inf-33000]' 368 <conf:(1)> lift:(1) lev:(0) [0] conv:(0.99)
14.Ffollowers='(-inf-513035.4]' 368 ==> tweets='(-inf-130600]' 368<conf:(1)> lift:(1) lev:(0) [0] conv:(0.99)
15.Ffollowers='(-inf-513035.4]' 368 ==> Ifollowers='(-inf-60600]' 368<conf:(1)> lift:(1) lev:(0) [0] conv:(0.99)
16.backlinks='(-inf-177200]' 366 ==> ConnectedPages='(-inf-52400]'366 <conf:(1)> lift:(1) lev:(0) [0] conv:(0.99)
17.tweets='(-inf-130600]' backlinks='(-inf-177200]' 365 ==>ConnectedPages='(-inf-52400]' 365 <conf:(1)> lift:(1) lev:(0) [0] conv:(0.98)
18.ConnectedPages='(-inf-52400]' 370 ==> tweets='(-inf-130600]' 369 <conf:(1)> lift:(1) lev:(-0) [0] conv:(0.5)
20.optimization='(-inf-151.8]' backlinks='(-inf-177200]' ConnectedPages='(-inf-52400]' 364 ==> tweets='(-inf-130600]' 363
21.Ysubscribers='(-inf-812.4]' 361 ==> ConnectedPages='(-inf-52400]' 360 <conf:(1)> lift:(1) lev:(-0) [0] conv:(0.49)
22.backlinks='(-inf-177200]' 366 ==> optimization='(-inf-151.8]' ConnectedPages='(-inf-52400]' 364 <conf:(0.99)> lift:(1) lev:(0) [0] conv:(0.99)
23.google=0 youtube=0 259 ==> linkedin=0 259 <conf:(1)>lift:(1.07) lev:(0.05) [17] conv:(17.45)
24.google=0 Instagram=0 227 ==> linkedin=0 224 <conf:(0.99)>lift:(1.06) lev:(0.03) [12] conv:(3.82)
25.Twitter=0 pinterest=0 245 ==> google=0 227<conf:(0.93)>lift:(1.07) lev:(0.04) [14] conv:(1.7)
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Fig. 10 Extracted rules [Apriori algorithm]

5 Discussion

The present study examined a total of 371 hotel units classified as 5*, 4*, or 3*. According to the research conducted among the social networks examined, Facebook and Instagram appeared as the first online extroversion possibilities for the sampled hotel units.

It was discovered that the majority of them, based on their category (*), do not make extensive use of the internet CMS systems investigated. Among them, the majority of hotel units have opted for Bootstrap technology and the WordPress platform over the more specialist Joomla and Drupal platforms. Additionally, the majority of hotel units utilize third-party online booking platforms [Public]. In terms of hotel unit type and online booking system selection, it was discovered that 3* hotel units employed an in-house [Private] online booking system, while 4* and 5* hotel units additionally utilized external service providers. [Public/Shared] reservation systems. To sum up, hotel units that use modern platforms for their primary website appear to have a strong social media presence, which results in social network users becoming more engaged in determining the hospitality services they provide.

6 Conclusion

In conclusion, the findings of this study emphasize the importance of integrating modern information and communication technologies into hotel units of all categories throughout the country, as this will result in significant long-term benefits for the tourism industry's communication policy related to the provision of current hosting services. Notably, all hotel units appear to understand the value of investing in a redesign of the official website on an annual basis. The survey, however, revealed some omissions from the study sample in terms of design, booking tools, and social media strategy utilizing digital marketing techniques. As a result, integrating social networking strategies will result in the acquisition of competitive advantages, as well as the successful planning and organization of tourism hospitality businesses in general.

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Tourism's Use of Web-Based Information Systems and the Influence of Tourism Trends

Constantinos Halkiopoulos and Konstantinos Giotopoulos

Abstract The enormous impact of technology on the typical socialized person's everyday life, and consequently on tourism, particularly the Internet and digital services, has resulted in very high percentages of tourist development in a variety of industries and with a diverse range of recipients. The possibility and necessity of digitizing numerous services and information in order to provide the end user with all he or she seeks has an effect on the entire tourism chain and all stakeholders: tourism firms, travelers, consumers, agents, and tourist locations. In the tourism sector, new technology developments, the digital actions of firms and enterprises, and daily demands have all contributed considerably to the growth of digital tourism. This study paper analyzes information media and various information systems-applications in tourism. Tourism is specifically examined in terms of its evolution and impact on our daily lives via social media, digital advertising, and modern applications of digital marketing. Additionally, it assesses the value of information systems in enterprises, how they are implemented according to needs, and how they are updated to remain "current" with the modern needs of the tourism sector's firms. The current research employs a primary research methodology, utilizing a questionnaire as a research tool, in combination with foreign and domestic academic literature and articles in the research subject. According to the percentages, respondents appear to have used a significant portion of their smart devices to look for vacation locations, demonstrating their familiarity with the Internet and the use of applications for tourist services such as accommodation. Apart from data analysis, the overwhelming majority appear to engage in leisure travel, mostly through current entertainment and communication tools such as social media, indicating that the user seeks information from acquaintances and friends. Users, or potential tourists, have begun and are continuing to follow Digital Tourism, have ceased blindly consulting agencies and travel businesses, and have embraced technology and the expansion of information technology in all parts of their life and tourism. As a result, the possibility to save time and

C. Halkiopoulos (✉) · K. Giotopoulos
Department of Management Science and Technology, Entrepreneurship & Digital Innovation Laboratory (EDILAB), University of Patras, Patras, Greece
e-mail: halkion@upatras.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
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money while preparing a vacation has been reduced to a minimum, requiring potential tourists to rely on new and innovative IT applications for everything related to their next trip, from simple itinerary updates to complete organization.

Keywords Information systems · e-Tourism · Tourism trends · Digital marketing · Influencers · Google trends · Tourism destination · Data analysis

JEL Classification Z32 · D83 · L86

1 Introduction

Tourism is neither a recent phenomenon nor a privilege of certain socioeconomic groups. It is hard to say when the notion of tourism first emerged. Nonetheless, experts predict that tourism will make a major presence in the early nineteenth century. The modern post-war period, following World War II, saw a significant growth in visitor visitation. The term "tourist" first emerged in English in 1800, and the key distinction between "tourist" and "visitor" was made in 1963, at the United Nations Conference on Tourism in Rome. A "visitor" is described as a person who moves to a nation that is not his or her home country for any purpose other than work (paid activity). Thomas Cook founded the "Circular Club" in 1855, which became known as the "birthplace" of tourism. In 1890, the "Touring Club" was formed in France, and in 1895, the "Cycling Company" in Greece, which was renamed the "Hellenic Touring Club—Touring Club" with an update to its articles of incorporation in 1909. The club's major activity was tours, but it also included a cycling department. There were many more movements for tourist purposes at the beginning of the nineteenth century, when the locomotive was invented and the railway network was expanded, as well as the construction of many and luxurious cruise ships, although they still concerned specific social groups, high economic and social surface, whom the people called "milords" and "lords" until the beginning of the twentieth century.

Of course, as technological methods have advanced, the image of tourism and tourist groups has shifted dramatically. The introduction of the automobile and, later, the airplane into everyday life, as well as their replacement of traditional modes of transportation, contributed substantially to the growth of tourism. The decrease of travel time and distance by plane was a critical moment in the growth of tourism, as a consequence of which the "holiday vacation" is now available to a wider range of socioeconomic classes. As the tourist privilege evolved, so did the character of the tourists, as well as the variety in them and their choices. We are now discussing various forms of tourism, such as conference, agritourism, winter, social, and so on. All of this development, as well as the abundance of visitors and other kinds of tourism that have been established, as well as rivalry with neighboring nations, necessitate the construction of the necessary infrastructure, which will allow the development of the essential activities. After all, tourism is now one of the most common types of leisure and recreation, as well as one of the most fundamental sources of revenue in both developed and developing nations worldwide. This is a multifaceted industry that is expanding with time. Furthermore, the types of tourism are determined by visitor demand and societal factors (Dargah & Golrokhsari, 2012). Clearly, the media and personal influences of each socialized person have the biggest impact on the type of tourism he chooses to undertake, the location he will visit, and the mode of transportation he will choose to accomplish it. As a result, the tourist industry has been quickly developing throughout the years.

2 Literature Review

Today's Tourism

Domestic and foreign tourist are both components of modern tourism. The socio-political components have altered in comparison to past years, allowing for both domestic and international travel. The present regimes, changes in the social environment, incomes, but also the current attitude of the inhabitants, allow individuals who want to visit a location to do so with little effort and, on the other hand, high expenditures. Following World War II, tourism grew in many nations, necessitating tourist programs and infrastructure improvements. Assuming that as tourism thrived, so would the economy, many people invested in tourism. The tourist industry today comprises of numerous production units with varied economic activities, from both governmental and private entities, all with the same objective of creating and promoting tourism goods and packages. Given this, the tourist industry may be regarded as an inhomogeneous informal production sector (Medlik, 2003). It does, however, have homogenous sections. Its structure is made up of Hotels/Tourist Accommodation/Hospitality Means:

– Hotel units, rooms to let, apartments, hostels, hostels, and houses.
– Food Units: These include restaurants, cafés, bars, taverns, and other enterprises that can cater to travelers' nutritional needs.
– Transportation Firms: i.e., airlines and shipping companies, KTEL buses, means of transportation rentals, and enterprises in general that satisfy the transportation needs of visitors to and from their location.
– Units/Leisure Facilities/Natural Resorts: These are companies and activities that allow tourists to be amused have fun while seeing natural places, historical sites, cultural sites, and so on.
– Tourism Intermediaries: these are shops that sell souvenirs, shops that provide vital tourist equipment, and so forth.
– Travel Agencies: businesses that fully plan tourist excursions. Typically, the travel agent's tasks include planning the trip, issuing tickets, booking the airline and hotel, ensuring the tourist's transit to the location, and overseeing his other movements throughout the trip on his behalf.

– Huge Travel Organizations (or Tour Operators): These are large multinational financial organizations that serve as middlemen in the tourism product distribution chain.
– Public Support Services: These include regional tourism organizations, services in ports and airports, information and public service offices, tour help, as well as promotion for the location (to strengthen Tourism).

Of fact, given the limitless supply of knowledge available to all of us, commonly known as the "Internet," most of the above has been supplanted by Internet apps. To exist individually, each of the stones that comprise each of the aforementioned regions must be updated to the point that they may be promoted and made accessible to potential visitors-tourists via the internet.

Tourism and Internet

The tourism industry is completely reliant on information and information. To pick a tourist location, it must first draw the tourist, then enable them to analyze them, ensure that he can meet his demands, and lastly come to that conclusion. In actuality and with complete objectivity, such a thing is impossible. Given this, a tourist who wants to leave his daily life and look for what he needs in his current trip (exploration, visiting historical sites, rest, relaxation, and so on) can use various internet services to see visitors' opinions, statistics information based on what interests him, and even suggestions for what he can visit and best ways of service and entertainment. The information that must be supplied necessitates the participation of both customers and providers. This entails expensive information expenses, but also a lack of market knowledge. As a result, New Technologies in Information and Communications have a major effect on the tourist sector and have the potential to revolutionize it. This is consistent with the fundamental shift in the Tourism Industry's approach to supply and demand. Many hotel staff, for example, lack the necessary knowledge and expertise to utilize the technology. Furthermore, it is common for even big hotel units to lack an IT department. The individual who will deal with the company systems will most likely be an external partner or the owner/manager of the firm, who seldom specializes in such things. As a consequence, the company's presence on the Internet becomes difficult or does not provide the best results, because wrong handling of a company's online image appears to the internet user, who typically has a "poor" opinion. Of course, even when all of this is communicated to business owners or owners, the prevailing mentality in many cases serves as a deterrent to the use of information and communication technologies by companies that have not yet accepted that their existence on the Internet necessitates the employment of a computer science specialist.

Tourists are more knowledgeable than ever before, demonstrating dynamism and wanting the greatest and most up-to-date information. Tourist travel packages are declining, and "Do it yourself" or "Modular Traveling" tourism is taking their place. The capacity of interested individuals to be educated, obtain the necessary information, and purchase the appropriate services themselves is growing. As a result, in order for each industry to follow the new order of things and satisfy the new criteria, adequate telecommunications and technical infrastructure must be developed. The Internet is currently seen to be perfect for boosting commercial and professional activities, particularly in the tourist industry. The substantial benefits it may provide to tourism are found in the following options:

- Direct access to a large range of global information sources
- Direct and low-cost communication exchange between businesses and consumers
- Immediate and effective consumer support
- Transparent information regarding products and services, unrestricted information marketing
- Internet-based sales of goods and services—Improving business strategy procedures and methods of application globally
- Significant cost savings in communication between visitors, suppliers, and tourism intermediaries
- Marketing of advertising scenarios (implementation and promotion of services) based on the type of tourism that the tourist is interested in Genuine support for the communication of the cooperating businesses

All of the foregoing is an appealing qualification for the tourist, who now has all of the essential information to pick and arrange his vacation in order to arrive at the best alternative for him. Given all of the foregoing, it is evident that the tourist industry's value chain has been significantly impacted and altered. The internet has replaced paper as the principal medium for transactions between tourism firms and visitors. Direct communication and contact between customers and suppliers (such as travel agencies) has had a significant influence on market actors and has drastically increased the role of new firms functioning only as online middlemen. This is, of course, becoming more evident as the internet has been utilized much more often and at a considerably lower cost in recent years.

The growth of Information and Communication Technologies (ICT) has had a significant influence on the operation, structure, and strategy of tourist enterprises, since their objective is to increase efficiency, transparency, competitiveness, and organizational processes. Information and communication technologies have the potential to significantly accelerate the growth of a firm. When utilized correctly (Halkiopoulos et al., 2021a). Their use in the tourist sector is extensive since they can assist all company activities. Furthermore, they have all of the resources necessary to identify profitable sectors and advertise items with specialized competence in certain parts of the larger market.

It is feasible to cut expenses and enhance efficiency by utilizing them. Tourism businesses that utilize information and communication technologies may distinguish their offered services (products) and customize them to produce a beautiful end product with additional value due to the distinct approach and final configuration. This is really useful for demanding clients who are prepared to spend more to acquire what they require during their vacation. As a result, the use of Information and Communication Technologies in tourist firms (in all sectors) allows the tourism industry to grow considerably, immediately delivering the suitable products based on demand (Valeri & Katsoni, 2021). However, for this development to occur, the following basic requirements must be met:

- Tourism organization management should grasp the strength and value of information and communication technologies, as well as the possibilities they provide, and obtain the necessary expertise and experience in them.
- The tourist sector will need to handle issues that occur, goods that are in demand, and engage in effective marketing in order to add value and time.
- It is important for tourist organizations to use information and communication technologies appropriately and carefully in order to safeguard their interests.
- Tourist companies must recognize that the expansion of information and communication technologies is a development in the tourism sector as well.

As the internet advances and offers a new economic environment for performing commercial activities, such as e-commerce, it creates new chances for tourist development and growth. As a result, an increasing number of tourism firms and organizations are offering online services using new technological infrastructures. This new kind of tourist business is known as e-Tourism. E-Tourist refers to the use of information and communication technologies in the tourism sector. It is more especially concerned with the provision and demand for tourist services and goods via electronic infrastructure and the internet (Kim et al., 2011). It encompasses all intranet, extranet, and internet applications, as well as strategy, advertising, management, and marketing concerns linked to the use of technology. Also, the Internet allows for the adoption of new methods of responding to the requests of each visitor, as well as the revolutionary growth of the whole tourism value chain (Evans et al., 2003). There is a cost decrease but a considerable rise in inefficiency. Some operations, such as "Check-In" at airports and hotels, may be completed automatically with the help of Information and Communication Technologies (Aziz et al., 2012).

Furthermore, using data mining, the visitor receives advertisements relevant to the alternatives that would statistically fit him best based on his interests. This contributes substantially to the growth of marketing in the tourist sector. Given the above, it is clear that not only are the processes followed in the tourism sector altering historically, but it also allows for the development of new services and unique concepts that will entice tourists. Furthermore, it is important to highlight that the introduction of technologies in tourism was motivated by the necessity for travel agencies, airlines, and shipping businesses, as well as hotel units, to complete the procedures involved at a faster and cheaper cost. As a result, the course and development of e-Tourism/e-hospitality (e-Tourism) appear bottomless, as new ideas are born and promoted in the smartest ways possible through proper internet marketing, but also as Internet use continues to receive a large portion of information search in the average socialized citizen (Katsoni, 2011).

Tourism 2.0 and Social Networks

Those working in tourist marketing have specialized in the design and development of websites and websites, as well as drawing visitors to these sites, during the previous decade. Visitors to these websites may obtain information on the destination or hotel of their choice, as well as reserve a hotel stay or purchase an airline ticket. 'Web 1.0' emerged gradually as a result of the creation of apps that enabled, in addition to publishing content and performing transactions via the Internet, the use of the Internet. Consumers may connect with one another via e-mail in 'Web 1.0,' and be notified of material produced by tourist providers and trade. 'Web 1.0' was particularly beneficial for tourist marketing executives since the material that the customer came into touch with was controlled and originated with them. They had total control over how and what information was disseminated. This reasoning was challenged by the emergence of technology that enabled the posting of material on the Internet by both tourist producers and users. All prior Internet services gained a social component as a result of this. These New Technologies have enabled internet users to cooperate, communicate, and exchange information electronically in previously unheard-of ways. As a result, the second generation of digital services was progressively developed, leading to the Participatory Internet 'Web 2.0,' the instruments of which are the ubiquitous current Social Media (Blogs, Wikis, Podcasting, etc.). All of the 'Web 2.0' apps and technologies have resulted in the creation of a global stream of what is known as 'door-to-door.' In tourism, the "door-to-door" procedure has always operated dynamically in directing travelers (Marcussen, 2008). The advent of electronic 'word of mouth' from 'Web 2.0' is predicted to affect the dynamics of the tourist sector 'dramatically,' much as 'Web 1.0' did. The aforementioned Electronic Customer Relationship Management Applications help to assist e-Marketing Methods in Tourism (e-C.R.M.) However, there are also new means and methods of communicating Internet Technologies and Applications' Web 2.0'. These are "mass collaboration" technologies that enable internet users to actively interact concurrently and directly with other users in the creation, extraction, and transfer of information and knowledge via the Internet (Panas et al., 2020).

The following Social Media platforms are mentioned in passing:

- R.S.S. (Really Simple Syndication) is the new standard for Internet reading. This digital technology enables Internet users to subscribe to a central website (RSS Reader) and get news and updates from various websites of their choice, such as blogs and podcasts.
- Magazines and personal blogs accessible online (Blogs). Blogs (Blogs or Weblogs) began as personal expression websites where events popular with the blog owner were uploaded in reverse chronological order (from the most current to the oldest) and different citations to other websites were popular—interested the author and owner of the blog. They are characterized as 'daily entry websites that offer entries/updates in the form of a calendar or narration of certain occurrences.
- Websites dedicated to social networking. They enable users to establish a personal website with their profile and ask others to do the same, allowing everyone to join and build a digital community.
- Today, the most popular website in this category is the well-known www.facebook.com, which exemplifies Internet users' desire to transform it into a platform for

gathering and exchanging views, ideas, and other information among individuals who have same interests.

- 'Tagging' technology (grammar, categorization) is a novel way of classifying and labeling content on the Internet. Any additional information or material (such as a new Blogs entry) may be classified several times, with the effect that it appears in each category. 'Tagging' has gone widespread in the realm of user-generated content websites and 'Blogs.'
- The term 'Mash-Ups' refers to the process of merging two or more distinct sources of material and software in order to develop new services that provide value to consumers.
- The 'Wikis' technology is a sort of server that enables users to collaborate on a web page and continuously change its content via any browser, without requiring users to access or understand any programming language.
- Sites and files created digitally (podcasting) and online videos. The term 'podcasting' refers to the act of many internet users uploading (posting) audio or video files to multiple websites. The most popular website for uploading and sharing such content is www.youtube.com, which enables users to establish travel and travel-related accounts, upload/post travel videos or other videos, and comment on videos they watch.
- Asynchronous JavaScript And XML is an emerging approach for developing interactive online applications. Its objective is to build more functional web pages that exchange less data with servers so that the entire web page does not need to be refreshed each time the user searches for new information (one new click).
- 'Metaverses' are virtual reality 'worlds' in which Internet users may interact and play electronic games (M.M.O.R.P.G.—Massively Multiplayer Online Role-Playing Games).

Additionally, the global tourism industry is increasingly focused on the 'Web 2.0' Participatory Internet as a result of the significant impact that new collaborative internet communication models are having on 'e-Business' (e-Business), as its current users and travelers seek to create and distribute their content via the electronic channels of their choice. Web 2.0 technologies enable internet users to act as producers, designers, suppliers, and distributors of tourism services, as well as "intermediary business players" under the new e-Commerce (e-Commerce) standards. The economic consequences, but also the chances generated for the tourist sector, are deemed critical. In summary, the following arguments are made: The power of impartiality and word-of-mouth transmission of electronic information through personal blogs (Blogs) results in the advertising or defamation of a location or tourist business at the pace of a "virus." Travel companies and corporations are now monitoring these group discussions online and many have integrated personal blogs (Blogs) into their websites (Halkiopoulos & Koumparelis, 2020).

The impact of social networking websites on how visitors plan, organize, and use their tourism and travel experiences is critical. Other people's quality assurance and trip organization are two developments that have a big impact on the tourist business. Today's tourist websites are being altered to support and capitalize on this collaboration, for as by encouraging users to book a group tour. Numerous travel and service providers now use 'Podcasting' (digital sites and archives) as a marketing and communication tool, capitalizing on the power of objective advertising generated by 'testing' the travel experience on 'Podcasting' digital websites via the use of electronic video or audio files from hotel accommodations, visiting destinations, and so on.

The impacts of 'tagging' technologies are equally significant, since they significantly influence how other users search for and locate similar content on the Internet by grouping the information they give. Tourism businesses are closely monitoring advancements in these technologies since they are directly connected to enhancing their search engine rankings (Tsimonis & Dimitriadis, 2014).

Tourism and Advanced Media Technologies

Multimedia, digital maps, and virtual reality techniques are increasingly being utilized in Geographical Tourist Portals (Geographical Portals or Geoportals) to showcase destinations in other applications such as mobile platform technologies and electronic destination management (Bortenschlager et al., 2010). The use of multimedia in tourism is intended to give comprehensive information in a variety of formats and is prevalent at all levels, from national tourist operators to tourism enterprises. 3D imagery, video, music, and e-books are all utilized to effectively market tourism locations. Dynamic digital maps are frequently utilized in conjunction with or as an extension of other technological trends, such as integrated electronic destination management and mobile platform in tourism (m-Tourism) applications (Panas et al., 2020). Virtual reality technologies offer a wide range of fascinating uses in cultural tourism (e.g., virtual tours of museums and historical sites) and nature tourism.

m-Tourism

Mobile Platform Technologies in Tourist (m-Tourism) is a significant technical advancement in the tourism industry and a prime example of customized service. The m-Tourism' apps are mostly used to promote and administer alternative kinds of tourism, most notably eco-tourism (tours in natural areas, bicycle routes, and climbing) and city tours via a portable guide (Panas et al., 2017). Multimedia and regionally tailored services are critical components of mobile platform apps. Applications such as (a) portable guides with data storage, (b) scheduling, (c) geolocation and optimal combination, and (d) visit scheduling enable the organization and optimization of tours to cities, museums, and attractions (Siau et al., 2001). Additionally, the integration of multimedia content display with the Global Positioning System G.P.S. (Global Positioning System) and location-based information based on the user L.B.I.S. (Location-Based Information Service) opens up new possibilities during the visit's duration. M-Tourism apps extend a visitor's stay in an area or nation. The benefits are substantial, particularly for places with a high density of surrounding points of interest (Katsoni & Dologlou, 2017).

Tourism Analytics

Data mining and business intelligence techniques are essential tools for businesses interested in building beneficial search engine optimization systems that collect data for customer relationship management and targeted marketing. These systems enable the organization and analysis of data derived from market research, studies, and the study of advertising campaign performance (Halkiopoulos et al., 2021b). The data sought through the use of data mining techniques and business intelligence are primarily concerned with the demand for tourism products according to consumer profile (customer segmentation) and originate from the external environment of businesses and institutions, in other words, tourists—consumers. They may, however, refer to the internal environment of stakeholders striving to maximize resource usage, save costs, and enhance performance. In the first scenario, the business collects and uses data, predicts customer behavior, and ultimately lands in desired market groups (Target Groups). The objective of the internal business environment is to enhance performance, and the data is derived from the organization's everyday operations and intake of information (Holloway, 2009).

Influence of Tourism

The usage of the Internet has fundamentally altered the lives of modern people in recent years. Information that was once difficult to find is now only a few clicks away for every Internet user. All that is required is a functional computer and an internet connection. These items are readily available to the majority of individuals in western countries. As a result, it is logical to assume that because there is so much data available, people would seek it out and utilize it in all parts of their life, from the most mundane daily concern to scientific study. Numerous search engines are the simplest and most easy approach for an Internet user to locate what he or she is looking for. A user can be routed to the section that provides the information they are seeking for using these sites. Google.com is the most frequently used search engine worldwide. Google is the most widely used Internet search engine on the planet. Of course, there are other search engines such as Bing.com, Yahoo.com, and Baidu.com, but when 90% of users choose Google.com, it is evident that the internet search industry is dominated by a single competitor.

This is an important point to have in mind as we investigate how data from the Internet may be used to solve scientific issues. Google.com is so widely used on a daily basis that the word Google has been coined in several languages to denote "search for what you're searching for on Google.com." Considering that 90% of consumers globally use an internet search engine, it is apparent that data from Google.com may be a useful source of information. When it comes to looking for information on the Internet, the great majority of Internet users worldwide utilize Google.com. As a result, it seems reasonable to assert that Google.com query data is a perfect representation of people's thinking. Once someone uses Google.com to search for information, the data from Google.com searches can reveal what Internet users are looking for and what they believe or fear. In this vein, access to this data can aid us in determining what information Internet users desire at any particular time.

Google.com has made public data derived from Internet users' search queries. This may be accomplished through the use of a tool known as Google Trends. The next lines will detail how this utility works. To begin, a user must sign up for an account on the Google Trends website. When this site is published, the user will see a banner that allows for the addition of queries. Additionally, the user may pick the nation from which the internet search queries would originate on the website's right side. Google Trends divides accessible data into six broad categories: business, entertainment, health, science and technology (Sci/Tech), sports, and stories (Top) Stories. The user can specify the country for which he want to do research. Additionally, it can opt to search for data on a worldwide scale. To find the volume of a certain query, for example, Apple, which is short for Apple Computer, the user must type the query in the search box. When this is done, Google will inquire as to whether the user is seeking for the computer business or the fruit. Google Trends enables users to narrow their search by specifying the time period, the country, the category of the query, and the type of online search.

The online search type option enables the user to specify whether the search was for images, news, Google Shopping, or YouTube. The statistics are accessible beginning in 2004. The data is supplied on an hourly, weekly, or monthly basis, depending on the time period requested by the user. Thus, if a user 30 chooses to seek query data for Apple, they may select the time, the country, and the question categories based on the searches performed. It may then export the data to a file for further use.

According to Choi and Varian (2009), Google Trends does not offer users with the fundamental level of each inquiry but rather the overall volume of inquiries for the search term in a specific geographic region divided by the total number of queries in that area at any given moment. This implies that when data is taken from Google trends, it is not just the number of requests for a certain search phrase during a given time period.

A query share is calculated by dividing the number of queries by the total number of questions. The query numbers are then normalized. Normalized query numbers begin at 0 on January 1, 2004, the date became accessible. For days following this date, the query index calculates the percentage departure from the January 1, 2004, query share. When data is exported to a file, it can change the state of affairs from 0 to 100.

Many scholars in a variety of scientific archives have realized the usefulness of any data in recent years. As a result, there is considerable interest in acquiring and analyzing large amounts of data in order to better understand specific behaviors or even to anticipate data.

This is extremely valuable for data analysis, since it allows the user to utilize data from other Google search inquiries as a proxy for political insecurity. According to the research, Google Trends's relative usage of data indicates that it is largely utilized for marketing and finance reasons (Sarigiannidis et al., 2021). This truth explains why Google Trends is such a great tool for forecasting the future in a variety of scientific disciplines. Choi and Varian's (2009) Google Trends research provides an interesting variant. Their investigation sought to determine whether data from Google Trends might be utilized to follow economic activities in real time. This can be quite beneficial because the majority of data on financial activity is provided by statistics and other organizations with a one- or more-month delay. There are several examples of such data being claimed in the United States, such as retail statistics or unemployment data. They are attempting to determine whether data from Google Trends inquiries may be utilized as proxies for indications of economic activity in the present era. Their approach is based on the seasonal self-regression methodology. Summarizing Google Trends data can provide an accurate top indicator that can be utilized in conjunction with other leading indicators currently used to forecast job growth. Because there is substantial evidence that Google Trends data may be used to anticipate unemployment, they can also be used to forecast other economic indices.

3 Research Design Methods

Purpose of the Research

This research paper investigates digital platforms and numerous information systems-applications in tourism throughout COVID-19. Tourism is analyzed in depth in terms of its progress and impact on our daily lives through the use of social media, digital advertising, and modern digital marketing apps. Additionally, it evaluates the usefulness of information systems in businesses, how they are built to meet specific demands, and how they are maintained to remain "updated" with the modern needs of tourism sector corporations. The current study adopts a primary research methodology, combining a questionnaire with foreign and domestic academic literature and articles on the subject. The participants' anonymity was critical in completing the questionnaire distributed to travelers, ensuring that their information could be used to reach the meaningful conclusion.

Data Collection Tool

To address the research questions in this paper, a quantitative research protocol was followed, which included searching and analyzing contemporary literature to identify research questions, collecting scientific data via survey questions with a specified and measurable range of responses, and finally analyzing this data using statistical scientific methods.

The survey conducted via questionnaire on a sample of $N = 2000$ participants aim to ascertain the acceptance of e-tourism in a pandemic period (in the middle of COVID-19), via the use of information systems-applications, as well as knowledge/use of tourist trends that emerge via network platforms and applications by interested users/potential tourists. According to the sample, the majority of respondents were under the age of 50 ($N = 1774$), and just 11.30% ($N = 226$) were beyond the age of 50. You are primarily formed of people in the solar range (18–50, 88.70%), which implies that you are composed of people who are fairly comfortable with the use of technology in their daily life. Additionally, in terms of educational attainment, it looks as though the great majority of participants in the research are individuals with a bachelor's degree or above ($N = 1652$).

On this basis, it is theoretically concluded that these individuals are more adept at navigating technology and are aware about the progress of everyday life, taking their education into consideration. In terms of employment, a sizable proportion of the sample ($N = 1320$, 66%) had either permanent or temporary employment. As a result, we can predict that there will be improved planning of the time and money invested in an upcoming scheduled vacation trip. Additionally, when asked how frequently they travel, 69% of poll participants indicated that they travel once or twice a year. The amount of money that each person has for each of their travels varies. 28.30% of participants ($N = 566$) have less than 300 euros, 46% of participants ($N = 920$) have between 300 and 1000 euros, 22.70% of participants ($N = 454$) have between 1000 and 2000 euros, and finally 3%, the smallest number of participants ($N = 60$), have more than 2000 euros for their upcoming vacation trip. When asked if they utilize computer apps (web applications) to study their vacations or travel plans, the overwhelming majority ($N = 1876$), 93.80%, responded affirmatively. Only 6.20% of participants ($N = 124$) stated that they do not utilize computer programs to conduct research (information gathering) for their trip (Table 1).

When asked if the participants use the Internet (Web-IS for Tourist Information) to get information about tourist products or services, we discovered that the majority (51.30%) or frequently (41.70%) use it, while 4.60% of people seldom ($N = 92$) and just 2.40% of people ($N = 48$) never do. As a result, the great majority of 93% (the responses are exclusive and frequent, $N = 1860$) evaluate online information on tourist products/services. Regarding their vacation location selection, 57.20% of respondents ($N = 1144$) indicated that they use the Web-IS frequently, 28.40% primarily ($N = 568$), 11.30% occasionally ($N = 226$), and the other 3.10% respondents ($N = 62$) never. Regarding ticket selection (ferry or air), the participants' choice is exclusive; 50.60% ($N = 1012$), 32.50% ($N = 650$) frequently, 10.40% ($N = 208$) rarely, and a minimum number (6.50%, $N = 130$) have never utilized online services to pick their tickets.

4 Results

Sample Characteristics

In answer to our questionnaire's gender question, the sample was homogeneous (M = 964, F = 1036), with a little bias toward Females (51.80%) (Fig. 1).

Q1: How often do you use the Internet to choose your accommodation?

Regarding the choice of accommodation, most respondents want to use the Internet ($N = 1704$), with 50.90% using the Internet exclusively and 34.30% using it frequently,

Table 1 Sample demographics ($N = 2000$)

Sample demographics		Frequency (N)	Percent (%)
Sex	Male	964	48.20
	Female	1036	51.80
Age	18–30	906	45.30
	30–50	868	43.40
	>50	226	11.30
Education level	High school	34	1.70
	Post-secondary diploma	314	15.70
	Bachelor's degree	1288	64.40
	Master's degree—PhD	364	18.20
Amount of money for travels	<300 €	566	28.30
	300–1000 €	920	46.00
	>1000–2000 €	454	22.70
	>2000 €	60	3.00
Using web-based information systems	Using/evaluating Web-IS for tourist information	1860	93.00
	Using Web-IS for vacation selection	1712	85.60
	Using google trends	1076	53.80
Online buying tourist products/services	Online accommodation	1704	85.20
	Online booking (in general)	1768	88.40
	Online tickets	1662	83.10

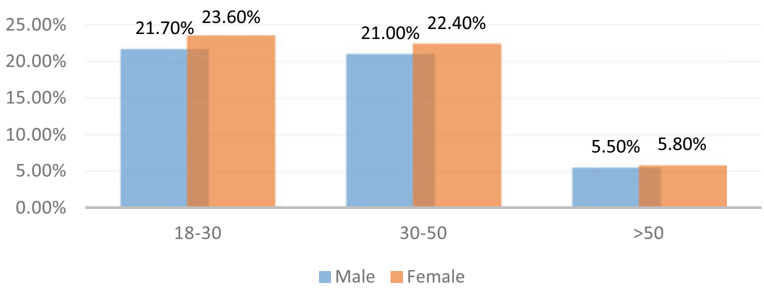

Fig. 1 Demographic characteristics (age/sex)

10.30% rarely utilizing the Internet for this option ($N = 206$), and only 4.50% never use it ($N = 90$).

Q2: What kind of Accommodation do you choose?

In this question, we wanted to investigate the type of vacation chosen by our participants, and it appears that 61.03% ($N = 1040$) prefer Hotel Accommodation while 38.97% ($N = 664$) prefer rental rooms, such as Airbnb.

***Q3:* How many travel apps do you know?**

In this question, we find that 77.9% of the participants ($N = 1558$) know at least two travel applications while only 5.8% of the participants ($N = 116$) do not know any application.

***Q4:* At what stage of your journey do you use travel apps?**

Here we see that a large percentage of 68.3% use travel applications to search for a travel destination. Thus, we can understand that the search for goals is done with specific criteria and filters such as price, type, accommodation, etc. In addition, 14.4% use the applications during their stay at the destination, while 12.5% during their transition to it.

***Q5:* What factors influence the decision of your destination?**

In this question, we understand which factors play a decisive role in the choice of travel destination, as 43.3% of friends' opinions ($N = 866$) or their experiences greatly influence the final choice. Also, the use of applications appears once again at a rate of 30.8% ($N = 616$) as the use of the Internet comes as a second factor. In addition, Social Media seems to be able to influence the final decision by 13.5% ($N = 270$), while only 9.6% ($N = 192$) rely on other factors that may affect the final decision (Figs. 2 and 3).

Q6: What applications do you use to find accommodation?

Regarding the applications used to find accommodation, the answers received gave Booking the lead with 65%, Trivago with 46%, Airbnb with 42%, and TripAdvisor with 40%. It is worthwhile to note that each participant could choose more than one answer or add another solution of their choice.

***Q7:* How often do you use Google.com to find the information you need?**

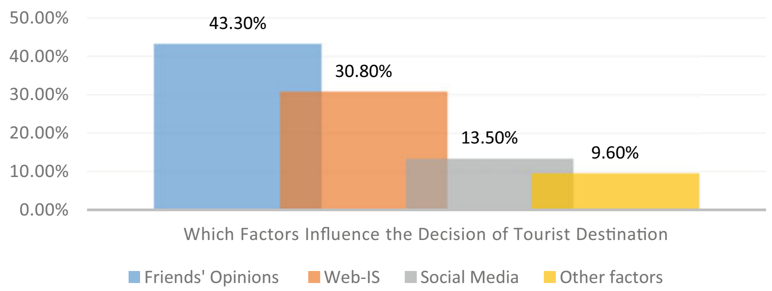

Fig. 2 Factors that influence the tourist destination

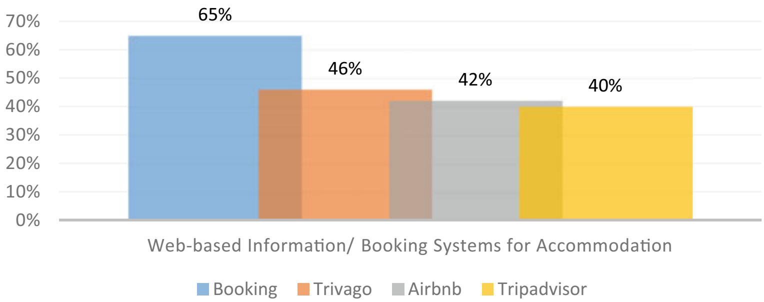

Fig. 3 Web-based information/ booking systems for accommodation

In this question, we noticed that 78.8% use only the Google search engine to search for information about their trip, 15.4% use it a lot, while only 1.9% use it a little.

***Q8:* Are you familiar with Google Trends and how frequently it is used to locate an appropriate vacation destination?**

When asked if the participants are aware of google trends, we found that 53.8% ($N = 1076$) know the trends (so they use them) while 46.2% ($N = 924$) do not use the trend search tool.

Q9: What apps do you use to find tickets?

In order to find their tickets, the respondents gave a lead to the companies' websites, with a percentage of 74%. The next most popular answer was Skyscanner, at 45%. They are followed by Travelplanet24 and PameDiakopes with percentages of 17 and 13% respectively and finally Google Flights with only 2%. Note that each participant could choose more than one answer or add another answer of their choice (Fig. 4).

Q10: Why would you choose online booking?

When asked about the reason for choosing online booking, 1260 respondents answered because of the Easy Price Comparison (63%). 16% emphasized on

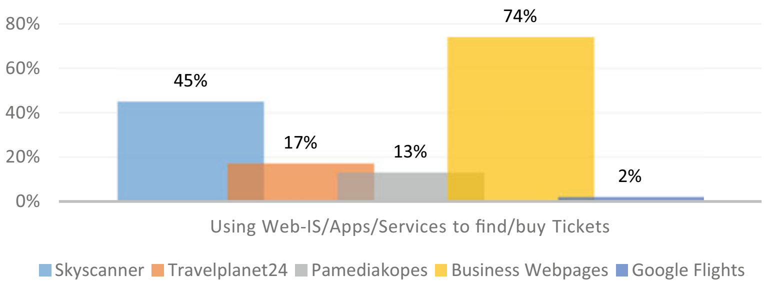

Fig. 4 What Web-IS/apps/services do you use to find/buy tickets?

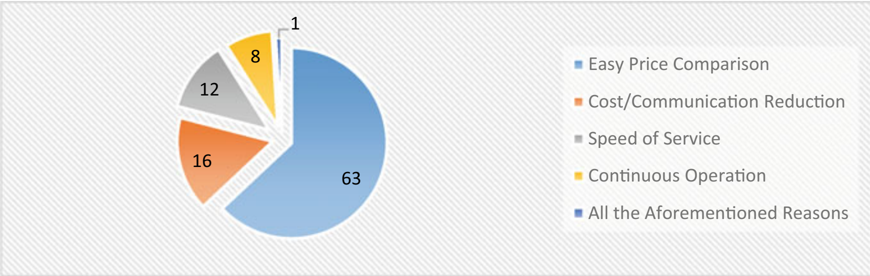

Fig. 5 Use of Online Booking Web-Apps

cost/communication reduction ($N = 320$), and 12% ($N = 240$) on the speed of their service. Only 8% ($N = 160$) find the most important reason for choosing Online booking the continuous operation of the services provided while only 1% ($N = 20$) chose all the aforementioned reasons (Fig. 5).

Q11: During the trip, what kind of applications do you use?

In this question we find that the purpose of the trip is completely consistent with the type of use of the applications used by the participants as in 54.8%, they use entertainment applications while immediately after in 32.7%, they prefer to be informed during the trip there.

Q12: Are you satisfied with the applications you use?

At the satisfaction levels, 53.8% seem to be quite satisfied with the applications they use while 23.1% show that they are exactly in the middle of the preferences.

Q13: Would you trust a new online booking platform?

69% of respondents would trust a new online booking platform, while 31% would not trust it. Although 69% is the majority, 31% is a significant percentage so we can conclude that almost one in three would have significant doubts that would prevent him from trying a new service that has not been introduced by many users over time.

Q14: Are you satisfied with the use of technologies in the organization of your trips/vacations?

A large percentage of 80% said they were quite satisfied with the use of technologies related to the organization of their trip/vacation. In addition, 13% said they were completely satisfied. Only 6% said they were a little satisfied and 1% not at all. The vast majority of 93% say they are at least satisfied. Given this, the future of technology in tourism looks promising.

Q15: For an upcoming trip abroad, you would prefer to organize it through?

Finally, in the scenario where each of the respondents would organize a trip abroad, 71.1% would prefer to organize it through the internet and the means offered by e-tourism, while 26.8% would prefer a travel one. agency, without incurring costs.

5 Discussion

In the research carried out, a targeted questionnaire was used to quantify the use of modern internet information systems and communications in the tourism industry. It was observed that stakeholders actively use these systems to a significant degree. More specifically, based on the research sample, it was found that 89% of the participants, aged 18–50 years, who had a relatively high level of education, were quite familiar with the use of online information systems/platforms. Based on the survey questions, it was found that 87% of the participants frequently search the internet for any travel service/tourist information or information about a possible tourist destination as they follow online consulting provided by the respective travel sites (53%) or/and social networks (35%). In addition, 85% choose to be informed by the Online Booking Platforms/Services, including several travel services and offer packages. In addition, 40% of respondents navigate TripAdvisor platforms, as they have access to reviews, ratings, and experiences from other travelers or people who have previously chosen a travel service or visited a tourist destination. In addition, it seems that when they search for tourist service, what leads them to choose a reservation is to find reasonable offers, as shown by 70% of the sample. Respectively, 53% of the respondents' state that they use the google trends service to search for a possible and suitable desired destination. In addition, potential tourist bookings are made by 60% of the sample, mainly through the website of the respective business or through websites/booking platforms (35%) of the sample. It is worth noting that a large percentage of the sample (77%) choose one (1) tourist service per year. Finally, a percentage of the sample of 96% believes that e-tourism, particularly the implementation of modern and innovative online information systems for information, evaluation, promotion, and booking, can highlight the Greek tourist destinations and attract more tourists. In conclusion, based on the overall sample of the present survey, participants seem to make extensive use of online information systems/platforms to search for travel destinations and auxiliary through platforms to influence and analyze the popularity of the top internet search queries. Google trends ka) to optimize the selection of their appropriate tourist destination, which shows their usefulness to ensure optimal service concerning the tourist destination.

6 Conclusion

The significant impact of technology on the everyday lives of the average socialized person, and therefore on tourism, most notably the Internet and electronic services, has resulted in extremely high rates of tourist development in a variety of industries and with a broad spectrum of benefits. The possibility and necessity of digitizing many services and information in order to offer the end user with whatever they want has an impact on the entire tourism chain and all stakeholders: tourism businesses, tourists, consumers, agents, and tourist destinations. In the tourist sector, new technology advancements, the digital actions of the organizations and companies involved, and consumer demands have all contributed significantly to the expansion of e-Tourism. The potential of e-marketing and the applications that promote and advertise tourism-related companies have assisted in gaining user approval and teaching them on how to navigate the new order of things in the digital age. As a result, users, or potential tourists, have begun seeking e-Tourism, abandoned pointless consultations with travel agents and tourism companies, and embraced IT and the expansion of information technology in all areas of their lives and tourism. Saving time and money when holiday preparation has been minimized, forcing potential travelers to rely on computer applications for everything related to their next trip, from basic itinerary changes to comprehensive trip planning. The majority of respondents to this poll were familiar with the Internet's involvement in the tourism sector, as well as the concept and importance of e-tourism (e-hospitality). While the overwhelming majority claim to have used and appreciated e-tourism applications, a substantial proportion expressing concerns about personal data leakage. Finally, based on respondents' knowledge with and comfort level with e-tourism applications, it was concluded that they would heavily rely on online applications to plan their next trip.

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An Investigation of the Acceptance and Success of Web Conferencing Technologies in Tourism Higher Education During the COVID-19 Pandemic

Sofia Kallou, Aikaterini Kikilia, and Michail Kalogiannakis

Abstract Since the outbreak of the COVID-19 pandemic, higher education has been confronted with several challenges leading to a new perspective of education and affecting the teaching and the learning processes. Higher education institutions in tourism studies have tried to adapt to these changes and have implemented online courses and Web conferencing technologies as the ideal learning environment during these unprecedented circumstances. This research investigates the acceptance, success, and overall evaluation of Web conferencing technologies in tourism higher education during the COVID-19 pandemic. More specifically, the Technology Acceptance Model (TAM), one of the most influential models worldwide, is used to measure the acceptance of Web conferencing technologies in tourism higher education. Additionally, the popular Information System Success Model (ISSM) is also used to the degree of the user's satisfaction. For the purpose of this research Microsoft Teams is selected to be the Web conference platform. The findings of this empirical research indicated a positive and significant effect on tourism students' acceptance, satisfaction, and intentions to continue using Web conferencing technologies in the future. Students have also recognized these digital platforms as effective learning environments facilitating the educational process and providing the quality of education during the difficult circumstances of the pandemic.

Keywords Digital technologies · TAM · ISSM · Higher education · Online learning · MS Teams

S. Kallou (✉) · A. Kikilia
Faculty of Administrative Economic and Social Sciences, Department of Tourism Management, University of West Attica, Athens, Greece
e-mail: skallou@uniwa.gr

A. Kikilia
e-mail: akikilia@uniwa.gr

M. Kalogiannakis
Faculty of Education, Department of Preschool Education, University of Crete, Crete, Greece
e-mail: mkalogian@uoc.gr

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JEL Classification L8: Industry Studies: Services · L83: Sports · Gambling · Restaurants · Recreation · Tourism · Z3 Tourism Economics · Z32: Tourism and Development

1 Introduction

The outbreak of the COVID-19 pandemic has resulted in many changes in higher education, leading institutions to shift from face-to-face education to distance education, and digital technologies (Kallou & Kikilia, 2021). Under these circumstances, social distancing forced universities to adopt online courses and Web conferencing platforms to replace the classroom environment with a virtual one. This sudden shift to distance learning led educators and students to a new perception of teaching and learning practices (Kallou, & Kikilia, 2021). Beyond the response to the pandemic crisis, there was an opportunity for both students and educators at the universities to evaluate their degree of preparation in using Web conferencing platforms during the learning process (Allam et al., 2020; Poultsakis et al., 2021). These online platforms were key elements of distance learning education, supporting the learning process, and providing communication and interaction between the educator and the students from anywhere and anytime (Dhawan, 2020).

Concerning the tourism education, students accept and take pleasure in online learning environments and are very passionate about this experience (Annaraud & Singh, 2017). Additionally, Kim and Jeong (2018) have indicated that the future of tourism education is digital technologies and online learning.

Considering the pandemic crisis and its effect on higher education, the evaluation of these technologies is crucial for the effectiveness of the learning process. In this context, this paper integrates the Technology Acceptance Model (TAM) and the Information System Success Model (ISSM) to investigate the students' acceptance intentions and satisfaction in using the Web conferencing technologies in tourism higher education during the COVID-19 pandemic. By investigating the students' intentions, one may predict the adoption and the use of Web conferencing technologies in the future. The TAM is preferred as one of the most influential models worldwide, with high academic acceptance in various contexts. The ISSM is also very popular among the researchers and is characterized by high validity.

The main objective of this paper is to measure the tourism students' acceptance, adoption and satisfaction and the overall evaluation in using the Web conferencing technologies in tourism higher education through the combination of the Technology Acceptance Model (TAM) and the Information System Success Model (ISSM) during the COVID-19 pandemic.

2 Related Works

2.1 Online Learning During COVID-19 Pandemic

During the pandemic crisis, many higher education institutions in tourism studies have been confronted with challenges adopting online courses, and implementing specific teaching methods leading to many changes in higher education (Kallou & Kikilia, 2021; Matzakos & Kalogiannakis, 2018). The replacement of face to face education by Web conferencing technologies and digital tools was the new reality during this pandemic. The high availability and the incorporation of online technologies in higher education had a crucial role in the learning and teaching practices during the closure of the universities (Dhawan, 2020; Kallou & Kikilia, 2021).

The use of Web conferencing platforms during the pandemic was a totally different experience for both students and educators who have tried to adapt to new learning environments. The educators used platforms to create online courses, sharing content, uploading assessments, educational videos, and quizzes (Pokhrel & Chhetri, 2021). Adapting to a new digital environment suddenly, with no adequate preparation, was not effortless for educators and students who have encountered many challenges. These challenges included lack of acquaintance with technologies, lack of experience from educators to create online courses, difficulties in student's evaluation, interactivity, engagement, and depressive students (Al-Baadani & Abbas, 2020). On the other hand, online learning had positive learning outcomes for the students, as it provided ubiquity learning, autonomy, time management, and flexibility (Kallou & Kikilia, 2021; Kalogiannakis, 2010; Matzakos & Kalogiannakis, 2018; Rodrigues et al., 2019).

2.2 The Technology Acceptance Model (TAM)

The TAM has gained particular attention among researchers in various fields describing user's acceptance, intentions, and actual technology use (Marangunic & Granic, 2015; Scherer et al., 2019). More specifically, user's acceptance is an advantage to a particular technology considering both the perceived ease of use and the usefulness of this technology (Kalogiannakis et al., 2021). On the other hand, low levels of acceptance from the individuals may lead to failure of this technology (Arpaci et al., 2020; Papadakis et al., 2021).

The Technology Acceptance Model (TAM), developed by Davis (1989), is based on the Theory of Reasoned Action according to which behavior of an individual towards technology is based on his/her beliefs and attitudes for this technology (Fazio & Olson, 2003; Olaniran et al., 2017). TAM provides information on how the user accepts the current technology, and the intention to be adopted and be used by them. According to Davis (1989), if the technology is useful to the users, there are

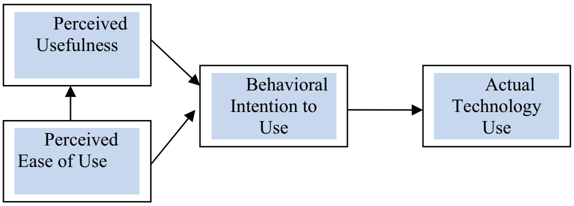

Fig. 1 Final version of TAM Davis (1989) (Venkatesh & Davis, 1996)

more possibilities to use it. The TAM includes the following variables (Scherer et al., 2019).

– external variables: perceived usefulness (PU), perceived ease of use (PEU),
– outcome variables: behavioral intention (BI) to use the technology, actual technology use (USE) (Fig. 1).

Researchers have used TAM and its variables to investigate the behavior toward using technology (Rafique et al., 2018). More specifically, perceived usefulness (PU) refers to the degree to which individuals believe that there is a positive interaction between the use of technology and performance (Kou et al., 2019). According to Davis (1989), perceived ease of use (PEU) refers to the degree to which individuals believe that the technology is easy, simple, and free of effort. From these variables, perceived usefulness (PU) and perceived ease of use (PEU) are considered as the key points because they determine an individual's intentions to accept the technology (Marangunic & Granic, 2015; Rafique et al., 2018).

2.3 The Information System Success Model (ISSM)

The Information System Success Model (ISSM) that DeLone and McLean proposed in 1992 is a multidimensional model of IS success developed to synthesize previous research related to Management Information System success issues providing material to future researchers. This model is based on six (6) variables of IS success measures. The six dimensions identified from the updated model are: system quality, information quality, service quality, intention to use/use, user satisfaction, and net impacts. These dimensions are multidimensional and interdependent, and not independent (DeLone & McLean, 2016). The model can be used to measure the success of the entire technology or only a single subsystem from the entire technology. In this paper will be measured the system quality, information quality, and user satisfaction (Fig. 2).

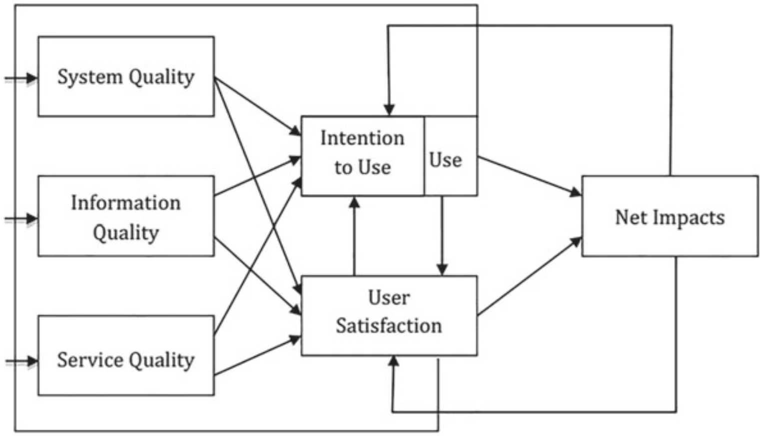

Fig. 2 Updated DeLone and McLean (2003) IS Success Model (DeLone & McLean, 2016)

2.4 Research Questions and Hypothesis

From the above related works we propose the following research questions:

1. What is the essential effect of the TAM factors in terms of the degree of acceptance of Teams by the students?
2. What is the essential effect of the ISSM factors on students' degree of Teams success?
3. What is the overall evaluation of Teams by the students? What are the students' perceptions about Web conferencing technologies during the pandemic?

According to researchers the perceived ease of use (PEU) has an effect to the Perceived Usefulness (PU) and has also a positive outcome on continued use of the technology (Chiu & Wang, 2008; Cicha et al., 2021). Additionally, research has shown that there is a positive relation between PEU and PU and behavioral intention to use technologies (Pal & Vanijja, 2020; Yoon, 2016). The behavioral intention to use (BI) is referred to the users' intention to use the technology.

Therefore, the following hypotheses are developed:

*H1: Perceived ease of use will have positive significant effect on perceived usefulness of Teams***.**
H2: Perceived ease of use will have positive significant effect on the behavioral intention towards using Teams.
H3: Perceived usefulness will positively affect the behavioral intention towards using Teams.

Wang and Strong (1996) have defined the information quality as the fitness for use of information. Information quality is an important element of the system as it determines the accuracy and relevance of the user's information and positively affects users' satisfaction (Petter et al., 2008; Tao, 2008). Moreover, researchers stated that the system quality and the information quality reciprocally affect the system use and the users' satisfaction (Adeyemi & Issa, 2020). User satisfaction is referred to the overall success of the technology. Therefore, ISS model can be used to measure Teams success because satisfaction is linked to the utility and the success of the technology (Yu & Qian, 2018).

Therefore, the hypothesis can be stated as:

H4: The overall evaluation of Teams is affected by the system quality.
H5: The overall evaluation of Teams is affected by the information quality.
H6: The system quality and information quality predict the user satisfaction.

Since the outbreak of the COVID-19 pandemic, tourism education students have confronted with challenges trying to adapt to new digital learning environments (Kallou & Kikilia, 2021). In this context, there is an imperative need for the educational process, learning, and pedagogical outcomes from implementing these technologies to be measured. Therefore, this study proposes the following hypothesis:

H7: The use of Teams is satisfactory as a learning and pedagogical mean during the pandemic.
H8: Web conferencing technologies are useful providing the learning process during the pandemic.

3 Methodology

3.1 Research Design

This research adopted a quantitative approach for the collected data to generate supportive descriptive analysis to analyze the nature of social events, situations, and phenomena or determine the relationships between them. It aims at investigating the ease of use and the satisfaction of Web conferencing technologies. It is also based on the positivist philosophical approach through the questionnaire collection and quantitative analysis of the research data (quantitative methodology) (Creswell, 2015; Cohen et al., 2008; Robson, 2000) (Table1).

Table 1 Methodology framework

Methodological phases	Research framework
Theory	Online learning, TAM, ISSM
Hypotheses	Research hypotheses
Collecting data	Questionnaire
Findings	Data (collection of questionnaires)
Hypotheses testing	Statistical analysis
Comparisons	Conclusions-limitations-future research

3.2 Object

For the purpose of this research Microsoft Teams (MS Teams) is selected to be the Web conferencing platform, as it is the platform adopted by many universities in Greece during the COVID-19 pandemic. MS Teams was used to facilitate the teaching methods and the learning process providing a new learning environment for educators and students.

3.3 Data Collection Method

This research was conducted on May 2021; therefore, the students had the experience of Web conferencing technologies (WCT) for almost an academic year. This is enough time for the students to deal with the current technology.

Ethical principles relating to basic individual protection requirements were met with regard to information, informed consent, confidentiality, and use of data (Petousi & Sifaki, 2020).

Due to the pandemic crisis and to social distancing, an online structured questionnaire was designed to collect data using Google Forms. It is based on Davis' (1989) TAM items and on Delone and Mclean (2003) ISSM.

This questionnaire inquired demographic information, 11 items that measure the acceptance of the technology, 10 items that measure the success of the technology, 3 items for the overall evaluation, 5 items for online education during the pandemic, and 5 profile questions. It is used a 5 items Likert rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). In this research the reliability value of Cronbach's alpha is ($\alpha = 0.937$). The measuring items used in this research are presented in Table 2.

3.4 Analysis

An analysis was used to explore the respondents' demographic characteristics and interpret their aspects. Hypotheses' assessments regarding the research objectives were performed. SPSS was used for the data analysis.

Table 2 Questionnaire used in this research

Information quality	
IQ1	Teams conferencing platform provides enough information to support my learning
IQ2	Teams presents information in a clear way
IQ3	Teams picture quality is satisfactory
IQ4	Teams sound quality is satisfactory
IQ5	Teams provides quality communication over previous experiences compared with other Web conferencing platforms (Skype, Zoom, Webex, etc.)
System quality	
SQ1	Learning to operate Teams is easy
SQ2	Teams software operates well
SQ3	The connection of Teams via internet is satisfactory
Perceivedusefulness	
PU1	The functions of Teams are useful
PU2	Web conferencing through Teams adds value to my University
PU3	Teams is useful enhancing my learning experience
Perceivedease to use	
PEU1	Learning how to use Teams is easy
PEU2	Navigating into the various Teams features is easy
PEU3	Teams options are distinguished by clarity and simplicity
PEU4	Teams notifies the user of any errors during operation immediately
PEU5	More training is required to use Teams
Intention to use	
IU1	I will continue using Teams after my studies in Tourism Management
IU2	I recommend Teams, so that it can be used in a regular training basis
IU3	If I have access to Teams in the future, I anticipate using it
User's satisfaction	
US1	I'm satisfied with the function of Teams
US2	Teams operational environment is very functional
Overall evaluation	
OE1	The use of Teams, as an educational tool is satisfactory during the pandemic
OE2	The teaching through Teams is satisfactory
OE3	Utilizing Teams in tourism education is pedagogical efficient
Online education during the pandemic	
OEDP1	The use of WCT is useful during the pandemic
OEDP2	The use of WCT facilitates the educational process during the pandemic
OEDP3	The use of WCT should only used in difficult circumstances such as a pandemic
OEDP4	Online learning is effective during the pandemic

(continued)

Table 2 (continued)

OEDP5	Online learning provides quality education in tourism studies, during the pandemic

4 Results

4.1 Profile of the Respondents

The target population in this empirical study comprised undergraduate and postgraduate students of the Tourism Management department of the University of West Attica in Greece. The questionnaires have been sent by email to 320 students and were anonymous to ensure the reliability and the confidentiality of the data. Finally, 264 respondents completed the questionnaires and were involved in the final data analysis (82.5% participation).

Concerning the respondent's profile in Table 3, the frequency analysis indicated that the majority of the survey sample were females (71.6%) compared to just 28.4% males, while the absolute majority were aged between 18 and 25 (86.7%) followed by ages 26 > (13.3%). Undergraduate students had a significant proportion in the sample (91.3%) while 8.7% were postgraduate students. It has also been observed that a low percentage of respondents (29, 5%) use the MS Teams for entertainment or practice. Additionally, considering the working experience in the tourism sector, 63.6% of the sample had no experience while 36.4% already had working experience.

Table 3 Sociodemographic characteristics of the sample (N = 264)

Variables	N	(%)
Gender		
Female	189	71.6
Male	75	28.4
Age		
18–25	229	86.7
>26	35	13.3
Education		
Undergraduate students	241	91.3
Postgraduate students	23	8.7
Use of MS Teams for entertainment or practice		
Yes	78	29.5
No	185	70.5
Working experience in tourism sector		
Yes	96	36.4
No	168	63.6
Total	264	

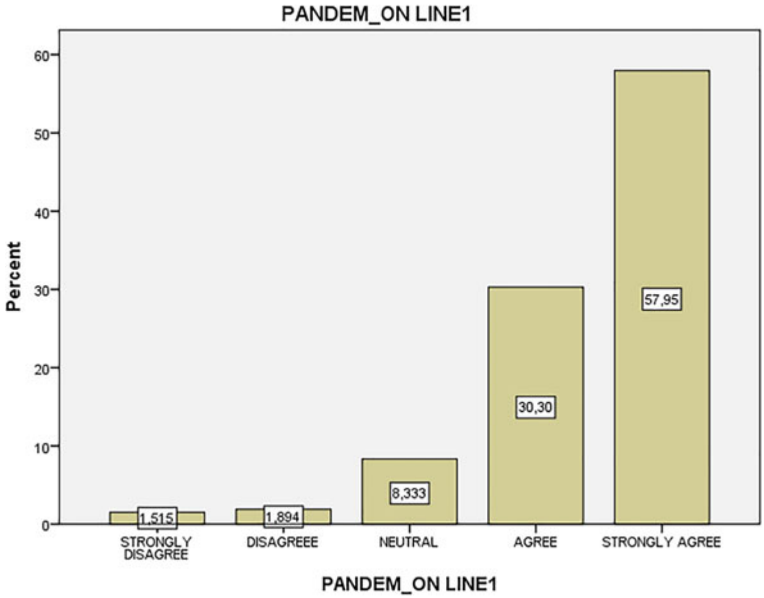

Fig. 3 The use of WCT during the pandemic. *Source* By authors

4.2 Online Education During the Pandemic

Considering the responses of students about the online education and web conference technologies (WCT) during the COVID-19 pandemic, the results showed that the vast majority of the respondents (88.3%) agreed that the use of WCT was useful during the pandemic (Fig. 3). Furthermore, 85.2% of the respondents agreed that the use of WCT facilitated the educational process during the pandemic. Additionally, almost the half of the sample (48.5%) believed that WCT should only be used in difficult circumstances, such as a pandemic, while 30.7% of the respondents disagreed with the view mentioned above. However, the effectiveness of online learning during the pandemic is a question that 58% of the respondents agreed (Fig. 4). Concerning the question about the quality of online education in tourism management studies during the pandemic 51.1% agreed while 27.3% of the respondents remained neutral about this assumption.

4.3 Research Hypotheses

H1: Perceived ease of use will have positive significant effect on the perceived usefulness of Teams.

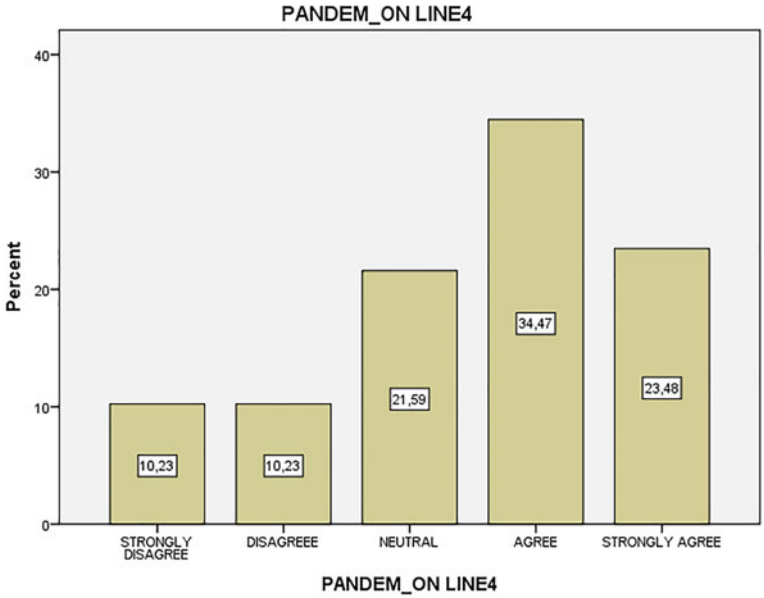

Fig. 4 The effectiveness of online learning during the pandemic. *Source* By authors

Statistical significance (Sig.: 0.000) is found between ease of use and usefulness (<0.01), with a moderate positive correlation, which means that when one variable increases, the other increases respectively (Spearman's rho: 0.477).

From the results it can be concluded, that perceived ease of use has a positive and significant effect on the perceived usefulness; so the hypothesis H1 is valid.

H2: Perceived ease of use will have positive significant effect on the behavioral intention towards using Teams.

Statistical significance (Sig.: 0.000) is found between ease of use and behavior intension (<0.01), with moderate positive correlation (Spearman's rho: 0.477).

Therefore, it can be summarized that perceived ease of use has a positive and significant effect on the behavioral intention; so the hypothesis H2 is valid.

H3: Perceived usefulness will positively affect the behavioral intention towards using Teams.

Statistical significance (Sig.: 0.000) is found between usefulness and behavioral intension (<0.01), with a strong positive correlation (Spearman's rho: 0.747). From the results we concluded that the hypothesis H3 is valid.

H4: The overall evaluation of Teams is affected by the system quality

There is a statistical significance (Sig.: 0.000) between overall satisfaction and the system quality (<0.01), with a strong positive correlation (Spearman's rho:, 662). From the findings we concluded that the hypothesis H4 is valid.

H5: The overall evaluation of Teams is affected by the information quality

Statistical significance (Sig.: 0.000) is found between overall satisfaction and the system quality (<0.01), with a strong positive correlation (Spearman's rho:, 610), meaning that the hypothesis H5 is valid.

H6: The system quality and information quality predict the user satisfaction. H6a.

Statistical significance (Sig.: 0.000) is found between information quality and user satisfaction (<0.01), with a strong positive correlation (Spearman's rho:, 705). Therefore, we concluded that the hypothesis H6a is valid.

H6b.

Statistical significance (Sig.: 0.000) is found between system quality and user satisfaction (<0.01), with a strong positive correlation (Spearman's rho: 0.729). From the results we concluded that the hypothesis H6b is valid.

H7: The use of Teams is satisfactory as a learning and pedagogical mean during the pandemic.

Statistical significance (Sig.: 0.000) is found between total satisfaction and user satisfaction (<0.01), with a strong positive correlation (Spearman's rho: 0.680). Therefore, we concluded that the hypothesis H7 is valid.

- *H8: Web conferencing technologies are useful providing the learning process during a pandemic.*

Statistical significance (Sig.: 0.000) is found between Web conferencing technologies and the learning process during a pandemic (<0.01), with a strong positive correlation (Spearman's rho: 0.783). From the findings we concluded that the hypothesis H8 is valid.

5 Discussion

This research investigates the acceptance of Web conferencing technologies and their success in tourism higher education during the COVID-19 pandemic, adapting the TAM and the ISSM models. According to the findings of this research, the majority of students agree that there was a positive interaction between Teams and their performance (PU) and that it was easy and simple to use (PEU) this platform, determining the acceptability of Teams, which is in line with previous researchers (Adeyemi & Issa, 2020; Davis, 1989; Kou et al., 2019). The results are also consistent with the relevant literature resulting to the fact that PEU is crucial for students as it provides friendliness and easy access, leading to adopting the technology (Abbas, 2016).

Additionally, perceived ease of use (PEU) is found to influence perceived usefulness (PU) which means that there is a positive outcome on continued use of Teams, since when technology is easy to use it means that the students believe it is useful to them, in agreement with other researchers who have found that PEU affects PE of the technology (Camilleri & Falzon, 2020; Chiu & Wang, 2008; Cicha et al., 2021). Regarding PEU and PU, the present research has also found positive effects on behavioral intensions using Teams, a result which is in line with other studies that stress that behavioral intention is affected by the PEU and PU of the technology (Pal & Vanijja, 2020; Park et al., 2009; Yoon, 2016). Consequently, since these variables determine individuals' intentions to accept technology (Davis, 1989; Marangunic & Granic, 2015; Rafique et al., 2018; Scherer et al., 2019), we can conclude that the university students have the intention of continuing to use Teams.

Furthermore, the findings show that technology quality and information quality of Teams affect students' satisfaction, which implies the technology's success and utility. These findings agree with evidence provided by other researchers who have found that technology quality and information quality lead to users' satisfaction (Adeyemi & Issa, 2020; Tzagkaraki et al., 2021; Yu & Qian, 2018). Besides, system quality and information quality affect the overall evaluation of Teams (the use, the teaching process and the pedagogical outcomes). Students, after using Teams, seem to have a good experience and are satisfied from the learning and pedagogical outcomes, which are crucial for the extended feasibility of the web conference technology (Pal & Vanijja, 2020). Additionally, they recognize the utility of Web conferencing technologies as they provide the learning process during a pandemic.

6 Conclusions, Limitations, Future Work

The current global pandemic has disrupted education and has changed the way universities perceive learning and teaching practices. Tourism higher education had to adapt to these new circumstances, delivering new learning solutions through Web conferencing technologies, and supporting students in their learning process. Therefore, the evaluation of these technologies has become very crucial as it provides valuable insights for their acceptance and success.

In this context, the findings of this empirical research indicate that there is a positive and significant effect on tourism students' acceptance, adoption, satisfaction, and the overall evaluation of Teams. This research also highlights the importance of using Web conferencing technologies in the learning process during the COVID-19 pandemic. Students have recognized that these digital platforms are effective learning environments, facilitating the educational process, and providing the quality of education during the difficult circumstances of the pandemic.

Taking into account the research findings (i.e. the effectiveness of the platform, its acceptance, the students' satisfaction, the overall evaluation, etc.), the academic community should consider utilizing these technologies, while investing in digital environments and in new teaching methods which will change the learning landscape, and add value to the educational processes. Under these unprecedented circumstances of the pandemic, new educational opportunities which will align with the requirements of the contemporary era can be emerged. Consequently, it is about time for the academic community to reconsider the traditional educational system and to be at the forefront of its digital transformation through new learning environments.

This study enriches the existing TAM and ISSM literature providing data for the faculty and evaluating the Web conferencing technologies. It also provides guidance for the academic community, the application developers, the instructional designers and other practitioners to improve the use and the acceptance of Web conferencing technologies upgrading the quality of tourism higher education. In addition, it is a valuable feedback for the government to emphasize on the implementation of educational policies that will impact the future of online education.

Evaluating the acceptance, the adoption and the success of Web conferencing technologies may be of particular interest to the tourism higher education for the implementation of these technologies in a regular basis in the future.

Among the limitations of this research is that the sample consists of tourism students from only one university in Greece. Surveying more tourism students from other universities for future research may obtain more generalized data for a broader perspective of the population.

In this research the acceptance, the adoption, and the success of a Web conferencing platform from the students' perspectives is measured. Further research should also explore the above variables from the academics perspective. Additionally, more variables of the ISSM model or the extended versions of the TAM can be used to measure more factors in the individual and organizational level. A qualitative approach in order to research other technical factors and aspects that affect Web conferencing technologies, i.e. the instructional design, the internet connection, their mobile applications, should also be considered.

Acknowledgements We would like to thank the Undergraduate and Postgraduate students at the Department of Tourism Management, Faculty of Administrative Economic and Social Sciences, University of West Attica, to participate in this study.

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Expectations and Preferences of Couchsurfing Participants

Tomáš Makovník and Adriána Varcholíková

Abstract The utilization of platform economy concept in tourism sector becomes one of the highly discussed topics in recent years all over the world. Based on the principles of this economy, the most provided and developed tourism services are accommodation services. These services enjoy the growing interest of travelers and increased attention in the scientific literature. A significant part of them is provided via world-famous platform and social network called Couchsurfing. It enables the accommodation mediation through a website and a mobile application. The aim of the article is to examine expectations and preferences of couchsurfing participants from different countries of the world and to suggest possibilities for their more effective fulfillment. Based on the results of primary research among selected couchsurfing participants, a typical couchsurfing participant is young person with university degree and motivated to couchsurfing by gaining new experiences and memories, free accommodation, meeting new people and exploring local cultures and destinations, especially in Europe and North America. This article provides feedback on how to improve the Couchsurfing social network. It can expand the knowledge of those who are interested in couchsurfing and plan to try it in the future when traveling around the world.

Keywords Couchsurfing · Expectations · Participants · Preferences · Social network

JEL Classification L83 · Z32

T. Makovník (✉)
Faculty of Economics, Matej Bel University, Banská Bystrica, Slovakia
e-mail: tomas.makovnik@umb.sk

A. Varcholíková
O2 Universum—Congress and multifunctional centre, Prague, Czech Republic

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_27

1 Introduction

Tourism visitors (hereinafter visitors) increasingly prefer experiences over the standard of tourism services and also an individual travel over travel with using the services of travel agencies. Cost effective flight tickets, accommodation, and entrances to cultural and historical monuments can be easily booked online in minutes. This is supported by technological progress and various forms of platform economy, such as house swaping, but especially couchsurfing. However, we want to emphasize that we perceive couchsurfing as a popular alternative accomodation, making travel more accessible to a wider range of visitors, who seek to maximize travel experiences and minimize associated costs, but not as an element to push standard accommodation out of the tourism market.

2 Literature Review

Differences between destinations are gradually blurring all around the world. Their products are being unified. They are dominated by four-star accommodation facilities, with all-inclusive services, which are preferred by mass tourists. Destinations often differ only in the culture or language of the locals. At the same time, number of individual tourists, who prefer authentic experiences as a counterpoint to standardization, is growing. Their worries about the future, lack of knowledge of their identity, and deepening of inequalities are intensified by their desire for authenticity, return to own roots, traditional values, and knowledge of typical way of life of locals (Pompurová, 2014). This allows them couchsurfing.

Expectations and Preferences of Couchsurfing Participants

Couchsurfing is a form of individual tourism. Couchsurfing participants (hereinafter participants) behave like visitors. From an economic point of view, visitor is anyone who satisfies needs during travel and stays outside place of residence by consuming tourism goods and services. We also understand them as travelers who travel individually and plan a vacation or business stay individually on principles of freedom and adventure (Borovský et al., 2008). Pompurová (2014) characterizes typical participants as young people aged 18–29, mostly single, with middle-income, mainly from Europe and USA, who do not require luxury accommodation. They usually travel alone or in pairs. They are mostly tolerant extroverts, motivated to couchsurfing mainly by feeling of freedom, adventure, adrenaline, constant change, risk, and solving unforeseen situations. They are united by sharing travel experiences, explore and respect different cultures and habits and having a positive effect on environment.

Decision-making process on couchsurfing begins with an awareness of the need. We understand need as a subjectively perceived lack of something that is necessary for participant. It can be caused by an internal impulse, e.g. need for cognition, rest, distraction, relaxation, but also an external stimulus, e.g. recommendation or promotion. Participants feel the primary and secondary needs. Primary needs (cognition, cultural activities, recreation, sports, health, etc.) are the goal of couchsurfing participation. Secondary needs (transport, nutrition, housing, or hygiene) are tools to satisfy primary needs. Thus, the satisfaction of secondary needs is necessary to achieve the effect of satisfying primary needs (Gúčik, 2010). In other words, higher needs cannot be satisfied without satisfying lower needs. This means that couchsurfing is not a need for participants, but a tool to meet their needs during it. It is a higher degree of satisfaction of tourism needs, characteristic only for a certain degree of socio-economic development of society and is a manifestation of achieved well-being (Gúčik, 2010).

Needs of participants are satisfied by activities evoked by various motives, which can stimulate, maintain, and supress their actions. Dominant motives lead to couchsurfing participation and significantly contribute to satisfying needs and expectations of participants. Psychological process of creating motives is called motivation.

After realizing the couchsurfing related need and the manifestation of appropriate motive, participant's expectations are being created. We define expectations as "an idea based on one's own experience or information obtained by an individual or an institution that decides on the purchase or consumption of a tourism product" (Gúčik et al., 2004, p. 86). It is an expected way of behaving, resulting from a certain social status. Participant's expectations are shaped by information from personal sources (family, friends), commercial sources (advertising, promotion), public sources (mass media), but also their own experiences. As consumers of services, they "tend to rely more on personal resources" (Ďaďo et al., 2006, p. 264). The more their expectations are fulfilled, the happier they are. Otherwise, they are disappointed.

Participants, as the visitors, tend to sort tourism goods according to their own preferences (Gúčik, 2010). Hartl (1993) defines preference as priority and propensity for certain activities. According to Gúčik et al., (2004, p. 100) a preference is "a choice by which an individual prefers a person, group, goal or value over others". In couchsurfing, preferences usually concern the choice of destination, transport means, accommodation, use of leisure time, etc. (Gúčik, 2010). Deciding on them presupposes choosing from at least two or more options in favor of the one that best meets their needs. This process affects e.g. destination authenticity, level of cultural enjoyment or safety, but also growing environmental responsibility, interest in a healthy lifestyle, increasing living standards or current demographic development of society (Cibáková et al., 2008).

Expectations and preferences of participants are being influenced by tourism trends. One of them is the diversion of participants from the luxury services to experiences and authenticity (Borovský et al., 2008). They perceive the value of services primarily through their ability to convey expected experiences, than through their material form. They prefer destinations that can not be found in catalogs. They like to stay among the locals to learn more about their way of life and experience direct interaction with traditional local culture and community. They like to exchange travel experiences with them, visit their favorite facilities, and take part in their leisure activities. For a few days, they want to feel like real locals. They also like to present their country. Another trend is independent travel. During it, participants buy only selected services through travel agencies or directly from producers and create their own service packages and organize their own travel, usually at the last minute (Borovský et al., 2008). They do not want to behave like a mass tourist who, according to sociologist Cohen (Horner & Swarbrooke, 2003, p. 65), “buys a holiday as a package of services, chooses popular destinations, often travels with a group of friends and spends most of his time in a hotel or immediate area”. They want to behave like new tourists for whom travel is a way of life. According to Wall and Matheison (2006), they are characterized by rich travel experiences, an orientation toward experience and authenticity, respect for the environment and a healthy lifestyle. They usually decide on couchsurfing spontaneously, without much planning. This is partly a consequence of demographic changes in society, such as population aging, increase in the number of single couples (singles) and childless couples (dinkies).

Couchsurfing Social Network As a Tool for Couchsurfing

In tourism there are used different types of social networks. They specialize in sharing travel information (e.g. Zoover), finding travel companions (e.g. Travel Buddies) and using local resources, related to sharing car (e.g. Bolt, Uber) or accommodation (e.g. Couchsurfing, Airbnb) among members (Jeong, 2005). The Couchsurfing social network (hereinafter Couchsurfing) is an effective tool for couchsurfing participation.

Boyd and Ellison (2008, p. 211) define a social network as “an Internet service that allows registered members to create public or semi-public profiles, make user links visible to other users, track their friends’ visible links, and visualize their position within a limited social community system and share communication, information, photos and videos with other members”. A social network is a set of “social entities connected with changing relations. Subjects are nodes of the network, relationships are expressed by point connectors” (Jandourek, 2007, p. 241). According to The European Union Agency for Network and Information Security, a social network is “an online community that allows people, through a built-up profile, to meet, communicate, keep in touch, share pictures and videos with other community members with whom a connection is shared” (www.enisa.europa.eu).

Couchsurfing is used by participants from all over the world who want to explore different destinations and the way of life of locals, and for this purpose they offer each other free accommodation on the couches in their residences. It was established in 1999 in San Francisco. Its founder, Casey Fenton, managed to get a cheap flight ticket from Boston to Iceland, where he wanted to explore the way of life of locals, despite his limited expenses. Overnight stay in Reykjavik offered him 50 of the approximately 1,500 students he addressed by e-mail. This experience fascinated him so much that since then he wanted to explore the countries only this way. On the way back to Boston, he decided to set up an organized low-cost travel system with authentic experiences (www.nbcnews.com).

The beginnings of Couchsurfing were not easy. In 2006, its database was lost due to server problems, and Fenton wanted to end the project. Together with enthusiastic users and the slogan “Participate in creating a better world, one couch at a time!”, he renewed the social network in four days. Thus it became known to the international mass media. In 2011, it reached 3 million registered users and was named the most popular free accommodation portal by the British daily The Guardian (https://everything.explained.today). It currently has 14 million users in 200,000 cities worldwide. The most used languages of its users are English, French, Spanish, German, Italian, and Chinese (Germann Molz, 2012). It is connected to several social networks, such as Facebook, Twitter, Google+, YouTube, Tumblr, and Instagram.

Couchsurfing users can participate in couchsurfing as couchsurfers, looking for accommodation, as well as hosts, providing accommodation, but also as persons accompanying couchsurfers through destinations. Couchsurfers do not have to be the hosts and vice versa. There are hosts who have not traveled yet, but they like to meet couchsurfers (Germann Molz, 2011). Users are not obliged to accept an application for accommodation and may not ask for money to provide accommodation.

Couchsurfing provides useful information and their consultation by registered users, e.g. events section contains information about organized events on topics, such as local cuisine, traditional drinks, and traveling. The condition for user registration is the age of 18 and filling in the profile for at least 50%, although detailed profiles and photos look more trustworthy. Profile contains their personal characteristics, information about residence, occupation, education, language skills, hobbies, favorite movies and books, visited countries, as well as what they can share with users, etc. After successful registration, it is possible to enter the desired destination and search for the so-called couch. Users are contacted through the so-called couch request, at least one week before leaving. It is practical for them to have the same interests and good knowledge of chosen destination (www.forbes.com). It is recommended to request two to three overnight stays. After confirming the conditions, including the place and time of arrival, users exchange telephone numbers for case of unexpected circumstances.

By registering, users promise to respect the rules and values of social network, based on mutual respect for different cultures, religions, lifestyles or ideals, and mutual trust. That is why they also notice references (positive, neutral, negative). For safety reasons, women traveling individually are advised to prefer overnight stay with other women or families (www.makeuseof.com). Users' business activities can not be promoted on social network and it should not be used as a dating site. Events are organized in local bars and cafés to facilitate user's access to community, especially for newcomers.

3 Methodology

The aim of the article is to examine expectations and preferences of couchsurfing participants from different countries of the world and to suggest possibilities for their more effective fulfillment. The subject of the research are the expectations and preferences of couchsurfing participants. The object of the research is the Couchsurfing social network as a tool for couchsurfing.

First, we clarify the starting points. Based on secondary sources (Borovský et al., 2008; Boyd & Elisson, 2008; Cibáková et al., 2008; Germann Molz, 2011, 2012; Gúčik et al., 2004; Gúčik, 2010; Hartl, 1993; Jandourka, 2007; Marčeková, 2019; Moran, 2011; Pompurová, 2014; Randall, 2015; Šebová et al., 2020; Talty, 2014; Tapon, 2012) we define the terms such as couchsurfing, participants, needs, motives, expectations and preferences. We also explain the genesis and principles of the Couchsurfing according to its official web site couchsurfing.com.

Subsequently, we present the results of a primary research of expectations and preferences of participants, using questioning method and online structured questionnaire in English as its tool. We conducted the primary research in 2021. The selected sample of respondents consists of 384 randomly selected Couchsurfing users from 32 countries and all continents. From a demographic point of view, these were women (39.4%) and men (60.6%), mostly singles (80.3%), in the age groups 20 to 29 and 30 to 39 years. Up to 85.9% of respondents had a university degree. We used mathematical-statistical methods to evaluate the results of primary research and other methods, such as abstraction, induction, deduction, analysis, synthesis, comparison, and generalization. We have a positive couchsurfing experience from Vienna, Austria, in 2016.

Finally, we present the possibilities of making couchsurfing more effective. The article brings useful information for administrators of Couchsurfing, but also for those, who are interested in couchsurfing, or for those who plan to participate on it.

4 Analysis of Expectations and Preferences of Couchsurfing Participants

The main source of information about couchsurfing (Table 1) for the most respondents are friends (62.8%). Information is also drawn from travel blogs (11.7%) and online articles (10.2%), which provide recommendations and travel experiences by bloggers and authors. Respondents draw less frequent information from magazines (8.1%)

Table 1 Information sources about couchsurfing

Information sources	Number of respondents	Share of respondents (%)
Friends	241	62.8
Travel blogs	45	11.7
Online articles	39	10.2
Magazines	31	8.1
Televison	20	5.1
Other	8	2.1
Total	384	100.0

Source Own processing, 2021

Table 2 Motives for couchsurfing

Motives	Number of respondents	Share of respondents (%)
Experiences and memories	137	35.7
Local culture exploration	84	21.9
Free accommodation	53	13.8
Destination authenticity	48	12.5
Destination exploration	8	2.1
Other	54	14.0
Total	384	100.0

Source Own processing, 2021

and television (5.1%). These forms of marketing communication seem to be less effective. Other sources are their random meetings with participants, interviews with roommates while traveling and social media (2.1%).

The decisive motive of the respondents for couchsurfing (Table 2) are experiences and memories (35.7%). They prefer them over high standard services. An important motive is also local culture exploration (21.9%), destination authenticity, and exploration (14.6%). This corresponds to the main couchsurfing principles, as well as the finding, that free accommodation motivates only 13.8% of respondents to participate. Other motives (14.0%) are to improve communication in foreign languages, meet new people and have sex. This points out a lack of understanding of main couchsurfing principles by those who use it incorrectly as a dating site.

Mutual trust of respondents during couchsurfing (Table 3) is aroused mainly by references (39.9%), based on authentic experience. Profile information (26.1%) and photos (17.3%) also have a positive effect on their trust. However, number of friends (2.9%) does not significantly strengthen their trust. Some respondents (5.2%) rely on

Table 3 Factors of mutual trust during couchsurfing

Factors of mutual trust	Number of respondents	Share of respondents (%)
References	342	39.9
Profile information	224	26.1
Photos	148	17.3
Verification	74	8.6
Number of friends	25	2.9
Other	45	5.2
Total	858	100.0

Source Own processing, 2021

Table 4 Factors of host selection or couchsurfer acceptance during couchsurfing

Factors of selection/acceptance	Number of respondents	Share of respondents (%)
References	279	43.7
Interests	138	21.7
Photos	127	19.9
Foreign languages	53	8.3
Residence equipment	41	6.4
Total	638	100.0

Source Own processing, 2021

the first message impression, communication style and common interests, or checks participants' profiles on Facebook.

Also when selecting a host or accepting a couchsurfer (Table 4) the references are decisive for the respondents (43.7%). Interests (21.7%) and photos (19.9%) are also important factors. The participants spend enough time together and therefore they rely on compatible interests and mutual sympathies. As couchsurfing is a worldwide phenomenon, communication in foreign languages is also crucial for some respondents (8.3%). 6.4% of respondents take into account the host's residence equipment. No respondent mentioned factors such as gender or age of participants.

Up to 72.4% of respondents participate in couchsurfing more than twice a year (Table 5), and some offer couchsurfers their couch once a month, weekly, or daily. Therefore, we can describe the frequency of respondents' couchsurfing participation as relatively high. Some respondents participated in couchsurfing only a few times in their lifetime.

The majority of respondents (53.7%) participate in couchsurfing (Table 6) for one to two nights or three to four nights (40.6%). Thus, up to 94.3% of respondents participate on it for a short time. The length of participation with five or more nights is preferred by minimum respondents. We consider the length of participation during four nights to be optimal. Shorter participation does not allow to know the destination well enough and longer participation could be restrictive. Some respondents combine accommodation with several hosts in one destination.

Table 5 Freqency of couchsurfing participation

Frequency	Number of respondents	Share of respondents (%)
Once every half of year	51	13.3
Once a year	43	11.2
Once every two years	12	3.1
Other	278	72.4
Total	384	100.0

Source Own processing, 2021

Table 6 Length of couchsurfing participation

Length (nights)	Number of respondents	Share of respondents (%)
1–2	206	53.7
3–4	156	40.6
5–6	8	2.1
7–8	8	2.1
9–10	2	0.5
11 and more	4	1.0
Total	384	100.0

Source Own processing, 2021

The most common position of respondents during couchsurfing (Table 7) is couchsurfer (60.7%). Fewer respondents prefer the position of host (24.0%). Another 15.3% of respondents participate as a destination guide or they accompany couchsurfers in restaurants, cafés, discos, etc.

Most respondents participate in couchsurfing (Table 8) just alone (57.7%) because it is easier to find accommodation. However, it is considered optimal when a couple participates in couchsurfing and cocuchurfer is accompanied by a girlfriend/boyfriend (11.2%), husband/wife (7.8%), partner (6.8%), friend (5.5%),

Table 7 Positions of couchsurfing participants

Positions	Number of respondents	Share of respondents (%)
Couchsurfer	233	60.7
Host	92	24.0
Other	59	15.3
Total	384	100.0

Source Own processing, 2021

Table 8 Accompanying persons during couchsurfing

Accompanying persons	Number of respondents	Share of respondents (%)
Alone	222	57.7
Girlfriend/boyfriend	43	11.2
Husband/wife	30	7.8
Partner	26	6.8
Friend	21	5.5
Family member	21	5.5
Other	21	5.5
Total	384	100.0

Source Own processing, 2021

Table 9 Countries comparison during couchsurfing

Countries sorted by attendance	Number of respondents	Share of respondents (%)	Countries sorted by the best experience	Number of respondents	Share of respondents (%)
France	90	14.5	France	63	14.2
Germany	84	13.5	Italy	55	12.4
Spain	80	12.9	Spain	48	10.8
Italy	68	10.9	G. Britain	41	9.2
G. Britain	60	9.6	Germany	37	8.3
USA	39	6.3	USA	30	6.7
Brazil	18	2.9	Australia	18	4.1
Australia	12	1.9	Brazil	15	3.4
China	8	1.3	China	4	0.9
Other	163	26.2	Other	133	30.0
Total	622	100.0	Total	444	100.0

Source Own processing, 2021

or family member (5.5%). Respondents who participate in couchsurfing with roommates or acquaintances chose another option (5.5%).

The five most visited countries during couchsurfing (Table 9) include European countries, such as France (14.5%), Germany (13.5%), Spain (12.9%), Italy (10.9%), and Great Britain (9.6%). In these countries, respondents also have the best experience with couchsurfing, although in a different order. The most visited country, in which respondents also have the best experience with couchsurfing, is France. Respondents also visit other countries (26.2%), such as Belgium, Czech Republic, Netherlands, Austria, Russia, Sweden, or exotic countries, like Maldives, Faroe Islands, etc. Among these countries, respondents have the best experience with couchsurfing in the Czech Republic, Austria, and Russia.

Most respondents (39.1%) have average daily expenses per person and day from € 21 to 40 during couchsurfing (Table 10). These expenses are payed from own resources. Mostly it is money for food, transport and entrances to cultural and historical monuments, while they do not pay for accommodation as standard. Other respondents (35.9%) have average daily expenses of up to € 20 and a smaller group of respondents (10.7%) from € 41 to 60. Thus, up to 85.7% of respondents have average expenses of up to € 60. 11.7% of respondents spend from € 61 to 100 and only 2.6% of respondents spend from € 141 to 160. Some hosts provide respondents, except for free accommodation, also food, transport by car to cultural monuments or take them on trips, thus their average daily expenses are minimized.

The majority of respondents (92.2%) do not pay or request any financial reward for accommodation during couchsurfing (Table 11). The opposite experience has only 7.8% of respondents from whom the hosts demanded money to cover the costs of consumed water and energies. Despite the low amounts, it is still contrary to the main

Table 10 Average expenses (€) per person and day during couchsurfing

Average expenses (€)	Number of respondents	Share of respondents (%)
Up to 20	138	35.9
21–40	150	39.1
41–60	41	10.7
61–80	29	7.5
81–100	16	4.2
101–120	0	0.0
121–140	0	0.0
141–160	10	2.6
Total	384	100.0

Source Own processing, 2021

Table 11 Financial reward request for accommodation during couchsurfing

Financial reward request	Number of respondents	Share of respondents (%)
Yes	30	7.8
No	354	92.2
Total	384	100.0

Source Own processing, 2021

couchsurfing principles. It should not be a tool for own business or for competition against Air B&B.

The most used transport means of respondents during couchsurfing (Table 12) are low-cost airlines aircrafts (35.7%). This is natural because participants have to overcome long distances even between continents. Even couchsurfing originated at

Table 12 Transport means during couchsurfing

Transport means	Number of respondents	Share of respondents (%)
Aircraft (low-cost airlines)	137	35.7
Train	61	15.9
Bus	54	14.1
Aircraft (standard airlines)	35	9.1
Hitchhiking	35	9.1
Wandering	20	5.2
Other	42	10.9
Total	384	100.0

Source Own processing, 2021

Table 13 Preference of short video of couchsurfing participants

Preference of short video	Number of respondents	Share of respondents (%)
Yes	236	61.5
No	148	38.5
Total	384	100.0

Source Own processing, 2021

the very moment, when its founder bought a cheap flight ticket. Smaller groups of respondents prefer trains (15.9%), buses (14.1%), and standard airlines aircrafts (9.1%). Respondents also reduce their expenses, despite of safety risks, by hitch-hiking (9.1%) and wandering (5.2%). As other transport means (10.9%) they use cars or combine the already mentioned means.

Short video about potential couchsurfer or host is preferred by up to 61.5% of respondents (Table 13). They would like to watch it in decision-making process. This would contribute to mutual trust, especially between newcomers, and support the information authenticity in the profiles, the easier it would be to estimate the nature of a certain participant. Other 38.5% of respondents do not prefer this video.

Almost half of the respondents (43.2%) thank the hosts for accommodation during couchsurfing with a gift (Table 14), often typical for couchsurfer's country. 24.2% of respondents prefer an invitation to drink or dinner and 16.7% of respondents prepare lunch or dinner for the hosts. 5.2% of respondents clean the host's residence as a token of gratitude. 10.7% of respondents combine previous options, or they try to find out in advance, whether they can bring the hosts something special from their country, or they do not thank in any way.

The most interesting couchsurfing experiences were reported by 232 respondents (60.4%). From positive experiences we state that e.g. a certain respondent lived in a luxury villa with a swimming pool in Geneva and drove around the city in the host's car. Another respondent spent a month instead of three days with hosts in Alaska and felt like a family member. Other respondents had a party with wealthy Pakistani

Table 14 Ways of thanking host for accommodation during couchsurfing

Ways of thanking	Number of respondents	Share of respondents (%)
Gift	166	43.2
Invitation to drink or dinner	93	24.2
Preparing lunch or dinner	64	16.7
Residence cleaning	20	5.2
Other	41	10.7
Total	384	100.0

Source Own processing, 2021

students or a wedding in the host's family, gained friendships, and tasted traditional local dishes. One respondent fell in love with the hostess. A negative experience had e.g. respondent watched by the host during the showering or respondent frightened by a giant cockroach in Colombia. Most respondents have a positive experiences. Couchsurfing allowed them to visit unusual places, meet interesting people, and try non-traditional activities, such as diving, paragliding, and camel riding.

The most common problem during couchsurfing (Table 15) is the transport lines delay (34.7%). Poor hygiene (11.8%) and low quality accommodation (11.8%) are also serious problems. Respondents mentioned harassment (3.7%), low quality catering (3.2%), and thefts (2.5%) as other problems. 32.3% of respondents have to solve other problems, e.g. high demands of couchsurfers, slow communication on Couchsurfing, weird rules in the host's residences, or intrusiveness of those who mistaken couchsurfing with dating site.

Respondents' expectations (Table 16) are best fulfilled in case of experiences and memories (1.65). The expectations from exploration of local culture and way of life (1.70), destination authenticity, and its exploration (1.90) are fulfilled rather very good. Expectations from accommodation (2.00), getting new contacts (2.05), safety (2.05), locals' approach (2.10), and catering (2.15) are fulfilled very good. Expectations from transport are fulfilled the worst (2.25). On average, respondents' expectations from selected couchsurfing aspects are fulfilled very good (1.98) and none of them achieved a worse average mark than 2.25.

Fulfillment of overall expectations from couchsurfing (Table 17) is mostly excellent (35.2%) to very good (44.5%). The overall expectations of 18.2% of respondents are fulfilled as good and in case of 2.1% of respondents it is only sufficient. No respondent evaluates this fulfillment as insufficient.

Respondents also submitted suggestions for improving couchsurfing. We present them in conclusion. We believe that they will contribute to the further couchsurfing development, better fulfillment of its mission, improvement of Couchsurfing services, and support a stylish way of participants' travel.

Table 15 Problems during couchsurfing

Problems	Number of respondents	Share of respondents (%)
Transport lines delay	150	34.7
Poor hygiene	51	11.8
Low quality accommodation	51	11.8
Harassment	16	3.7
Low quality catering	14	3.2
Thefts	11	2.5
Other	140	32.3
Total	433	100.0

Source Own processing, 2021

Table 16 Fulfillment of expectations from selected couchsurfing aspects

Aspects	Fulfillment rate
Experiences and memories	1.65
Exploration of local culture and way of life	1.70
Destination authenticity	1.90
Destination exploration	1.90
Accommodation	2.00
Getting new contacts	2.05
Safety	2.05
Locals' approach	2.10
Catering	2.15
Transport	2.25
Average	1.98

Source Own processing, 2021
Explanations: 1—excellent, 2—very good, 3—good, 4—sufficient, 5—insufficient

Table 17 Fulfillment of overall expectations from couchsurfing

Fulfillment	Number of respondents	Share of respondents (%)
Excellent	135	35.2
Very good	171	44.5
Good	70	18.2
Sufficient	8	2.1
Insufficient	0	0.0
Total	384	100.0

Source Own processing, 2021

5 Conclusion

Couchsurfing is an increasingly popular form of individual tourism in the world and number of participants has been growing over the years. It is ideal for people who want to see as much as possible and pay as little as possible. The combination of couchsurfing and low-cost airline services makes such travel more affordable. It allows to explore the culture and way of life of locals and gain experiences that cannot be achieved in four-star hotels.

According to the results of primary research, typical participants are young people aged 20–29 with a university degree. They learn about couchsurfing from friends and the Internet. Mainly are motivated by experiences and memories, local culture exploration, and free accommodation. Their mutual trust with others is strengthened in particular by references, profiles, and photos. When selecting a host or accepting a couchsurfer, they take into account the references, interests, and photos. They participate in couchsurfing more often than twice a year, some even once a month, weekly, or daily, with an average length of participation of three to four nights. They participate in couchsurfing more often as a couchsurfers (60.9%), than as a hosts (23.9%), or accompany couchsurfers through the destination (15.2%). They are mostly alone or in pair and usually choose European countries, especially France, Germany, Spain, Italy, but also Austria, Hungary, and Czech Republic, outside Europe, especially the USA. They minimize their expenses, which are usually € 40 per day and do not encounter the financial reward request for accommodation. They prefer short videos of couchsurfers and hosts. They express gratitude to the hosts with gifts or invite them to lunch or dinner. Their most common problem is the transport lines delay. Their expectations from couchsurfing are fulfilled, especially in relation to experiences and memories. The fulfillment of overall expectations is excellent to very good (79.7%).

Respondents mentioned certain shortcomings of Couchsurfing website, related to its design, orientation and attractiveness, user profiles and references, safety and its use as a dating site. Couchsurfing website should allow to send bulk messages simultaneously to multiple users, who meet their preferences, while deleting old or annoying messages. Messages could be archived centrally. Inactive profiles should be removed after a period of time so as not to complicate searches and distort statistics. For safety reasons, users should appear on this website under their own name, not a nickname. In order to increase mutual trust, the website could be enriched by users' voluntary short videos as well as anonymous scoring of their credibility, while the current level of trust would be displayed next to their name. Website could be supplemented with so-called hang out references of participants, who only accompany couchsurfers through the destination. More attention needs to be paid to evaluation of negative references, as even one negative reference can raise doubts, damage users' reputation, and complicate their further couchsurfing. Some users do not write negative references, because they are concerned about reciprocal negative references. Voluntary uploading of host's residence photos could become mandatory for users to know what standard to expect, because some provide only a couch, bed, or mat on the floor, some share their room or luxury villa with pool. It should be also mandatory to mention preferences and information about residences in section called My home. Below the user profile, the approximate location of residences could be displayed for better orientation, especially in large cities, because some users prefer accommodation in city centers due to a rich social life, others rather in the city suburbs that are not so crowded with tourists or in the countryside. Website should include a warning that it does not serve as a dating site and should not create room for harassment of users.

The increasing commercialization of Couchsurfing, which also hinders respondents, weakens its main principles. Some couchsurfers mainly use it to search for free accommodation through a profile created only a few days before leaving. They are often not interested in getting to know the hosts better and they use host's residences only as luggage room. Some hosts require money for accommodation. Such users could be discouraged by imposing of an annual membership fee. Raised money could be used to improve the events organized for couchsurfers.

Acknowledgements This research was funded by the Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of Slovak Republic VEGA, Grant number "1/0368/20 Sharing economy as an opportunity for sustainable and competitive development of tourist destinations in Slovakia".

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The Management of Conferences and Business Events in Periods of Crisis. The New Digital Paradigm

Alexandra Chalkia and Athina Papageorgiou

Abstract The outbreak of the COVID-19 pandemic in 2020 affected people mobility worldwide. As a result, both international and domestic tourists almost completely cancelled their bookings, airlines cancelled most of their flights, almost all in-person meetings and events were suspended and PCO's faced vast economic losses, as their turnover was reduced by over 75% for 2020, with the visitors/attendees decreased by over 90%. The aim of this paper was to investigate the extent to which new technologies were used in organizing and conducting digital events during the pandemic period and their overall impact on the congress market. For this we conducted both a primary and a secondary research; primary data were collected by interviewing the administrative personnel of Hotels, PCO's, DMC's, and Audiovisual companies and secondary data were obtained by reviewing journals, historical records, relevant studies conducted by tourism associations and also UNWTO statistics. Our results confirmed that there was a transition of MICE tourism to a new digital environment, in terms of organization of meetings and events and the use of technology throughout their operation. We believe that our study will provide evidence that technology has an important role in conference organization and management in the post-COVID-19 era.

Keywords COVID-19 · Digital events · Event organization · Professional event organizers · Audiovisual equipment rental companies · Hotels

JEL Classification Z31 · Z32

A. Chalkia (✉)
Department of Tourism Management, University of West Attica, Egaleo, Greece

A. Papageorgiou
University of West Attica, Egaleo, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_28

1 Introduction

Business tourism is an important subnet of tourism and includes all travels and tourist activities meant for business purposes. The MICE Industry (also known as Meetings Industry) is a part of business tourism which incorporates four niche areas: Meetings, Incentives, Conferences, and Exhibitions.

The meetings industry is comprised of the *customers* (companies, corporations, associations, other public and private entities, etc.), the *suppliers* (conference centers, exhibition centers, hotels, transportation companies, audiovisual companies, restaurants, catering companies, event companies, outdoor activities companies, interpretation services companies, travel guides, etc.), and the *intermediaries* (Professional Congress Organizers—PCO's, Destination Management Companies—DMC's, venue finding agencies) (INSETE, 2015).

It is evident that the meetings industry encompasses a wide spectrum of professionals who must collaborate and coordinate with each other to produce the quality services needed. Thus, MICE tourism yields numerous financial and social benefits (Mitsilis & Dwer, 2000), encourages the rational use of all available resources and enables the tourism sector to develop in a balanced way (Aburumman, 2020).

There are many factors that contribute to a successful organization of a conference or event (Anas et al., 2020). The technological trends (the application of new technologies in conference tourism) can be considered as one of the main factors and usually fall under the wider term of Information and Communication Technologies (ICT).

Even though technology was used in many aspects of the meetings industry for many years, upon the outbreak of the COVID-19 pandemic its use became a major component for the organization and conduct of meetings.

2 Types of Conferences and Meetings

There are many types of conferences, which can be categorized according to their size, status of participants, purpose, and geographical scope (Papageorgiou, 2018). In addition, new technologies have penetrated in our daily lives (smartphones, tablets, internet, 5G, etc.) and this has affected the way conferences are nowadays organized and conducted. The use of these technologies is integrated in conferences and events in an increasing manner both in the form of applications and with the use of smart devices.

The application of new technologies such as Teleconferencing, Green Box, Virtual Reality, and Augmented Reality has changed the way conferences are organized and conducted worldwide. Taking into account the use of technology, the conferences can be divided into:

- Traditional (Traditional/In-person/Face-to-Face Conferences),
- Hybrid Conferences and

– Online or Virtual Conferences.

Traditional Conferences

In traditional conferences (Traditional/In-person/Face-to-Face Conferences) the physical presence of delegates and speakers into a conference room is mandatory. The contribution of technology is important as it assists in making the scientific or professional presentations and the overall activity friendlier to participants. In traditional conferences the participant has to travel in order to attend the meeting and uses various other services, such as accommodation and sightseeing. The average expenditure per conference delegate is estimated to be 5–7 times higher than that of the average tourist (Papageorgiou, 2018).

During a traditional conference the participants also attend organized social events, excursions, and venues. Technology in traditional conferences depends on the type of conference and its size. The use of audiovisual equipment is mandatory (projectors, screens, microphones, live presentations in other areas), as well as interpretation booths, smart badges, and smartphone applications.

Hybrid Conferences

In Hybrid Conferences, physical presence and virtual attendance are combined. For both delegates and speakers, physical attendance is limited and digital technology is widely used. The hybrid conference is essentially a combination of a traditional conference and an online one. It is held in a conference hall with limited participation and is broadcasted online, via digital media to a wider audience. The traditional conference services are also used (accommodation, catering during the conference, etc.), but to a limited extent.

Digital technology solutions are mostly the same as those used in the traditional conference. In addition, the internet and congress websites are used for the live broadcast of the various sessions, focusing on the speakers and the presented material (slides or videos) and also the audience during discussion. In many cases, various applications are used through which the participants who attend each session via the internet have the opportunity to ask questions in real time.

Virtual Conferences

Virtual Conferences are held without the physical presence of the speakers or the delegates in the conference room. Technology plays a key role in organizing these conferences. Session president(s), speakers, and delegates are online (synchronous broadcast) using one of the various applications that are operated through a studio and coordinated by a team of technicians. Sessions can also be recorded and played on demand (asynchronous broadcast) through the congress website or other host websites, such as You Tube or Vimeo. If the speakers or any key persons are present at the studio, they can use a stage or a “Green Box” and broadcast live.

Comparison

Each type of conference has certain advantages and disadvantages depending on the size of the conference, the subject, the venue, the budget, the conference schedule, and the country/city of origin of the delegates.

The interaction between the delegates is the main advantage of the traditional conferences. People interact and socialize and develop important relationships that provide true experiences for the delegates. Personal networking, hands-on new products, and experiencing the atmosphere of the conference are unique advantages of a traditional conference. A large number of delegates also choose to attend a conference because they can also visit the city or the country it is held on.

Virtual conferences organization has increased due to the unique circumstances resulted from the COVID-19 pandemic. Virtual conferences are considered to be more cost-effective than traditional conferences, mainly due to the absence of several activities that take place during a traditional conference, such as meals, sightseeing, and entertainment. In addition, the time needed to organize it is much shorter, compared to a traditional conference.

Virtual conferences can be attended by an unlimited number of participants: this is in contrast to the traditional ones, where the capacity of the conference space is limited. Delegates can attend from all over the world, while presentations are more sophisticated, improving the overall quality of the event.

Hybrid conferences are a blend of the previous two, essentially combining the best features of traditional and virtual conferences. They match both the social contact between (a part, at least, of) the participants and the access to the conference proceedings, while delegates can attend all over the world. This provides flexibility, especially during crisis periods and also reduces the conference costs.

3 Digital Applications in Conferences and Meetings

New technologies are vital in conference organizing, providing PCO's with reliable solutions. These may be software systems or applications used in conference planning and budgeting, in booking services for attendees and online check-in, in designing bookmarks for the conference and conference venues, in creating the conference website and applications specifically designed for the conference (e-voting, live schedule, live streaming, e-attendee report, e-business card), in data analysis, etc.

Cloud-based applications are favored, as they provide remote access of the database to the end user. In this way, the organizer is able to access files, change them and generally interact with the application in real time from anywhere in the world. Indicatively, some of the most common applications used by the PCO's and DMC's are:

- Cvent Event Management Software (https://www.cvent.com/en/event-management-software)
- EventsAIR (https://eventsair.com/)

- Event Pilot (https://www.ativsoftware.com/products/eventpilot-conference-app-features/)
- Eventora (https://www.eventora.com/)
- Eventbrite (https://www.eventbrite.com/)
- Whova (https://whova.com/).

Until 2019 there were many platforms used for online team collaboration and online meetings. Upon the pandemic outbreak, the use of these applications became imperative and this led to a surge in their demand and widespread use. The features of these applications were also adapted and enriched to serve the conduct of large group online meetings as well as the conduct of conferences online. Some of the most commonly used applications are:

- Cisco WebEx (https://www.webex.com/).
- Zoom (https://zoom.us/).
- Microsoft Teams (https://www.microsoft.com/en-ww/microsoft-teams/group-chat-software).
- Click Meeting (https://clickmeeting.com/).
- GoToTraining (https://www.gotomeeting.com/en-gb/training),
- GoToMeeting (https://www.gotomeeting.com/en-ie).
- GoToWebinar (https://www.gotomeeting.com/en-gb/webinar).
- YouTube (https://www.youtube.com/).
- Vimeo (https://vimeo.com/).

Virtual And Augmented Reality

There has been a significant growth in Virtual Reality (VR) and Augmented Reality (AR) fields in recent years, and they tend to have an increasing use within the Meetings industry. According to Guttentag (2010), many definitions of Virtual Reality have been formulated that vary depending on the properties used to characterize the experience provided. This technology involves a 3D computer-generated environment, in which a person can navigate and possibly interact with one or more of his senses that are simulated by the application in real-time. The use of this technology usually needs a device that translates the user's actions in such a way that the virtual environment responds accordingly. A simplified version of this technology is implemented in the Meetings industry, for instance in Virtual Exhibitions, where the attendee can navigate through the exhibition and access the stands, see the products and receive information while he can also interact with the exhibitor's representative.

On the other hand, Farshid et al. (2018) reported that Augmented Reality is the unification of the real world along with digital information about it. This technology requires a smart device (smartphone, tablet, etc.) that can project information about a space or object on which it is focused. This way, for example, the delegate can focus on a sponsor's booth and display information about the sponsor on the delegate's smart device.

Green Box Studio

Even before the pandemic, there was a need for live broadcasting or recording speeches and presentations be shown at a meeting or a webinar. The studios used were equipped with cameras, proper lighting, microphones, staging, etc. and refer to professional TV studios. The "green box studio" technology needs a background wall that is usually covered with a special material or painted with a special color (usually green). This space is intended for video recording or taking photos that are technically edited by adding visual effects using Chroma Keying (or Chroma Key Compositing) technology. The technique is widely applied in advertising, television productions, and the entertainment industry (https://akto.gr/egkatastaseis/green-box-studio/). In terms of conferences, the "green box studio" has been implemented to a large extent in Virtual meetings, especially after the COVID-19 pandemic.

Minimum Requirements

In order to operate these new technologies, upgrading the technological infrastructure and the internet services is a necessity. The need for faster, efficient, and reliable internet connections for digital data transmission is of paramount importance, especially for hybrid or virtual conferences.

In recent years, all major telecommunications companies in Greece have invested in infrastructure, such as fiber optic networks throughout the country and internet supply via satellites; consequently, all conference and meeting spaces have wired (LAN) or wireless (WLAN/Wi-Fi) access while the introduction of 5G technology is expected to increase the speed of data transmission, resulting in wider use of smart devices and their applications in the meetings industry.

4 Meetings Industry and COVID-19

According to the ICCA (2020) Annual Report for 2019, trade union conferences doubled every decade since 1963. In the last decade (2010–2019) there was a 26% increase, in comparison to the previous one. For 2019 Greece ranked 21st in Europe with 202 conferences of international professional associations and Athens accounted for a vast of 107 conferences, and ranked in the 17th position among European cities.

This upward trend ended at the end of 2019, which was the starting point of the global pandemic of the coronavirus (COVID-19). The disease on March 11, 2020, was declared a pandemic by the World Health Organization. Its effects were catastrophic for many sectors of economic activity worldwide (Mohanty, Dhoundiyal, & Choudhury, 2021). Tourism suffered a 74% decrease in air arrivals worldwide in 2020 (Fig. 1) and according to INSETE (2021), in Greece the decrease in international air arrivals amounted to 76.5% compared to 2019.

Conference facilities in Greece (as well as other economic activities) were closed by government mandate to protect the community from the pandemic and to restrict its spread. The country closed its borders for three months in 2020 and citizens'

Fig. 1 International tourist arrivals. *Source* UNWTO (https://www.unwto.org/covid-19-and-tourism-2020)

activities and travels were restricted. Conference tourism, as expected, was greatly affected. The pandemic led to mass cancellations of conferences and events or at best their postponement to a later date. In June 2020, the country reopens its borders to tourism having drastically reduced COVID-19 infection cases. The limited number of conference events booked are conducted with strict protocols and a drastic reduction in the allowed number of participants in the conference rooms. In November 2020, the confirmed cases of COVID-19 infections increase drastically and once again the country closes its borders and with them, all economic activity.

In December 2020, the vaccination program with vaccines developed for COVID-19 begins, giving a sense of uplift and optimism. In May 2021, Greece opens its borders for tourism, having carried out approximately 4 million vaccinations (https://www.data.gov.gr/datasets/mdg_emvolio/).

According to a study by INSETE (Maroulis, Ikkos, & Kikilias, 2021), it is estimated that both the global and the Greek economy will recover from mid-2021 onwards, mainly due to population vaccinations both in Greece and abroad.

Technology, Conferences and Covid-19

Following shutdown in March 2020, and the cancellation of live conferences, technology provided the means for meetings to be held in virtual or hybrid manner and thus allow the meetings industry to continue operating in a fully (or mostly) computerized environment. In Greece, the vast majority of conferences in 2020 were held online and there were cases of hybrid conferences with limited physical attendance for the months of June to October of the same year, which were held according to the current health protocols at the time.

Like all companies, those active in the conference industry had to adapt in a very limited time to new technologies and applications that allowed conferences and meetings to be held via the internet. Companies that did not proceed with their digital advancement were forced to do so due to the pandemic situation. The staff of a company had to be able to connect and work remotely and be able to get in touch with their colleagues. Applications such as Zoom and Microsoft Teams for instance were assimilated by the companies' staff to facilitate their operations throughout the pandemic. Employees were trained to work remotely and collaborate with each other through these applications.

In addition, the conduct of conferences has changed dramatically. Audiovisual rental companies were among the first to adapt to the new data as the demand for cutting-edge technologies was imperative. Green Box Studios were set up, and funds were invested in the purchase of licenses for conference broadcast applications.

Similarly, PCO's invested in conferencing solutions and platforms for webinars while many had to invest also in constructing Green Boxes and purchasing audiovisual equipment and internet broadcasting software, due to high demand. Hotels on the other hand had mainly invested in upgrading their network speed and equipment to be compatible with these new technologies.

As the pandemic is not over yet, the conditions in conference and events organization continue to change and it is not possible to predict the day after. However, it is certain that the digital transformation in the conduct of conferences will have a leading role.

5 Research Aims and Methodology

This study aimed to research the use of new technologies in organizing and conducting conferences during the COVID-19 pandemic in Greece. The main goal was to determine the main applications used by the organizers of professional conferences and events, both before and during the pandemic.

An additional goal was to determine the extent to which the use of new technologies affects the organization and conduct of an event, and how it contributes to its quality upgrade. The study also explores the future impact of new technologies in the post-COVID-19 era.

To meet the aims of this study the qualitative method was chosen. Researchers selected key informants to conduct personal interviews, i.e. professionals in meeting and event organizing companies, audiovisual rental companies, and hotels with meeting venues. This method, according to Zafiropoulos (2015), records the empirical knowledge of the participants, as well as their views and perceptions. The research aimed to determine the impact of new technologies on these companies that participate in the organization of conferences and professional events.

The key informants were chosen by their relativity to the study objectives: for instance, they had to be experts in the meetings industry, had to have working experience, and be involved in MICE coordination tasks. Project Managers, Event Coordinators, Sales Managers, and other officials were interviewed and data were collected from 12 interviews. Half of them derived from PCO's and DMC's, three from Audiovisual Companies and three from Hotels.

Semi-structured interviews were used in order to promote in-depth interviews for the primary study. Interviews were conducted from May 2021 to June 2021 and their duration fluctuated from 30 to 40 minutes. Some of the Interviewees chose to send their replies in writing. Interviewees initially provided basic information regarding their work position and experience and then, using an open-ended question format, provided information regarding the use of technology before and after the COVID-19 pandemic in their organization and what impact did it have on their work. Due to the pandemic, interviews were conducted via the internet.

All qualitative data were recorded and analyzed in order to obtain the most significant information for comparison and evaluation.

6 Results

The vast majority of business events, both in the respondents' organizations and also in their conduct, involve the use of some kind of digital technology developments, ranging from a powerful laptop to a fully equipped webcast studio. Prior to the pandemic, only basic technology was used (conference management program, video recording, teleconferencing, voting systems, etc.), while novel technological developments (online tools for organizing and managing events, live streaming, studio/green box studio, etc.) were less commonly used.

The demand for new technological solutions in Greece emerged from the Covid-19 pandemic, making their application a necessity. Due to the restrictions imposed, face-to-face events were no longer possible (or, in a few cases, performed under certain restrictions) for a long time and this initially pushed the organizers to look for new ways to operate. PCO's and occasionally DMC's tried to adopt alternative ways for organizing and conducting events by using online tools. This allowed them to maintain their operation, using both these tools offered by the internet as well as other applications developed by several providers. In many cases, as our respondents stated, these needs were met through external partners.

Audiovisual rental companies were, to a certain degree, more prepared for this transition, as they were (due to the nature of their operation) thoroughly informed about novel developments. This does not mean, however, that everyone had access to the appropriate equipment to support digital congresses or they owned certain broadcasting tools prior to the pandemic. Although the demand was lower than before, the need to adapt new digital technology solutions was urgent.

Hotels had closed their conference rooms according to the instructions induced by the Greek health protocols; operating time was limited and the demand was low. Therefore, hotels either had no requirements of specialized personnel or were not able to develop appropriate human and digital technology resources; if needed, hotels used external partners.

From the above it is obvious that the demand for digital technology solutions was global for the meeting industry in order to continue to operate, as the pandemic led to a significant reduction in the turnover of all organizing companies without exception. Companies turned to providing online meetings services, although the demand was limited as compared to the era prior to the pandemic. The use of novel technological developments by the PCO's and DMC's contributed excessively to the possibility of undertaking the organization of online events.

The problems faced by audiovisual equipment rental companies were similar. These providers usually had developed an art/construction department and a lighting department and also offered professional translation services. All these require physical presence events. Moreover, companies had to invest in new machinery and applications in order to cope with the reduced demand that was, however, extremely important for their survival. Both the reduced activity and the investments needed, as expected, led to a significant reduction in their turnover.

Hotel meetings turnover was also drastically affected, as they could no longer provide other services, like accommodation, catering and entertainment. Respondents stated that five months after the onset of the pandemic they only organized small hybrid events or virtual events. In any case, even these limited events could not be accomplished without the use of novel technologies.

The utilization of new technologies had had significantly positive effects on people, both conference workers and delegates. The former acquired new skills in their field and in several cases their work was facilitated by the use of technologies, while the latter came into direct contact with the new technologies and became familiar with the digital environment which would not be of any interest otherwise.

7 Conclusion

From these interviews it is obvious that the perception of the contribution of new technologies to an event has changed. Before the pandemic, new technologies were considered of secondary importance; during the pandemic, however, they acquired a primary role in the event organization and management and in several cases provided better quality that determined its success.

It is clear that today the use of new technologies greatly influences the organization and conduct of an event and its impact can only be positively assessed. Our respondents believe that new technologies can facilitate the organization and conduct of business events, while hybrid and virtual conferences "are here to stay". This does not negate the need for physical presence and communication between the delegates and for this reason the hybrid events are the ones that are projected as the most attractive type of events after the pandemic, followed by those of physical presence. Augmented and virtual reality are thought to be widely applied to business events in the future.

This study aimed to contribute to a better understanding of the new technologies use in the organization and conduct of events, as well as the extent to which they facilitate the organization and conduct of an event in times of crisis, such as the COVID-19 pandemic. In recent years there has been a large increase in the use of the internet and digital media, which in turn has affected the meetings industry. New applications have been developed online, and specialized equipment are widely used in the event industry; this was evident during the pandemic and will definitely continue to be used in the future. What remains to be seen is the extend that digital technology will influence the organization and conduct of events, as only companies that will adopt best practices on emerging technologies will be able to survive in the highly competitive business environment of the meetings industry.

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The Virtual Truth Versus the Real Image of the Museums. Method to Analyse Virtual Visits to Museums

Marga Cabrera and Lola Teruel

Abstract The virtualization of the museum heritage through virtual tours allows us to achieve the objectives of disseminating, preserving and promoting a collection, even if the museums are closed. During the COVID-19 pandemic, a massive invitation was made by the media and the museums themselves to reach their collections in this way, leaving the question of whether or not the way of presenting the information and access fits with the real image of the museums. To this end, this study proposes a methodology for the analysis of virtual visits to museums, through the definition of six key factors, their variables and identifiers. In addition, it applies the methodology to the ten virtual visits of museums most recommended by the media, to obtain a definition of the best practices in the virtualization of heritage and suggesting some practices around its interpretation. It concludes with the exposition of different typologies of virtual visits and the definition of what an ideal virtual visit to a museum should be.

Keywords Virtual museum · Virtual visit · Tourism · Communication · COVID-19 · Heritage

JEL Classification Z3 Tourism Economics · Z1 Cultural Economics

1 Introduction

Traditionally, to experience the cultural offerings of museums visitors had to go in person, but, as Bowen pointed out in 1998, many museums can now be accessed directly via an internet connection. The new technologies have gone beyond the concept of being a publishing space, exhibition hall, stage or showcase to incorporate increasingly linked and relational strategies (Cabrera-Méndez, 2019). Of course, what they offer on the internet is different and not always of the same quality as the experience of actually visiting the museum itself, that is, its real image. However,

M. Cabrera (✉) · L. Teruel
Universitat Politècnica de València, Camino de Vera s/n, 46022 València, Spain
e-mail: mcabrera@upv.es

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_29

online access to certain places, such as the museum shop and the records, can potentially improve on the face-to-face experience by offering a virtual truth that enhances and extends the experience, as is the case of virtual visits. Virtual museums can surpass the physical limitations of space and time of their traditional counterparts, but bring with them the potential barriers of how to organize the context, the conservation and safety of the collections, and a new role as publishers that the museums must assume (Hemmings, 1997). This has brought to the fore the need to use new dissemination strategies, to create new professional profiles linked to technological media, and even to redefine the objectives and conception of these institutions (Beceiro-Ribela, 2001).

Following the confinement of the population in their homes due to the COVID-19 pandemic, the mass media have proposed a multitude of recommendations on how to spend leisure time at home. The invitation to get to know and use online cultural spaces has favoured the users' access to and interest in museums that, owing to lockdown, could not be visited physically. During March 2020, the option of showing virtual visits produced by leading cultural institutions was a display of solidarity that quickly spread through the mass media and social networks as a way to fill leisure time by allowing access to these "cultural containers". Thus, among other proposals, specific recommendations emerged, such as virtual museums that invited people to "travel" from their homes in the form of virtual tours via the Internet (UNWTO, 2020).

Virtual museums are an excellent way of showcasing heritage, as well as transmitting knowledge and educating through entertainment (Kotler & Kotler, 2000), while at the same time they are an interesting resource for making heritage assets more widely known through different online technologies (Schweibenz, 1998). These technologies condition and favour the exhibition of such assets by adopting new ways of presenting them. These new formats include interviews with museum workers, descriptions of artwork, interactive games, 3D modelling, courses and the history of the museums, among other things. Specifically, the virtualization of heritage through developments such as 3D images, Google Art Project, interactive scenarios, augmented reality or graphic documentation (Duclos-Bautista and Cousillas Ripoll, 2013; Puyuelo et al., 2015; Jung et al., 2016) allows the promotion of the virtual environment and ensures that the public enjoys an attractive experience that brings them closer to the museum, while also potentially encouraging them to pay an in-person visit to the destination (Peinado-Checa, 2014).

The second determining element for museums, including their virtual version, is the participation of users who, with their interactions and recommendations, serve as the museum's opinion leaders and can modulate the selection of contents. The participation of users is significant because we have gone from presenting contents selected by the museum director or curator inspired by a theme, an author, a style or avant-garde movement to curating by the recipient and their undeniable power over other users as opinion leaders. As Martínez-Sanz (2012) pointed out, the model of communication implemented by museums has shifted from being two-directional to user participation, which is also the essence of web 2.0.

The incorporation of the use of social networks by museums increases user interaction with heritage and reflects the capacity to modulate how content is perceived and shared with other users (Teruel Serrano, 2016). This multiplying effect in the dissemination of museum heritage not only reinforces the communicative character of the virtual museum, but also facilitates the safeguarding, conservation, and dissemination of historical and artistic heritage (Claes & Deltell, 2019), whilst at the same time promoting heritage interpretation and serving as an entertainment experience for the user.

Both technology and the active participation of the user and/or the museum curator define the options available regarding virtualization and "heritage products" offered by museums, especially when the aim is to reach the public through interpretation (Martín-Guglielmino, 2007). One of these products is the "virtual visit", which is implemented by arranging the contents in tours organized according to timelines, authors, geographical location of the works, styles, etc. (Djindjian, 2007). The accompaniment and knowledge of the curators in virtual visits allow the interpretative aspect to be achieved by facilitating the intellectual and even emotional/empathic understanding of the museum. One technique for curating content that emerges from the application of technology to the traditional museum is storytelling (Nielsen, 2017).

Virtual museums also use artificial intelligence techniques applied to the selection of museum contents that give rise to "virtual augmented tours", proposed by users through their interaction, thereby creating new virtual itineraries that are shared and used by other users. Once again, the combination of heritage virtualization and user interaction results in an exercise in which art, communication, and technology are taken together and intertwined. It is also a challenge to be addressed in the virtual tours proposed by the curator, as well as those that are put forward by users. A comparison of user-generated content (UGC) in virtual communities and the narratives of official institutions reveals the potential advantages of spontaneous knowledge exchange over structured online communication and how UGC could benefit the latter (Irimiás & Volo, 2018). The multiplying effect of communication is greater when the use of museum interpretation takes place through social networks and their most prominent users (influencers).

This article is organized as follows. The literature review in the introduction explores how technology has been introduced into museums in their version designed for the internet, giving rise to different digital cultural products. Particular attention is paid to examining the importance of the online format they adopt when presenting the museum through virtual tours. The methodology section describes the basic elements required to be able to carry out a review and analysis of virtual visits to museums. The next section presents the results of an analysis of the ten most recommended virtual visits to museums in the world that was carried out to identify the best practices both in terms of the use of technology and the application of exhibition resources adapted to the online format that draws the visitor closer to the conservationist, promotional and interpretative aims of museums. The article concludes with some ideas on the digitalization of visits in virtual museums and their capacity to make culture and entertainment available on a widespread scale.

2 Methodological Development for the Analysis of Virtual Visits to Museums

2.1 *Definition of a Tool for the Analysis of Virtual Visit and Its Identifiers*

The instrument used to analyse virtual visits to museums owing the lockdown is one of the most relevant scientific contribution of this research. This tool tended to identify communicative and strategic capacities of the virtual visits to the selected museums throughout definition of the variables, gathering of information and its analysis.

From a methodological point of view and, taking into account that the analysis object has been museums offering virtual visits, it has been necessary to recurrir to scientific consideration about the formal and technological aspects. So that, for the quantitative and qualitative study, a method was proposed for analysing virtual visits to museums based on the goals described by Kotler and Kotler (2000) and Miguelez (2013). These two authors both noted that the goals pursued by museums are (i) appreciation, knowledge and conservation of heritage; (ii) entertainment; (iii) promotion and dissemination and (iv) their contribution to the promotion of tourism at the destination, especially when carried out via social networks. Additionally, these objectives applied to virtual visits are completed with Nielsen's (2017) proposal regarding the consideration of interpretation techniques, such as storytelling, applied to virtual museum communication.

Hence, the proposed methodology describes the six factors that have guided the gathering of information and its subsequent analysis as well as the identifiers with which to validate the information collection. All of them are listed in Table 1:

The first factor (F0) is used to identify the accessibility from the museum's website and how easy it is to locate the virtual visit, as well as the languages in which the visit can be conducted and how accessible the contents are in audiovisual terms. Likewise, the information offered during the pandemic that is useful for virtual visitors and their potential physical visit has also been considered.

Secondly, F1 is concerned with knowing the elements that create emotional and intellectual links among the public and the heritage to facilitate its appreciation, knowledge and conservation. Thus, the study took into account whether a record of the work exhibited has been included, as well as the use of interpretive techniques to order the contents according to topics, such as historic houses, major events, historical periods and local identity elements.

Factor F2 considers the application of technological elements to knowledge (Edutainment) with the aim of auditing whether or not accessing knowledge through entertainment is feasible in this case. To do so, it analyses whether the visit offers interactive content in which the user chooses how to carry out the virtual visit, or

Table 1 Factors defined for the analysis of virtual museums

Factors	Identifiers/description	Aim
F0. Accessibility to the contents of the virtual museum	– Languages – Audios – Access to virtual collections – Contextualized information (COVID-19 and the virtual visit)	To facilitate access to information
F1. Value enhancement of the heritage	– Information sheet about the work – Contents dealing with: historic houses, major events, historical periods, local fauna and flora, etc – Temporary and travelling exhibitions	To appreciate, get to know and conserve heritage
F2. Application of technological elements to knowledge (Edutainment)	– Interactive contents: escape rooms, augmented reality, gamification, etc – Storytelling – Historical timeline – Style or avant-garde – Author's work – Crossed arguments	To facilitate access to knowledge through entertainment
F3. Technologies	– Selection of floors/doll's house/location on maps – Street-view by Google Art Project – Virtual reality – Video – Zoom	Promotion and dissemination
F4. Participation and generation of content by the public and curators	– Invitation to share/upload contents – Invitation to share/social networks – Generate customized virtual visits	User participation by recommending and promoting the virtual visit
F5. Destination	– Geolocation of other similar resources near the museum (*Google Maps*)	Promotion of tourism at the destination

Source Own elaboration

whether it has challenges such as escape rooms or other kinds of games that facilitate access to knowledge through entertainment. New museology is concerned with creating learning visits focused on visitor experience than the object on display.

The level of technologies used is analysed in F3 and it included the technological elements applied in the visit divided into three categories: the simulation of the museum building and the selection of floors to browse, the doll's house format to show the different rooms; the location, and navigation through maps, the use of zoom that expand on the information, or interactive videos; and the integration of the museum with Google Street-view, Open Street maps or similar technologies giving the possibility of visiting rooms or pieces with augmented reality.

A superior use of technology leads to the consideration of synchronous virtual guided tours. In this case, the virtual tour consists of a tour that guided virtually via a free video conferencing software, such as Zoom or similar, where participants, using a computer, smartphone or tablet with a microphone and access to the internet, are guided by tour guides or experts on a tour of the museum and its collections. These virtual guided tours are carried out according to a fixed schedule two days a week and users can participate in them. However, the technological development identified in this factor should not overshadow the connection with the heritage on display.

F4 identifies whether the institution allows users to interrelate and participate with the visit generating its own contents by providing a connection with the different social networks, whether it offers content to be shared or downloaded, the option to bookmark it, or the possibility of generating tours or visits that can be shared. This option leads new virtual experiences which made museums as hybrid spaces where users become part of the museum as co-creators by developing an idea or co-producing and exhibition even acting with the museum staff. Social networks can facilitate users to add content to virtual visits. It should not be confused with the analysis of the content generated by the institutions in social networks, which would be the objective of further research.

Finally, a fifth factor, F5, has been included to identify whether the visit favours the promotion of tourism, not only of the museum but also of the area around it and therefore of the destination where the museum is located. To this end, an analysis is performed to determine whether it is connected to geopositioning social networks, whether it shows and links to similar collections in the surroundings through Google Maps or other options, and whether it allows access to other virtual visits of the surroundings of which are related to the works or authors.

2.1.1 Research Method

The study combines qualitative and quantitative techniques applied from March 2020, at the beginning of the COVID19 lockdown, until July of the same year. The idea was to define a comprehensive method for analysing the experience of virtual visits to museums, which would be long-lasting and which could be implemented and improved in future explorations. The research comprises three stages starting with the formulation of the research questions. The questions arose from the study of the literature review, the review of the theory and the experience gained from making virtual visits to museums:

Can we distinguish different types of virtual tours?

What elements should a virtual visit to a museum include to be considered as such?

Is it possible to define the ideal virtual visit to a museum?

In addition, second stage " Definition of the universe and selection of the sample for analysis" was carried out based on the recommendations of virtual visits published by different tourism magazines and digital press during March 2020 (Europa Press, National Geographic, Elle Décor, Eldiario.es, Traveller Magazine, Diario Clarin, Travel and leisure, Elite Traveller, The Guardian, Google, The Independent, Smithsonian Magazine, Harper's Bazaar, TimeOut, Educación 3.0, El País, RTVE, Marca, El Confidencial, Vogue, Business Traveller), when, following the recent lockdown, many media outlets began to recommend them as a leisure option that can be carried out from home (Fig. 1) (Appendix 1: links to media recommendations).

Altogether, this compilation yielded 199 results, from which the arithmetic mean was calculated to obtain the 10 most recommended virtual visits to be used as a sample (Fig. 2).

The final sample for analysis consisted of the 10 most recommended museums, which are, in order of the number of votes:

Vatican Museum—Rome
Louvre Museum—Paris
British Museum—London
Galleria degli Uffizi—Florence
Hermitage Museum—Saint Petersburg
D'Orsay Museum—Paris

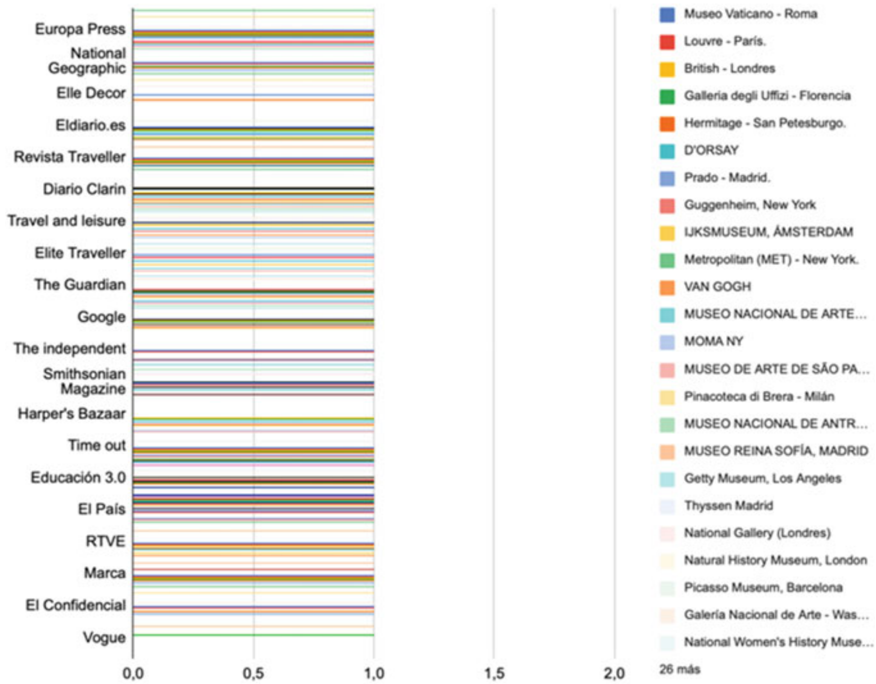

Fig. 1 Compilation of recommended virtual visits. *Source* Own elaboration

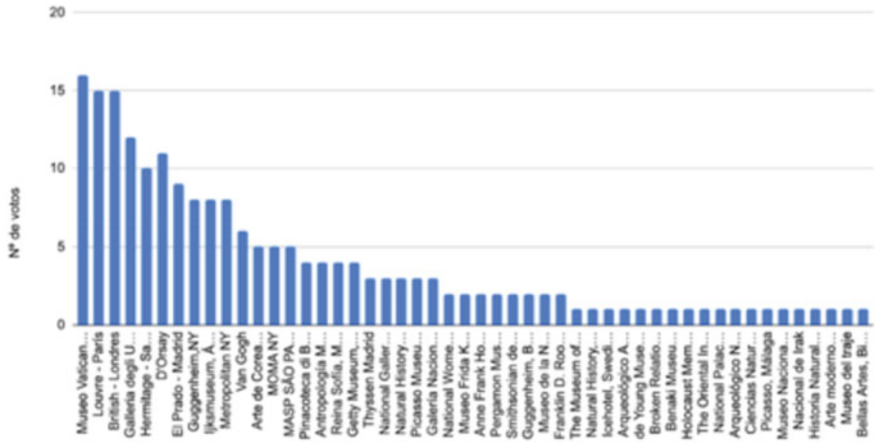

Fig. 2 Virtual visits to museums recommended during March 2020. *Source* Own elaboration

National Museum of El Prado—Madrid
Guggenheim Museum—New York
Rijksmuseum—Amsterdam
Metropolitan Museum of New York (MET).

Apart from the methodology section, the study also includes the literature review, which generally constitutes the first part but, in this case, has been included in the introduction; the third part, which offers the results of the various research techniques used and the definition of best practices in virtual visits to museums; and the final section, where the conclusions from this research are discussed.

2.1.2 Quantitative and Qualitative Analysis of the Virtual Visits

The first review consisted in carrying out a "reconnaissance" visit without the aim of analysing anything, in particular, simply with the aim of enjoying it. The second stage was to access the virtual visit from the homepage of the museum's official website to determine whether it was difficult to find the visit. The virtual visit was then carried out identifying the factors mentioned above and evaluating them.

A study conducted in the year 2000 by **Barbieri** and **Paolini** defined three types of virtual visits according to the level of technology included in them, which led them to the following classification:

Simple and affordable level: consisting of a set of web pages arranged logically in order to provide a guided tour of the museum's facilities. As regards technology, they incorporate navigable photos with zoom and videos.

Medium level: with navigable 3D environments, for example, using *Quicktime VR* technology, that provides a minimal sense of presence but results in a solitary experience for the visitor. In this case, this sense of being present is accomplished through *Street-Art or Google Art Project* technologies.

High level: which offers a real expansion that allows the visitor a degree of freedom and the possibility of interacting with models and objects by "being free to touch them". The maximum degree of a virtual visit would be when this type of environment allows for real-time interaction among virtual visitors (Barbieri & Paolini, 2000). The technology corresponding to this advanced development would include the incorporation of social networks and the generation of content by the user that can also be shared. Likewise, interactive games also appear at this advanced level.

It is somewhat surprising that, 20 years after Barbieri and Paolini put forward their definitions of the different types of visits, they remain quite up-to-date. According to the scale proposed in Table 2, museums whose virtual visit has obtained less than 50 points will be considered a simple level experience; those that obtain a score of between 50 and 70 points will be medium-level experiences, and those that obtain more than 70 points will be identified with the maximum degree or high-level experience. It can therefore be used as a method for measuring the level of the experience in virtual visits to museums.

3 Results

The results of the analysis are in relation to F0. Accessibility of the virtual visit on the museums' websites shows that, in general, it is not easy to find. Only in some cases, such as the British Museum and the Hermitage, is there a direct link from the museum's homepage to the virtual tour. Secondly, another element linked to accessibility is the translation of the information on the works into different languages in order to broaden the scope of the markets and improve customer service and accessibility to the contents. Most of the virtual museums visited display the option of browsing the website in an average of three languages. Some museums, such as the Hermitage or the Louvre, seem to offer access to a multitude of languages, but once inside the virtual tour this is not the case. With regard to the heritage display, it can be seen that six out of the ten museums analysed make use of these information labels, which facilitate guidance along with the visit and intellectual access to the heritage by extending the information on the works on display and enhancing the visitor's experience.

Finally, adaptation to the current context of the pandemic had considered necessary and important information, both to make the limitations in terms of physical visits known to the public and to invite users to get to know the museum online. In half of the cases analysed, the website's homepage offers references to the situation of exceptional closure due to the pandemic or advice on how to get to know the museums through virtual visits. Half of the museum detected the need for users to discover the museum from home and provided a link to everything available on the website in order to cater for the occasion.

Table 2 Factors, criteria and scores assigned

Identifier		Score
Factor 0: accessibility		10
access from homepage	1. access is highlighted/0.5. it is identified, but somewhat hidden/0. it is not possible to enter the virtual visit	1
Language of visit (English plus others)	1 point per language (max. 5)	5
Exhibition labels (captions)	Text that accompanies the pieces or rooms providing detailed information about them (1 if there is a label—2 if it provides further information)	2
Audios (during the visit)	1. yes or 0. no	1
COVID context—importance granted to online visiting	1. yes or 0. not highlighted on homepage what can be done from home	1
Factor 1: Value enhancement of the heritage		20
Works information sheet	Amount of information concerning the works (percentage of works with a sheet in the whole visit; maximum 6)	6
Authors information sheet	Amount of information about the authors. (percentage of works with an information sheet about the author in the whole visit; maximum 6)	6
Museum premises	The museum is shown during the visit and is discussed in terms of the premises (percentage of information about the rooms and the building during the whole visit; maximum 4)	4
Historical periods	Whether it identifies and/or classifies periods of history (0. does not identify any historical periods; 1. shows information about periods; 2. chronology displayed on a timeline or similar)	2
Special exhibitions/collections (temporary, travelling, etc.)	Whether it has virtual visits to special collections (0. has none; 1. some special exhibition appears, even if it is not current; 2. identifies all the special collections)	2
Factor 2: *Edutainment* (education + entertainment)		20
Interactivity	Number of elements that allow interaction with the visit and make it entertaining (percentage of interactive elements included in the visit; maximum 10)	10

(continued)

Table 2 (continued)

Identifier		Score
Storytelling	What elements the narrative of the visit plays with: guided by authors or experts, through games, themed (children, experts, etc.) and so forth (percentage of different narratives included in the visit; maximum 10)	10
Factor 3: Technologies		25
Selection of floors/doll's house/location on map	Elements that aid navigation (percentage of elements that help visitors find their way during the visit; maximum 5)	5
Navigation 360º	Panoramic images or elements that allow navigation through rooms (percentage of technologies included in the visit; maximum 5)	5
Virtual Reality	Incorporation of virtual reality/glasses/etc. (percentage of virtual reality included in the visit; maximum 5)	5
Video	Incorporation of video in the visit, or link to video visits (percentage of video included in the visit; maximum 5)	5
Virtual guided tour	Synchronous virtual guided tours (5. yes or 0. no)	5
FACTOR 4: Participation and generation of content by users		20
Invitation to share/upload contents	Users can upload their content or user content is shared: comments, Instagram images from hashtags, etc. (percentage of shared content; maximum 10)	10
Invitation to share/social networking	Possibility and easiness of sharing the whole or partial experience of the virtual visit on networks (number of social networks on which the virtual visit is present; maximum 5)	5
Generate customized virtual visits	Option allowing visitors to generate and save their own visit (5. yes or 0. no)	5
FACTOR 5: Destination		5
Geolocation of other resources around the museum	Connection with the surroundings and other similar cultural elements at the destination (5. yes or 0. no)	5
Total score		100

Source Own elaboration

Enhancing the value of heritage (F1) is an objective that was met in all the museums analysed, although the way to achieve it differs from one to another. A notable example is the case of the British Museum, which the interactive visit option is very original; it does not show the rooms but instead navigates along a timeline, on which the user can select a date, continent, piece, or theme. In addition, it allows users to relate some pieces to others and place them on a map of the world while also offering the possibility of seeing what other pieces the museum contains that are of the same or a similar origin. A similar option is provided by the Metropolitan Museum of New York through the section "*Timeline of Art History*", where cross-connections are shown through selected spatial–temporal objects, to obtain a brief description of the works by means of pop-ups, the key events linked to that object and its location. This allows the user to acquire greater knowledge through discovery. Likewise, the National Prado Museum presents its own timeline internationally known for its novelty and implemented some years ago on its platform.

In general, the results obtained about F2 show that the virtual visits devote part of their efforts to making the contents available to users so that they can discover and learn about the works on display. This is not the case, however, concerning interactivity, understood as the application of technological elements dedicated to allowing the visitor to make choices on how to carry out the virtual visit.

Providing education through entertainment (F2) is a challenge that can be met by arranging the contents on display in an attractive manner that is adapted to different audiences. There are experiences, such as at the Guggenheim, where the digital resources included in the section "Digital School tours" aimed at schoolchildren show selected educational materials, and audio and video descriptions in which the children play the leading role. There is also a link (somewhat difficult to find) allowing the virtual tour to be followed under the *Google Art Project* platform. Likewise, one notable option is the proposal by the MET, in its Metkids section, which allows children to choose different elements selected on an infographic that they can then focus on and learn by expanding the vocabulary and information about it. They are also encouraged to use their imagination through questions that make them think and take the user back to the period in question, as well as to create since the same object can be made using materials, they have available to them. This section also includes an option called "Time machine", where, using a filter, the user selects the period, the geographical place, and great ideas, which range from inventions to mythology, battles, etc. Once the selection has been made, it is confirmed and a list of results appears that can be used to expand their knowledge.

The Musée d'Orsay addresses interactivity by offering users the chance to personalize the virtual visit according to their interests or motivations by adding their personal selection of works to a personal album so that it generates a tailor-made tour that can be followed when it is visited physically. This collection of works, or albums, can even be printed out or different types of prints generated with the chosen pieces from the personal area.

The Museo del Prado has a section called "what's on" which includes different interactive projects such as video games, exhibitions around the world, a VR visit to Room 39, or interactive itineraries on different themes. However, no options have been identified that include gamification such as escape rooms or other types of games that facilitate access to knowledge through entertainment, or that can be played between different peers as a challenge or competition.

With regard to the technological aspects (F3), most of the museums analysed use 360° panoramic images to represent the virtual tours, arranged according to a selection of the works in their collections. In some cases, these tours are prominently advertised under the title "start the tour", as is the case of the Hermitage Museum. In the case of the Vatican Museum, although there are no audio systems during the visits, it does offer a navigation option with VR glasses. This is the case presented by the MET called "*The Met 360° Project*", through which the spectators can visit the art and architecture of The Met "virtually" in an immersive way.

One very helpful element that makes the virtual tour easier to follow is the placement of elements such as maps of the location of the floors and rooms along the route, which allow the visitor to structure the contents, select floors or view the so-called doll's house. Yet, despite its importance, the use of this indicator in the virtual tours presented goes unnoticed. The British Museum allows users to know where they are through a location map, and even to navigate through the map to explore the floors of the building and find out what there is in the area around it. In a similar way, the Vatican Museum stands out for its use of 3D technology, allowing the user to get to know most of the rooms and their location through a map. Perhaps the most significant example is the visit to the necropolis, which includes a map that indicates where the user is, although visits to the rest of the Vatican Museums do not offer this service.

The Musée d'Orsay offers a virtualized version of the visit through a tour of the history of the building by 360° navigation through its five floors. This option is interesting and has been developed with a content selection system that can be filtered by authors, title (or keywords), or other selections such as the type of work, where the user can choose between painting, pastel, sculpture, medals, artworks, designs, photography or documents, among others.

Another virtual visit that stands out is that of the Rijksmuseum, which, on accessing its website, offers the option of a visit "*from home*" with links to a selection of its digitized collection, which is displayed under the slogan "the online museum never closes". The collection is presented through a series of short videos selected by the museum's curators with stories about the works of art. This museum also stands out for the development of an application called "Rijksstudio", which allows users to make their own tour or to use someone else's. This is a useful tool that serves as a script for a potential face-to-face visit to the museum following the selected route. At a higher level of technology, this museum's app includes a family game that helps to discover the museum.

Another option used for the digitalization of the visit is the use of panoramic images or elements that allow navigation between rooms, through *Street-view* by *Google Art Project*. The analysis showed that half of the museums analysed have opted for this technology to make their virtual visit. In most cases, they are closed options, proposed by the curators of the museum, where the most notable collections are exhibited together with further information about the work and the author.

Besides, in some cases, such as in the Galleria degli Uffizi, works with the same author, style or, technique are linked to each other. The British Museum stands out for the quality of the images in the visit that uses *Street-view*. In this case, it does not have audio support, but it does have the possibility of providing further information on some pieces or rooms; the experience of visiting the museum without the presence of other people is very pleasant.

As regards virtual tours an advanced option has been identified by which the museum curator proposes a selection of the works according to an interpretative script that is marketed through "virtual guided tours". These guided tours are provided by tourist service companies, as is the case of the Galleria degli Uffizi, and are presented from the gallery's official website leading to an "unofficial" tour which offers a virtual tour of the museum. This virtual tour is accessed by booking through a reservation management system, with the option of choosing the day and time, as well as access to different payment systems. This same page offers the option of booking in advance for the physical visit to the gallery. The Guggenheim Museum also has a prominent link to "Guggenheim online and Guggenheim at Large" from where users can access the Guggenheim Circular, which offers a selection of topics about the museum produced by its curators, a programme of activities and resources to enjoy the museum, and activities from home. Likewise, the option proposed by the Metropolitan Museum of New York also offers a section to explore the most outstanding works of the collection through different synchronic guided tours called "*Primers: Experience exhibitions online*". In general, there is no apparent common thread in the virtual visits linking some contents to others, or that even facilitates the user's navigation through this online experience. This guided exercise is important because, as well as promoting the enjoyment of the experience, it facilitates intellectual access to the heritage.

The results of the analysis of F4 show that museums invite users to interact through social networks, which are an ideal channel for enhancing the value of experiences generated by both the museum management and the users. This interaction is achieved via links allowing the experience to be shared on social networks, as well as through the use of hashtags (#), as in the case of the Museo del Prado, which also helps to increase the museum's presence on social networks.

Some of the most widely used social networks for sharing content are Facebook, Instagram and Twitter, in addition to email and YouTube. One particular case that stands out is that of the Rijksmuseum, which produces its own channel for this latter social network, called RijksTube. The chief characteristic of this channel is that users share the personal selections of works from the museum's collection with their followers, thereby contributing to the expansion of the museum's communication strategy.

Another action worthy of attention concerning the generation of content by museums is the provision of tools that not only allow users to generate their own experiences in the form of tours or visits tailored to a specific author or theme but also facilitate the creation of personal spaces by inviting them, once again, to share their virtual visit with other users. That is the proposal of the Museo del Prado through the "My Prado" section or the option that invites the user to enjoy an immersive experience is the Guggenheim Museum's proposal via a prominent section on its

Table 3 Levels of experience in the virtual tour

Virtual visit	Simple level	Medium level	Advanced level
Louvre Museum	37		
Vatican Museums	38		
Hermitage	42		
Musée d'Orsay	44		
El Prado	48		
Galleria degli Uffizi		56	
Metropolitan Museum		61	
Rijksmuseum		67	
British Museum			74
Guggenheim NY			76

Source Own elaboration

website called "Art at Home". The participation of users in the generation of experiences during their virtual visit and the action of sharing them constitute a new way of interpreting heritage in which curating by the user prevails.

Other forms of participation are those identified at the Metropolitan Museum of New York, which, as one of the options for reinforcing virtualization, includes the creation of a blog with content segmented by audiences, with a special section for children, and the possibility of sharing experiences and concerns about the museum through social networks.

In addition, the Rijksmuseum uses the individual sponsorship function to connect with and support the museum through different channels, both for individual users and the option of subscribing—"Become a Friend". Users also have the chance to win the BankGiro lottery, which is a draw that aims to raise funds to support the national culture, contribute to the Bankgiro Lottery and offer visibility to the companies that are patrons of the museum.

Finally, the technologies that favour the promotion of tourism at the destination have been analysed by whether they include tools capable of locating other similar museums near the museum, as well as other providers in the area around it, which are referred to in the virtual tours. The case of the Guggenheim museum stands out for its use of *Google Maps* technology which it displays on its website using the Nearby Guggenheim option.

Moreover, according to the data obtained, and as a summary of the results of the analysis, Table 3 shows the findings concerning the levels of experience in the virtual visits defined in the methodology.

4 Discussions and Conclusions

The democratization of culture represents one of the most important milestones in terms of the assimilation and enhancement of the social aspect of museums (Mateos-Rusillo, 2008). The option of providing access to the virtual experience from home democratizes culture and reinforces the social contribution made by the museum.

Taking into account all the above and the research questions posed, we conclude that there are at least three types of visits:

In the first type of visit, which deals with the **premises and the museum collection**, a distinction can be made between those that grant more importance to the collections as opposed to those that give more prominence to the premises, that is, to the museum as a building. There are also those that combine the two options.

The second type involves those **focused on the content**, which covers three concepts used under the generic term of *virtual visits*. These content-based visits allow certain distinctions to be made and can thus be divided into three different types of virtual visits. It can be concluded that these synchronous experiences give the most concern to heritage virtualization, especially at the pandemic time not only to enhance the heritage and for museum promotion but to maintenance tourist guide incomes. This option has been marketed as a "Virtual Guided Tour" letting the reservation be made through a computerized reservation system and, in some cases, the profits obtained from these tours go to the authors of the works (in the case of contemporaries). However, the technological development identified in this factor should not overshadow the connection with the heritage shown. In general, a common thread linking some content with others is not identified in virtual visits, even that makes it easier for the user to navigate through this online experience. This guided exercise is important since, in addition to promoting the enjoyment of this experience, it facilitates intellectual access to heritage.

Third and last, depending on the correlation between the virtual visit and the non-face-to-face museum, three typologies can be distinguished: 1. visits that are carried out as a digital version of the current exhibition of the museum. 2. those that act as a repository of past exhibitions that no longer exist and the virtual visit offers access to the experience of what has already taken place; and 3. visits that have not existed and do not exist in the museum, which recreate a virtual visit by linking elements from different museums, from different spaces, pieces or authors in a version that does not exist physically and broadens the experience of the museum.

Regarding the question of the elements that a virtual visit should contain, this research concludes that there is no single model of virtual museum visit that includes the same elements allowing it to be considered as such. Based on this research, they could be considered as minimal elements: easiness access to the virtual visit, interactive exhibition of the content and edutainment. However, each museum understands the term virtual visit in its own way, although there may be a possible consensus or a certain similarity in museums where the visit has been created by means of the *Google Art Project* or a similar approach. This leads to the conclusion that the conceptualization around the term virtual museum tour is one that still has to be unified, as also occurs with the concept of virtual museum, which is "*under construction*" (Scheweibenz, 2019). From **Scheweibenz's** work, it is understood that a virtual museum is one that has a presence on the Internet via a website where it displays its collections. Nevertheless, the way in which it arranges its works and the level of technology used depend on the level of the experience that the museum intends to offer its visitors.

According to the study carried out in this research, a virtual visit to a museum should include at least the following elements: access to the virtual visit in a prominent position on the museum's website, display of the collections and the museum in an interactive way, and highlighting the heritage, so that the experience offers a virtual truth about the reality of the museum.

At the other extreme, the good practices identified throughout this research show advanced options in the presentation of heritage devoted to fulfilling the objectives of disseminating it, but also to entertaining and "engaging" users in the experience of their virtual visit. Including options that allow the diffusion of heritage in a segmented way through online materials and attractive proposals based on gamification, for example, constitute an interesting possibility that has received little attention. Similarly, presenting content using technologies and devices such as virtual glasses, *surround* sound or *Google Street-view* are very appropriate resources for facilitating the virtual tour. However, it is essential to incorporate guidance by experts, tourist guides or educators, using narratives based on an attractive interpretative script. Finally, within the current context of mass use of social networks, the personalization of the virtual visit by the user makes it possible to achieve cognitive experience and interaction in the creation of the contents themselves, as well as favouring emotional connection (Irimías & Volo, 2018). This interactivity option offers users the possibility of sharing selected content in a way that increases their interest in the virtual tour and interacting not only with the heritage but also with their followers.

This research opens up new lines of study in which more factors can be included or better defined. Each of them opens up endless options that need to be studied, taking into account the advances in technology and the fact that the pandemic has made it easier for museums to invest in enhancing the virtual experience. This latter, especially, has made museums aware of the need to reach out into people's homes through an enjoyable and, if possible, expanded experience that improves on real onsite visits.

Appendix

10 museos con visitas virtuales (Europa Press) 13 March 2020

https://www.europapress.es/desconecta/curiosity/noticia-10-museos-visitas-virtuales-pasear-salir-casa-20200313191810.html

12 Mejores Según National Geographic (19 March 2020)

https://viajes.nationalgeographic.com.es/lifestyle/mejores-museos-mundo-visita-virtual_13248/5

9 Museos Sin Salir De Casa (Elle Decor) 18 March 2020
https://www.elledecor.com/es/arte/g31669256/museos-visitas-virtuales-prado-metropolitan/

10 Visitas Virtuales (Eldiario.Es 31 March 2020)
https://www.eldiario.es/viajes/guias_y_consejos/visitas-virtuales-viajar-mundo-moverte_0_1011749993.html

10 Museos (Traveller Magazine 10 March 2020)
https://www.traveler.es/experiencias/articulos/museos-online-exposiciones-salas-virtuales/17589

Museos (Diario Clarin 20 March)
https://www.clarin.com/viajes/coronavirus-10-visitas-virtuales-viajar-mundo-salir-casa_0_qklcDMTt0.html

Museums (Travel and Leisure—12 March)
https://www.travelandleisure.com/attractions/museums-galleries/museums-with-virtual-tours

Of the world's Best Virtual Museum (the Guardian, 23 March)
https://www.theguardian.com/travel/2020/mar/23/10-of-the-worlds-best-virtual-museum-and-art-gallery-tours

the 10 best virtual museums (Elite Traveler 26 March)
https://www.elitetraveler.com/design-culture/10-best-virtual-museum-tours

10 Virtual History Museums and Experiences to Explore from Home (History Channel 26 March) https://www.history.com/news/10-best-virtual-museums-tours-history-from-home

Google top 10 museums
https://artsandculture.google.com/story/10-top-museums-you-can-explore-right-here-right-now/igKSKBBnEBSGKg

best 10 (The Independent—20 March)
https://www.independent.co.uk/travel/news-and-advice/virtual-travel-experiences-vr-museums-galleries-national-parks-coronavirus-lockdown-a9409776.html

10 Mejores (Smithsonian Magazine—20 March)
https://www.smithsonianmag.com/smart-news/ten-museums-you-can-virtually-visit-180974443/

the top 7 virtual tours (Harper's Bazaar—30 March)
https://www.harpersbazaar.com/uk/travel/g31974056/best-cultural-museum-world-online-virtual-tours/

best virtual tours (TimeOut—20 March)
https://www.timeout.com/travel/virtual-museum-tours

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Cultural Heritage Tourism

Local Culture Festivals and Sustainable Tourism Development in Mountain Areas. The Region of Epirus, Greece

Stella Kostopoulou, Evina Sofianou, Evangelia Stergiou, and Valia Xanthopoulou-Tsitsoni

Abstract Worldwide events and festivals have increasingly become a significant tool for local economic development as a dynamic sector of the tourism industry, promoting and (re)branding cities and regions. Despite growing interest in festivals in the international academic literature, little attention has been afforded to the under-investigated festivals in mountain areas. For mountain communities festivals appear to be a rare lever for tourism development. In remote mountain communities, suffering from poor accessibility and tourism infrastructure, local festivals strongly connected with the place's identity, uniqueness and authenticity, are increasingly seen as links to the history and culture of localities and as a novel and authentic experience for visitors, benefitting local communities that face numerous economic, social, and environmental challenges. This paper provides insight into sustainable tourism opportunities in mountain communities, through festivals related to local culture and traditions. The study investigates the typologies of these festivals in relevance to the digital tools (DG) and degree of social media (SM) use. The paper's methodological approach explores these mountain festivals' typologies by use of online content analysis, based on structural characteristics of DG and SM like nature, purpose, presence, to promote host marginalized mountain communities as tourism destinations. Mountain festivals in the Region of Epirus, a Region with rich cultural heritage, are selected as the study area to highlight the proposed methodology. An intraregional analysis is applied to explore the diversification of festival tourism dynamic potential among the Regional Units of Epirus and the need for festivals' networking.

Keywords Festivals · Mountain communities · Tourism · Local development

JEL Classification Z32 (Tourism Economics) · P25 (Urban Rural and Regional Economics) · Z1 (Cultural Economics) · P48 (Natural Resources Environment Regional Studies)

S. Kostopoulou (✉) · E. Sofianou · E. Stergiou · V. Xanthopoulou-Tsitsoni
Aristotle University of Thessaloniki, Thessaloniki, Greece
e-mail: kostos@econ.auth.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_30

1 Introduction

Cultural festivals and special events are increasingly being used by national and local governments around the world as key elements in local development strategies, as they provide opportunities for tourism promotion, commercial outcomes, and increased inward investment in host regions, as well as help recreate a place's image and contribute to overcome seasonality (Boo & Busser, 2006; Getz, 2007; Huang et al., 2010; Kostopoulou et al., 2013; Kotler et al., 1993; Mehmetoglu & Ellingsen, 2005; Van de Wagen, 2005).

Local governments tend to address some of these issues by adopting effective and appropriate event tourism strategies, as regional inequalities remain a key concern in regional planning (Whitford, 2009). As a result, the utilization of cultural festivals and special events as a tool for local economic and tourism development has acquired global traction (Alves et al., 2010; Moscardo, 2007; Small et al., 2005; Thrane, 2002). As public sector entities promote festivals as a constructive form of community development, a greater awareness of events' significance to regional development, place marketing, and place identity has arisen (Kostopoulou et al., 2013; O'Sullivan et al., 2009).

To date, several reviews have looked into the current state of research on festivals, and events more generally (Cudny, 2014; Duffy & Mair, 2021; Frost, 2015; Mair & Weber, 2019). While there is a substantial literature on the various social, cultural, and economic aspects of festivals (Getz, 2008; Waitt, 2008), festival research has tended to focus on mega-events and hallmark events, despite the historical and contemporary evidence of many festivals occurring in rural areas, leaving regional and small community cultural events understudied (Black, 2015; Bres & Davis, 2001). Though rural, non-metropolitan festivals have gotten more academic attention (Chhabra et al., 2003; Gorman-Murray et al., 2008; Higham & Ritchie, 2001), the majority of festival research is focused on cities (Gibson et al., 2010; Kostopoulou et al., 2013). However, support for festivals and special events is expected to make a considerably bigger effect in peripheral areas and small rural communities, helping in various ways to local economic diversification and tourism development (Paniagua, 2016). Despite the fact that small scale, rurally located events make up a significant portion of the overall number of festivals, many of them are likely to go unnoticed by funders and scholars (Black, 2015; Gibson & Connell, 2011; Reid, 2007) even though they have the potential to generate significant returns on small financial investments (Gursoy et al., 2004; Kim et al., 2010). Furthermore, such festive gatherings, described by Gibson et al. (2011: 3) as 'enjoyable, special and exceptional, sometimes the only time of celebration in small towns', recreate and celebrate the local culture, a sense of belonging to a place and people, while simultaneously providing a platform for such identities can be challenged (Quinn, 2003).

The inherited form of local culture heritage within festivals can be understood as the 'living expressions and traditions inherited by communities and transmitted to their descendants' (UNESCO, 2003), as well as the consistent and traceable processes within the festivals identified as the 'interaction between people and places through time' (Black, 2015; Council of Europe, 2005; UNESCO, 2003)

In recent years, festivals became one of the most popular types of tourism attractions. Empirical studies of small, provincial cultural festivals all point to economic benefits, with the majority of studies focusing on short-term effects and direct, concrete outcomes such as additional jobs, hotel rooms, and business revenues (Formica & Uysal, 1996). However, examining a festival's contribution to local development necessitates a thorough examination of its effects in a range of areas, including economic, physical–environmental, social, and cultural (Felsenstein & Fleischer, 2003; Kostopoulou et al., 2013) as well as technological.

Technology is constantly changing in the context of festivals, as in other aspects of life, and the rate of development is unlikely to slow down in the coming years. According to Bossey (2019: 407), 'social media continues to grow in popularity, as do event apps; while virtual/augmented reality and big data and analytics are creeping towards wider adoption'. In festival tourism, the function of digital tools and social media is viewed as a marketing tool for promoting festivals. Therefore, research is widely trying to keep up with our understanding of how new technologies affect festival organizers and visitors (Duffy & Mair, 2021; Mair & Weber, 2019).

This chapter deals with local culture festivals in an extreme category of peripherality, the mountain areas. The aim of the chapter is to assess if and how small-scale festivals can act as mechanisms to encourage tourism development in peripheral mountain communities. Mountain locations, which are often popular tourist destinations, offer a diverse range of attractions, including unique natural and cultural landscapes, the wildlife, recreational opportunities, and a plethora of cultural assets. Local festivals, which are strongly linked to the place's identity, uniqueness, and authenticity, are increasingly seen as links to the history and culture of localities and as a novel and authentic experience for visitors in remote mountain communities suffering from poor accessibility and tourism infrastructure, benefiting local communities that face numerous economic, social, and environmental challenges.

The paper explores the potential for sustainable tourism development in mountain communities through festivals that celebrate local culture and traditions. The study investigates the festival typologies in relation to the use of digital technologies (DG) and the degree of social media (SM) use. The methodological approach of the paper explores these mountain festivals' typologies by use of online content analysis, based on structural characteristics of DG and SM such as nature, purpose, and presence, in order to promote host underprivileged mountain communities as tourism destinations. Mountain festivals in the Regional Unit of Ioannina, at the Region of Epirus in Greece, a region rich in cultural heritage, were chosen as the research area to highlight the proposed methodology. An intraregional analysis is used to investigate the diversification of festival tourism dynamic potential and the necessity for regional festival networking.

2 Literature Review

2.1 *Festivals and Social Media*

With the rise of social media, festivals have grown into an event that participants can instantaneously capture and share diverse moments with others via their mobile devices. This allows festivals to reach a larger audience while also increasing social interaction (Flinn & Frew, 2013; Kruger et al., 2013).

Festivals bring people together to share common experiences, and social media allows for audience participation at all stages of the event (before, during, and post) (Hudson & Hudson, 2013). Organizers must learn to interact with their audience's social lifestyle, which is constantly seeking interesting experiences and opportunities to share online. Since all life events are constantly documented, presented, and also re-posted on social media, incorporating interesting social media posts throughout the festival period, benefits both organizers and attendees (Flinn & Frew, 2013). Although users can obtain important information about an event on a single platform, Becker et al. (2012) recommend that users additionally explore a number of supplementary social media platforms to expand their acquired knowledge about the subject.

Consumers in the age of social media are searching for experiences that elicit a sense of engagement (Flinn & Frew, 2013; MacKay et al., 2017). The function of social media in the tourism business, according to Zeng and Gerritsen (2014), includes information searches, decision-making, and tourism promotion. Because social media is a collaborative marketing tool that allows businesses to communicate with their customers, receive feedback, and influence them, the tourist industry should focus on best practices for communicating with consumers through social media channels (Ellison et al., 2007).

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According to Hua et al. (2017), social media has evolved into a source of information that has a significant impact on potential consumers. In the tourism industry, social media has an important role in a variety of challenges, including customer behavior, information seeking, and decision-making (Sotiriadis, 2017).

Consumers' interpersonal communication regarding products or services is referred to as word of mouth. However, technological advancements have permitted online or electronic word of mouth, which is referred to as eWOM (Hanan & Karim, 2015; Nieto et al., 2014). Hua et al. (2017) defined eWOM as informal communication involving the exchange of product and service information with customers in a variety of settings, such as social media, blogs, and online forums.

Tourists need to obtain enough information to make the right decision about something. Consumers can influence other consumers with their own personal opinions and experiences. Social media is costless, and it is an asset for marketing communication. Modern people trust other people's opinions more than an official advice or advertisement (Živković et al., 2014).

Social media is a crucial tool for studying visitors' attitudes as shown by purchases and recommendations to other users (for example the number of likes and shares on Facebook, the number of likes, tags, and reposts on Instagram and the number of retweets on Twitter). According to Zeithaml et al. (2017), tourists want credible sources of information on what to expect, which will lessen feelings of uncertainty and increase the anticipation of what they will find at their destination. As a result, social media is an important instrument for spreading the word about the festival.

2.2 Mountain Areas

Mountains are among the world's most impressive landscapes and are essential to humanity. Based on the definition proposed by Sayre et al. (2018) mountain areas occupy up to 30% of the global land surface, while mountain population is estimated up to 1.2 billion people, accounting for 13% of the global population (FAO, 2015). Regional analysis shows that almost 90% of the mountain population lives in developing and transitional countries, where the average population density (40 inhabitants/km^2) is about 5 times higher than that in developed countries (FAO, 2015).

Demographic trends in mountain regions follow various patterns, ranging from continuous increase to depopulation and abandonment, or slight demographic change, with considerable shifts in land cover from traditional land uses to new economic activities such as tourism and recreation (FAO, 2015).

Since 1950, decreasing natural population together with the increasing trend towards out-migration due to limited economic opportunities, led to shrinking and aging populations in many mountain areas. These negative trends deteriorate the challenges for economic development in mountain communities as well as they represent major challenges for landscape management (Drexler et al., 2016).

Mountain areas are by definition peripheral areas with specificities that need to be carefully examined and analyzed in the aspect of development strategies and policies. In Europe, mountain areas are of vital importance mainly for continent population in terms of water supply and resources of hydroelectric power, as places of natural and biological significance and stimulators of tourism and recreation activities due to their rich natural and cultural resources. Mountain areas, as territories with special geographic specificities, are often considered as economically handicapped, facing serious restriction on economic activity and/or peripherality (Nordregio, 2004; Price, 2016) that require tailor-made policy mixes (ESPON, 2006).

In Europe mountain areas depict different levels of development, ranging from an overrepresentation of agricultural employment (Carpathian, Greek, Slovene, Portuguese, Cypriot, Austrian part of the Central Middle mountains) employment combined in industry and services (German Central Middle Mountains, Spanish Pyrenees and Bavarian Alps), or strong overrepresentation of services (French Alps, Corsican and Balearic mountains).

Changing environmental conditions, socioeconomic development, population decline, and national and international policies all interact to make mountain areas more vulnerable in the future (Thorn et al., 2020). However, there is new potential to promote sustainable development in mountain communities by considering the complexity of social–ecological systems and using innovative and inclusive planning tools.

In order to support peripheral areas (ESPON, 2018), contemporary European policies emphasize on the intensification of cooperation, and integrated approach of their strategic goals on European and national levels. According to the 2004 study for the European Commission, municipalities in mountain areas span over approximately 1,900,000 km^2 (40.6% of total EU surface), inhabited by 94.3million people (19.1% of total population of mountain countries). Although mountains account for a significant share of the EU's space and population, little interest was oriented to them in EU strategies or even on a wider European level. United Nations Conference on Environment and Development ('Earth Summit') in 1992, resulted in an officially signed agreement included in 'Agenda 21' (Price et al., 2019) and since then, special interest has been concentrated on aiming at the development of mountain areas.

In this study mountain areas were classified into the above two categories:

- non-mountainous areas belonging to mountain ranges
- municipalities with 50% mountainous surface

Due to the diversity of mountain areas' features over Europe, different national definitions have been used, mainly in terms of altitude and slope while also other criteria, i.e., climate conditions, topography, agricultural activity. According to National policies over the EU, mountain areas are part of agricultural less favored areas (LFA) (Directive 75/268 and later Regulation 1257/99), areas for agriculture before the EU enlargement (Austria and Bulgaria) or for multisectoral strategies (France) or areas for international policies (Alpine Convention). Greece is considered as a highly mountainous country, however definitions were mainly focused on agricultural sector planning and the main criteria used was the altitude (minimum 800 m), as well as other supplementary specifications (i.e., the minimum altitude is set at 600 m if slope is over 16% or below 600 m if slope is over 20%) Nordregio (2004).

3 Study Area

The study area selected to highlight the proposed methodology is located in the Region of Epirus (or Ipeiros), one out of the thirteen administrative regions (NUTS II) of Greece. The Region of Epirus, positioned on the northwestern border of Greece with Albania and along the Ionian Sea coastline, is an EU's external border. With a total area of 9,203 km^2 (1.43% of the total national surface area), and a population of 333,696 inhabitants in 2019 (Eurostat, 2020) (3.1% of Greece's total population), is the country's most alpine region. Because of its geographical distinctiveness, it was one of the most isolated and underdeveloped regions in Greece and Europe over the previous decades, with a very low population density (36.26 inhabitants/km^2). However, recent infrastructure improvements, a burgeoning tourism and services sector, a vibrant academic environment and the strengthening of traditional industries, are all helping to gradually alter the region.

According to the latest Eurostat figures (2020), gross domestic product (GDP) in the Region in 2018 accounted for 2.2% (€4.1bn) of the national GDP, ranking 10th among the 13 Greek regions. In terms of GDP per capita in purchasing power standards (PPS), it was positioned 11th (14,900), and although this figure has been growing since 2012 (13,400), it is lower than the national average (21,100) and only 48% of the EU-28 average (Eurostat, 2020).

The Region's economy is mainly based on agriculture and livestock farming, while the most important services sectors are transport, financial intermediation, tourism, health, education, and trade. During the last decades, important investments in infrastructure, i.e., EU co-financed projects such as the Egnatia motorway, the Western Road Axis, the new harbor of Igoumenitsa and the Aktion submarine tunnel, created a new growth potential for the region (http://www.epirus.gov.gr/2009). Furthermore, the rich natural environment and the traditional mountain villages have given a significant boost for tourism development, especially due to the influx of Structural Funds http://www.qnest.eu/wp-content/uploads/2021/05/DC2-4-Epirus-ENG.pdf.

The Region consists of four Regional Units (NUTS III), Ioannina, where the seat of the Region is (167,901 inhabitants), Arta (67,877 inhabitants), Preveza (57,491 inhabitants), and Thesprotia (43,587 inhabitants), organized in 18 municipalities (LAU I). In this study, the focus is on the Regional Unit of Ioannina and more specifically its mountain municipalities. 85% of the Regional Unit's surface is characterized as mountainous, where the main activities are agriculture and livestock farming (especially dairy food). Among the main sites of attraction are two renowned National Parks, namely Vikos-Aoos and Valia Kalda and the mountain villages, i.e., Zagorochoria, traditional settlements with exceptional examples of local architecture.

The study area focuses on five out of the eight Municipalities of Ioannina Regional Unit, characterized as mountainous according to national legislation (Law 4071/2012 (Presidential Decree A 85)—Kallikratis Spatial Reform, Article 4. Following Law 3852/2010, Article 209, mountain and disadvantaged municipalities or local communities are described in the EU Regulations 85/148, 81/645, and 75/268. Law 4555/2018 (Presidential Decree 133/19.07.2018—Kleisthenis Programme), adds to

Law 3852/2010, Article 2B: 'Mountain municipalities are also defined the municipalities with at least 50% of their surface characterized as mountainous by the Hellenic Statistical Authority'. In Ioannina Regional Unit, five municipalities, namely, North Jumerka, Zagori, Konitsa, Metsovo, and Pogoni are characterized as mountain municipalities (Map 1).

North Jumerka Municipality is located on the southern border of Ioannina Regional Unit, between Epirus and Thessalia Regions. The seat of North Jumerka Municipality is the village of Pramanta. Its population in 2011 reached 5,714

Map background: Regional Framework of Spatial and Sustainable Development of Epirus (https://ypen.gov.gr/wp-content/uploads/2020/11/20200728_Hpeiros_FEK.pdf), authors' elaboration

Map 1 Study area

inhabitants (0.05% of total national population) covering an area of 358,334 km^2, with a population density of 16 km^2/inhabitant. North Jumerka consists of 6 Municipal Units, namely Pramanta (1,774 inhabitants), Bathypedi (86 inhabitants), Katsanochoria (2,181 inhabitants), Matsouki (455 inhabitants), Syrrako (270 inhabitants), and Jumerka (756 inhabitants) (EL.STAT., 2011). The villages of North Jumerka are located in Central Pindos, between Arachthos and Aspropotamos (Acheloos) rivers.

Zagori is the largest Municipality in the Region of Epirus, covering an area of 989.9 km^2, however is sparsely populated with 3,724 residents. The Municipality's seat is the village of Asprangeli and it consists of the following Municipal Units: Central Zagori (1,011 inhabitants), Eastern Zagori (1,469 inhabitants), Vovousa (115 inhabitants), Papigko (267 inhabitants), and Tymfi (862 inhabitants) (EL.STAT., 2011). The hot spot destination of the area is Zagorochoria (villages of Zagori), a unique historical and cultural unity at the northwestern tip of Pindos mountain hill (Zagori Municipality, 2016). Zagori is rich in unique natural (i.e., North Pindos Protected Area) and cultural assets, as well as traditional architecture. Mountain tourism is significantly developed including mountain hiking, paragliding—hang gliding, rafting, canyoning, truffa finding, etc.

Konitsa Municipality occupies the northwestern part of the Epirus Region, close to Greek-Albanian borders with a population of 6,362 residents, covering an area of 951 km^2. The Municipality comprises of five Municipal Units, Konitsa (4,632 inhabitants), Fourka (6,196 inhabitants), Mastorochoria (930 inhabitants), Distrato (278 inhabitants), and Aetomilitsa (432 inhabitants), with Konitsa as the Municipality seat. Konitsa is located close to Vikos-Aoos National Park, popular for its mountain tourism activities.

Metsovo Municipality is populated by 6,196 residents and spans over 363,70 km^2 (municipality density 17 inh/km^2) (EL.STAT., 2011). Its seat—Metsovo—was historically ~~a~~ nodal point of the wider area, since its residents were guards of the local mountainous passages, facilitating travelers. Nowadays, Metsovo is known for its local products (cheeses, wine) and its ski center, while its economy is based on agricultural activities and mountain tourism.

Pogoni is a Municipality of 701,059 km^2 and 8,960 residents (municipality density 13 inh/km^2) (EL.STAT., 2011). The Municipality's seat is Kalpaki. The rich natural resources, fauna and flora found in the area provide many opportunities for alternative forms of tourism (i.e., ecotourism). Among the area's natural sites, the most visited destinations include Lake Zaravina and Glyziani waterfall. The area is also rich in cultural resources, traditional architecture constructions and ensembles (traditional settlements, monasteries, museums, watermills, and fulling mills which are listed monuments, etc.) (www.epirusforallseasons.gr).

4 Methodology

The primary goal of this study is to determine the dynamics of local culture festivals identified throughout the study area, as well as to investigate the digital presence and promotion techniques by the festivals' organizers, with a focus on social media. The ultimate goal of the study is to support building local festival networks based on local culture as explored through their digital presence (online and social media), in order to promote a regional culture festival brand name. To better explore local culture festivals and tourism development perspectives over the study area, research analysis is organized in the following sections:

i. First, the profile of the study area is examined, which includes data on the study area's administrative, geomorphological, accessibility, economic, and tourism development aspects.
ii. Then, an overview of festivals linked to local culture across the study area is attempted, with an emphasis on specific characteristics.
iii. Following that, the festivals identified, their characteristics (content, time of realization, organizers' information, etc.) as well as their online tracking (website, social media, videos, etc.) are sorted into categories and a database is built as a methodological tool.
iv. In the following section, the findings of secondary and primary research are provided in order to analyze networking opportunities and suggest new mountain festival tourism networks based on local cultural heritage.
v. Finally, concluding remarks and recommendations for mountain festival tourism development are presented.

The methodological steps of the research include the elaboration of information collected in order to formulate a regional inventory of the local culture festivals over the study area. Extensive secondary research (studies, published articles, official data sources, reports and statistical information, records provided by regional and municipal administration and local cultural associations, promotional material related to local festivals, as well as relevant information obtained through extensive online research) was the basis for the identification and classification of the local culture festivals over Ioannina Regional Unit.

The results of secondary research revealed that the Region has rich intangible heritage in terms of local festivals tradition; however, the majority is still unexplored. The study focuses on local culture festivals, as a festival subcategory, meaning festivals associated with a location's unique identity, culture, traditions and customs, gastronomy, and social characteristics. Moreover, only small-scale festivals based on local traditions and culture held in the mountain communities under study were included in this analysis. Sports events, agricultural shows or commercial fairs were not included in the research, as they were rather too large scale. However, information on scale was often restricted due to lack of measurable evidence since most of the festivals have no entrance ticket, while attendance is unrecorded, and financial records are often unavailable.

Following the research process proposed by Gibson et al. (2010), the formulation of a number of databases of local culture festivals within the study area was elaborated, including information on the festivals' location, history, frequency, aims, organizational structure, marketing material, to characterize and demonstrate the dynamics of cultural festivals, in order to analyze their effect on peripheral mountain communities. Festivals were identified by conducting a systematic search of local electronic newspapers and magazines, festival websites and social media, as well as internet search engines.

The next step was the development of a database about small-scale local culture festivals over the study area, to be used as a tool to provide geographically organized information, addressed to a wide range of people: tourists, decision-makers, people involved in the tourism and culture sector, the so-called culturepreneurs, researchers, etc. The inventory of local culture festivals' covers the primary characteristics of each festival identified so far. Name of the festival (a title indicating a festive gathering), location (mountain settlements within the study area) and frequency were among the criteria included. More information was obtained on the festival's date, duration, site, and theme, resulting to patterns of festivals frequency, duration, seasonality, spatial concentration, commonality of theme (Black, 2015). Information was organized into five main groups of data based on numerous criteria, leading to a clustering of themes: administrative, demographic and location data about the host communities, transport and tourism information for the areas where festivals take place (distance from the capital city of the Regional Unit and from the seat of the Municipality, transport facilities, accommodation, etc.), data about local culture festivals (information about the festival and the organizers, etc.), as well as about their digital profile (Internet/Social Media). In order to check the visibility of these mountain festivals, we looked at their presence on social media, Facebook, Instagram, and Twitter. The Facebook platform was used to hunt for festivals' accounts, Instagram accounts were found using the application while Twitter accounts were found using the website.

i. Host Community Administrative data

   a. NUTS Classification: LAU I—Municipality
   b. NUTS Classification: LAUII—Municipal Unit
   c. Town/Village
   d. Location
   e. Altitude (m)
   f. Population 2011
   g. Population 2001

ii. Host Community Accessibility data

   a. Geographical distance (km) from Ioannina city (Regional Unit seat)
   b. Geographical distance (km) from the Municipality seat
   c. Road network condition
   d. Public transport connection

iii. Host Community Tourism Infrastructure

a. Hotels/Campings
b. Guesthouses or other types of accommodation
c. Number of beds

iv. Local Culture Festival profile

a. Name
b. Theme
c. Content
d. Periodic or realized a single time
e. Festival Date(s)
f. Festival Duration (days)
g. Festival First Appearance (year)
h. Festival Last appearance (year)
i. Number of participants
j. Festival tourism packages
k. Festival Organizers
l. Location of Festival Organizers
m. Postal Address of the festival or festival organizers
n. Tel/Email of the festival or festival organizers
o. Email of the festival or the organizers

v. Local Culture Festival digital profile (Internet/Social Media)

a. Website
b. Website translation in English or other languages
c. Web search
d. Blog
e. Facebook page/group/profile of the festival or festival organizers
f. Facebook followers
g. Facebook likes
h. Twitter account of the festival
i. Instagram account
j. Instagram number of posts
k. Instagram number of followers
l. YouTube—videos uploaded by the organizers and number of views
m. YouTube—videos uploaded by others apart from the organizers, i.e., the locals or local authorities, visitors, media, etc. and number of views

5 Research Results

5.1 Classification of Local Culture Festivals

In the first step of the implementation of the proposed methodological approach, a database was created as a systematic recording of the assets identified. The local culture festivals' database is viewed as a methodological tool with the potential to be further integrated into local tourism development and branding strategies. A total of 42 small-scale local culture festivals identified in 32 settlements were recorded as being in existence in the study area, and were included in the database. Following this step, database entries for each festival were coded. It should be noted that for the purposes of study, festivals occurring in rural areas are allocated to the nearest village or town.

It should be noticed that population variances are more intense in the Municipality of North Jumerka, as mentioned in the first section *Host Community Administrative and Demographic data.* The settlement of Fortosi has experienced the greatest population drop (−64%), whereas the population of village Syrrako has grown by 500% between 2001 and 2011. Furthermore, between 2001 and 2011, the rural centers of Pramanta, Katsanochoria, Konitsa, Pades, and Delvinaki recorded population decline, demonstrating the inadequacy of local development measures and their subsequent repercussions in the wider area. The elevation ranges from 280 m in Jumerka Municipal Unit to 1,620 m in Metsovo Municipal Unit.

In terms of the *Host Community Accessibility data* and the first criterion, Geographical distance from the R.U. seat, the city of Ioannina, the most distant festival location is Prophet Elias in Fourka Municipal Unit at 102 km, while Elliniko in Katsanochoria is the closest settlement (19.5 km). The majority of festival host communities are close to the Municipality seats (distances range from 2 to approximately 50 km), whereas just one settlement, Vovousa in Eastern Zagori is the furthest away (78 km). Most of the settlements are connected through the National Rural Road Network or the Rural Road Network which in some cases needs upgrade. Eighteen out of the 32 settlements are connected to Ioannina city with public transportation buses, while there are no public transportation connections among the rural settlements, especially in high altitude, where they are serviced only by private vehicles.

As for the third section *Host Community Tourism Infrastructures*, there is a dominance of small guesthouses, probably former residences that were converted into accommodation units. Hotels can be found in eleven out of the 32 settlements and guesthouses in 22 settlements. A total of 47 hotels are registered, with the town of Metsovo standing out with 19 hotels, indicating regional intense inequalities in accommodation. Guesthouses or other types of accommodation are 25, mainly located in remote rural less accessible settlements. There are no campings registered over the study area, while seven out of the 32 settlements (Aetorrachi, Fortosi, Patero, Nistora, Koritsiani, Pigadia, Palaiochori) have no accommodation units or were not identified due to lack of digital presence.

More precisely, Katsanochoria Municipal Unit is home to the great majority of villages with no specified lodging facilities. While the major local event hosted in the individual locations is Tzamala or Depo traditional carnival fest, their population has declined substantially since 2001 (average reduction—38%). On the other hand, it's worth noting that the two villages hosting the best-organized events (ZAGORIWOOD in Kato Pedina and Vovousa Festival in Vovousa) both have a serious lack of lodging options. Only 36 and 15 beds have been identified in Kato

Pedina and Vovousa, respectively. According to the research findings, the communities of Metsovo (912 beds), Konitsa (291 beds), and Monodendri have relatively high tourism infrastructure capacity (180 beds). Metsovo and Konitsa are the most densely populated villages in the Ioannina Regional Unit, and they are the top of the hot point traditional places in the Regional Unit of Ioannina. Monodendri, although being one of the most distant villages (1.064 altitude), is a favorite choice among Mountain Vikos trekkers due to its proximity to popular Vikos pathways.

The analysis indicated disparities across Municipalities and Municipal Units within the study area in terms of the spatial distribution of local culture events. The majority of local culture festivals are held in the Municipal Unit of Katsanochoria, which is at LAU II level (38% out of total festivals identified). Despite its proximity to the famous Zagorochoria (Mpasgiourakis, 2018) (www.periigites.gr). Katsanochoria, with a population of 2,181 persons (2011 population census), has yet to establish itself as a tourist attraction. Festivals have a lot of promise, but a lack of adequate tourism accommodations and services appears to be a barrier to growth. Katsanochoria is the second-most populous municipality in Konitsa, accounting for 23% of all events. Jumerka (15%) and Metsovo (10%) both of which have been developed as mountain resorts. Konitsa has a population of 4,632 people and is recognized for being a kayaking and rafting hotspot. There are 10 hotels in the neighborhood, as well as stores selling traditional local goods, restaurants, and pubs.

Jumerka Municipal Unit, which has a population of 756 people and has constructed mountain activities and paths combining the natural landscape with its cultural and built legacy, hosts 15% of local culture festivals. Metsovo, a Municipal Unit and mountain attraction with 2,503 residents, comes in second with 10% of total festivals. Traditional architecture attractions, museums, and landmarks are many, as are hotels and guesthouses, restaurants, and taverns. Pramanta Municipal Unit, which has 2,194 residents, has 7.14% of festivals. Central Zagori, which accounts for 3% of all festivals, and Eastern Zagori and Delvinaki, which contribute for 2.38% of total, are in last place.

Focusing on settlements, Metsovo (2,503 inhabitants), a developed mountain destination, has the highest concentration of local culture festivals (9.5% of total), followed by Konitsa town (2,942 inhabitants)—also a popular mountain destination—and the village of Ayia Paraskevi (Kerasovo) (220 inhabitants), known for the 'Haska' custom and its religious sites, with 7.14% of total. The village of Pramanta, the North Jumerka Municipal headquarters with a population of 1,137 people and abundant natural and cultural resources, hosts 4.76% of all events. There are many hotels in the surrounding area, ranging from five-star resorts to guesthouses, as well as near the villages of Fortosi (38 residents) and Plaka (27 residents), which are located near Plaka's bridge, a unique example of local bridge construction and a landmark of the surrounding area. In the remaining settlements, 2.38% of total festivals are known (or digitally identifiable): Kedros, Syrrako, Palaiochori and Prosilio in Jumerka Municipal Unit, Elliniko, Aetorrachi, Lazaina, Kostitsi, Patero, Nistora, Plaisia, Kalentzi, Pigadia, Kalarrytes, and Petrovouni in Katsanochoria Municipal Unit, Pades, Pyrsogianni and Fourka in Konitsa Municipal Unit, Chrisovitsa in

Metsovo Municipal Unit, Vovousa in Eastern Zagori, Kato Pedina and Monodendri in Central Zagori and Delvinaki in Delvinaki Municipal Unit.

It is reasonable to predict that the above-mentioned research places will be able to promote new festival tourism destinations based on their cultural legacy. Furthermore, festivals have been discovered throughout the Region, with higher densities in particular areas detected when focusing on specific categories (i.e., Cultural heritage-Religion), allowing for more investigation into festival tourism functional specialization. More specifically, the vast majority (67%) of the 42 festivals reported are related to local traditional dance, music, and products, while other categories include history/religion (19%), arts (9%), and architecture (5%). According to the desk research analysis, the majority of festivals are concentrated on arts and architectural themes, and they are distributed through strong digital and social media profiles (Fig. 1).

When it comes to the digital profiles of the festivals, nearly one in every four has a website (21%) and a Facebook page (29%), whereas Twitter and Instagram are only available in a few situations. Surprisingly, only 14% of festival organizers use YouTube to disseminate information. It should also be mentioned that, despite the lack of a YouTube channel for the organizers in six cases, promotional films are uploaded by visitors/participants/locals/ (Fig. 2).

The majority of the festivals documented (59%) are co-organized by local governments, cultural associations, and non-profit organizations; 29% are entirely funded by local governments, while just 7% are organized by local groups and 5% are coordinated by non-local stakeholders. Examination of the digital and social media profiles of the aforementioned festivals reveals a significant lack of online presence for festivals organized by local governments (14 out of 17) without the participation of local and non-local organizations and organizations (Fig. 3).

Authors' elaboration

Fig. 1 Festival themes

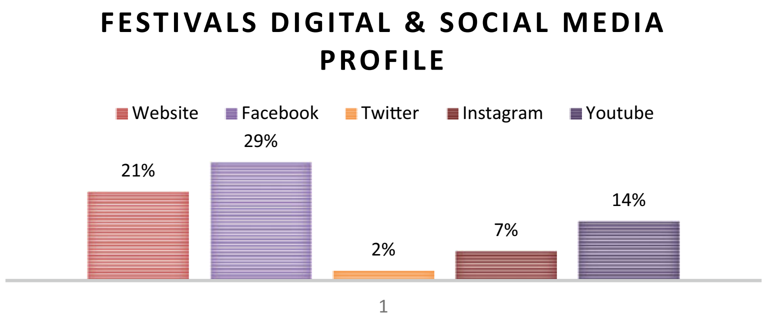

Fig. 2 Festivals' digital and social media profile

Fig. 3 Festivals' digital and social media profile

5.2 *Local Culture Festival Networking*

The proposed database is used for the classification of local culture festivals based on their administrative, demographic, accessibility and tourism characteristics, while it could also serve as a pioneer evaluation of the identified festivals in relation to their digital image and promotion by their organizers. The main aim of this research is to further promote festival tourism in host communities. An important tool toward this goal is the networking of local culture festivals, that is designing festival subsystems based on common attributes (i.e., theme, date, geographical proximity) to generate synergies among festival organizers, tourism and culture businesses and stakeholders, local authorities and local communities. Festival networking is the first step for their integration into wider functional networks for local, regional or even cross-border synergies.

Policymakers, especially in the tourism sector, are constantly seeking ways to improve social and economic prosperity and increase a place's competitiveness (Alberti & Giusti, 2012; Porter, 2008). In this regard, tourism is crucial as it generates opportunities for synergies, especially in the cultural sector. Cultural assets are critical in enticing tourists to a place, while tourism highlights new entrepreneurial potential (Alberti & Giusti, 2012). Cultural heritage–local festivals as cultural heritage assets in this study-in grouped arrangements are considered as a lever for tourism development, as networks are innovative systems that may boost regional or local competitiveness through the creation of collaborations among organizations and actors (Lazzaretti & Petrillo, 2006; Porter, 2008).

The next phase in the methodology was to construct a matrix database (Table 1) based on the initial database information but with more specified criteria. Festivals were classified according to their profile which comprised all of the above criteria, as well as their digital profile (online and social media) in order to attempt festival networking. The main goal is to spotlight the best-promoted festivals on the internet and social media and to establish them as local pioneers and key local coordinators for other festivals by disseminating their know-how and promotion techniques. The networking criteria were chosen in accordance with the sections of the basic methodology and organized into five categories:

I. Population data
    a. Number of inhabitants (population census 2011)
II. Accessibility
    a. Geographical distance from Ioannina
    b. Public transport connectivity
III. Tourism infrastructure
    a. Number of beds
IV. Local culture festival profile
    a. Festival repetition
    b. Location of organizers (if they are locals or non-locals)
V. Local culture festival digital profile
    a. Website
    b. Web search results (0–100)
    c. English translation of website (or other languages)
    d. Facebook page/group/profile
    e. Facebook likes
    f. Facebook followers
    g. Twitter account
    h. Instagram account
    i. Instagram posts

Table 1 Local culture festivals' networking matrix

Festival Code	Population	Tourism infrastructure	Accessibility		Festival general profile			Festival digital profile			
	Inhabitants (census 2011)	Number of beds	Road network condition	Public transport (Ioannina)	Location of organizers—Local	Location of organizers—Non-local	Website	Web search results 0–100	EN (or other languages)	Facebook	Facebook likes
01	1	2	3	0	1	0	0	1	0	1	0
02	1	2	3	0	1	0	0	3	0	0	0
03	1	1	3	0	1	0	1	3	1	1	0
04	2	2	2	0	1	0	0	1	0	0	0
05	2	1	3	0	1	0	0	3	0	0	0
06	4	3	2	1	1	0	0	3	0	0	0
07	2	1	3	0	1	0	0	1	0	0	0
08	1	0	3	0	1	0	0	3	0	0	0
09	1	1	3	0	1	0	0	2	0	0	0
10	1	1	3	1	1	0	0	3	0	0	0
11	1	0	3	1	1	0	0	1	0	0	0
12	1	0	3	1	1	0	0	0	0	0	0
13	1	0	3	0	1	0	0	2	0	0	0
14	1	0	3	1	1	0	0	1	0	0	0
15	2	1	3	1	1	0	0	0	0	0	0
16	2	1	3	1	1	0	0	3	0	0	0

(continued)

Table 1 (continued)

Festival Code	Population	Tourism infrastructure	Accessibility		Festival general profile			Festival digital profile			
	Inhabitants (census 2011)	Number of beds	Road network condition	Public transport (Ioannina)	Location of organizers—Local	Location of organizers—Non-local	Website	Web search results 0–100	EN (or other languages)	Facebook	Facebook likes
17	2	0	3	1	1	0	0	0	0	0	0
18	2	2	2	0	1	0	0	0	0	0	0
19	1	1	3	0	1	0	0	1	0	0	0
20	1	0	3	1	1	0	0	3	0	0	0
21	2	1	3	1	1	0	0	2	0	0	0
22	1	0	3	1	1	0	0	3	0	1	0
23	2	2	2	1	1	0	1	4	0	1	0
24	5	5	2	0	1	0	0	2	0	1	0
25	5	5	2	1	1	0	0	0	0	0	0
26	5	5	2	1	1	0	0	0	0	1	0
27	2	1	2	1	1	0	1	4	0	1	0
28	2	1	2		1	0	1	1	0	0	0
29	2	1	2	1	1	0	1	2	0	0	0
30	1	1	2	1	1	0	1	1	1	1	0
31	2	0	1	0	1	0	1	1	0	0	0
32	1	0	1	0	1	0	0	1	0	0	0
33	1	0	2	0	1	0	0	2	0	0	0
34	3	1	2	0	1	0	0	1	0	1	0

(continued)

Table 1 (continued)

Festival Code	Population	Tourism infrastructure	Accessibility		Festival general profile			Festival digital profile			
	Inhabitants (census 2011)	Number of beds	Road network condition	Public transport (Ioannina)	Location of organizers—Local	Location of organizers—Non-local	Website	Web search results 0–100	EN (or other languages)	Facebook	Facebook likes
35	1	5	1	0	1	0	0	1	0	0	0
36	5	5	1	0	1	0	0	1	0	1	0
37	2	0	1	1	1	0	0	1	0	0	0
38	5	5	1	0	1	0	0	1	0	0	0
39	5	5	2	1	0	1	0	0	0	0	0
40	1	1	3	1	0	1	0	5	1	1	0
41	2	4	3	1	1	0	0	2	0	0	0
42	2	1	2	0	0	1	1	4	1	1	0

Festival Code	Festival digital profile							Festival presence	
	Facebook followers	Twitter	Instagram	Instagram followers	Instagram posts	YouTube (organizers)	YouTube (visitors/participants/locals/local authorities/media)	Festival presence*	Festival digital profile presence **
01	0	0	0	0	0	0	0	2	1
02	0	0	0	0	0	0	0	2	1
03	0	0	0	0	0	1	1	3	2
04	0	0	0	0	0	1	1	2	1
05	0	0	0	0	0	0	1	2	1
06	0	0	0	0	0	0	1	3	1

(continued)

Table 1 (continued)

Festival Code	Festival digital profile							Festival presence	
	Facebook followers	Twitter	Instagram	Instagram followers	Instagram posts	YouTube (organizers)	YouTube (visitors/participants/locals/local authorities/media)	Festival presence*	Festival digital profile presence **
07	0	0	0	0	0	0	1	2	1
08	0	0	0	0	0	0	1	2	1
09	0	0	0	0	0	0	1	2	1
10	0	0	0	0	0	0	1	3	1
11	0	0	0	0	0	0	1	2	1
12	0	0	0	0	0	0	1	2	1
13	0	0	0	0	0	0	1	2	1
14	0	0	0	0	0	0	1	2	1
15	0	0	0	0	0	0	1	2	1
16	0	0	0	0	0	0	1	3	1
17	0	0	0	0	0	0	1	2	1
18	0	0	0	0	0	0	1	2	1
19	0	0	0	0	0	0	1	2	1
20	0	0	0	0	0	0	1	2	1
21	0	0	0	0	0	0	1	2	1
22	0	0	0	0	0	0	0	2	1
23	0	0	0	0	0	0	0	3	2
24	0	0	0	0	0	0	0	2	1

(continued)

Table 1 (continued)

Festival Code	Festival digital profile							Festival presence	
	Facebook followers	Twitter	Instagram	Instagram followers	Instagram posts	YouTube (organizers)	YouTube (visitors/participants/locals/local authorities/media)	Festival presence*	Festival digital profile presence **
25	0	0	0	0	0	0	0	2	1
26	0	0	0	0	0	0	0	3	1
27	0	0	0	0	0	1	1	3	2
28	0	0	0	0	0	0	0	2	1
29	0	0	0	0	0	0	0	2	1
30	0	0	0	0	0	1	1	3	2
31	0	0	0	0	0	0	0	1	1
32	0	0	0	0	0	0	0	1	1
33	0	0	0	0	0	0	1	2	1
34	0	0	1	0	0	0	0	2	1
35	0	0	0	0	0	0	0	2	1
36	0	0	0	0	0	0	0	2	1
37	0	0	0	0	0	0	0	1	1
38	0	0	0	0	0	0	0	2	1
39	0	0	0	0	0	0	0	2	1
40	0	0	1	0	0	1	0	3	3
41	0	0	0	0	0	0	0	3	1
42	0	1	1	0	0	1	1	3	3

* Where (1): Low digital presence; (2): Medium digital presence, (3): High digital presence. Authors' elaboration

j. Instagram followers
k. YouTube videos by organizers and views
l. YouTube videos by locals, local authorities, visitors, media, etc. and views

According to data analysis, local festivals could take advantage of potential synergies by creating networks with common goals aimed at increasing their profitability. As indicated by the European Commission (2003) (as mentioned in Soteriades et al., 2009), within these networks the participants can more easily exchange information, technology and know-how and foster coordination and collaboration among them. In order to obtain further mountain festival tourism promotion, some indicative local culture festival networks are shown in Figs. 6, 7 and 8. At the regional level, networks are proposed among festivals, grouped by their content, by date of realization, and by proximity to the Municipal seat.

The classification of the identified festivals differs depending on the findings of the matrix formation. Based on the matrix analysis, twelve festivals have a relatively high presence in the area, the remaining twenty eight have a medium presence and just three have the lowest, when all of the above characteristics are taken into account, as well as population, accommodation, accessibility, and digital profile, setting up the formation of three networks for synergies (Fig. 4). However, when it comes to the festivals' digital profiles the vast majority (36) have a low digital presence, four have a medium digital presence (using only one social media platform, mainly Facebook) and only two stand out as pioneers, Vovousa Festival and ZAGORIWOOD Festival, using multiple social media platforms and tools (Fig. 5).

The attempt to network festivals by content (Fig. 6) led to the following thematic festival subcategorization:

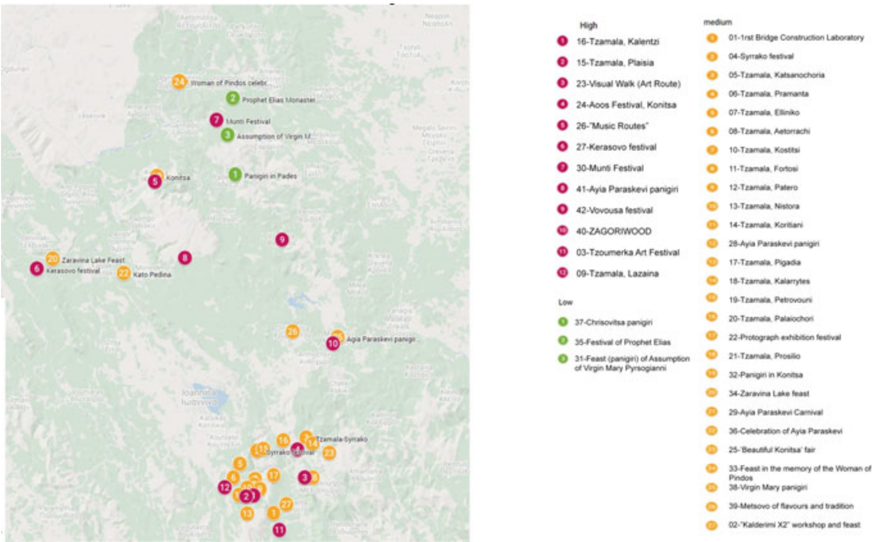

Fig. 4 Clustering of local culture festivals

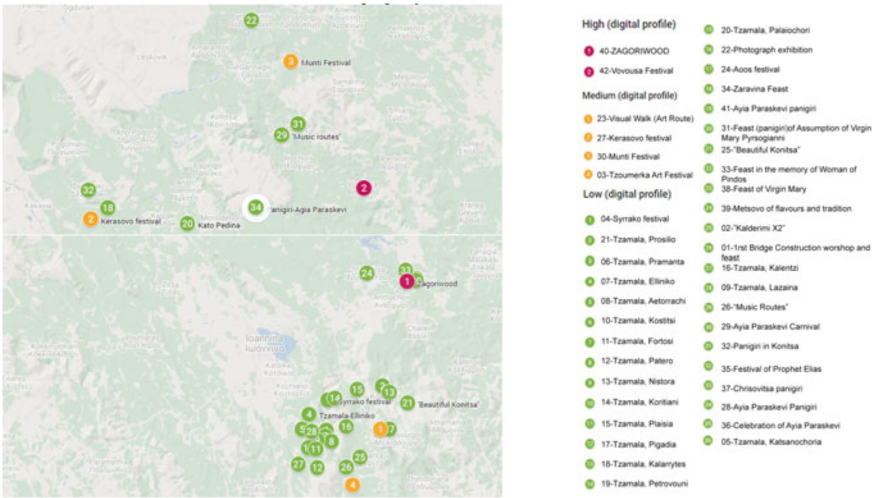

Fig. 5 Clustering of local culture festivals

- Cultural/Educational
- Cultural focusing on traditional music and dance
- Cultural/Religious
- Cultural/Performing Arts

The above classification could be used as a tool to promote further synergies and collaboration networks among the organizers of each festival thematic and local authorities, tourism stakeholders and businesses as well as local communities for the creation of local and regional thematic tourism products and routes.

Festival clusters based on date (month) of realization, as shown in Fig. 7, could also create considerable prospects of alternative tourism products. The majority of the festivals recorded take place during summer (mainly in August), due to the local customs, as well as an attempt to encourage mountain tourism during summer. However, there are festivals held in many mountainous villages during the autumn and winter season, mostly related to gastronomy and local products (i.e., tsipouro manufacturing or chestnut festivals), which may be networked and promoted.

A major hindrance for the development of mountain festival tourism in the study area is the lack of good connectivity and accessibility. Many festival locations are distant and difficult to reach due to geomorphology and insufficient transport infrastructures. The majority of them are also very far from the Regional Seat (Ioannina) and in many cases the road network condition is defective. To address accessibility issues the creation of festival networks within a buffer zone of 30-min travel time from the Municipality seat is proposed (Fig. 8). The formation of these networks is routed in the need of connectivity opportunities with a major municipal node (in this case the Municipality seat), which can be more easily connected to Ioannina. Access to the seat could be facilitated through the National Road Network and more frequent

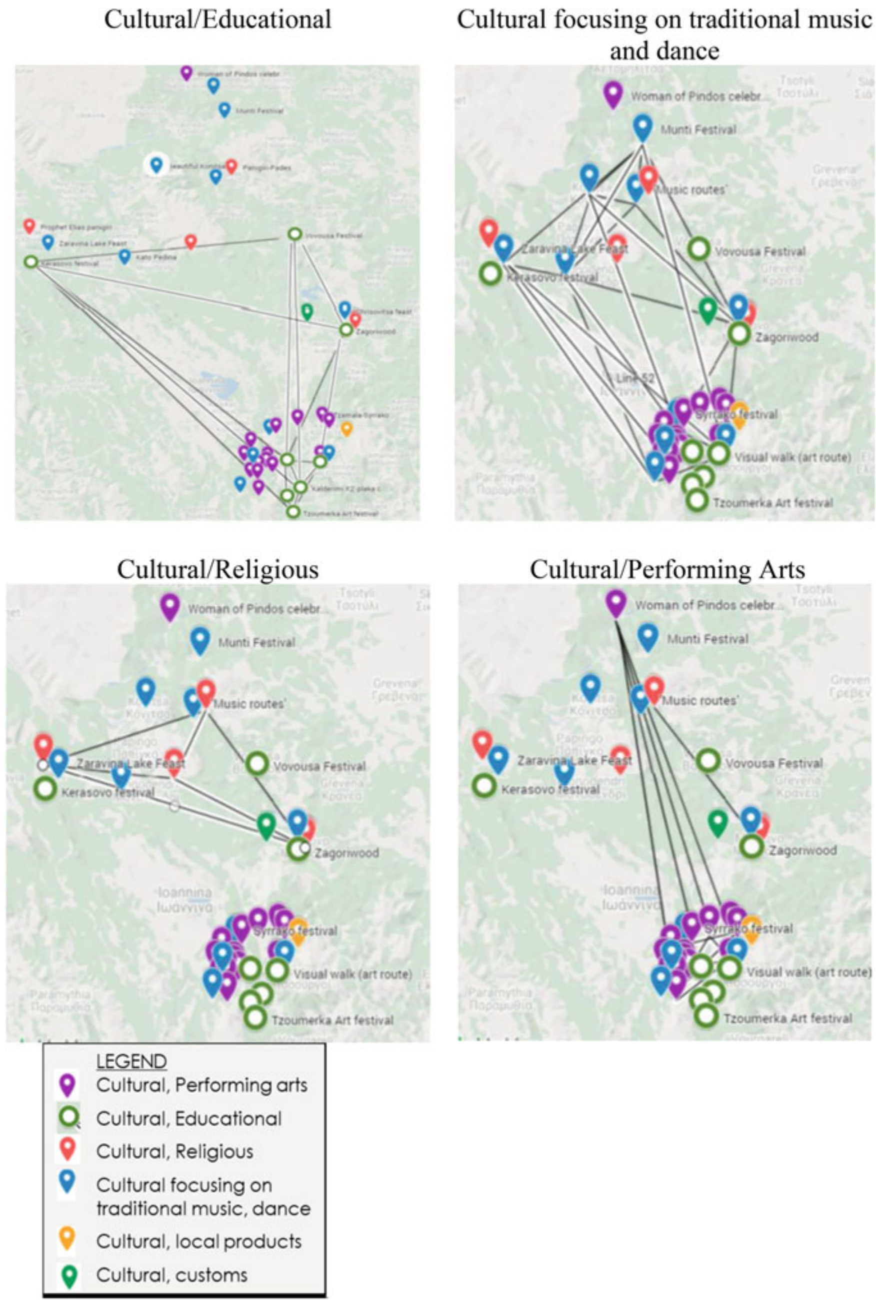

Fig. 6 Local culture festivals networking by content

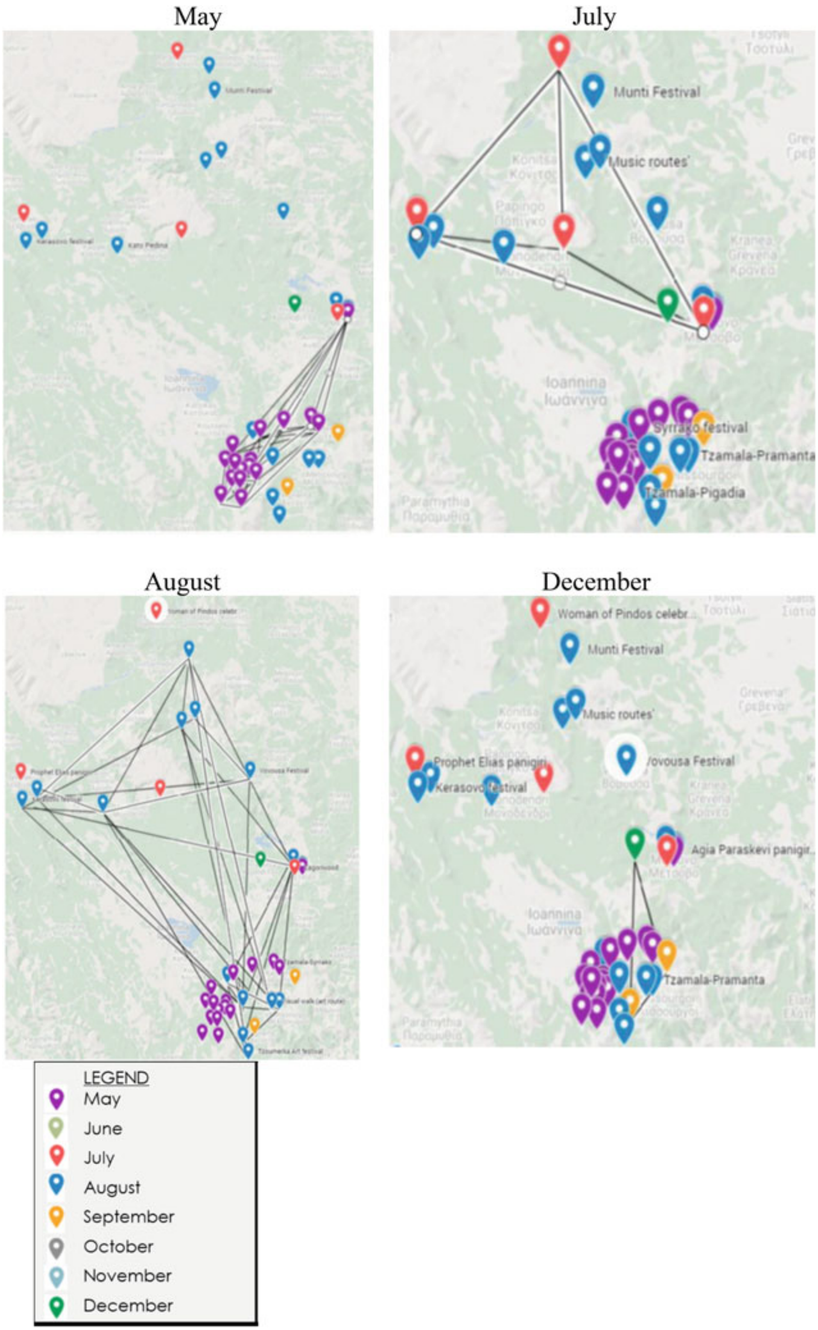

Fig. 7 Local culture festivals networking by date (month)

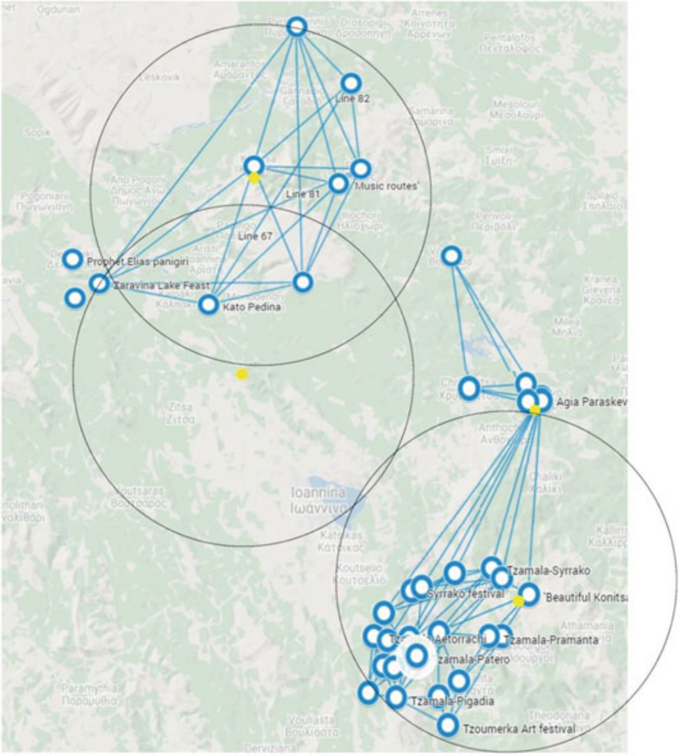

Fig. 8 Local culture festivals networking by geographical proximity (festivals within a distance of 30 min from the Municipality seat)

bus schedules, while programming local bus or van routes within each buffer zone departing from the seat and linking all nodes, could increase connectedness.

6 Conclusions

The study of mountain local culture festivals and their digital presence is a relatively unexplored research topic. The digital promotion of local festivals (online and social media activation) is projected to encourage new tourism flows of travelers seeking to experience the study area's local culture while also engaging in alternative forms of tourism (i.e., mountain, religion, ecotourism). The Region of Epirus is endowed with rich cultural heritage as well as abundant natural resources, both of which can be promoted through local festivals and aided by new technologies and social media dynamics.

Approaching festivals as jointly experienced events has revealed disparities in the use of digital and social media tools and online promotion. According to research findings, there are several local culture festivals with different content (i.e., religion, arts, history, performances) however they are not promoted online and lack digital tools. A notable finding was the paucity of festival social media activity, underlying a missed opportunity and a lack of attention to visitors, local stakeholders and businesses in terms of brand connection and reputation (Dijkmans et al., 2015).

The majority of local culture festivals identified had no website or social media presence, while others had only a Facebook page. Links to Facebook pages of the annual festivals or their organizers' Facebook were more common, implying that Instagram and Twitter are not used to promote and direct tourists to the festivals. Some findings show that social media encourage online interaction and demonstrate participants' involvement in the festivals. In many cases, there are videos on YouTube mainly by attendees/participants and local media, illustrating the popularity of the festival, whereas there are no videos uploaded by the organizers.

This strategy has been shown to be important for maintaining engagement and processing of the festival experience in order to keep it fresh in the minds of the participants and encourage connection (Ballantyne & Packer, 2011; MacKay et al., 2016).

Only two festivals, the Vovousa Festival and ZAGORIWOOD Festival both organized by non-local organizations, have attempted to exploit the potential of digital tools to create partnerships or communicate with visitors and locals. Maintaining a website, a Facebook page and/or Instagram account, as well as remaining active throughout the year (in the case of Vovousa Festival, the festival journal 'Aoos' is published), are examples of efforts to keep updated with previous or future attendees before, during and after the event. This technique has proved to be important for maintaining engagement and processing of the festival experience in order to keep it fresh in the minds of the participants and encourage attachment (Ballantyne & Packer, 2011). Festivals could benefit even more from this significant opportunity.

On a local and regional scale, these resources have the potential to enhance alternative and distinctive tourism destinations with an unified mountain local festivals brand name. The findings of the study clearly demonstrate the festival networking and tourist potential based on the local culture imprint. However, many tourism enterprises in the area, mostly hotels, are increasingly promoting themselves using digital tools or social media, especially in more developed touristic communities such as Metsovo. The majority, however, still lacks online promotion, as most information can be accessed on central websites (i.e., the Hellenic Chamber of Hotels).

The proposed methodology is important for areas with a large number of scattered festivals that may have gone unnoticed in the past, due to a lack of promotion. The purpose of this research is to incorporate less digitally marketed festivals into networks so that a more comprehensive and exclusive list of alternative mountain festival sites may be highlighted. Festivals that are active on the internet may serve as best practices and their organizers could share their technology and management expertise to help in the promotion of other festivals. Furthermore, the identification, classification and networking of local festivals on the basis of content analysis and digital presence, and the database created to highlight the resources recorded. The database created as a methodological tool may facilitate the development of effective branding strategies for local culture festivals in peripheral mountain communities.

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Funds Cutback an Inhibitor Factor in Operating an Adequate Cultural Policy of the Country/Greece

Boulouta Konstantina and Karagianni Maria

Abstract This paper deals with the major issue of financing the Cultural Policy of Greece, with the aim of supporting cultural organizations, which in every way try to promote their cultural heritage, always with the help of the official State. It is well known that when funding from the official State is being declined (since the main cultural organizations are public) then there is pessimism about the promotion of the cultural product, including the basic principles of an effective cultural policy. The present investigation attempts to map our cultural space, as well as to outline the delineated process that has been taken so far. Questions are set in order to regard the causes that make it difficult but also suspend its emergence. For this, we make the appropriate suggestions to the best of our academic ability.

Keywords Contemporary cultural policy · Culture observatory · Cultural recession · Cultural action · Cultural heritage

JEL Classification Z1

1 Introduction

In our effort to adequately document the existing cultural policy in Greece, we investigate situations which exist today but also position that it could be beneficial, if the politicians of the official State seriously deal with the content and with the practices of cultural policy, which are applied from other countries. In order to process the subject, we started from the recording of concepts that are directly related to the cultural policy and through them we discover weaknesses, ambiguities, and defaults in the current cultural policy of the Country.

B. Konstantina (✉)
Faculty of Food Sciences, University of West Attica, Campus Egaleo Parc, Athens, Greece
e-mail: boulouta@uniwa.gr

K. Maria
Glen Briar Academy of Toronto, Culture, Policy, Management, Sustainable Development, Toronto, Canada

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_31

The word "culture", although widely used and especially in our everyday speech, has no clear and unambiguous content. More generally, by the term "culture" we mean the set of material and spiritual values created by human action over the time. Of course, the above values do not have a fixed and absolute measure of comparison, nor are they determined by absolutely constant criteria. However, the views that have been expressed from time to time, invoke ideological, class, political, etc., criteria. On the other hand, "culture" literally and as a concept, has been misinterpreted in many cases. As a result of this situation, a number of contradictory views were expressed, which, for the most part, have been easily transmitted, composing and reproducing a "puzzle" of misinterpretations.

For many writers, the term "culture" is relatively new. It comes from the translation of English civilization, French civilization, and German zivilisation. Also, with the word "culture" was given the term culture in French, culture in English, kultur in German, etc.[1]

The German school when using the term "culture" refers to the human spirit and to the results of human action (art, religion, state, economy, science, law, ethics) as well as the human models of action themselves. Human action and thought (according to the German School of Thought) are fully developed through certain institutional (cultural) realities, which also represent the not always desired that can be seen as a result of human activity and thought. This overall context or interdependence could be considered as the object of cultural knowledge.[2]

The "Cultural policy" which is also the desired, in the present paper, with the general detection of the term, aims at the satisfaction of the cultural needs, in the maximum possible use of the human material of each society, setting specific criteria but mainly in the cultural development, which must be linked to the culture, thus shaping identity and socio-economic development.[3]

2 Cultural Identity–Cultural Image

The cultural identity and the cultural image, bibliographically, sufficiently show us the way of understanding the strategies and the tactics that cultural policy should be

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[1] Bitzani Evgenia, (2004) Cultural Management and Regional Development, Publications, «DIONIKOS», Athens, p. 29.

[2] Vahlens Großes Wirtschafts Lexikon, Herausgegeben von Erwin Dichtl und Otmar Issing, Band 2, F K; 2 Auflage München Seite 1252: Unter "Kultur" versteht man Schöpfungen menschlichen Geistes und Ergebnisse menschlichen Handelns (Kunst, Religion, Staat, Wirtschaft, Wissenschaft, Recht, Moral) ebenso wie die menschlichen Handlungsmuster selbst. Menschliches Handeln und Denken vollziehen sich innerhalb bestimmter institutioneller (kultureller) Gegebenheiten…

[3] Karagianni Maria, (2017) Culture Sustainable Policy, «Dionikos» Publications, p. 10, Cultural policy, in the general mining of the term, aims at satisfying cultural needs, making the maximum possible use of material and human resources in any society, and should define specific criteria if cultural evolution which should connect culture with formulation of identity and social economic development.

based on. Cultural identity includes language, values, ideologies, patterns of individual, family, and social behavior, political and scientific heritage, history, traditions, contemporary artistic and intellectual production, natural environment, and urban and rural social structure of a country. While the "cultural image" in the literature is defined as the set of homogeneous common characteristics, which distinguish the cultural entity of a group or community, or nation, in a given time in relation to other groups, communities, nations.[4]

The critical role of cultural identity and image in countries—societies, which use them as a mean of promotion and which then become cultural enterprises and organizations, is now understood. Under these conditions, countries that have an extremely attractive cultural identity and image are considered to have an excellent cultural reserve. For this, all stakeholders are invited to take advantage, as effectively as possible, of the opportunities given to them, strengthening their cultural identity, on the one hand with sponsors or non-profit organizations and on the other hand strengthening their cultural image, strengthening their political policy, with its improved cultural infrastructure and the offer of quality cultural services.

It is therefore obvious that a positive "image" has a positive effect, and the result is an increase in the degree of attractiveness based on cultural comparative advantages. That is why many governments want to create a "separate" cultural image, which promotes the organization of any kind of cultural event, focusing on the two poles: the economic and the cultural.

3 The Cultural Present of Greece

It is logical that every government wants to see measurable results of its "cultural actions", since all this arises from the implementation of measures in the field of culture. Thus, in order for all this to take place, the above are considered by the responsible politicians of the country, so that there is a responsible planning-programming, from which the cultural organizations of Greece could benefit in the end, from the practices of cultural policy.

To understand this sentence, we use the following practical example. [….to invite someone into my house, to host him, of course I have made some preparation and I will offer him what he wants. It is not enough to "characterize" my house as suitable while it is miserable…!![5] Even from this simple point of view, we must examine the cultural policy of the country, by pointing out the seriousness of our actions, regardless of whether some leaders, would argue: that the economic crisis is to blame, the risk of bankruptcy of the country, and therefore the underfunding of cultural organizations].

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[4] Bitzani Evgenia, (2004) Cultural Management and Regional Development, Publications, «DIONIKOS», Athens, p. 42.

[5] Newspaper EXPRESS 2-11-1995.

We know that in other European countries as well, for example, Great Britain, which has also imposed a cut in spending in the field of culture, and in fact to a greater extent than in Greece!

However, the cultural organizations in Great Britain survive, while in Greece, under conditions of uncertainty and unstable environment, (created by them), it can be a reason why there is no work of cultural policy of the country and no one knows what will be done, with the viability of cultural organizations in Greece.

Ignorance of the future results in the emergence of certain unforeseen situations involving unforeseen risks.[6] Therefore, in the midst of economic and cultural recession, which is experienced by our country as well as by many European countries and not only, cultural organizations, public and even private, are called to survive, regardless of the reduction in their financial resources from state subsidies and reduced sponsorships, as well as cuts in human resources, reduced volunteering and uncertainty due to the institutional framework.[7]

4 Challenges in Greece

Today's challenges are endless, in terms of finding alternative sources of funding, but the main one is the lack of trust, which also causes the cultural isolation of Greece, according to many academics who wanted to speak to us anonymously. However, this is sufficiently substantiated by the fact that with what is said and heard daily by officials in the country, a negative image is fatally formed within the country but mainly abroad, which hinders transnational cooperation between cultural institutions and even alternative forms of funding in GREECE.

But in order for cultural institutions and organizations to be viable, they spend every day looking for capital investment, low production costs, or even a low-ticket price. Unfortunately, today, due to the pandemic, these are the main determinants of their contribution to the sustainability of cultural activities.

In fact, now that gradually after 6 months of strong lockdown, its revocation is being prepared, in view of the "opening" of tourism, since the foodservice restaurant opened on the 3rd of May, and from 10th of May the administrative courts will reopen. Also, from the landmark date of 15th of May, tourism opens and transportation outside the prefecture is released. On 17th of May, the internships, clinics, and laboratory exercises in IEK and colleges restart, while the reopening of "second chance" schools is allowed by lifelong operation.[8]

With these data, they should now start diametrically opposed (state and individuals) to follow basic principles of cultural policy, as a modern economic technique,

[6] Tsapari Ol., (2012). Work, Hellenic Open University, Ioannina, http://www.academia.edu/, p. 6.

[7] Grigoriou D., (2013). Management of Cultural Organizations in the period of economic crisis: the planning and the controlling the Case of Institution of Mixalis Kakogiannis, Hellenic Open University, Athens, http://www.academia.edu/, p. 4.

[8] General Secretariat for Civil Protection declares the dates for the restart of activities (5/5/2021).

based on the creation of a "cultural identity", as well as a highly attractive "cultural image" in which the adequacy of the implementation of specific strategies is to be distinguished, foreshadowing confidence at home and abroad. One even wonders today where the uniqueness of the country's cultural appellation lies. So instead of chattering, those in charge should scientifically discover "assets" by promoting the right, like other European countries, comparative advantages[9] and at the same time apply the modern technology methods such as, e.g., the Internet.

The benefit that comes at all levels can be increased by a flexible cultural planning, prioritizing, and using the unlimited possibilities of the Internet. In almost all European countries there is planning and implementation regarding the digitalization of their cultural stocks by providing electronic services with multimedia applications where cultural policy acquires wider acceptance.

5 The Financing of Cultural Policy (2012–2015)

Despite the fact that the current period (spring 2021) is a period of pandemic and great economic recession which besets Greece, it was logical to investigate the funding from the state in cultural activities and infrastructure of previous years. It should be noted that the under-investigation provision of funds over the years (2012–2015) were not considered either as a luxury or as a relief of the results that emerged, from their implementation.

From secondary information,[10] we first observe the evolution of the funds allocated by the official State to cultural services, for the years 2012–2015, which are presented in the Table 1.

From the above table, we see an overall decrease of 11.3%, from 2012 to 2015. And of course, the cuts in funding for culture, combined with the problems in absorbing funds and sponsorships, have made it even more difficult for cultural institutions to operate, which in any case is burdened by heavy administrative structures, dependence on a large Irregular state subsidy, lack of coordination between similar bodies and problematic contact with the society.[11]

Also, from another secondary source of information, it emerged that government expenditures related to Culture, from 2009 to 2016 (expenditures for cultural activities), decreased by 15% from 1,561 to € 1,329 million €.[12]

[9] Lazaretou S., (2014). Economic Issue, Bank of Greece Euro system, Issue 39, July 2014, p. 85.

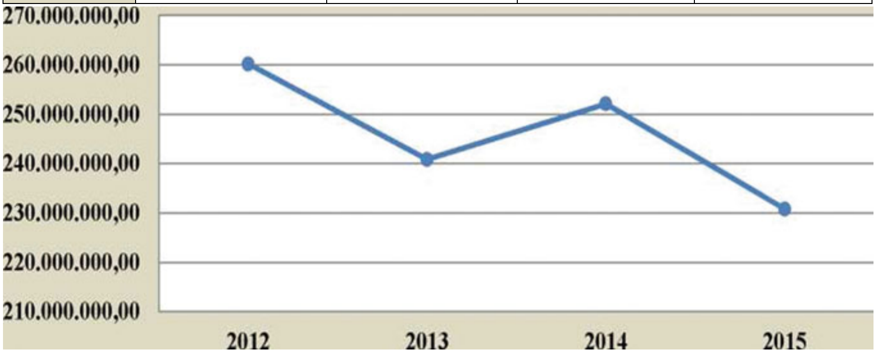
[10] Karagianni Maria, (2017) Culture Sustainable Policy, «Dionikos» Publications, p. 49, Chapter 4 Challenges and Opportunities.

[11] Tsouxlos N., (2013). Cultural organizations in the era of crisis: dangers and opportunities, https:www.blod.gr.

[12] https://www.culture.gov.gr/DocLib/GY_PolPaidNeoi_ekthesi.pdf.

Table 1 Funds in cultural services

Year	2012	2013	2014	2015
Funds in Cultural Services	260.141.696,04	240.807.574,22	252.077.501,76	230.750.000,00



6 The Financing of Cultural Policy (2017–2020)

Consequently, we got data from the Ministry of Culture, and tabulated the allocated funds from the years 2017–2020. In fact, in the table below we see not only the funding from the funds of the Greek State, but we also see the funding from the Community funds, also showing a declining trend.

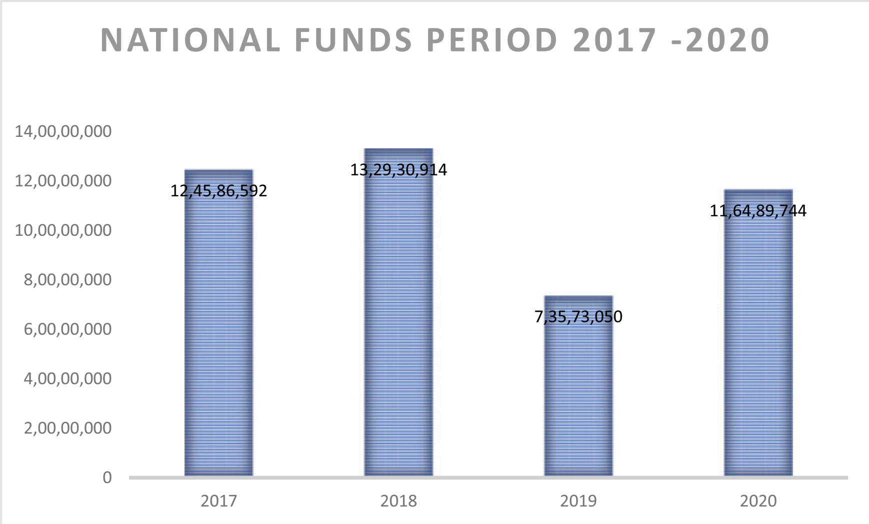
It should also be noted that according to the official data of the Ministry of Culture, for the period 2017–2020, the funds (expenses) were limited only to: Program Contracts, Supervised Bodies, Funded Bodies, Municipal Districts, Theaters, in International Relations—Regional Collaborations, in Ballet, in the Film Festival and mainly with a higher percentage of funding from all the actions, is the fund allocated to the Free Theater.[13] Constantly we listed the funds allocated by the EU—(Community funds) allocated for cultural activities in the country for the years: 2017, 2018, 2019, and 2020, which for 2017 received only the Funded Bodies, for 2018 received the New Exhibitions, International Relations—Regional Collaborations and the INTERREG program, for 2019 the INTERREG program and for 2020 the INTERREG program as well.

7 Graphs of Total Funds from National and Community Funds (Own Processing)

See Table 2.

[13] Figures from the Ministry of Culture—April 2021.

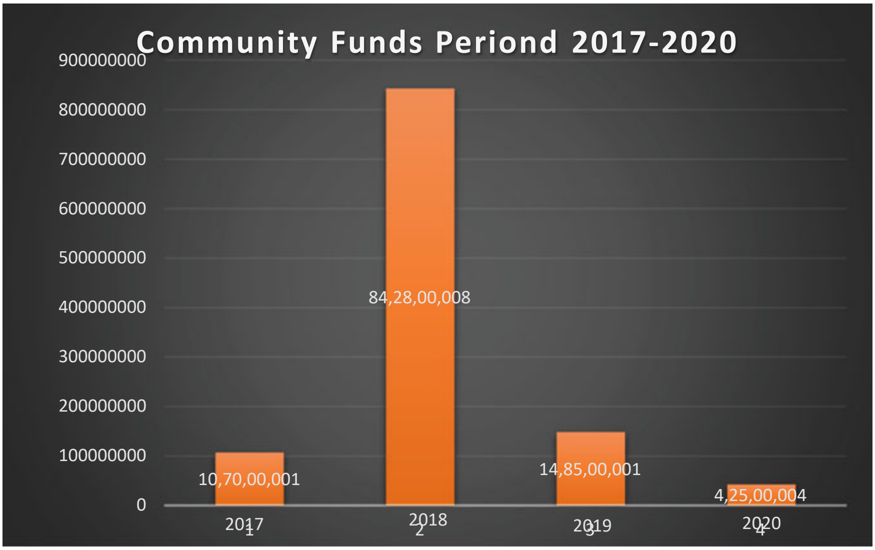
Table 2 .



8 Graphs of Total Funds from Community Funds (Own Processing)

See Table 3.

Table 3 .



Observing the annual deviations in terms of funds, a downward trend of the last 10 years or so is deleted. That is why cultural organizations today are called upon in the era—of the pandemic—to take advantage as effectively as possible of the opportunities given to them for the implementation of cultural policy, through cultural marketing, tourism policy, tourism advertising, and sponsors as well as non-profit organizations,[14] so that they can raise the necessary financial resources for the continuation of their operation and the implementation of their project.

9 Implicit Problems Related to Cultural Policy

Although Greece is an important cultural destination, its image towards markets culture is not focused on the cultural direction. In other words, it seems to utilize its predominantly tourist attractions, beaches, landscapes with special natural beauty, while the promotion in museums and archeological sites, seems to be lagging behind, and this can be seen both from the collections done in museums and the number of their visitors.[15]

Greece is a country that has to deal with the phenomenon of bureaucracy. Obviously, many investments that could be made in the field of culture, impact with the malfunctions of the bureaucracy. The negative effects are obvious, as the implication in the gears of the political system and the public administration system have created additional obstacles to autonomous cultural planning.[16] And it's not just that. A large percentage of Greeks have an anachronistic mentality which does not realize the possibility of private bodies—and especially NGOs—to take over the management of archaeological sites for example. The covert support of the private initiative by the State and on the other hand the rhetoric that only supports the state forms by some people have led things to an incredibly suspicious attitude towards the non-profit forms of organizations and management of cultural organizations in the country.

Something also important: Areas of archaeological and historical interest are gradually urban blighted, as the sites are transformed into areas for marginalized people and places for gathering people with delinquent behavior. (e.g., Kolonos, Iera Odos, Historic center of Athens, etc.) due to lack of security and on the grounds that the state does not have funds to recruit guards in these areas.

Referring also to the Ministry of Culture, we observe the limited possibility of attending cultural events of people with special needs. That is,

- Lack of material infrastructure (ramps) in some galleries and museums.

[14] Hereinafter NGO.

[15] Asimakopoulou G., (2013). Tendencies of cultural phenomena, Hellenic Open University, Athens, p. 9.

[16] Zorba M., (2014). Policy of Cultural. Europe and Greece in the Second half of the twentieth century, Publications Pataki, Athens, p. 363.

- Lack of subtitles for people with hearing problems in many TV programs (except the news and not in all TV channels) but also in the cinema, and especially big difficulty in the access of cultural sites, either regional museums or cinemas.
- It is also not possible to participate in cultural events for people with special needs (e.g., theater for the deaf), in the major cities of the country, except for one that operates in Athens, which is currently under-functioning. There is a noticeable lack of a state cultural campaign for various important events of cultural importance since in Greece it did not even take place, the regular celebration of Greco who was born in Crete—Greece and was named Dominikos Theotokopoulos, using Greek as his native language. There is also a lack of state awards for important events artists. For all the above and where the issue is major, we end up with suggestions.[17]

10 Our Suggestions

The late Melina Mercouri, who was Minister of Culture, remained for eight whole years (1981–1989) and gave a great impetus to the cultural events of the country, since she was an artist-actress. Since then, every 2–3 years a new Minister appears and until he learns the things of the Ministry he is replaced by someone else.

That is why it would be beneficial for the whole country, the Ministry of Culture, in addition to being autonomous, should be managed by renowned artists, serious artists, painters, historians, musicians, etc.

For the smooth operation of the Ministry, it is proposed to establish a “culture observatory” that will cover a wide range of information, research, archive of all kinds of events referring to the place and the time that take place. As well as the provision of services of every NGO.

It is proposed to finance the promotion of degraded areas with cultural infrastructure projects—places for cultural activities (festivals, exhibitions) and the creation of cultural centers that will host performances for the young and the old with a focus on special care mainly for offenders who frequent these areas, so that instead of disturbing, they could help the cultural policy of the region.

The Ministry of Culture has to be the financial supporter in the organization of major festivals and exhibitions, with the participation of artists from abroad and Greece (painters, musicians, etc.).

Providing incentives by the Ministry of Culture, for funded trips to historical and archeological sites of the country.

With the assistance of the Ministry to give financial incentives to groups of artists who want to play at homes of sick people who cannot move. This happened in Thessaloniki in 2011, lasted only three months, since there was no financial assistance from the Ministry of Culture or the Municipality of Thessaloniki.

[17] Zenakos A., (2007). Public or Private? The dilemma of the cultural management, The Allo VIMA, Issue 41, p. 5.

The Ministry of Culture itself or the Municipalities could turn to companies, or even wealthy individuals who love art, and ask to finance such actions.

The many and unknown museums in Greece, with the help of the Ministry of Culture, have to be financially supported and also become known mainly today that Internet can provide many possibilities (e.g., the Marina Kotopouli Museum, many other unknown museums in Plaka, etc.).

Promote cultural events—with tickets from sponsors.

Lottery creation: The use of lotteries for cultural purposes is a relatively new measure, but it is gaining ground in the context of seeking additional funding in the field of culture. The methods of collecting and redistributing lottery funds vary from country to country. These funds are often linked to taxes intended for a specific purpose and therefore also intended on behalf of specific cultural purposes.

Vouchers: A voucher is generally a credit of a certain monetary value that can be used to purchase cultural products.

The establishment of cultural sponsorship, which can be not only for public organizations but also in any non-profit organization for cultural purposes.[18] As it turns out, cultural sponsorship is not a donation or a charity, but there is an element of mutual reciprocity between cultural institutions and businesses. It is not an advertisement as it does not seek to sell products or services, it only promotes their characteristics.[19]

Cultural institutions can seize a number of opportunities to break free from the vicious circle of crisis. These opportunities are mainly found in the fields of cultural marketing, cultural policy, by sponsors to NGOs but should be included as in the Creative Europe 2020 program, for example, 2020».[20]

The principles and rules of a modern cultural policy, as formulated by international organizations and applied to the most successful international examples, are far from nationalist outbursts, ideologies, statism, romantic nostalgia, trade union logic, unilateral market imposition or, conversely, one from the top of elitist Culture, and can be valuable components of a new cultural policy framework[21] in Greece.

It should also be noted that the "Creative Europe" program that ended at the end of last year (2020) was a great opportunity for the cultural organizations and institutions of our country, as it supported: 250,000 artists and cultural professionals and their works, giving the opportunity to reach new audiences across the borders of their country. More than 800 European films would receive distribution support so that they could be shown throughout Europe and internationally. At least 2,000 European cinemas would receive support, provided that at least 50% of the films screened were European. The translation of more than 4,500 books and other works of literature was supported, so that the authors could reach new markets and readers could enjoy

[18] http://www.culture.gr/culture/gsponsorship.jsp.

[19] Pournara M., (2005). The difficult convenience between art and sponsorship, Kathimerini, http://www.kathimerini.gr/228497/article/politismos/arxeio-politismoy/to-dyskolo-pro3enio-technhs-kai-xorhgias.

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[21] Zorba M., (2013). Cultural Policy in Greece in the crisis period: Terms and conditions in the change of the example, http://www.blod.gr.

them in their native language. Thousands of cultural and audiovisual organizations, as well as professionals, had received training funding in order to acquire new skills, improve their capacity, and operate internationally.[22]

Fortunately, at the end of our paper, the official decree was published in the Official Government Gazette, which defines the actions for how the aid will be given to film companies and film distributors. It was a constant request of the people of art and so that the consensus Ministerial Decision 24907/2021—Official Government Gazette 1820/B/29-4-2021 determines, among others, the financing framework, the beneficiaries, the terms, the conditions, the amount of the financial aid as well as the procedure of its granting.[23]

11 Conclusions

According to the above, the degraded role of cultural institutions—entities and organizations in our country, should be strengthened, as it is very important, even though the state does not pay the awesome attention to the frequency of events and exhibitions of cultural organizations and institutions. The reduced visits are not due to ticket prices or the quality of exhibitions, but mainly to the lack of promotion of cultural policy-oriented actions, considering the impossibility of proper planning, resulting in not achieving the objective, which is to establish every cultural action and as a project accessible to smaller or wider social groups of the country.[24]

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[22] European Committee, (2013). Press Release, Brussels/Strasbourg, http://www.yppo.gr/6/g6141.jsp?obj_id=55432, p. 2.

[23] Analitical at OGG **ΦΕΚ 1820/Β/29-4-2021**.

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A Quantitative Comparative Analysis of Residents' Attitudes Towards Cultural Events in Greece

Doumi Maria, Stavrinoudis Theodoros, and Mouratidis Konstantinos

Abstract Cultural events are an integral part of Greece's history, tradition and economy and the majority of them are held during the summer period in open-air spaces and sites with historical importance in countless tourism destinations of the country. This paper presents the perceptions of local residents of three different prefectures (Xanthi, Chios, Rethymno) on the quality, organization and impacts of annual cultural events in their communities. Taking into consideration the population of each selected region and using a simple random sampling, a total number of 1,100 questionnaires were successfully collected (Xanthi: 484, Chios: 374, and Rethymno: 242). A cluster analysis (K-Means) was adopted in order to classify the existing observations into homogeneous groups and suggest policy measures to maximize the positive impacts of such events and reduce their negative impacts. Segmenting residents' perceptions towards local tourism events is of great importance as residents' behaviors and attitudes can positively influence the satisfaction and overall experience of tourists attending the events. A reliability analysis of internal consistency was also conducted, which concerns Likert-type scale questions that are used in the measurement, while Chi-square test provides a non-parametric correlation analysis among extracted clusters of each region and the demographic characteristics of the respondents. Hence, the patterns of a quantitave comparative analysis based on the residents' attitudes provide practitioners with valuable information on the improvement, development and promotion of cultural events and their classification offers significant opportunities for the implementation of strategic marketing plans. Since this research focused on individual cultural events of specific destinations of Greece, represented from an exploratory sample of the residents of these destinations, it would be beneficial for future researchers to conduct further research

D. Maria (✉)
School of Business Administration, University of the Aegean, Chios, Greece
e-mail: mdoumi@aegean.gr

S. Theodoros
Department of Tourism Economics and Management, University of the Aegean, Chios, Greece

M. Konstantinos
Interdepartmental Postgraduate Programme "Tourism Planning, Management and Policy", University of the Aegean, Chios, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_32

using quantitative and qualitative methods to deeply explore residents' perceptions, discourse of this topic at other cultural events throughout Greece or abroad and/or conduct comparative analyses between these events.

Keywords Cultural events · Residents' perceptions · Cluster · Greece

JEL Classification Z000 Other Special Topics: General · Z390 Tourism: Other

1 Introduction

Cultural events are a growing phenomenon and are considered to contribute significantly to the socio-economic and cultural development of host communities. Cultural events are a developmental tool for attracting both locals and visitors and are being used by the organizers to express the relationship between identity and place while playing a significant role in enhancing the tourist image of local communities (Blesic et al., 2014). Segmenting residents' perceptions towards local tourism events is of great importance as residents' behaviors and attitudes can positively influence the satisfaction and overall experience of tourists attending the events (Chen, 2011). Moreover, the hospitality of locals has become a focal issue in tourism research and considered a crucial factor in the sustainable development of tourism (Rasoolimanesh et al., 2015), while researchers recognized that sustainable tourism development is impossible without the support of local communities (Nunkoo et al., 2013; Sharpley, 2014; Lee & Jam, 2019). In this context, Mouratidis, Doumi and Thanopoulos (2020) highlighted the need for collaboration among event organizers and destination managers, which accordingly could lead to the enrichment of the event with complementary travel experiences and services (e.g., eco-tourism activities, organized cultural tours, tasting traditional cuisine, buying local products, etc.) and claimed that those experiences are linked to the local community and compound a diversified tourism product, which could turn the spectators of the event into loyal destination visitors. As a result, this paper focuses on the classification of locals' attitudes towards the quality, organization, impacts, and potentials of local cultural events on three different prefectures (Xanthi, Chios, Rethymno) of Greece and sets those patterns, in a marketing scope, available to event organizers, enterprises, public sector executives and other stakeholders along with academia. A contribution of the study to current knowledge is that highlights the importance of cultural events for the development of tourism throughout Greece's regions.

2 Literature Review

2.1 Theoretical Background of the Research

Cultural events, including festivals, carnivals, religious events, etc., are recognized as tourist attractions that can bring long-term benefits to host communities (Richards, 2007) and contributed to the socio-economic basis of communities according to how nations, communities, and individuals are defined (Thomas et al., 2020). In event tourism literature, a number of authors analyzed the effects of events held in large cities (Preuss, 2007) and the economic benefits expected for the host destinations (Gursoy et al., 2004; Getz, 2008). Researchers turned also their attention to the generic benefits to be gained from event experiences such as the improvement of infrastructure and new job opportunities (Getz, 2008), increase of interest in other cultures and traditions (Sdrali & Chazapi, 2007; Yoon et al., 2010; Del Barrio et al., 2012) and improvement of the destination image (Lee et al., 2005). Other studies, also, revealed the negative effects of events on the host community, some of them visible in economy (e.g., increased prices) and environment (e.g., waste increased) (Chen, 2011), but also, refers to community displacement and commodification of culture (Presbury & Edwards, 2005).

In comparison to mega events, studies of small-scale cultural events are not well documented, as only a few scholars focused on their impacts (Gursoy et al., 2004) recognizing the connection of such events with the local community as a significant tool for the development of marketing plans for the destination (Litvin & Fetter, 2006). Prior research suggests that the cultural identity, authenticity, and uniqueness of each location's traditions can be used by managers as notable marketing tools (Herrero et al., 2006), in order to increase revenues (Liu, 2014) and re-built a destination image that corresponds to local community, social, and cultural life (Quinn, 2009). Due to this fact, several perspectives under the "cultural umbrella" have been examined in the context of marketing. For instance, there exists a considerable body of literature on festival tourism (Donovan & Debres, 2006) and marketing orientation of festivals (Mehmetoglou & Ellingsen, 2005).

Taking into consideration that cultural events strengthen local cultural identity, social cohesion and increased knowledge of the area, understanding the perceptions of local residents is necessary. Several studies have been focused on residents' perceptions on tourism impacts (Fredline & Faulkner, 2002; Kim & Petrick, 2005), while the knowledge regarding the impacts of cultural events and festivals on local communities is limited (Jackson, 2008; Slabbert & Viviers, 2011). Along these lines, in order to understand the sustainability of cultural events, a positive evaluation by local residents regarding the quality, organization, and impacts of local cultural events can guarantee the attendance of such events (Doumi, Kyriakaki & Stavrinoudis, 2017), but also, can play a key role in the tourism development and marketing strategies of several destinations.

2.2 Objectives of the Research

This research has been focused on the residents of the prefectures of Xanthi, Chios, and Rethymno and underlines their attitudes towards the cultural events taking place in their communities. The preference for studying the perceptions of local residents rather than other stakeholders is linked to the fact that locals are not only considered as key user groups who play a significant role in local tourism development but are also able to recognize the socio-economic contribution of cultural events to their area. This study offers a useful contribution in the generation of statements regarding quality, organization, potentials, and impacts of the cultural events in local communities, allowing the development of future research in the subject.

3 Methodology

In this research, an original questionnaire was developed as the main instrument in collecting data. The questions used were closed-ended while scale (5-point Likert) questions have also been employed (Davis et al., 1988). The research population consists of the permanent residents of three prefectures (Xanthi, Chios, and Rethymno) in Greece. These prefectures were selected, on the one hand, because of their popular small-scale cultural events and on the other because of their proximity to the researchers. The proportional allocation formula was used to calculate the samples of each prefecture.

$$\frac{n_i}{N_i} = \frac{n}{N} \Rightarrow n_i = n\frac{N_i}{N}, i = 1, 2, ..., k$$

The sample size n_i from a stratum is proportional to the percentage of population units represented by that stratum. Thereinafter, accordingly to the population of each selected prefecture and using a simple random sampling, a total number of 1,100 questionnaires were successfully collected (Xanthi: 484, Chios: 374 and Rethymno: 242). A reliability analysis of internal consistency was also conducted, which concerns Likert-type scale questions that are used in the measurement. The reliability of the Likert variables was controlled by Cronbach's alpha, which is a suitable method that can be used for Likert scale items. (Ercan et al., 2007). The coefficient of reliability of the alpha Cronbach questionnaire was calculated, and equaled 0.891, indicates a high level of reliability (over 0.70) on quality and organization statements and (0.906) indicates a high level of reliability (over 0.70) on impacts statements. SPSSv.26 was used to analyze the results obtained from the survey questionnaires. The cluster analysis (K-Means) was used to classify the existing observations into homogeneous groups, in order to draw valid and specific conclusions. A chi-square test was used to examine the significance of the differences between two separate samples regarding particular characteristics (Fig. 1).

Fig. 1 The regions of the study. *Source* wikipedia.org. *Note* 1. Xanthi, 2. Chios Island, 3. Rethymno

4 Results

4.1 Demographic Profile of Respondents

The data comprising the participants' profile are summarized in Table 1.

4.2 Cluster Analysis

The cluster analysis was based on the grouping of 42 variables and its results revealed three clusters for each examined prefecture (Table 2). Regarding residents of *Xanthi*, Cluster A, *Embracers*, (67.0%) emphasized the positive impacts of cultural events that often include the stimulation of local economy and tourism development of the area. Cluster B, *Neutrals*, (2.4%) expressed a neutral feeling about the quality, organization, potentials, and impacts of the events. Cluster C, *Haters*, (2.4%) maximized the negative impacts, estimating that these events were low of socio-economic significance and not well organized. As for the residents of *Chios*, Cluster A, *Realists*, (37.7%) mainly evaluated their responses with moderate scores, recognized, both long-term benefits for the host community and negative impacts on region's natural environment. Cluster B, *Embracers*, (25.6%) were less anxious about the negative impacts of cultural events on the socio-cultural and natural environment. A closer exploration of Cluster C, *Neutrals*, (37.6%) also revealed a neutral feeling

Table 1 Demographic profile of respondents

Variables		Xanthi (n = 484)	Chios (n = 374)	Rethymno (n = 242)
		(%)		
Gender	Female	57.2	52.1	58.8
	Male	42.8	47.9	41.2
Marital status	Single	45.2	38.2	43.0
	Married	39.5	52.4	50.8
	Divorced/widowed	15.3	9.4	6.2
Age	18–25	10.1	27.8	31.4
	26–35	29.3	29.4	28.1
	36–45	19.8	27.0	24.4
	46–55	24.4	6.4	9.5
	>55	16.3	9.4	6.6
Occupation	Civil servant	26.2	26.7	9.5
	Private employee	21.5	27.8	40.1
	Freelancer	21.1	30.5	29.8
	Housewives/husbands	13.8	4.0	5.0
	Unemployed	17.4	11.0	15.6
Education	Primary	4.5	2.9	1.7
	Secondary	50.4	46.8	62.8
	Tertiary	45.1	50.3	35.5
Income	<5,000	46.5	31.0	35.1
	5,001–12,000	29.1	29.7	44.6
	12,001–25,000	20.5	31.6	16.9
	>25,000	3.9	7.8	3.3
Years of residence on this area	<1 year	20.2	3.5	1.2
	2–10 years	29.9	13.6	7.9
	>10 years	49.9	82.9	90.9

about the commodification of cultural events, expressing positive and different experiences, but only to the extent that they become non-threatening. Regarding residents of *Rethymno*, Cluster A, *Embracers*, (24.8%) held a positive attitude towards the quality, organization, and impacts of the local cultural events, agreeing that these events present great potential for the interaction among locals and tourists and the preservation of local traditions. Cluster B, *Realists*, (15.3%) expressed their perceptions in a moderate mode and their attitudes towards the cultural events still remained ambiguous. Moreover, they recognized that cultural events in Rethymno had not great potential and should be managed in such a way as to increase visitation. Cluster C, *Experiencers,* (59.9%) referred mainly to *Followers* or *Supporters* of the cultural events who underlined the double-edged aspect of cultural tourism, capable

Table 2 Means of clusters

Variables[a]	Clusters/Xanthi				Clusters/Chios				Clusters/Rethymno			
	A	B	C	F[b]	A	B	C	F[c]	A	B	C	F[d]
1. Quality												
Friendliness of the persons involved	4.49	3.67	2.08	159.905	3.38	4.01	3.85	23.183	4.02	3.49	4.12	10.095
Local community's contribution and support	4.50	3.80	2.08	168.885	3.34	3.89	3.56	7.232	3.80	3.24	4.23	20.353
Effective co-operation between the participants	4.68	3.70	1.92	226.948	3.43	4.13	3.88	26.990	3.87	3.05	4.07	27.051
Attendance opportunities for all ages	4.60	3.88	3.83	79.576	3.60	4.05	3.76	4.500	3.87	3.43	4.22	12.266
Strongly linked/stick to tradition	4.48	3.17	1.92	13.809	3.41	4.44	4.08	36.507	3.63	3.08	3.59	5.934
Emotional experiences for the residents	4.36	3.87	2.42	77.335	3.40	4.61	3.93	75.314	4.10	3.27	4.29	27.222
Entertainment/recreation opportunities for families	4.62	3.95	3.00	161.257	3.12	4.46	3.70	64.678	3.90	3.32	4.24	24.923
2. Event organization												
Sufficient information on events	3.83	3.52	2.00	46.979	3.13	3.61	3.48	8.341	3.20	2.73	3.76	17.876
Training/educational background of the participants	4.27	3.44	1.75	139.399	3.33	3.93	3.80	14.917	3.70	3.41	3.92	5.376

(continued)

Table 2 (continued)

Variables[a]	Clusters/Xanthi				Clusters/Chios				Clusters/Rethymno			
	A	B	C	F[b]	A	B	C	F[c]	A	B	C	F[d]
Efficiency of the event's organization by the authorities	4.41	3.46	1.75	284.980	3.34	3.39	3.56	41.267	3.43	2.95	4.04	30.587
Sufficient number of sponsors	4.11	3.46	1.75	118.092	2.73	3.34	2.91	9.952	3.35	2.92	4.00	25.024
Crucial contribution of local authorities to the organization	4.32	3.54	2.00	184.713	2.96	3.51	2.69	16.445	3.28	2.70	3.99	43.163
Easy access/directional signposts	4.46	3.38	2.17	213.393	2.53	3.53	2.72	27.984	3.45	2.68	3.72	16.807
Suitable areas for the accommodation of large numbers of participants/visitors	4.02	3.15	2.00	133.641	2.23	3.65	2.73	66.646	3.35	2.59	3.58	15.842
3. Potential of an event												
Strong potential of an event's artwork	4.33	3.54	1.58	196.502	2.96	3.59	3.28	12.228	3.02	2.19	3.78	18.217
Strong potential of an event's location	4.26	3.54	1.67	148.570	3.10	3.76	3.68	18.552	3.73	3.54	3.95	3.407
Large numbers of young participants in an event's organization	4.74	3.87	1.92	184.668	3.30	4.24	3.96	37.180	3.80	3.35	4.40	34.206

(continued)

Table 2 (continued)

Variables[a]	Clusters/Xanthi				Clusters/Chios				Clusters/Rethymno			
	A	B	C	F[b]	A	B	C	F[c]	A	B	C	F[d]
Association with current affairs	4.40	3.45	2.25	189.996	3.04	3.93	3.49	19.917	3.37	3.05	3.85	14.267
Increase of the residents' pride in their village or hometown	4.49	3.82	3.00	70.430	3.76	4.66	3.94	39.905	4.30	3.11	4.12	21.029
Increase of the residents' interest to preserve an area's traditions	4.42	3.83	1.58	108.090	3.48	4.70	4.10	75.797	4.15	3.32	4.21	18.160
Enhancement of residents' sociability	4.55	3.87	1.75	178.878	3.20	4.61	3.74	80.745	4.32	3.11	4.23	43.563
Creation of excitement/euphoria	4.50	3.91	2.50	103.429	3.10	4.63	4.07	149.938	4.18	3.14	4.28	35.156
4. Positive impacts												
Strengthening of a local economy	4.77	4.10	3.25	241.161	3.50	4.56	3.57	52.577	3.52	3.00	4.32	44.855
Revenue generation for local authorities	4.61	3.84	3.58	159.891	3.10	4.48	3.25	68.071	3.07	3.27	3.97	27.591
Increase of local businesses' profit	4.77	4.10	3.25	160.840	3.52	4.63	3.80	51.371	3.55	3.32	4.47	55.435
Increase in resident employment	4.65	3.87	3.00	165.594	3.09	4.22	3.21	43.505	3.23	3.14	4.09	31.874

(continued)

Table 2 (continued)

Variables[a]	Clusters/Xanthi				Clusters/Chios				Clusters/Rethymno			
	A	B	C	F[b]	A	B	C	F[c]	A	B	C	F[d]
Improvement of a local community's standard of living	4.47	3.52	2.75	165.175	2.62	3.83	2.72	47.769	2.77	2.68	3.39	16.494
Increase of a community's cohesion	4.46	3.55	2.75	190.619	3.00	4.19	3.41	56.967	3.75	2.92	3.86	15.957
Residents learn about their history, culture and traditions	4.31	3.68	2.25	60.293	3.27	4.71	3.73	97.002	3.78	2.89	3.76	15.539
Increase of an area's popularity	4.65	3.65	2.67	153.999	3.33	4.63	3.91	57.383	3.90	3.27	4.23	21.839
Enhancement of the areas' tourism development	4.76	4.02	4.00	190.935	3.71	4.77	4.07	52.841	3.97	3.54	4.38	22.309
Increase of overnight stays	4.50	3.96	3.08	97.958	3.54	4.59	3.99	50.594	3.23	3.38	4.29	44.055
Tourists/visitors learn about the history, culture and traditions of an area	4.34	3.68	2.50	92.952	3.48	4.64	3.89	58.253	3.60	3.16	3.93	11.659
Attraction of a large number of tourists	4.71	4.05	3.00	179.430	3.60	4.54	3.96	34.188	3.18	3.41	4.21	41.797
Tourists wish to revisit	4.57	3.89	3.17	149.469	3.41	4.61	3.91	66.176	3.65	3.30	4.30	32.321
5. Negative impacts												
Natural environment degradation	2.10	3.10	3.58	70.365	3.00	2.55	2.10	29.921	1.75	3.03	2.86	30.637

(continued)

Table 2 (continued)

Variables[a]	Clusters/Xanthi				Clusters/Chios				Clusters/Rethymno			
	A	B	C	F[b]	A	B	C	F[c]	A	B	C	F[d]
Air pollution	2.30	3.14	3.83	42.502	3.09	2.43	1.92	39.058	1.63	2.68	2.76	29.606
Congestion and parking difficulties	2.93	3.61	3.92	4.026	3.80	3.01	2.54	48.631	2.30	3.65	3.76	50.392
Increase of waste	2.04	3.58	3.78	10.399	3.89	3.36	2.66	47.608	2.42	3.84	3.97	61.012
Destruction of cultural monuments	1.85	2.88	3.50	92.190	2.89	2.03	1.74	61.879	1.67	2.65	2.39	15.593
Community disturbance	1.87	3.01	3.83	80.023	3.17	2.51	1.93	54.737	1.72	2.73	2.86	29.876

[a] Variables were measured on a Likert scale from 1 = strongly disagree to 5 = strongly agree
[b] df = 482, level of probability 0.05, sig < 0.05
[c] df = 374, level of probability 0.05, sig < 0.05
[d] df = 242, level of probability 0.05, sig < 0.05

of benefiting local communities, but also, affecting locals' quality of life through the "tourismification" of the cultural asset.

The characteristics of the respondents included in the clusters titled: *Embracers*, have also been discussed in previous studies (Chen, 2011; Davis et al., 1988; Fredline & Faulkner, 2000; Madrigal, 1995; Zhou, 2010). The respondents of those clusters recognize that cultural events can be beneficial to the local communities and appeal to future tourism activity. They also disagreed that those events interrupted the social cohesion of the community and not allowed the interaction between locals and visitors. These basic findings are consistent with the research of Dimitrova et al. (2015) showing that "green" cultural events could reduce unemployment and contribute to the economic development of the region. They also recognize that residents (including cultural operators) accept the measures taken by the governments and municipal authorities, as those initiatives will contribute to better planning and organization of a cultural event (i.e., environmental certification of cultural event, reduce waste volume of cultural events, publishing reports on the environmental consequences of cultural events, etc.). In line with Madrigal (1995) and Fredline and Faulkner (2000), other clusters of the research were labeled: *Realists.* This group of residents agreed that cultural events had both positive and negative impacts. Clusters titled: *Neutrals* had many similarities with the clusters labeled: *Realists* and have been addressed by Doumi, Kyriakaki and Stavrinoudis (2017) who supported that individuals of this group expressed a neutral feeling with the respect to the perceived quality, organization, potentials, and impacts of the cultural events. A novel cluster labeled: *Experiencers* was previously reported by Chen (2011), as local residents stated that cultural event was well organized and had more positive than negative impact on the community. Cluster titled: *Haters* was in consistency with prior studies (Davis et al., 1988; Fredline & Faulkner, 2000; Madrigal, 1995). Individuals of this group disagreed with the positive aspects of cultural events associated with tourism development and pointed out the negative factors (i.e., increased traffic congestion, limited job opportunities, etc.).

4.3 Correlation

The findings derived by Cluster analysis were deemed necessary to be reinforced by looking for correlations among extracted clusters of each prefecture and the demographic characteristics of the respondents. For this purpose, non-parametric correlation analysis was based on chi-square test, while the significance level of 0.05 ($\alpha = 0.05$) is also observed (Table 3). It should be noted that the main prerequisites for the use of this test are fulfilled. Hence, the null and the alternative hypothesis are formulated as follows:

H_0: The characteristics A and B (demographics) of the sample are independent and consequently there is no correlation between the variables that express them.

Table 3 Correlations

Variables	Clusters/Xanthi	Clusters/Chios	Clusters/Rethymno
Gender	0.127	**0.027**	0.772
Marital status	**0.000**	0.896	0.596
Age	**0.042**	0.176	**0.024**
Occupation	0.898	**0.002**	0.526
Education	0.258	**0.010**	**0.026**
Income	**0.027**	0.186	0.690
Years of residence in the area	0.118	0.093	0.417

H_1:The characteristics A and B (demographics) of the sample are not independent and consequently there is a correlation between the variables that express them.

The statistical test formula is $X_0^2 = \sum_{i=1}^{r}\sum_{j=1}^{c}\frac{\left(f_{ij} - e_{ij}\right)^2}{e_{ij}}$

5 Conclusion

This research found evidences, which could provide a basis for a coherence strategy that can enhance the partnership between tourism enterprises and local communities and create a tourism product with lots of potential for sustainable cultural tourism development. Hence, residents' perceptions towards the quality, organization, impacts, and potentials of cultural tourism attractions should be considered critical elements for a strategic marketing approach with longer-term orientation, capable to satisfy the needs and desires of tourists and improve the destination's current position in the marketplace.

The main contribution of this research is that for the first time in cultural tourism literature displayed not only a classification of locals' perceptions of one and only tourism destination, but also, provided a significant opportunity to compare different groups of residents among the population of three dissimilar prefectures and appraise their positive or negative opinions about specific characteristics of the cultural events take place in their communities. Cultural events can be of relevance not only to a wider readership in tourism and events but also to the island and land researchers due to having a specific influence on an island setting (Thomas & Thomas, 2012; Thomas et al., 2017, 2020). Thus, cluster analysis revealed three clusters of residents for each examined prefecture and its results display many similarities with the findings of prior studies. An important finding exported by *K-Means* analysis is that the cluster titled: *Embracers* appeared on all three prefectures, as this classification demonstrated the residents' positive attitudes towards local cultural events. In the same context, cluster labeled: *Experiencers* presented in Rethymno held also a positive attitude towards these events, while the clusters labeled: *Realists* and *Neutrals* expressed the respondents' neutral position about the cultural events characteristics, and highlighted the need for an effective strategic plan to develop cultural events as viable tourism product. Even, cluster labeled: *Haters*, which described mostly the suspicion of locals towards the cultural events sustainability and presented only in Xanthi, provide dimensional directions to policymakers for the sufficient management and promotion of these events in a sustainable way. The findings of this survey indicate that local residents on the examined destinations have a positive attitude about the potentials and impacts of cultural events on local communities and their voice should be taken into account both for the planning of tourism developmental policies and marketing purposes. Finally, this survey will be useful for future management plans of the tourism industry in the examined research areas, since it contributes to current knowledge through highlighting the significance of cultural events for the tourism development.

6 Limitations and Suggestions for Further Research

As with any piece of research, several limitations narrow the scope of the abovementioned conclusions. This study took place throughout three Greece's specific areas with dissimilar characteristics and different levels of tourism development. An apparent limitation of the study is that the results demonstrate a static picture of perceptions at a particular point in time and subsequently its findings cannot be generalized. Nevertheless, the abovementioned limiting factor can be surmounted if future researches extended the patterns of this survey to several tourism destinations of the country and recognize the need for similar studies in other developed or/and developing countries. Taking under consideration the fact that Greece is recognized as a developed country, a further investigation in a developing country can be significantly different from those in developed countries (Rasoolimanesh et al., 2015). Since, this study only focused on individual cultural events of specific destinations in Greece, represented from an exploratory sample of the inhabitants of these areas, it would be beneficial to conduct further exploration and discourse of this topic at other cultural events throughout Greece and conduct comparative analyses between these events inside and outside the borders of Greece. The approach utilized, also, suffers from the decision to apply quantitative methods to explore residents' perceptions rather than applying qualitative methods. Looking forward, future studies should investigate residents' perceptions of tourism impacts in relation to the cultural events, by conducting semi-structured interviews with local key informants to capture a deeper level of the topic and identify their support or negative attitude towards cultural events in Greece.

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Conceptualization and Development of Cultural-Literary Routes

Diana Foris and Elena Sorlescu

Abstract Thematic tourist routes are an increasingly present approach in the development of tourist products, which are suitable for many types and forms of tourism. Their existence is successfully seen especially by the presence of many such routes worldwide. One of the forms of tourism with development potential is the cultural literary one, and, in this context, this paper deals with the way of capitalizing the cultural tourism by developing cultural-literary routes. The aim of the paper is to identify the conceptualization of thematic tourist products, on the cultural-literary line. In this respect, a qualitative marketing research was conducted. The research results constitute a foundation for the conceptualization of the thematic cultural-literary routes, as well as for the development of three variants of such thematic routes in order to introduce them on the Romanian market. The results are useful for tour operators that develop tourism products based on capitalizing on cultural heritage. Regarding the theoretical implication, the research contributes to the conceptualization of cultural-literary routes and potential ideas for future research.

Keywords Thematic tourist routes · Cultural tourism · Cultural-literary routes · Tourism products

JEL Classification Z11 · Z31 · Z32

1 Introduction

Trails and routes have been indispensable to travel and tourism over the centuries, helping to form the basis of past and present mobility patterns (Timothy & Boyd, 2014). Lately, the cultural routes have become much more popular (Seyfi et al., 2020), as they can become a driving force for the development of the regions in which they are located, while creating valuable experiences for visitors (Messineo, 2012; Meyer,

D. Foris (✉) · E. Sorlescu
Transilvania University of Brasov, Brasov, Romania
e-mail: diana.foris@unitbv.ro

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_33

2004). The cultural routes are elements of cultural heritage, as they are an essential component of heritage protection, popularization and management (Goral, 2016).

A trail is essentially a visible linear pathway of many varieties, which is evident on the ground and which may have at its roots an original and historical linear transport or travel function. A route, on the other hand, is generally more abstract and often based on a modern-day conceptualization and designation of a circuit or course that links similar natural or cultural features together into a thematic linear corridor (Timothy & Boyd, 2014). Therefore, what unites the trails and tourist routes is the idea of an intense and interesting journey, which explores themes related to space, but also to imagination in the context in which it can offer the visitor a satisfying and pleasant experience of a story interpreted by the act of travel. These experiences of the tourists differ, so three types of tourist routes can be identified in terms of scale: site-based routes, which can be concentrated around a museum or a historical building and which explore different collections or historical periods; local routes that explore local industries, historical events or famous people; regional routes, which can be themed based on food, wines, mineral waters, and so on, or long-distance trips in the footsteps of famous travelers, or those that address historical themes, such as the Silk Road, the Route of the Roman Emperors or the Viking Routes. Regarding the particularities of the different heritage trails, as well as the various forms, functions, effects and experiences of the routes on a larger scale, Timothy and Boyd (2015) distinguish between "organic" and "intentional" routes, the former referring to those established for pilgrimages, migration, trade or railways, and the latter being those that are intentionally built, often connecting themed sites for contemporary use (Timothy & Boyd, 2014). In this sense, the intended routes are focused on several topics, finding in the scientific literature treatises aspect on heritage trails based on, for example, famous historical figures (Fagence, 2016), historical events such as the memory of war (Miles, 2017), etc. The purpose of this paper is to identify the conceptualization of thematic tourism products, on the cultural-literary line.

2 Literature Review

Given the expectations and demand of the tourists to experience as much as possible, the tourist routes are increasingly better incorporated into the contemporary tourism. Such routes are designed by the tour operators to maximize the cultural landmarks of a particular destination. In this sense, many destinations use thematic tourism to develop new tourism products, focusing on various segments of consumers, in order to expand and improve the tourist experience.

At European Union (EU) level, The European Commission supports the areas of cultural tourism that have the greatest growth potential. In this context, The EU has promoted a balanced approach between the need to stimulate growth, on the one hand, and the preservation of local artifacts, historical sites and traditions, on the other hand, proposing projects called European Cultural Routes—Transnational

Routes, which help tourists discover how Europeans have lived since ancient times. The cultural routes have an enormous potential for grouping, intercultural dialogue and promoting Europe's image in general, and the cultural pathways can also make a strong contribution to the local economies, as they work on a sustainable and ethical, knowledge-based model, local skills and often promote lesser-known destinations. In this context, European themed tourist routes have been created, such as: Santiago de Compostela Pilgrim Routes, The Hansa, Viking Route, Via Francigena, Routes of El legado andalusí, European Mozart Ways, Phoenicians' Route, Iron Route in the Pyrenees, European Route of Jewish Heritage, Saint Martin of Tours Route, Routes of the Olive Tree, Cluniac Sites in Europe, VIA REGIA, TRANSROMANICA—The Romanesque Routes of European Heritage, Iter Vitis Route, European Route of Cistercian Abbeys, European Cemeteries Route, Prehistoric Rock Art Trails, Route of Saint Olav Ways, European Route of Historic Thermal Towns, The Casadean Sites, European Route of Ceramics, European Route of Megalithic Culture, Huguenot and Waldensian Trail, Art Nouveau Network, Via Habsburg, Roman Emperors and Danube Wine Route, In the Footsteps of Robert Louis Stevenson, Destination Napoleon, European Routes of Emperor Charles V, Fortified Towns of the Grande Region, etc. (Council of Europe, 2021).

Tourist routes and trails are increasingly ubiquitous in the tourist landscape, and, although the role and usefulness of tourist products have been analyzed, the treatment of tourist routes is still below expectations in the academic literature.

Cultural itineraries represent a context that's favorable for the development of creative processes and experiences (Messineo, 2012). Some researchers have studied the cultural itineraries from a spatial scale perspective, focusing on the iconography of a region, the impact on spatial and economic development or sustainability (Briedenhann & Wickens, 2004; Majdoub, 2010).

The literary tourism is a form of travel that fits in the category of alternative types of tourism, representing an instrument designed to preserve a certain category of cultural heritage, such as: objectives, locations, events related to various aspects of literature (Ghetau & Esanu, 2011). Literary tourism refers to visiting the places the author faces or the places mentioned in their works (Robinson & Anderson, 2002).

Hoppen, Brown and Fyall analyzed the phenomenon of the literary tourism and explored the means by which destinations can gain from benefits in the form of destination branding and marketing strategies (Hoppen et al., 2014).

Herbert believed that the literary places make sense of their connections with writers and the settings of their novels and as such places attract tourists and are part of the heritage tourism landscape (Herbert, 2001). The creation of the literary place is understood as that of a private house transformed into a museum space dedicated to receiving visitors.

The literary routes transform intangible literary heritage (imaginary landscapes) into tangible literary landscapes, and landscapes with a literary dimension increase the emotional connection with the landscape and make it possible for a person to review in situ the fingerprints of the favorite authors (Ruiz, 2013).

The literary routes inspired by landscapes contribute to the cultural heritage itineraries; they highlight the collective memory, combining natural and cultural heritage and add value to the currently recognized world heritage (Ruiz, 2013).

Tour operators must adapt their business strategies to the new market conditions, by designing various thematic programs, which will allow tourists to perceive local values and express their individuality in search of authentic experiences (Durasevic, 2014). This also involves cultural tourism, which Douglas and Derrett refer to as a way of cultural impression that emphasizes the cultural, heritage or artistic aspects of the destination or experiences and activities for the tourist (Douglas et al., 2001). Alternative forms of tourism, such as the literary tourism, are the main tools responsible for the sustainable development of an area's culture, identity and conservation of its cultural heritage (Ghetau & Esanu, 2011).

3 Methodology

Considering the research problem, namely identifying the way to capitalize on cultural tourism by developing cultural-literary routes, the research objectives were set, as follows: (O1) Identifying the opinion of tour operators on the possibility of capitalizing on cultural tourism by developing thematic cultural-literary routes; (O2) Identifying the existing literary-cultural tourism potential at national level in Romania, (O3) Development of cultural-literary routes in Romania.

At the same time, the general hypothesis of the research was formulated: there is interest at the level of tour operators on cultural-literary thematic routes, to attract tourists and to bring profit to all those involved in their creation.

In order to implement the first objective O1—Identifying the opinion of tour operators regarding the possibility of capitalizing on cultural tourism by developing thematic cultural-literary routes, a qualitative marketing research was conducted and it was based on the questionnaire method and the structured interview method.

In the first part of the research, based on the method of the questionnaire, the following basic aspects were established: (1) The degree of interest of the tour operators regarding the thematic cultural-literary routes; (2) The behavior/attitude of the tour operators regarding the introduction of the thematic cultural-literary routes in the offer; (3) The structure and duration of the tourist products of the thematic cultural-literary route type. The selection of participants was based on the following criteria: specialization (to ensure the representativeness of several categories of tour operators, which operate both nationally and internationally) and experience in tourism (tour operators that create and market tourism products that exploit the potential of the Romanian tourism). The following tour operator agencies were selected: Dertour, Paralela 45, Christian Tour, Nemo Tour, Viaromania. The questionnaire contains 10 questions, and the respondents had the opportunity to choose from a series of answers on an ordinal scale - Likert from one to five, binary scale, nominal scale with single choice from a set of proposed alternatives or nominal scale with multiple choice from several proposed variants.

The second part of the research is based on the structured interview method. The interviews were conducted by a qualified moderator using the interview guide designed to ensure the purpose of the research and which consists of two parts: the first consists of three general questions on the impact of the pandemic on economic activity, and the second includes three questions referring to the implementation of the tourist product of type thematic cultural-literary routes. The interview guide was applied to the same participants, to the five travel agents, representatives of the tour operators selected for the first part of the research. The participants were provided with information about the context and purpose of the study.

In order to fulfill the objectives O2—Identifying the existing literary-cultural tourism potential at national level in Romania and O3—Developing cultural-literary routes in Romania, memorial houses of the great Romanian writers were identified, but also buildings relevant for Romanian language and literature and three variants of cultural-literary routes were created, with different durations: 3, 5, respectively, 7 days.

4 Results and Discussion

The research results are structured taking into account the objectives, based on the answers to the research questions.

(O1) Identifying the opinion of tour operators regarding the possibility of capitalizing on cultural tourism by developing thematic cultural-literary routes.

Regarding the first part of the research, based on the questionnaire method, the horizontal analysis indicates how each category, theme or subtheme, is approached by all respondents.

(1) The degree of interest of the tour operators regarding the thematic cultural-literary routes is further discussed. To the first question, regarding the appreciation of the sale of domestic tourist packages in the last year, four of the respondents gave five points out of five, and one respondent gave four points, which indicates a good situation in terms of tourists' interest in Romanian tourism products. This fact is due to considerations such as: the desire of Romanians to discover the national heritage, the linguistic criterion, the cultural familiarity. To the next question in the questionnaire, if the inclusion of cultural activities in the tourist packages is important, the respondents answered affirmatively unanimously. It is noted that tour operators consider that the cultural tourism should be included in tourist packages. The third question makes the transition to the subject of thematic routes and wants to explore the perception of agencies on this type of tourism product. Here, the answers varied as follows: three respondents consider the thematic routes important, and two respondents consider them quite important. Therefore, for tour operators, it is important to have thematic tourist routes, but this type of tourist products is not essential for their activity. When asked if they would be interested in including thematic cultural-literary routes in their own offer, all respondents answered positively. There is a special attention and interest paid by tour operators to the idea of diversity in the

tourist offer, the openness to promote cultural tourism and to include in the tourist packages, thematic cultural-literary routes.

(2) The behavior/attitude of the tour operators regarding the introduction of the thematic cultural-literary routes in their own offer is presented in the following. To question 6, regarding the attitude of tour operators regarding the introduction of thematic cultural-literary routes in their own offer, the respondents had at their disposal two variants of answer: either as a component part of an existing product, or as an independent element. Four respondents would integrate the thematic cultural-literary routes as a component part of an existing product and only one of the respondents would introduce in their own offer the thematic cultural-literary routes as an independent element. For question 7, through which the authors proposed to investigate which component of the marketing mix would use tour operators to sell tourist packages that include thematic cultural-literary routes, the respondents had the option to select two of the following options: product; price; placement (distribution); promotion. Two respondents chose the price and the promotion, and three respondents chose the product and the price. These answers reveal that the price is a unanimous component taken into account by tour operators for the sale of packages, and the product itself and bringing it to the public's attention play important roles in creating tourism products. To question 8, regarding what could motivate tour operators to introduce thematic cultural-literary routes in their own offer as a standalone product, the respondents were offered the following options: increase profit; uniqueness compared to the competition; attractiveness for tourists. Three respondents considered that they would be motivated to introduce the cultural-literary routes in their own offer as an independent product for the uniqueness compared to the competition, one respondent chose to increase the profit, and for one respondent the attractiveness for tourists matters. Tour operators are constantly looking for competitive advantages in the tourism products market, when they develop and diversify their offer.

(3) The structure and the duration of the tourist products of the cultural-literary thematic route type are further discussed. Regarding question 9, where it was intended to investigate the perception of how tour operators consider that a cultural-literary route should be designed: as a stand-alone product or a dynamic product, three of the respondents prefer the static, predictable variant, while two respondents prefer the dynamic variant. The last question concerned the perception of tour operators regarding the optimal duration of a tourist product such as the cultural-literary route, and the durations of 3, 5 and 7 days, respectively, were taken into account. Given the literary theme, three of the respondents considered that 5 days would be the optimal duration for a cultural-literary route, while two respondents chose that the optimal option is 3 days. The short durations are considered optimal by tour operators for the tourist products of the cultural-literary route type.

The results of the second part of the research, based on the structured interview method, are presented below.

Regarding the topic of discussion related to the way they felt the effects of the COVID-19 pandemic, all respondents consider that the activity of the travel agency was strongly affected, and the economic impact was severe. One of the agencies noticed the very high number of tourists who called the travel agencies constantly to check the status of reservations, if there is the possibility of repatriation, recovery of the advance paid for certain stays, etc. Another agency had to resort to the amounts deposited at the bank for provisions to return, at the request of the tourists, the amounts of money collected in advance, for travel and canceled reservations. Overall, the situation was unexpected and with strong short-, medium- and long-term consequences, creating uncertainty in the entire tourism market. When asked to identify measures taken to reduce the impact of the COVID-19 pandemic, some respondents indicated a cut in the budget for participation in tourism fairs, a cut in travel bonuses, stopping hotel verification programs by own employees, etc., and others considered moving the agency to locations with cheaper rents. It can be seen from the variety of answers that tour operators have been put in a position to adopt austerity measures and make difficult decisions, because the tourism sector has been extremely hard hit by the current pandemic. When asked to identify among the products in their offer, which are most appropriate for the current situation, most respondents mentioned the focus on Romanian products, meaning packages with destinations in Romania (e.g. seaside, mountains, historical areas, city-breaks), as well as in EU Member States, with a short duration (3–5 days). In their view, there is not enough confidence in the relaunch of some external products (outside the EU) and in the long term, especially since some of the destinations offered in previous years are no longer attractive or partially inaccessible due to restrictions (e.g. quarantine at the destination or on the return from the countries in the red zone, etc.).

Continuing the interview having as point of interest the thematic cultural-literary routes, the next question aimed at the perspective of the conceptualization of these tourist products regarding the incorporation in the offer of the travel agency, given the current pandemic situation. The first aspect mentioned by the respondents was that of providing a short duration for these kind of products (3–5 days). This is due to the desire of testing the market and identifying the segment of customers interested in such tourism products. Another aspect that the respondents consider necessary is to conduct a market study to determine the extent to which tourists will switch interest in other cultural destinations, with similar routes in Romania. Moreover, the incorporation of thematic cultural-literary routes in the existing tourist packages was also mentioned, as the previous research revealed, a fact indicated even now, and which could constitute a competitive advantage. An aspect highlighted by the respondents refers to the tourist objectives, through the prism of the program and the way of receiving the tourists. Many tourist attractions keep their gates closed during this period, even if the measures have been relaxed, but against the background of the impossibility of ensuring social distance, they cannot operate in complete safety. In this respect, the necessary alternatives must be considered by the tour operators. When asked by the respondents to identify the measures and means of protection to be taken by tour operators in order to ensure the safety of tourists since the creation of new tourist packages based on thematic cultural-literary routes, all respondents expressed concern about this aspect.

At the request of the moderator that the respondents identify the positive aspects regarding the incorporation in the offer of the travel agency of some thematic cultural-literary programs, in the current pandemic situation, most respondents consider such an approach as an opportune one. Respondents believe that such a tourism program can be successful during this period, because it addresses especially the domestic market. Moreover, the respondents pointed out that the novelty aspect of this type of tourist program can give the tour operator an advantage over the competition and can lead to an increase in the client portfolio, which can also generate an increase in turnover. Another positive aspect identified by the respondents is related to the fact that offering such thematic programs allows tourists to better perceive local values and can provide them with authentic experiences about their favorite writers and experience something new during the holidays.

(O2) Identifying the existing literary and cultural tourism potential at national level in Romania. The memorial houses (Romanian Writers Library, 2021) of the most representative writers in Romania are the following: Ion Creangă Memorial House (Humulești), Mihai Eminescu Memorial House (Ipotești), Mihail Sadoveanu Memorial House (Vânători Neamț), Veronica Micle Memorial House (Târgu Neamț), Calistrat Hogaș Memorial House (Piatra Neamț), George Coșbuc Memorial House (Hordou), Nicolae Labiș Memorial House (Mălini), Alexandru Vlahuță Memorial House (Agapia), Liviu Rebreanu Memorial House (Prislop), Tudor Arghezi Memorial House (Bucharest), Ion Luca Caragiale Museum (Ploieşti), Panait Istrati Memorial House (Brăila), Nichita Stănescu Memorial House (Ploiești), George Topârceanu Memorial House (Nămăiești).

(O3) Development of cultural-literary routes in Romania

Three variants of cultural-literary routes were created, with different durations: 3, 5, respectively, 7 days, named symbolically using terms used in literature.

1. The first route will be titled "The Sketch Route" to reflect the fact that it is a 3-day route. The tourist product will include the following tourist objectives: 1. The First Romanian School Museum (Braşov); 2. Andrei Șaguna National College (Brașov); 3. George Topârceanu Memorial House (Nămăiești); 4. Nichita Stănescu Memorial House (Ploiești); 5. Ion Luca Caragiale Museum (Ploieşti); 6. Tudor Arghezi Memorial House—Mărțișor (Bucharest).

The name of the tourist product reflects the duration, expressed symbolically using literary terms—literary species of the epic genre used in prose. Thus, the sketch is a narrative literary species, an epic work in prose, of small extent, in which a single significant episode in the life of several characters is related. Among the features, we can mention highlighting the small number of characters and highlighting the limited spatio-temporal framework of the action. The product runs in the direction of Brașov—Nămăiești—Ploiești—Bucharest, on a smaller geographical area. Moreover, during the route, we will visit the memorial house I.L. Caragiale, one of the great sketch writers in Romania.

The daily program is as follows:

- Day 1: The objectives in Brașov will be visited, starting from the First Romanian School. This fact has a strong symbolic character, also given by the name of the place, here the first books were printed in Romanian. Later, tourists will visit the festive hall of the Andrei Șaguna National College, where the guide will introduce them to the literary personalities who studied and worked in Brașov. After that, the tourists will board the bus and go to visit the George Topârceanu Memorial House. Here, they will have the poetic experience of his lyrics, read by a local actor. After the visit, the bus will take tourists to Ploiești, where they will have accommodation at a 3* hotel.

- Day 2: After breakfast, tourists will have the opportunity to visit the house of the great playwright I.L. Caragiale, where they see snapshots of his work through: articles, short stories, sketches, personal items. Later, they will visit the memorial house of the great writer Nichita Stănescu and will once again have a poetic experience, through the voice of an actor who will interpret some of his works in verse. Here, tourists will have the opportunity to create their own works in verse based on the Stanescu model. After that, we will leave for Bucharest, where tourists will stay at a 3* hotel. In the evening, they will have tickets for a performance at one of the theaters in Bucharest. This will depend on the conditions of performance, whether the theater is allowed to receive spectators, the politics of the pandemic, etc.
- Day 3: After breakfast, and a short tour of the historic center, you will visit the last objective of the program, namely the Tudor Arghezi Memorial House. Tourists will meet the work and personal belongings of the great writer. After the visit, the tourists will have lunch, and will return to Brașov.

2. The second route will be entitled "The short story road", being a route with a duration of 5 days. When choosing the name, the same correlations were considered as in the case of the first route. The short story is an epic work in prose, of medium length, with a single narrative thread and a more complex action than the sketch, in which a small number of characters participate, emphasizing the complex characterization of the main character.

Within this tourist product, the considered tourist objectives are: 1. The First Romanian School Museum (Braşov); 2. Andrei Șaguna National College (Brașov); 3. Calistrat Hogaș Memorial House (Piatra Neamț); 4. Alexandru Vlahuță Memorial House (Agapia); 5. Ion Creangă Memorial House (Humulești); 6. Veronica Micle Memorial House (Târgu Neamț); 7. Mihail Sadoveanu Memorial House (Vânători Neamț); 8. Museum of Romanian Literature (Iași); 9. G. Ibrăileanu Museum Point (Târgu Frumos); 10. Mihai Eminescu Memorial House (Ipotești); 11. Copou Park and the Eminescu Museum (Iași).

The program of activities is reproduced below:

- Day 1: The program is similar to the first route. The only difference is that after visiting the two tourist attractions in Brașov, you will go to Piatra Neamț at the Calistrat Hogaș Memorial House. His work focused on a description of the Neamț Mountains. As a cultural value, it will be considered to visit his birthplace, which has become a museum, where people will come into contact with his biographical data. Then, as part of the idea of integrating tourists in the work of the writer, they will be walked on a portion of the route described in the book "In the Neamt Mountains". Accommodation will be in the city at a 3* hotel.

- Day 2: We will start the trip to Agapia. There will visit The Alexandru Vlahuță Memorial House, a writer less known to the younger generations. We will initially visit the house itself, and then, in accordance with his established work, we will visit several locations in the vicinity. In those locations, small replicas of the buildings that were seen by Vlahuță will be arranged, in order to offer tourists a completely unique experience, as they can relive his work. You can also visit the Agapia monastery, diversifying the cultural palette. Then follows the visit of the house of the great writer Ion Creangă from Humulești. In addition to visiting his Memorial House in Humulești, other surprises will be prepared for tourists, including: Arranging a replica of the village where Nică grew up and every day here will be interpreted another story from the book. Tourists will experience the antics of the naughty Nică. The characters in the book will be played by actors, but tourists will be given the chance to play certain roles themselves. The degree of involvement being high, tourists will be even more active in learning Creanga's work. There is even a Grammar and literature class offered by a teacher (teacher of Romanian language and literature) who will recreate the teaching atmosphere during an hour taught by Ion Creanga. Tourists will experience the teaching techniques and information existing in those times. Also, during the visit, less known information about the famous writer will be presented, such as the reasons for his expulsion from the priesthood, the way in which he establishes a friendly relationship with the national poet Mihai Eminescu, etc. Accommodation will be in Humulești, at a tourist boarding house.
- Day 3: The next item on the visit list is Veronica Micle's house, Mihai Eminescu's unrequited love. An interesting idea is the interpretation of some of Eminescu's poems on which hovers the idea that they were written for Veronica. Tourists will be taken to a nearby lake, where they will be given a poetry recital. Poems such as: "The Lake", "Blue Flower", "When the night is deep…", "Longing for you", "Mirror Lake", "Moonbeams" will be recited. This poetic combination will offer tourists the sublime, artistic framework of the love of the two and the creation resulting from this manifestation of feelings. Tourists will have the opportunity to write a stanza in the Eminescu style and at the end by combining all the stanzas to come out with a lyrical work that will be offered to everybody in the group. Next point of visit is the Mihail Sadoveanu memorial house. Renowned for its landscape descriptions and works such as Hanul Ancuței or Țara de Dincolo de Negură, tourists can be offered an interesting perspective on the zonal landscape elements, in order to have an even deeper experience of the writer's work. After that, the tourists will go to Iași, where they will stay at a 3* hotel.
- Day 4: Tourists will explore the exhibits at the National Museum of Romanian Literature in Iasi, where Junimea was active. After that, they will go to Târgu Frumos, where they will visit Garabet Ibrăileanu House. In the evening, back in Iasi, tourists will participate as much as possible in a show offered by the National Theater, obviously given the measures and health restrictions imposed by the current pandemic.

- Day 5: The last part of the route consists in visiting the elements related to the life and work of Mihai Eminescu. We will visit Copou Park in Iași, where the Lime Tree and Eminescu's Museum are located, followed by a visit to his birthplace in Ipotești. After the visit, the tourists will have lunch, and will return to Brașov.

3. The third route is entitled "The novel's route", again appealing to the symbolism already specified. The novel is the species of the epic genre, in prose, of great extent, with a complex action that takes place on several narrative planes, with numerous characters whose personality is well individualized and whose destiny is determined by features, character and events that constitute the subject of the work.

This route lasts 7 days and combines the tourist objectives of the first and second route: 1. Tudor Arghezi Memorial House—Mărțișor (Bucharest); 2. Ion Luca Caragiale Museum (Ploieşti); 3. Nichita Stănescu Memorial House (Ploiești); 4. George Topârceanu Memorial House (Nămăiești); 5. The First Romanian School Museum (Braşov); 6. Andrei Șaguna National College (Brașov); 7. Calistrat Hogaș Memorial House (Piatra Neamț); 8. Alexandru Vlahuță Memorial House (Agapia); 9. Ion Creangă Memorial House (Humulești); 10. Veronica Micle Memorial House (Târgu Neamț); 11. Mihail Sadoveanu Memorial House (Vânători Neamț); 12. Museum of Romanian Literature (Iași); 13. The museum point "G. Ibrăileanu" (Târgu Frumos); 14. Mihai Eminescu Memorial House (Ipotești); 15. Copou Park and the Eminescu Museum (Iași).

The daily program of this route includes and cumulates the activities of the two previously mentioned routes, specifying that departure will be made this time from Bucharest, and on the first day, we will visit the objectives in Bucharest and Ploiesti, the next day the objectives in Nămăiești and Brașov, and starting with the third day, the activities coincide with those from the "The short story road" route.

5 Conclusion

The cultural-literary route is a form of promoting literary heritage that responds to the demand of tourists who are enthusiastic followers of their favorite writers and looking for ways to get in touch with them and involves moving them to places related with the authors, either they are presented in books, or at the houses where the authors lived and of the funerary monuments of the authors, respectively.

There is interest and openness at the level of the tour operators to promote cultural tourism and to include in their own tourist packages thematic cultural-literary routes. Most tour operators choose to integrate cultural-literary routes as part of an existing product. However, tour operators would be motivated to introduce cultural-literary routes in their own offer as a stand-alone product primarily as a competitive advantage and uniqueness over the competition, and secondly for increasing profit because they consider that these tourist products are attractive for tourists. The price is a unanimous component considered by tour operators for the sale of packages containing cultural-literary routes. The product itself and marketing it to the public play important roles in creating tourism products of this type.

The development of thematic cultural-literary routes creates advantages for both tour operators: an advantage over the competition, increasing the client portfolio, increasing turnover and profit, as well as tourists: it allows them to better perceive local values, offers them authentic experiences in connecting with their favorite writers, gives them the opportunity to experience something new during the holidays.

The research results confirmed the general hypothesis, regarding the fact that there is interest at the level of tour operators on thematic cultural-literary routes, in order to attract tourists and to bring profit to all those involved in their creation.

The results are useful for tour operators that develop tourism products based on capitalizing on cultural heritage. Regarding the theoretical implication, this study helps strengthen the existing studies on the conceptualization of cultural-literary routes and provides the basis for future research. The authors aim to continue research on this topic, including quantitative studies, and to investigate the presence of other variables in these studies, such as tourist preferences regarding cultural-literary routes, and to expand research to other destinations.

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Visitors at Heritage Sites: From the Motivation to Visit to the Genesis of Destination Affective Loyalty

Simona Mălăescu

Abstract The last years, the context of heritage sites and cultural tourism registered a boost in interest from the destination loyalty researchers. Although the importance of visitors' experience at heritage sites, the events, and the role of reenactment in steering the effects of visitors was previously acknowledged and properly stress in literature, previous models did not account for the manner how tourist develop their destination loyalty to heritage sites renowned for their reenactment festival or performances. We have surveyed 258 visitors of 20 heritage sites hosting reenactment performances in Romania. Based on descriptive, qualitative analysis and regression analysis emerged the importance of how tourists experience the various different attributes of these destinations and their particular motivation to visit and form their destination loyalty. The results confirmed the importance of place attachment components as antecedents of destination loyalty also on this context. In the case of heritage, sites strongly connected with national identity, variables like affective attachment, place identity, the strength of visitor's national identification and the destination's identification as a reenactment destination could explain near half of the variance of the visitors' affective loyalty for the destination. In addition, the visitors' level of affective loyalty, place identity and independent motivation to visit registered on these sites, was slightly higher. In the case of heritage sites less connected with the national historiography, the strength of identification of the respective destination as a reenactment destination, or the motivation to visit exclusively for reenactment, were higher than in the case of the previous sites.

Keywords Cultural heritage · Heritage tourism · Affective loyalty · Place attachment · Reenactment · Destination loyalty

JEL Classification D91 Role and effects of psychological, emotional, social, and cognitive factors on decision making

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S. Mălăescu (✉)
Babeș-Bolyai University, Cluj Napoca, Romania
e-mail: simona.malaescu@ubbcluj.ro

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_34

1 Introduction

Recent studies revealed that the relationship between motivation to visit and destination loyalty in the case of heritage sites hosting cultural events or event-based intangible heritage is not as linear as in the case of other tourism destinations (Santa Cruz et al., 2020; Carvalho et al., 2020). In the case of a UNESCO event-based intangible heritage site, Santa Cruz et al. (2020) showed that simple motivations of the visitor are not enough by themselves to guarantee destination loyalty among tourists, other variables are needed in order to secure the tourist's loyalty, such as the perception of the event and the evaluation of the elements of the destination.

Destination loyalty has been extensively the subject of research in the tourism literature in the last decades, especially in the case of leisure destinations, recreational and beach tourism. Recently, an increase in interest for how tourists form their destination loyalty spiked also in the context of heritage tourism. On these research contexts, destination loyalty (as in the majorities of studies in tourism) was studied as a dependent variable (Hernández-Rojas et al., 2021; Hernández-Rojas & Huete Alcocer, 2021; Hernandez-Rojas et al., 2021 see also Table 1), the emphasis lying in finding its antecedents, mediators or moderators when present. Recent studies bring empirical evidence of the economic impact of events held in a heritage destination from motivation to visit for a supplementary influx of visitors to the increased average length of stay, pointing out of tourists and their loyalty to the destination (Carvalho et al., 2020).

On one hand, a salient volume of studies stressed the importance of tourists' engagement (Vieira et al., 2020) and the emotions experienced by tourists at heritage sites in relation with the genesis of destination loyalty (Rahman et al., 2021; Sánchez-Sánchez et al., 2020; Hernandez-Rojas et al., 2021) the later finding that visitor's emotions are the most important factor when explaining the overall experience and tourists' loyalty. On the other hand, previous studies underlined the importance of reenactment performances at heritage sites in stirring visitors' emotions (Popa, 2016; Malaescu, 2020) and increasing their level of engagement with the destination (Malaescu, 2020). Despite both underpinning research lines, no study so far explored the genesis of destination loyalty of visitors at heritage sites known as destinations with reenactment festivals or simply reenactment performances, as a lever used by destination managers for enhancing visitors experience with the destination. Consistent with Vieira et al. (2020) perspective that the experiences during the stay or the level of tourists' engagement are positively linked to the visitors' destination loyalty, we also argue for the necessity of a closer examination of the intangible elements influencing destination loyalty formation at heritage sites. More specific, we explore the importance of reenactment events as a form of live heritage interpretation used by heritage sites managers in order to enhance the (previously passive classic) experience of visitors at heritage sites.

The present study explores how the presence of reenactment performances at some heritage sites could modify the entanglement of motivation to visit, place attachment

Table 1 Factors identified in recent literature on heritage tourism destinations linked to destination loyalty

Independent and moderator/mediator variables assessed	Dependent variable in the study	Authors and year of publication	Method used	Research Context
Perceived value perceived heritage quality (moderator variable—MOD) perceived cultural quality (MOD) visitor satisfaction	Visitor satisfaction Destination loyalty	Hernández-Rojas et al. (2021)	Structural equations modeling using Warp-PLS 7.0	Visitors of The Citadel of the Catholic King (Cordoba Spain)
Satisfaction with traditional restaurants	Local gastronomy Destination image Destination loyalty Visitors' intentions to recommend	Hernández-Rojas and Huete Alcocer (2021)	Structural equation modeling (PLS-SEM)	Cordoba (Spain)
Tourists' emotions image of the destination and the restaurants	Destination loyalty Tourist intentions to recommend Revisiting behavior	Hernandez-Rojas et al. (2021)	Structural equation modeling	Cordoba (Spain)
Tourists' heritage brand experience, cultural intelligence destination loyalty (Mediator variable—MED)	Consumer-based heritage destination brand equity	Rahman et al. (2021)	Structural equation modeling	Heritage tourist destinations
Brand authenticity perceived value (MED) brand trust (MED) tourist destination's brand legitimacy	Destination loyalty Destination brand authenticity	Chen and Lee (2021)	A combination of SPSS and AMOS statistical software analysis	Cultural heritage tourism destinations
Presence of an event in the destination	Motivation to visit average length of stay of tourists	Carvalho et al. (2020)	Analysis of secondary data and descriptive statistics on primary data from surveys to exhibitors, and visitors	Medieval fair at Torre de Moncorvo
Experience of tourist socio-cultural variables	Destination loyalty	Sánchez-Sánchez et al. (2020)	Structural equations model analysis	Heritage destinations, Spain

(continued)

Table 1 (continued)

Independent and moderator/mediator variables assessed	Dependent variable in the study	Authors and year of publication	Method used	Research Context
Visitor satisfaction with the destination, (with antecedents:) perceived quality and value of the visit	Destination loyalty	Del Rio et al. (2020a)	Structural equations model analysis	Cordoba (Spain)
Customized authenticity	Guesthouse loyalty	Shi et al. (2020)	Structural equation modeling analysis	Heritage destinations, Old Town of Lijiang, (China)
Brand love and respect	Brand loyalty Brand satisfaction	Chen et al. (2020)	Structural equation modeling analysis	Cultural heritage, night tourism ("Cultural Heritage Night", South Korea)
Satisfaction (less impact on)	Their future visit on loyalty	Nagari, Suryani and Pratiwi (2020)	Cross-tabulation analysis	Kali Besar Corridor (Jakarta, Indonesia)
Cultural identity, authenticity perception	Destination satisfaction and loyalty	Tian et al. (2020)	Structural equation modeling analysis	Intangible cultural heritage (Celadon Town, China)
Satisfaction (with antecedents:) perceived quality and value	Destination loyalty	Del Rio et al. (2020b)	Structural equation model analysis	Synagogue of Córdoba (Spain)
Customer-based Loyalty (in Customer-based Brand Equity) Awareness, Image, Q uality	Tourism destination Tourism goals	Siregar, Marpaung and Abdillah (2020)	Regression analysis	Maimun Palace (Medan City)

(continued)

and destination loyalty genesis, and points out the necessity to explore and test further, other potential relevant moderators or mediators especially for this research context.

Table 1 (continued)

Independent and moderator/mediator variables assessed	Dependent variable in the study	Authors and year of publication	Method used	Research Context
Mixed reality (interactivity, vividness)	Perceived enjoyment satisfaction Brand loyalty Brand awareness brand association	Bae et al. (2020)	Partial least squares structural equation modeling	Cultural and artistic visitor attractions with XR technologies in Seoul (Korea)
Perception of the processions evaluation of the elements of the destination	Motivation Destination loyalty	Santa Cruz et al. (2020)	Mediation analysis (smart partial least squares)	Intangible Cultural Heritage (Popayán (Colombia)
Tourist' engagement cultural identification with the destination	Intention to return	Vieira et al. (2020)		Intangible cultural heritage (Porto, Portugal)
Tourist satisfaction	Destination loyalty	Asmelash and Kumar (2020)		Tigrai, Ethiopia
Self-congruity functional congruity	Tourist satisfaction Destination loyalty	Zhou et al. (2020)	Structural equation model analysis	Shaoshan city (China)
Constructive and existential authenticity	Tourist satisfaction Destination loyalty	Park et al. (2019)		Hahoe village in South Korea

2 Literature Review

In the consumer psychology and tourism approaches of the destination as a tourism product, the popular conceptualization was of loyalty as a sequential process, in which accordingly, visitors become loyal firstly in a cognitive sense, further in an affective sense, and later in a conative manner (Oliver, 1997). Yuksel et al. (2010) also implied that the cognitive connection between the self and the destination influences satisfaction and loyalty intention. They suggest that this significant link between cognitive and affective loyalty could be the result of "customers believing superiority of the destination quality compared to the others are likely to hold more favorable emotions toward the destination" (Yuksel et al., 2010, p. 283).

The majority of recent research on destination loyalty in the context of heritage sites focuses on modeling the antecedents (and rarely finding mediators and moderators) of destination loyalty the prevalent methodology used being structural equation modeling (Table 1). Fewer studies explored the role of destination loyalty as an antecedent and part of Customer-based Brand Equity (Siregar et al., 2020) or as a mediator for the impact of tourists' heritage brand experience and cultural intelligence on the formation of heritage destination brand equity (Rahman et al., 2021). One important predictor of destination loyalty previous literature emphasized (Alexandris et al., 2006; Brocato, 2006; Yuksel et al., 2010) that recent studies on the context of heritage sites did not assess was place attachment.

On the conceptualization of place attachment (PA) exists an extensive literature, especially on its dimensional structure, the one including three components seems to include the most basic but mandatory facets of the way people relate to a place (Dwyer et al., 2019; Yuksel et al., 2010). The cognitive component of PA—place identity (PI)—was conceptualized as a component of self-identity stating its relationship with the place (Jorgensen & Stedman, 2006), Kyle et al. (2004) arguing that enables individuals to express and affirm their identity. The other popular facets of PA are affective attachment (AA)—the affective component (Kyle et al., 2004) and the *functional attachment* (FA) seen as the destination's capacity to provide conditions and features to support specific activities or goals (Williams & Vaske, 2003). Yuksel et al. (2010) found relationships differing in strength between attachment dimensions and phases of loyalty intentions. They explained the results as probably due to the corresponding structures of some dimensions with that of the loyalty phases since affective loyalty has a stronger effect on conative loyalty than cognitive loyalty.

The role of PI and FA in preserving self-congruity seems another relevant mechanism for the context of heritage sites, in need to be explored. Chen and Šegota (2016) defined self-congruity in relation with a destination as a "match/mismatch between destination image (i.e. image of a typical visitor of a destination) and one's self-image" (Chen & Šegota, 2016, p. 152). Based on previous literature (Lalli, 1992; Park, 2010; Chen & Šegota, 2016) and the open-ended answers, we took with tourists coming to celebrate a centenary of Romania as a state, in the place where the most important historical act was signed, it is theoretically reasonable to assume that in the case of heritage sites associated with crucial historical events for the definition of a social group or a nation, periodical trips in this destinations could contribute to the crystallization of self-identity and the preservation of self-congruity. We argue that in the case of most heritage sites, the transactional perspective of a cognitive competitive analysis of the characteristics of each destination, in term of benefits tourists could have, will not necessarily take place. Visitors are less likely to take the decision to visit these sites as a result of a comparing analysis of several similar destinations and as a result, further on, choosing the destination with the best attributes at the lowest cost. In the case of beach and recreational tourism, it is the rational decision process to take the transactional approach of weighting the quality of the beach, the transparence of the sea, the variety of beach sports activities, the reputation of the clubs or the comfort and amenities of the accommodation infrastructure available at a certain price. In that case, the decision will be in favor of the destination with the most attributes for the price the decision-maker appreciates it as reasonable. However, some destinations register a rather regional or local historic relevance of the heritage resource (or the cultural significance or perceived authenticity is rather reduced in nature), and then the principal attractions are the events or the live heritage interpretation on the site. We do acknowledge the possibility that in the case of heritage where the principal attraction is a reenactment festival or performances the transactional perspective of analyzing "what else is available for this weekend?" or the characteristics of the festival (size, perceived level of authenticity, national or international participation) make the destination more prone to comparisons in the decision-making process.

In the case of heritage sites linked with the national historiography or the visitors' cultural or ethnic group's identity for example, we expect that the level of PI will be higher. This trigger could drive the tourists' decision to revisit, not the result of a contrast-and-compare analysis of the characteristics of several similar destinations. The cognitive component, if explicit, is sometimes, linked to a unique significance the site holds for their social or cultural in-group, their history or emancipation in terms of social identity. That could explain the case of heritage sites where visits are a part of the self-identity forging process described in the literature (Chen & Šegota, 2016; Park, 2010; Lalli, 1992). Given the unique significance and subtle in nature cognitive component, with a more prone affective component of loyalty along with the behavioral (conative) a framework from the field of attitude theories could have a higher explanatory power. In this way tourists base their decision to revisit on their attitude towards the destination as a three-fold construct where the cognitive component (frequently underpinned by PI), is rather synchronous to the affective and sometimes not necessary manifest, as in verbally explicit, or instrumentally measured, the affective component being the explicit drive of the intention to revisit. This perspective is consistent with previous studies on heritage sites where value visitors' place on heritage sites (Del Rio et al., 2020b) is not necessary in terms of infrastructure assessment and concrete attributes but consists in rather immaterial attributes like cultural identity, authenticity perception (Tian et al., 2020).

Based on this line of argument and previous findings where affective loyalty has a stronger effect on conative loyalty (Yuksel et al., 2010), for the purpose of the present study, we measured affective loyalty as a relevant dimension for destination loyalty in the context of measuring also its antecedent components of place attachment.

3 Methodology

We based the findings of this article on a mixed onsite-online survey of 258 visitors and participants to reenactment events and participant observation in 20 different heritage tourism destinations in Romania. The instrument included a close-ended section of items assessing variables like destination affective loyalty (AL) and place attachment in its three-fold conceptualization proposed by Chen et al. (2014). In this endeavor, we have used the instruments adapted by Yuksel et al. (2010) from their predecessors (Williams & Vaske, 2003 with modifications by Alexandris et al., 2006).

We have also measured personal characteristics: the in-group social identification of the visitors (the strength of national—NID and regional identification—RID), the perceived history of conflict between the perceived in-group and the out-groups (PHOC). For the three variables, we have adapted the subscales proposed by Stephan & Stephan (1993) based on *Integrated Threat Theory*.

Based on previous literature linking reenactment with nationalist manifestation (Popa, 2016) and the heritage sites with the self-identity forging process (Lalli, 1992; Chen & Šegota, 2016; Park, 2010; Malaescu, 2020) or cultural identity (Tian et al., 2020; Vieira et al., 2020), we have inquired about the perceived role of reenactment in enhancing emotions and affects visitors experience at heritage sites. As a consequence, we have assessed several variables like the perceived instrumental role of reenactment in enhancing patriotic feelings at heritage sites (PRREPF), the role of reenactment in experience enhanced pride (of being part of the social group—PRREP), the perceived role of reenactment in national identity affirmation (PRRNIA).

The section of the instrument assessing the emotional impact of the attended event and the attachment to the destination contained also four semi-structured open-ended items. The section is evaluating the emotional benefits of the experience, the motivation to visit, the perceived characteristics of a festival they appreciate as highly identified with the destination brand and a solicited comparative-competitive analysis of the destination hosting the event they attended (whether on-site)/of their choice (whether online).

4 Results and Discussions

On motivation to visit (and revisit) heritage sites

The preliminary analysis of the open-ended items investigating the decision process to select a certain heritage site and the role a reenactment event or festival plays in this process revealed at the exploratory level that the 20 destinations could fit in the following mental categories as perceived by the visitors.

The national and regional landmark heritage sites are strongly connected with a nation or a social group historiography, therefore strongly connected in the collective mental representation and at the individual scale, with the self-identification process and building a sense of identity. It is the case of places where crucial battles for independence took place, place where political decisions like the declaration of independence or for the emancipation of a nation or a social group were made, places linked to the unification of multiple regions in a country. In this particular case, the motivation to (re)visit the site will be uniquely linked to the collectively assign significance of the heritage. Analyzing the motivation of the respondents visiting

Alba Iulia—"The Romanian's Mecca" (mnuai.ro, 2020 and several respondents)—the place associated with the birth of Romania as a national state we entered the realm of personal significance: "*Here I can feel what it means to be a Romanian*" (student, F., 20 *years* old); "*My motivation* [to visit] *is the feeling that is steered inside me by this place*" (student, 19); "[about the experience of visiting Alba Iulia on the National Day] *Happy, proud to be a part of Romanian people"* (student, 19); [the festivities and reenactment of National Day] it brings an added value considering the fact that here the Great Union took place, and people are attracted to that (engineer, 43). In the process of decision-making, the role of the characteristics of the tourism destination will be reduced considerably as compared to the case of sites hosting reenactment festivals or medieval fairs or other types of tourism destination. In the later, similar to the functional attachment (Malaescu, 2020), a process of evaluation of the attributes of that destination will be contrasted and compared to the attributes of another destination and the tourist will decide in favor of the destination with the stronger attributes. Tourists will keep revisiting the destination based on a more profound motivation and a higher place identity of the tourists with the destination as a place attachment component. The analysis of the descriptive statistics on subsamples revealed an average value of PI of 4.92 on this category compared with 4.55 for the rest of the destinations (Fig. 1).

The "time-travel portals" are represented by sites registering a strong autonomous motivation to visit but also identified as a reenactment destination. This category, although having a consistent tourism resource (in some case a UNESCO World Heritage Site), due to the size, tradition or popularity of the reenactment festivals

Fig. 1 Engaging the audience in the narration and reenactment of a Gladiator's fight during the *Apulum Fest* at Alba Iulia (2018)

or Medieval Festivals are considered "gate to the past" during reenactment performances, unique occasions to "time-travel" and that equals to a strong motivation to visit from adults instructing their children about the past, to pure passion for cannons in action: *"*[about the Medieval Festival in Sighișoara] *It gained extreme popularity in the last period, and promoted by media it became synonymous with the city* (student, 20 *years* old);" "*This Romanian festival is themed from the Medieval legends, being the first Medieval festival in Romania, which enjoys the reputation of the authenticity of the period, becoming a gate for time-travelling which emphasizes the attributes of Sighișoara citadel"* (student, 21); "*I feel like I am time-travelling"* (high school student, 17, about the reenactment in Cluj Napoca); "[this way] *I have the opportunity to show to my children* [hystorical] *facts that happened long time ago.*" [manager, 21, about a gladiators' fight in a Roman castrum]; "Here, I understood that every Saturday is firing the cannons" (student, 22).

The heritage sites identified with professional, authentic, reenactment performances and festivals seem to encompass the small scale, local and regional-scale relevant tourism sites, but with specific scientific relevance, chosen as an authentic context for these events. The destination tourism brand of these sites is challenged or includes the reenactment events. The characterization of such sites in the mental representation of the audience is *"The reenactment on the Roman legions became very important in this region"* (student, 22); *I come here for the beauty of the festival in themselves"*; *I appreciate that the festival became synonymous with the settlement's brand.* (…) *The main motivation for visiting is the fact that I am passionate about the historic events."* (high school student, 17).

The heritage sites with specific interest for visitors and with less notorious reenactment events or no reenactment performances at all, are the classical heritage sites attracting visitors by their unique tourism resources and not by tourism infrastructure or specific activities at the site: *"The main motivation to visit a tourism area is my passion for archaeology and historical monuments"* (manager, 21); *I visit a medieval town for its history"* (barista, 19); "*I think* [the reenactment performances] *do not bring any added value* [to the site]" (no declared profession, 30).

Based on this perspective, for the quantitative analysis, in order not to granulate excessively the size of the sample and considering the uneven number of visitors between destinations we have decided to group the destinations in two sub-samples: the heritage sites strongly connected with the national historyography and national identity (as Alba Iulia—S1) and the heritage sites where the scheduled (reenactment) events are boosting the attractivity of the destination (S2). This design decision was both underpinned by the exploratory results on the open-ended questions and the previous theoretical works regarding the impact of the events on the heritage destinations (Carvalho et al., 2020; Santa Cruz et al., 2020).

The destination affective loyalty and its antecedents

The descriptive analysis of the two samples revealed (Table 2) a slightly higher average value for the sites strongly connected with national identity for the affective loyalty (4.43 on a scale of 7 points compared to 4.29 on the reenactment events sites).

Table 2 Descriptive statistics of the variables measured on subsamples

Variable	Sample	Mean	Standard deviation
Affective loyalty	1	13.3178	5.88162
Regional identification strength mean		4.4393	1.96054
National identification strength mean		3.9671	1.15218
Perceived history of conflict		11.2016	3.39434
Affective attachment		14.1008	4.66678
Place identity		4.9225	1.80975
Degree of identification of the destination with a reenactment destination		8.9690	3.06170
Independent motivation to visit		4.8359	1.88144
Perceived instrumental role of reenactment in enhancing patriotic feelings		17.4341	4.41914
Exclusive reenactment motivation		3.4331	2.03380
Affective loyalty	2	4.2995	1.70557
Regional identification strength mean		4.0036	0.83961
National identification strength mean		3.9638	1.19148
Perceived history of conflict		10.9130	3.18886
Affective attachment		13.7826	5.14744
Place identity		4.5522	1.80306
Degree of identification of the destination with a reenactment destination		9.3623	3.06772
Independent motivation to visit		4.6471	1.89078
Perceived instrumental role of reenactment in enhancing patriotic feelings		17.6087	4.01181
Exclusive reenactment motivation		3.8551	2.20478

The average values of affective attachment, place identity and the independent motivation to visit (regardless of the presence of reenactment) were also higher on the first sample. One could also notice the fact that the average value of the level of identification of the heritage destination with a destination where reenactment events take place or the reenactment exclusive motivation to visit was higher on the second sample. This result is consistent with the fact that although Alba Iulia is the host of the largest most prestigious Roman period reenactment festival in Romania (*Apulum*) and also the reenactment performances take place on weekly basis as part of its live heritage interpretation, the destination image and motivation to visit transcends this sort of very catchy destination activity. From the variables exploring the role of reenactment in the experience of the visitors, however, PRRNIA seems to play a more significant role in the experience tourists have at heritages in S1 (Table 2).

From the social identification of the visitors' perspective, the descriptive statistics revealed just a higher average value of PHOC in the sample of visitors of national relevant sites.

The regression analysis revealed the fact that variables like affective attachment, place identity, national identification strength and the destination's identification as a reenactment destination could explain near half of the variance of the destination's AL in the first category of the destinations. In the second sample almost 50% of the AL of the destination was explained by affective attachment and exclusive reenactment motivation strength (Table 3).

The correlation analysis revealed in the case of the second sample a significantly stronger correlation of the affective loyalty with affective attachment (0.68), respectively, place identity (0.55) than on the first sample determined by the higher number of destination in the sample and a wider spread of the values.

5 Conclusion

In this paper, we argue in favor of the necessity that future research explaining the variance of destination loyalty on the context of heritage sites would take into account the different types of heritage involved and the impact of activities and characteristics of the site, hence the different motivation to (re)visit.

This exploratory study revealed that in most cases of heritage sites, the tourism resources responsible for the motivation to visit have a higher degree of particular significance and serve an educational or personal quest for self-defining function that makes it a less likely subject of transactional analysis in range with other similar heritage sites. Results suggest a slightly higher average value for the sites strongly connected with national identity for the affective loyalty, affective attachment, place identity and the independent motivation to visit (regardless of the presence of reenactment). In the case of other heritage sites, the presence of reenactment performances plays a stronger role in attracting visitors. In addition, in the case of heritage sites holding a certain personal significance for the visitors, the usual cognitive process of attributes assessment is less likely to take place than in recreational and beach tourism destinations. Hence, in the case of heritage sites relevant for national or regional historiography, the affective component of the loyalty could be more salient than the usual cognitive one, seen as a result of a transactional process. Instead, the place identity is slightly stronger and linked to self-identity forging than in the case of heritage sites with local relevance where live heritage interpretation activities are meant like reenactment are meant to boost the tourism attraction of the site. The study is consistent with Del Rio et al. (2020b) and Tian et al. (2020) prior conclusions that the value visitors place on heritage sites is not necessary in terms of infrastructure assessment and concrete attributes but consists in rather immaterial attributes like cultural identity and authenticity perception. The findings are also in line with Yuksel et al. (2010)' work where affective loyalty has a stronger effect on conative loyalty than the cognitive component of destination loyalty.

Table 3 The variability of affective loyalty explained by relevant reenactment-related variables

Predictors in the model	Predicted	Sp	R	R^2	Adj. R^2	Std. Est. Err	F	Sig.	Method
Affective attachment, place identity, NID and the destination's identification as a reenactment destination	Affective loyalty	S1	0.70	0.49	0.48	1.10482	30,818	0.00	Enter
Exclusive reenactment motivation strength, affective attachment	Affective loyalty	S2	0.70	0.50	0.48	3.63494	32.475	0.00	Enter

Results revealed new variables for this context, related with destination loyalty like affective attachment, place identity, the social identification strength and the destination's identification as a reenactment destination which could explain a significant part half of the variance of the destination's affective loyalty.

The findings point to the necessity that: (a) heritage site managers use different approaches and strategies in tourism exploitation of heritage sites considering the nuanced nature of the antecedents of destination loyalty; (b) heritage site managers should acknowledge the proper role of reenactment performances as a live heritage interpretation as opposed to "the dead heritage interpretation" (Howard, 2003, p. 260)—due to its popularity among tourists—that most sites still display; (c) research modeling destination loyalty should acknowledge the role place attachment plays as destination loyalty antecedent and use more flexible models where different variables account for destination loyalty depending on the heritage resource.

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Analysis of the Socio-cultural Projects Carried Out in Spain by the FLAGs

Lluís Miret-Pastor, Paloma Herrera-Racionero, and Andrea Márquez Escamilla

Abstract European fisheries funds are obviously sectoral, but the current *European Maritime and Fisheries Fund* (EMFF) and the previous European Fisheries Fund (EFF) include among their axes (specifically axis four) the financing of territorial projects focused on the creation of wealth and jobs in fishing areas. In other previous works, the typology of the projects financed has been analyzed; in fact, the same regulations of the funds divide the projects into five main categories: Diversification; Added Value; Socio-cultural; Environmental and Governance. Much has been written about Fisheries diversification projects and especially about the possible synergies between tourism and fishing through FLAGs and European fisheries funds. Tourism projects have almost always been classified into the diversification category; however, previous analyses showed that many of these projects have to do with the recovery of the tangible and intangible heritage of fisheries. For this reason, it was necessary to analyze what types of projects are framed in socio-cultural projects. This paper is focused on analyzing the projects labeled as socio-cultural in Spain in the FEMP period (2014–2020) from the database of the *Spanish Network of Fisheries Groups* (REGP). Information has been found on 222 projects. The objective is to categorize these projects and analyze what types of socio-cultural projects have been financed during the FEMP period.

Keywords Tourism · Fisheries · FLAGs · EMFF · European common fisheries policy · Socio-cultural projects

JEL Classification Q22 · L83 · Z38

L. Miret-Pastor (✉) · P. Herrera-Racionero · A. M. Escamilla
Universitat Politècnica de València, Valencia, Spain
e-mail: luimipas@esp.upv.es

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_35

1 Introduction

The EU Common Fisheries Policy (CFP) is financed through one of the European Structural and Investment Funds (ESIF). The last fisheries' fund was the European Maritime and Fisheries Fund (EMFF), which had an overall Budget of € 6,400 million for the period 2014–2020. The next fishing fund is currently being approved, which will last from 2021 to 2027.

11% of the EMFF is managed by the European Commission to support EU-wide objectives in maritime and coastal affairs, while 89% is managed by the Member States by means of operational programs (OP). The budget amount allocated to each country is based on the size of its fishing sector.

In line with the Europe 2020 strategy, the EMFF is structured around six priorities. In this work, we are going to be focused on the Union Priority 4 "Increasing employment and territorial cohesion". This priority already appeared in the previous European Fisheries Fund (EFF) (2007–2014) as axis 4, and it was an important change because it incorporated a territorial vision into a sector fund. In fact, it was proposed to help economic development and job creation in fishing areas by implementing Community-led Local Development Strategies (CLLD), which were implemented for local agents through Fisheries Local Action Groups (FLAGs). There are 367 active FLAGs implementing CLLD across 20 EU Member States (MSs).

The implementation of FLAGs, in many coastal areas of the EU, made it possible to finance numerous projects of very different types. The idea was to promote local development with a bottom-up model, which would make it possible to present alternatives to declining fishing, seeking economic diversification and new employment niches. This has sparked an interesting debate on how to deal with fisheries diversification (Gallizioli, 2014). Diversification can be understood as a way to replace a declining sector or it can be understood as a way to renew fishing, seeking additional income, attracting young people or reducing environmental pressure on resources (Miret-Pastor et al., 2018). Some authors indicate that diversification should be based on taking advantage of the skills and knowledge that are held by fishers.

In any case, insofar as it is the FLAGs themselves who choose which projects to finance based on their own strategy, there is a great variety of financed projects, there are public, private, diversification, social, cultural, tourist projects, large, small.... Making a classification of the financed projects is not easy, and yet it is necessary to get an idea of how the FLAGs are working and to be able to evaluate the effectiveness and efficiency of the UP4 of the FEMP.

The EMFF regulation divides UP4 projects according to the following objectives:

1. Adding value, which includes adding value to local fisheries products.
2. Diversification of fisheries' activities into other sectors
3. Sociocultural, promoting social well-being and cultural heritage
4. Environmental, including operations to mitigate climate change
5. Governance, reinforcing the role of fishing communities.

In previous researches, we have focused our research on diversification and especially on tourism projects (Miret-Pastor et al., 2018; Miret-Pastor et al., 2020b). The relationship between fishing and tourism is very interesting, especially in touristy countries like Spain. However, we have already pointed out in other works (Miret-Pastor et al., 2021) that we cannot underestimate the number of tourism projects that are included under the heading of sociocultural projects. Many of the projects that would be included in what we call fishing tourism are projects that have to do with fishing cultural heritage (museums, routes, books, documentaries, recovery of tangible or intangible heritage, etc.); therefore, it is necessary to analyze more carefully the sociocultural projects financed, in this particular case in Spain, during the FEMP period (2014–2020).

After having raised the question in the introduction, this paper will analyze the literature on European fishing funds and FLAGs, will propose an investigation based on the analysis of 222 projects carried out in Spain during this period and will present the results obtained, from which the final conclusions will be raised.

2 Literature Review

In recent years, there has been a growing interest in studying the effects that the action of the FLAGs and the implementation of the UP4 of the CFP are producing in European fisheries. The approaches have been very diverse. A very interesting topic is the possibility of promoting co-management models through FLAGs (Linke & Bruckmeier, 2015; Symes et al., 2015; Piñeiro-Antelo et al., 2019). Other works have focused on the role of FLAGs in promoting diversification activities, especially in tourism (Miret-Pastor et al., 2018; González & Piñeiro Antelo 2020; Nicolosi et al., 2016) or even support to women in fisheries and aquaculture (Freeman et al, 2018). On the other hand, although there are reports and studies at the European level, many investigations are focused on the effect that FLAGs are having in specific countries such as Italy (Romeo and Marcianò, 2019), France (Van de Walle et al., 2015) or Poland (Kurowska et al., 2014).

In a previous research (Miret-Pastor et al., 2020a, b), the typology of the projects financed in eight European countries was analyzed according to the classification in the five objectives indicated in the previous section. This classification appears in article 63 (EU, 2014) and is mandatory when categorizing and reporting approved projects. In the eight countries analyzed (Denmark, Estonia, Spain, Finland, Ireland, Latvia, Poland and Sweden), a total of 952 socio-cultural projects were detected (out of 2691 projects analyzed). These figures accounted for approximately 30% of the total expenditure for all projects. Socio-cultural projects were the most numerous, although due to their smaller average size, they were outnumbered by diversification projects (which accounted for 32.7% of the total). The uneven distribution by country should also be noted. In Ireland, socio-cultural projects account for 71% of the total, with Latvia and Poland also standing out, where they account for approximately half of the projects financed. On the other hand, in other countries (such as Denmark, Finland or Spain), they did not reach 10% of the total.

In short, socio-cultural projects account for almost a third of the total projects analyzed, although their geographical distribution is very irregular, which may be due to different strategies or simply to different interpretations of the legislation that lead to classify the projects in a certain way or another. In fact, the definition of socio-cultural project is quite broad and ambiguous and allows many difficult-to-catalog projects to end up in this category. Socio-cultural projects are categorized as promoting social well-being and cultural heritage in fisheries and aquaculture areas. This includes capacity building, education and training opportunities, providing services; and addressing social issues such as the role of women in fisheries, generational renewal and the exclusion of vulnerable groups. Thus, for example, a good part of the projects defined as socio-cultural in Ireland are due to the fact that they are related to education and training.

As can be seen, the category of socio-cultural projects is broad and complex, for this reason, it was necessary to study in detail which projects have been categorized in Spain. Furthermore, in a previous work (Miret-Pastor et al., 2021), it was observed that an analysis of cultural and museum projects was difficult since these can appear classified as diversification projects (where tourism projects are usually included) or as socio-cultural projects (where are the projects related to heritage). In the next section, the way to analyze socio-cultural projects will be explained.

3 Methodology

The *Spanish Network of Fisheries Groups* (REGP) database has been used, with the aim of identifying the socio-cultural projects funded by Spanish FLAGs during the FEMP period (2014–2020).

The *Spanish Network of Fisheries Groups* is a platform that brings together the Spanish coastal regions and the Fisheries Local Action Groups. REGP defines itself as an instrument for learning and interaction between the groups, a channel for information, communication and dissemination of the activities carried out to contribute to Community-led Local Development (CLLD). The management and dynamization of the REGP correspond to the *General Directorate of Fisheries Management and Aquaculture* of the *General Secretariat of Fisheries*, under the *Spanish Ministry of Agriculture, Fisheries and Food.*

Within the website of the Spanish Network of Fisheries Groups, there is a database with information on projects funded through both the EFF and the EMFF. For the EFF period, there are a total of 710 projects, while for the FEMP, there are a total of 1211 projects.

In this paper, we will focus on the FEMP projects. Following the aforementioned European regulations, the projects are divided according to the "type of operation" into five main groups: diversification, governance, environment, socio-cultural and value-added (Table 1).

In this analysis, we will focus on the 222 sociocultural projects financed by the FEMP. It should be noted that although the analysis was carried out in 2021, it should

Table 1 Groups per type of operation

Typology	Number of projects
Diversification	457
Governance	39
Environmental	158
Socio-cultural	222
Added value	335
Total	**1211**

Source Own elaboration through REGP dates

not be understood that these data include all projects funded by the FEMP period, which theoretically ends in 2020. In reality, the European periods are governed by the n + 2 rule, so that projects from 2021 to 2022 can be included. Therefore, these figures should not be taken as definitive.

The database used gives us individualized information for each of the projects, specifically the following sections: general information; promoter; economic data and application of the CLLD strategy. From this information, we have collected two data, on the one hand, the legal figure of the promoter (dividing the projects into public or private) and on the other hand according to the theme of the project. The projects were divided according to the type of operation into the five groups mentioned above (of which we focused on the socio-cultural ones) and then these were divided into 12 lines of action, which are the ones that have been analyzed.

4 Results

As we pointed out in the previous section, the 222 sociocultural projects have been selected and classified according to the 12 lines of action that appeared in the database, also distinguishing between public and private projects (Table 2).

As can be seen, well over a third of all socio-cultural projects are included in the so-called "others", which makes it difficult to really know what type of project it is. As for the rest of the categories, there are two that stand out (with around a fifth of the projects each), which are "Exploitation of environmental heritage" and "marine tourism". Finally, there is a third quite considerable group that has more than 20 projects each (around 10%) that are "Promotion and awareness campaigns" and "Training for promoting employment". Possibly, the highlight of the analysis is that 7 of the 12 categories hardly have any projects (three) or they have none at all (four).

An analysis of the categories without any projects (or with very few) indicates that a good part of them may not make much sense for them to appear in the typology of socio-cultural projects, such as "Promotion of innovation in presentations and derivatives", "Reduction of commercialization circuits" or "Promotion of the certification

Table 2 Line of action classification

	Public projects	Private projects	Total
Use of by-products (discards)	0	1	1
Exploitation of environmental heritage	21	22	43
Promotion and awareness campaigns	11	10	21
Promotion of the certification and commercialization of fishery and aquaculture products	0	1	1
Training for promoting employment	13	15	28
Pesca tourism	0	0	0
Promotion of innovation in presentations and derivatives	0	0	0
Protection and restoration of biodiversity and marine ecosystems	0	0	0
Reduction of commercialization circuits	0	0	0
Knowledge transfer between researchers and fishers	1	1	2
Marine tourism	23	23	46
Others	24	56	80
Total	93	129	222

Source Own elaboration through REGP dates

and commercialization of fishery and aquaculture products" seem more typical of the category "added value" while "Protection and restoration of biodiversity and marine ecosystems" seems more logical in "environmental projects". This sub-classification into 12 categories is common to the five big ones mentioned above.

Separate mention requires the section "Fishing tourism" that has been worthy of different separate research (Herrera-Racionero et al., 2018; Miret-Pastor et al., 2020a, b). The fact that there are no projects is fundamentally due to the absence of a national legislation that regulates it (which has been solved recently); however, it is possible that there are tourism fishing projects in regions where it is allowed but possibly appear in the diversification section, which is where tourism diversification projects usually appear. In this sense, it should be noted that the "Marine Tourism" section will surely include projects in both "socio-cultural" and "diversification", which makes it difficult to analyze the implementation of marine tourism in Spain through projects funded by FLAGs.

Regarding the legal status of the promoter of the projects, a little less than 42% are public projects and around 58% are private projects (Fig. 1).

However, this distribution between public and private projects deserves a detailed analysis, since it is not homogeneous. Thus, there is a certain balance in the activities of "Exploitation of environmental heritage" and "marine tourism". However, in the "others" section, there are many more private projects than public ones (Fig. 2).

Finally, it is necessary to keep in mind that socio-cultural projects included two broad categories: promoting social well-being and cultural heritage. The projects

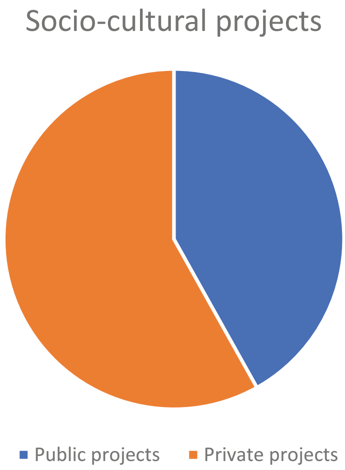

Fig. 1 Legal status of the projects. *Source* Own elaboration through REGP dates

on cultural heritage seem to be present both in the category "Exploitation of environmental heritage" and in that of "Marine tourism", as well as in many of the projects classified as "others". However, the absence of projects promoting social well-being is striking. Not even in the category of "others", it has been possible to locate projects of this type (except for some related to nautical activities aimed at people with disabilities).

5 Conclusion

Sociocultural projects are numerous and very heterogeneous. This category is very present both at European and Spanish level. However, it is still difficult to subcategorize within socio-cultural projects. The classification used by the Spanish Network of fishing groups in its database leaves a good part of the socio-cultural projects in the category of "others", which makes it difficult to know what type of projects we are talking about. Therefore, a first conclusion of the work is that it is necessary to work on achieving clearer sub-categories or on giving more precise instructions to the managers of the FLAGs in charge of offering the information. In fact, some FLAGs are detected that categorize their projects as "others" almost in a general way. This ends up causing problems when evaluating and analyzing FEMP projects, especially marine tourism projects since it is difficult to find them as they appear both in the diversification category and in the category of socio-cultural projects.

Another of the conclusions reached with the analysis carried out is that socio-cultural projects are much more cultural than social. In reality, very few social projects have been detected. This type of project includes capacity building, education and training opportunities, providing services; and addressing social issues such as the

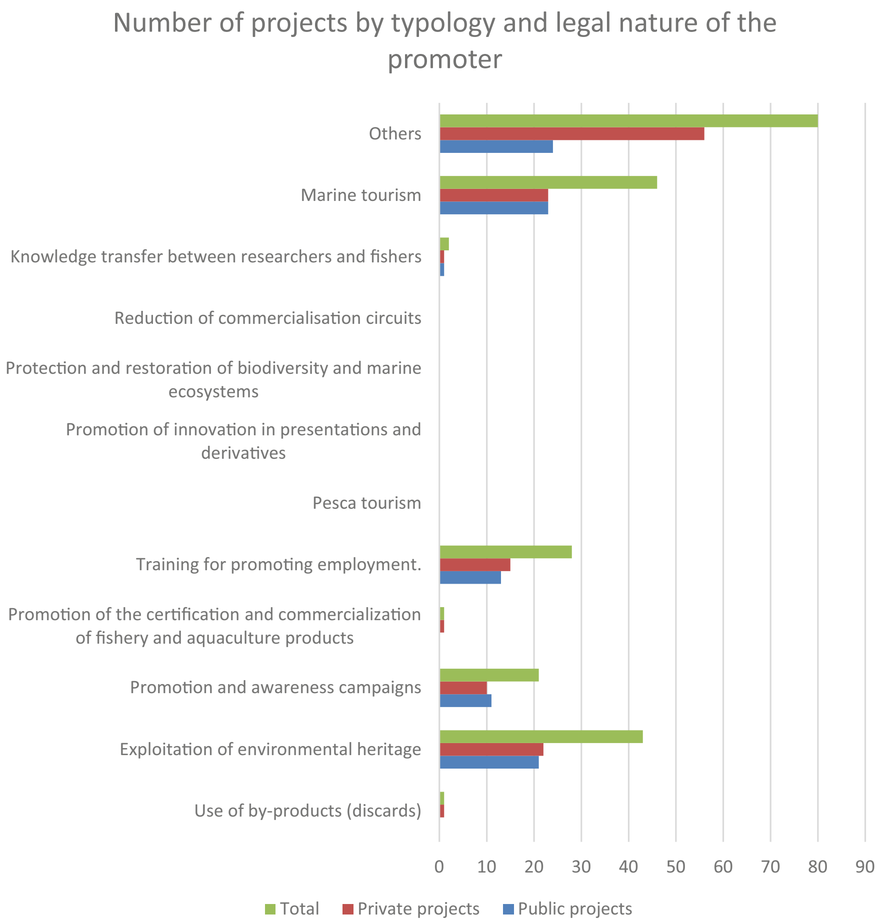

Fig. 2 Number of projects by typology and legal nature of the promoter. *Source* Own elaboration through REGP dates

role of women in fisheries, generational renewal and the exclusion of vulnerable groups (the unemployed, ethnic minorities and migrants). Although some projects related to education and training opportunities (about thirty) and some gender projects are detected, the rest of the social projects either do not exist or are very specific projects. Therefore, one of the key issues arising from this analysis is that there is much room for improvement in terms of social projects. In particular, it seems that much more can be done on two key issues for the very survival of the Spanish fishing sector: the generational renewal and the inclusion of migrants. All these things without forgetting that unemployment is the great problem of the Spanish economy, so initiatives aimed at combating unemployment (especially among young people) should be priority.

Finally, it should be noted that the percentage of public projects seems very high (more than 40%), so we must continue working so that private projects grow and business and employment opportunities can be created around fishing, also in the field of socio-cultural initiatives.

Regarding future lines of research, the UP 4 of the European fishing funds and the operation of the FLAGs continue to be a topic of great interest. The FEP (2007–2014) was the first fund that introduced this territorial vision, the FEMP (2014–2020) has been the period of consolidation and, at least in Spain, of territorial expansion of the FLAGs; therefore, we must hope that this third period the FLAGs are perfectly consolidated and begin to bear fruit in terms of wealth creation and employment. In any case, it is important to have good information on the characteristics of the financed projects, because only in this way is it possible to study the effectiveness and efficiency of these funds.

Acknowledgements This work was supported by National Plan for Scientific and Technological Research and Innovation (Spanish Economy and Competitiveness Ministry). Research Project PID 2019-105497 GB-100, "The European Fisheries Funds, opportunities for the fisheries sector through diversification and the FLAGs management (DivPesc).

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Geomapping. Cultural Enhancement Practices of the Jabel Shams and Jabel Akdhar Mountains in Oman

Monica Morazzoni and Giovanna Giulia Zavettieri

Abstract This contribution is part of a wider project in which the cultural and natural heritage in some areas of Oman was mapped in order to build a tourist app. The analysis methodology adopted was necessary in order to create an app that would respond to the demand of a tourist who is the architect of his own journey, choosing facilities, itineraries and having tools and services similar to those usually used in his daily life. Ultimately, the mission of this project was to capture the tourist essence of Oman in order to provide, through the app, interaction tools capable of creating a channel of communication between the user and the local community, and—in the future—to trigger a viral process of sharing (for example, through social networks) to attract new potential tourists. The focus of this contribution is the Jabel Shams and Jabel Akdhar mountains, studied through the methodological approach of the New Heritage literature in order to enhance, through the forms of participatory tourism, the mountain territory from a sustainable point of view, which today presents a heritage of cultural and natural assets that can be enhanced through alternative forms of tourism such as camping and glamping.

Keywords New heritage · Mountain · Oman · Tourism · Camping

JEL Classification Z32 Tourism and development

1 Introduction

In the global context of a renewed interest in non-urban spaces, which is also emerging as a result of the COVID-19 pandemic, mountain areas are part of the centrality/marginality debate and of the reflections that are developing in Europe

M. Morazzoni (✉)
IULM University, Milan, Italy
e-mail: monica.morazzoni@iulm.it

G. G. Zavettieri
Tor Vergata University, Rome, Italy

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_36

(CIPRA, EUSALP) to study and analyze the environmental, economic and socio-cultural dynamics through a synchronic reading of the processes in place. The marked physical marginalization (e.g. with respect to urban and/or coastal contexts) and vocational marginalization of many mountain contexts on a global scale, as an effect of objective criticalities (poor access to services, low levels of productivity, environmental vulnerability) requires community practices in function of a progressive integration of these spaces in lines of fair production, new heritage and sustainable tourism consumption.

The United Nations declares certain places, certain territories as heritage of humanity, whether built by man or simply conditioned by his presence: the Tower of Pisa or the Valley of the Butterflies in Rhodes. However, the whole of human culture, consisting of a complex set of ideas, values and beliefs, is heritage of humanity. Heritage is generically the revisited and reconstructed past that becomes heritage. Heritage is a human conception, not only material but also immaterial goods, and as such its preservation can only be entrusted to the community, to the collectivity, as long as the latter recognizes its value. A cultural asset, a value, is not only linked to the society that expressed it, but also to the interpretation that society gives to it in the present. To visit a capital city, for example, is to understand what faith, what conviction produced it, but also the professionalism of those who built it, the brotherhoods that were passed on, the art of architecture, the work and who carved the stones, the pride and faith of the client, the city… it is to understand not only the work but everything that led to its production. The value of heritage, therefore, depends not only on what happened in the past but also on what happens in the present and how it will continue into the future. Heritage also includes self-regulating flora and fauna and landscape (heritage can also be used to create symbolic landscapes, where artifacts acquire cultural value because they link the present to the past in a unified project). Therefore, heritage conservation is also a problem of sustainability, not only cultural but also environmental. Heritage gives order, creating a sequence from a series of events in which the "fact" is perceived to position the lives of individuals, what they see as a continuity of events. For a discussion of Heritage, please refer to the bibliography that has been established for years.

Tourism urgently requires a radical rethinking of its development model in the direction of enhancing the quality of the tourist experience. In this context, it is interesting to see what role is played (alongside cultural tourism, committed tourism, tourism for ecological vocation …) by luxury tourism, whose distinctive traits seem to intercept, for example, some variables of sustainable tourism—quality of experience, personalization of service, attention to detail—that can lead to a significant improvement of the tourist experience and transform it into an eco-responsible as well as exclusive activity. Therefore, it is interesting in this context to reflect on the categories of "value", "attention", "time", "dialogue", "immersion". What role does luxury tourism play in contributing to a wider awareness of places, nature, heritage, even for those who cannot access the exclusivity of its services? Two different etymological roots are traced to the word "luxury": from the Latin "luxus", "exuberance of vegetation", metaphorically indicating "abundance of delightful things". In this case, the root lux can be declined in the concept of pomp, magnificence but also in excess, ostentation or from the Greek “lox-os”, which is translated as “oblique, bent to one side”, originally indicating the vice of prodigality of vicious people. According to Vanicek the root could be *lik-*, from licere (tr. leave) with the declension of “profusion”. Because of this etymology, the term can range from positive meanings such as brightness and negative as viciousness (Mattia, 2013) to other deeper meanings such as distancing, distinction from the common good, from the normal. In the latter perspective, therefore, luxury appears as a sensory, emotional experience that allows the person to perceive himself as other, different from those who do not access it. However, this inability to narrow down the field of interpretations associated with luxury is not a synonym of confusion on the subject since, as anticipated, the multiformity that accompanies it is the reason.

This research would be part of the debate on the enhancement of mountain areas in the Omani context with the aim of encouraging an articulated reading of Heritage and tourism, the latter in its meaning of luxury through green and ecological ways of tourist performance of Jabel Shams and Jabel Akhdar mountains in ad-Dakhliya Governorate.

According to data collected and processed by geologist Antonino Aprile, it is estimated that the al-Hajar (The Stone) mountain in the northern part of Oman (Fig. 1) (about 600 km long) together with the mountainous area (of much lesser extension) in the southern part of Oman on the border with Yemen, occupy 25% of the territory of the Sultanate. The al-Hajar mountain range represents an important part of the local geographical environment not only for the varied presence of native vegetation but also for the traditional crops still practiced today and for the traditions still in use. Specifically, Jabel Shams (the Mountain of the Sun, 3075 m), the highest peak of the country, and the massive Jabel Akhdar (the Green Mountain, 3000 m), are characterized by the presence of wadis, rocky masses sculpted and shaped by erosion and the typical aflaj, channels dug since ancient times and used for the supply of water useful for crops such as roses and garlic, to bring drinking water to the population

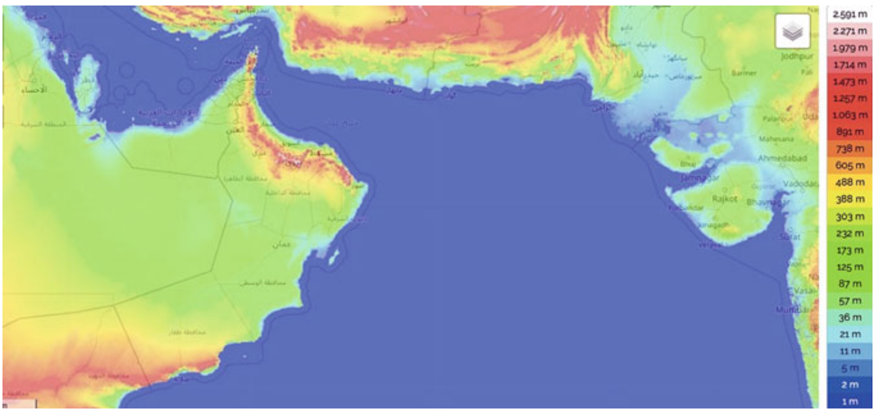

Fig. 1 Topographical map of Oman. *Source* https://it-it.topographic-map.com/maps/9y6y/Jebel-Akhdar/

of oases and villages and, near the places of prayer, to ensure the rite of ablution of the faithful. This ancient water management system has allowed the aflaj network to be included among the World Heritage Sites protected by UNESCO. The Daris falaj, just a few kilometers from Nizwa, capital of the Ad-Dakhliyah governorate, is the largest in Oman (UNESCO World Heritage Site since 2006) with its 137 m of underground channel.

Despite the altitude, especially in Jabel Akhdar, the territory benefits from Mediterranean-type microclimates which, together with terracing works, favor a rich variety of fruit trees (apricots, peaches, figs, almonds, walnuts, red fruits and pomegranates considered among the best in the world) and saffron production (Fig. 2). In the valleys between Jebel Shams and Jebel Akhdar, there are many villages including al-Hamra in the vicinity of Al Hoota—one of the largest cave systems in the world—Bahla with its Fort, Unesco World Heritage Site, al-Nakhr, al-Hajer, al-Ghoul, al-Manther, al-Rahba, Misfat Al Abryeen, Bimah, al-Ghafat, Misfah today recognized stages in walking and hiking itineraries. In the mountain context, there is also the presence of real cities such as Nizwa, the historic capital of Oman and Manah, a cultural bridge with non-Arabic speaking nations due to the presence of the Sultan Qaboos College where Arabic is taught to non-native speakers. The population is localized in mountain villages or intra-mountainous areas locally flat, whose houses, often made of unbaked bricks and mud, recall the building style of Yemenites. In the governorate of Ad-Dakhliyah, the population reaches 480.013 inhabitants (Fig. 3),

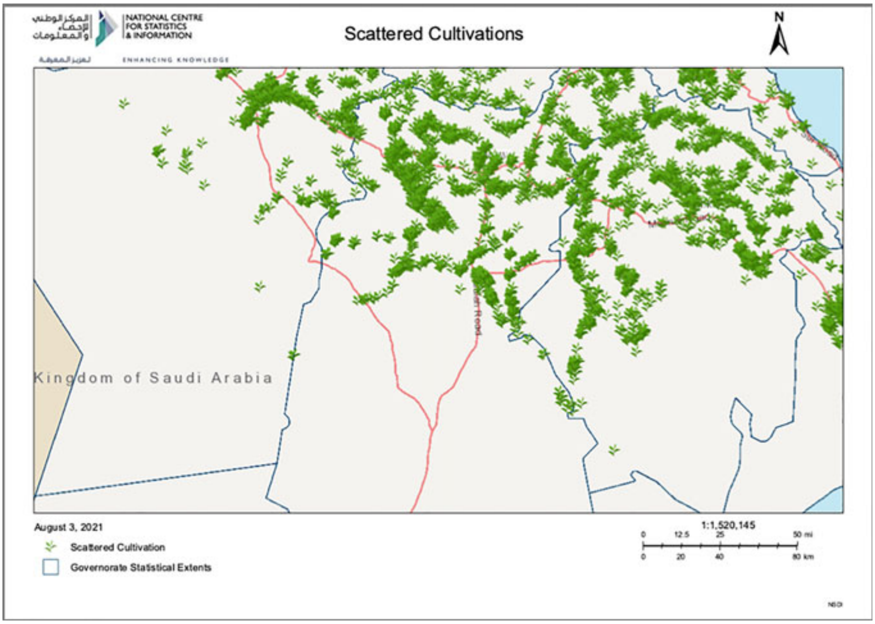

Fig. 2 Scattered cultivation in ad-Dakhliya Governorate. *Source* National Centre for Statistics and Information (NCSI), www.ncsi.gov.om

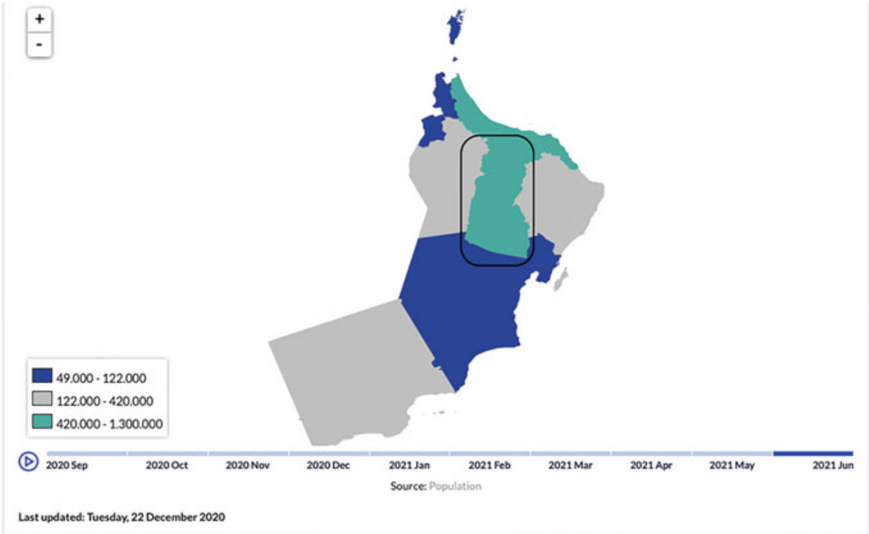

Fig. 3 Population distribution in Oman. *Source* National Centre for Statistics and Information (NCSI), www.ncsi.gov.om

mostly allocated in the northern part of the governorate (the most densely populated governorates, whose population is between 420,000 and 1,290,000, are al Batinah North, al Batinah South, Muscat and ad Dakhliya), therefore in the mountainous area, more impervious in altitude compared to the central-south area, but the most liveable in terms of climate, native vegetation, for the intensive practice of various types of crops and, especially in the warmer months, for tourist activities such as camping, walking, hiking, trekking, climbing.

The demand for mountains, on the one hand, as a "safe haven" and "healthy" for the Omani population and, on the other hand, as a luxury destination for tourists, therefore, requires careful reading. In fact, the Omani mountains follow development processes in contrast with, for example, the Italian alpine mountains marked by a slowdown in development models, by the crisis of the traditional rural system, by depopulation phenomena and by forms of hyper-tourism that have represented over time the only development model that can be hypothesized and proposed for the rest of the mountain territories. The hypertourism, moreover, of many Alpine destinations also brings mountains, like many urban and seaside contexts, closer to the phenomenon of overtourism, which the World Tourism Organization describes as "the impact of tourism on a destination […] that excessively affects the perceived quality of life of citizens and/or the quality of visitors' experiences in a negative way" (UNWTO, 2018, p. 4). As a result, excessive tourism intensity is responsible for a range of economic, environmental, and social problems, including air and noise pollution, rising house prices and the associated displacement of residents, or anti-social behavior. However, numerous studies show that these developments have led to growing resistance against tourism among the local population (Colomb & Novy, 2016).

The Omani mountains, on the other hand, hold a central position in terms of the presence of inhabitants, flows of culture, resources and local knowledge, both in the context of endogenous and exogenous processes: the mountains are attractive first of all for local communities and then for outsiders (national and international tourism). This latter condition is in tendency with the processes of disurbanization also amplified by the contingencies linked to the COVID-19 pandemic.

The article is the result of full collaboration between the authors, with the exception of the *Tourism and New Heritage* paragraph to be attributed to Monica Morazzoni and the *Sustainable Luxury Tourism and Glamping* paragraph to be attributed to Giovanna Giulia Zavettieri.

2 Literature Review

In the perspective of possible pushes towards the Omani mountain of "tourist population", the first research question asks about the fruition of the new heritage in a sustainable way for residents, tourists and daily visitors. The mountain is not a simple material object characterized by physical attributes, but a complex system in which environment and culture orient and condition tourist practice with increasingly evident effects on the human and natural environment at the tourist destinations concerned. Therefore, it is appropriate to include in the geographical reflection the experiences of the resident community and tourists (as temporary inhabitants), on which the narratives of the territory are built: memorial narratives and, at the same time, a tool for empowerment (Ashworth, 2020). According to the most recent scientific literature on new heritage (Timothy & Boyd, 2007; Graham & Howard, 2016; Graham et al., 2016) attention to cultural heritage is emerging "[…] as a process understood, practised and experienced on the ground by the people themselves. This includes heritagescapes (or heritage landscapes) spearheaded by non-elites, and the ways in which these same actors may engage heritagescapes in more affective ways, thus exercising their own agency as both producers and consumers of 'the past'" (Muzaini & Minca, 2018, p. 1).

The second research question interrogates the relationship between luxury and sustainability in order to verify luxury as an experience that gives recognition and protection to the mountain assets of the resorts that are the object of tourism interest. Luxury as a multidimensional concept referable to both object and subject can be defined as a "particular type of sign value, produced within a specific narrative" (Saviolo & Corbellini, 2007), therefore interpretable as a sign. The analysis therefore of luxury tourism today (different from that of the twentieth century) allows us to speak not only of tourism of a restricted wealthy elite (the super-rich, Hay, 2013; Birtchnell & Caletrío, 2014) but also and above all luxury tourism in search of rare goods such as time, attention, space, rest, environment (Luppis, 2016; Mortelmans, 2005). Luxury accommodation itself, especially in mountainous contexts (Banini, 2013; Banini & Pollice, 2015), is today strongly differentiated and expanded: there are those who seek the large hotel chain or the super-equipped resort, and those who seek the malga, the castle, the refuge at high altitude to experience the sunrise at 2000 m, for example, considered a unique, luxury experience.

The literature on luxury tourism is, however, scarce (Atwal & Williams, 2017; Barsky, 2009; Ciornea et al., 2012). According to the UNWTO (2001, p. 331), luxury tourism includes five-star hotels (deluxe hotels) and four-star hotels (first class hotels). However, there is not one sole definition for luxury resorts. According to Mazzucchi and Padurean (2007) and Moscardo and Benkendorff (2010), a deluxe resort is traditional, sophisticated, unique, expensive, and environmentally sustainable. However, the writer defines luxury tourism in the sense of the new luxury as the demand for a quality product/service that allows for a gratifying, different, unique and not superfluous experience (Aeberhard et al., 2020; Dornier & Mauri, 2018).

According to these recent scientific literature on tourism, luxury is seen in the sense of fostering emotional experiences, unique sensations, personalization of the tourist product, meeting between tourists and the mountain territory through different types of experiences (sports, tastings, wellness, cultural routes, relaxation) and an offer of innovative tourist services, such as glamping (Brochado & Brochado, 2019; Brochado & Pereira, 2017; Cvelić-Bonifačić et al., 2017; Milohnić et al., 2019). A recent study on glamping was conducted by Cvelić-Bonifačić et al. (2017) which, taking up the definition in use that glamping is a type of camping that is more comfortable and more luxurious than traditional camping (Cambridge Dictionary, 2017), the author attests that glamping is a portmanteau of the words "glamour" and "camping". Glamping, according to Cvelić-Bonifačić et al. (2017), is a new trend in outdoor tourism that combines luxury and nature, comfort and respect for the environment as well as providing exclusivity and uniqueness in offering "out of the box" accommodation, both literally and figuratively (Andrey et al., 2014). Glamping can be defined as 5-star camping but unlike small, practical but uncomfortable tents, the term glamping is often associated with luxury tents in attractive locations. Glamping needs the wow effect (Loo, 2015). According to Kate (2011), the slogan Where nature meets luxury could open a new chapter in the development of global tourism as clamping owes its popularity mainly to the unusual combination of extravagance in 5-star quality accommodation and the peace of the surrounding wilderness (Guardian, 2010).

In the case of the Omani mountains, luxury tourism thus fits into a territorial system aimed at seeking environmental respect, ethics and aesthetics for/on the territory. Luxury tourism, due to its attention to the sustainable dimension addressed to the environment, stands to be read in a geographical perspective becoming the medium that can contribute not only to the preservation of the mountain environment but also to its regeneration (Luppis, 2016).

3 Methodology

New heritage and luxury tourism are the themes of this essay, tackled according to a cognitive approach capable of appropriating the centrality of places and people with the use of mixed and integrated research methods (quantitative–qualitative, spatial-territorial, spatial-social). An initial study interest was directed at the trinomial territories–landscapes–tourism of Oman in order to analyze and understand its context. This first analysis was carried out within the framework of a research project conducted by a team from the University of Milan and the Sultan Qaboos University (SQU), which involved the creation of a prototype of the app: a dynamic platform, mediated by ICT and GIS technologies to support the exchange of information on tourism activities through information filtering which improves the decision-making process. Through GIS technology, the app was able to: acquire geographical maps covering the country or region, digitize paper maps, create topology to establish the relationship between map features, transform into real-world coordinates, expand the traditional level model with tourism levels such as hotels, restaurants and further infrastructure levels—combination of tourism attributes, such as object type, object name, hotel category etc. with geographic criteria such as proximity, distance, location or object located within a selected map region, compile and add text information to characterize positions in tables. Finally, the development and editing of images and images on text labels as well as the hot-linking images to their respective function positions were completed.

An important task of the app is to provide information to identify problems and offer customized potential solutions (Buhalis & Amaranggana, 2015, p. 379). This is done both by providing the location and numbers of emergency services (hospitals, ambulances, law enforcement agencies) and by explaining what the tourist needs to take with them during the itinerary to avoid being unprepared. It also guides them with navigation during the journey and offers feedback left by other users. Uncommon destinations such as Oman (at least to large tourist areas such as the European one) and their transport systems can represent a challenge even for the most adventurous travelers. These factors combine and create a tension between the desire to explore and the frustrations of moving (Buhalis & Amaranggana, 2015, p. 384). The app presents updated information regarding geographical locations (of the user and sites of tourist interest), reviews of services (restaurants, hotels, cafes), types of room, and prices and information on surrounding events *before* the arrival of the tourist. Tourists looking for a personalized welcome message before the trip will be able to access different lists of what to do and what to see at their destination (Buhalis & Amaranggana, 2015, p. 384). In summary, the digital tourism ecosystem allows tourists to extend its benefits beyond the tourism supply chain with positive economic and social effects on the territory.

As part of this first project to develop the app, the undersigned approached the context of the Omani mountains, discovering their resources, potential and historical and cultural value. The present research is based on a multi-scalar approach, with analysis on a macro-regional scale, and then going into detail by working on selected areas (Governorate of ad-Dakhliya), focusing on a few specific cases (the mountains of Jebel Shams and Jebel Akhdar) and proposing different levels of detail in relation to the reference scale. The identification of the macro-regional scale allowed comparative analyses to be carried out (similarities, differences and gaps between territories); the sub-regional scale, on the other hand, ensured the necessary recourse to qualitative research methods, in the field, with the main aim of investigating local actors and their choices (housing, professional, mobility …), with the intention of verifying the information bank and above all of giving a face and a voice to the processes that numbers and theoretical studies summarize.

The survey methodology was mainly divided into two phases of work:

(1) desk phase of data collection through the use of classical research tools:

- (a) collection, processing and analysis of literature, norms and data;
- (b) construction of the socio-cultural scenario and progressive fine-tuning according to data collection and processing;
- (c) collection and analysis of research material (databases, photos, literature, diaries, maps, etc.). The scenario was built according to teamwork methods (elaboration of interpretative hypotheses, involvement of experts).

(2) Field phase carried out in different forms

- (a) meetings, testimonies and interviews with privileged witnesses (community leaders, tourist guides, cultural escorts, local entrepreneurs);
- (b) identification of resources and values that are “attractive” to new types of tourism;
- (c) understanding the role of the mountain’s collective assets as attractive factors for “new inhabitants” and/or able to favor the permanence of “originals” and tourists;
- (d) evaluation of interactions between mountain communities: virtuous synergies, indifference, hostility of locals towards tourists;
- (e) analysis of the role of local entrepreneurship, as a driving factor for new residency, tourist attractiveness and a renewed capacity to determine the dignity of working in the mountains and to strengthen forms of attachment to the values expressed by the mountains;
- (f) identification of new projects rooted in the territory and above all endogenous that propose organizational forms built on the strengthening of heritage values.

The final aim was to identify possible innovations in the approaches to the theme of mountain tourism, which could be substantiated in the construction of intervention tools and in the methods of articulating decision-making processes from below.

4 Results

4.1 Tourism and New Heritage

As Tiziana Banini (2019, p. 157) states, "the critical revision of the new cultural geography has been based on the fact that heritage is often the result of a partial, distorted and selective selection of the history of a community; therefore, the work of geographers has been directed towards the deconstruction of national symbols and discourses embedded in objects, monuments and places of memory". In this perspective, the question of heritage is also linked to questions aimed at demystifying discourses, narratives and practices with a political content and/or propaganda (including tourism) of values, symbols, meanings and collective imagery which stakeholders often use to strengthen their ties with citizens. See Minca, C., Colombino, A. (2012). Breve Manuale di Geografia Umana, CEDAM, Padova; Castree, N., Kitchin, R., Rogers, A., (2013). A Dictionary of Human Geography, Oxford University Press, Oxford; Anderson, J. (2015). Understanding Cultural Geography: Places and Traces, Routledge, London-New York; Summerby-Murray, R. (2015). Regenerating cultural identity through industrial heritage tourism. Visitor attitudes, entertainment and the search for authenticity at mills, mines and museums of Maritime Canada, *London Journal of Canadian Studies*, 30, 64–89.

With reference to the new cultural geography, especially of Anglo-Saxon origin, increasing importance is given to the active role that people and groups can play in the construction of places and their meanings. Places, therefore, can no longer be thought of as static, but as crossroads of flows, people, goods and information. This polysemic, heterogeneous and open conception of places goes hand in hand with a notion of culture assimilated more to the idea of route than root (Cresswell, 2006, p. 1). In this sense, places are relational spaces but also spaces contingent on the experience of individuals and groups (Hubbard & Kitchin, 2011).

It is from this perspective that the analysis of heritage in the Omani mountains started, which has a cultural tourism offer that includes:

– Cultural sites recognized by national and international bodies. The reference is Authorized Heritage Discourse—AHD (Smith, 2006 in Muzaini & Minca, 2018) used to achieve socio-economic and political goals and stimulates narratives related to the identity of those living in the area (UNESCO sites, archaeological sites, ethnographic museums, etc.); in Jabel Shams and Jabel Akhdar, there are numerous archaeological sites (Fig. 4): aflaj system, archaeological buildings, monuments and agricultural land within the property. In developing these sites, the various Omani Ministries (e.g. Ministry of Heritage and Culture, Ministry of Regional Municipalities and Water Resources) have undertaken to consult and involve local stakeholders with a view to sustainable economic development, on the one hand, through the valorization of traditional local crops and on the other through the launch of participatory forms of local tourism. Itineraries, that include

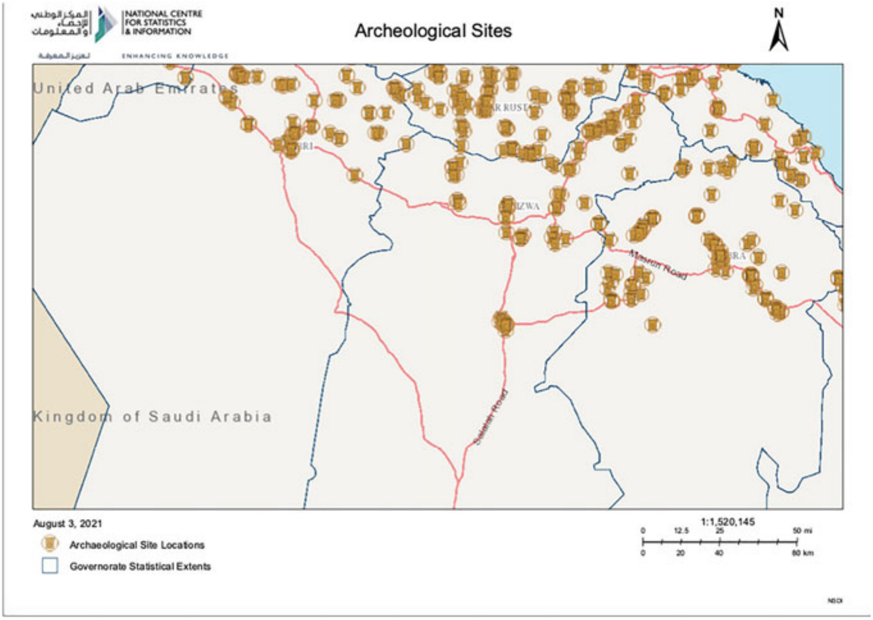

Fig. 4 Archeological site distribution in Ad-Dakhlyia Governatorate. *Source* National Centre for Statistics and Information (NCSI), www.ncsi.gov.om

both visits to traditional material cultural assets and demonstrations of rural and folkloric traditions typical of the mountain area, have been set up.

- Heritage from below as a direct consequence of the involvement of local stakeholders, which takes the form of the active participation of some actors from local mountain communities who introduce tourists to both local traditions and the history of the place. A practice of cultural storytelling takes shape, allowing tourists to enter local cultural and production processes. One example is the visit to the countless rose gardens of Jabel Akhdar where tourists participate in a presentation of rosewater production (Fig. 5) or the purchasing of Jabel Akhdar's garlic (Fig. 6). A visit to the rosewater production sites also provides an insight into the *aflaj* system (UNESCO heritage), as they are still active in the irrigation of rose gardens today.
- New heritage or after heritage (Muzaini & Minca, 2018) processes, as a result of the tourist's involvement in the participatory tourism process. In fact, the tourist's approach to the production of rosewater or to the harvest of garlic or even being guests of Omani families by choosing to wear traditional clothes (the abaya for women and the dishdasha for men), causes temporary imitative practices, an emotional involvement but, at the same time, tradition is no longer simply the recovery of collective memory as the past is actualized from below. Consequently, alternative forms of heritage are launched, problematizing the multiple ways in which the past can be involved within the present, both personally and collectively.

Fig. 5 A moment of the presentation of rosewater production to tourists. *Source* Shot by Giovanna Giulia Zavettieri, Jabel Akhdar, April 2021

Fig. 6 Garlic for sale in Nizwa. *Source* @ertebat.oman, Instagram

In this sense, equity expressed for and from below is seen as a continuous performance. The spatially fixed past is subject to fluid, continuous and dynamic ways of remembering and reconstructing it in everyday life. Physical space, in this case, the mountain landscape, is an integral part of the heritage performance. In fact, as Tyner (2018 in Muzaini, Minca) states, space is important as it is an essential part of social relations and therefore also of the rise of new heritage.

The emotional-experiential inheritance of the new heritage and the quality of the experience itself are, moreover, the prerogatives of the new luxury that allows the person to perceive themselves as different from those who do not live that tourist practice.

4.2 Sustainable Luxury Tourism and Glamping

For some years now, the Omani mountains have been at the center of processes marked by innovation and experimentation linked to new models of tourism development centered not only on new heritage but also on new luxury. Luxury tourism, however, already has its beginnings in the five-star hotel offer present in some sites in the Jabel Shams and Jabel Akhdar mountains. Traditional luxury tourism, for example, is practiced in Jabel Akhdar in the two resorts Alila (of the Hyatt group) and Anantara (Fig. 7).

Here, as well as enjoying all the comforts that a five-star hotel can provide its guests, it is possible, thanks to the physical, geomorphological, cultural and environmental characteristics of the place, to enjoy another type of resource, just as luxurious, which are: silence, the simplicity of social relations with the local community, a welcome that involves the whole community… These latter elements give rise to tourism that is more personalized, experiential, ethical and emotional. In short, traditional luxury tourism buds into forms of new luxury tourism which, however, is not necessarily more expensive than traditional tourism but, certainly, has an uncompromising quality due to the fact that it is a luxury that surrounds itself with an emotional and experiential halo. The distinctive features of luxury tourism also intercept (see footnote 2) some of the variables of sustainable tourism, making it also eco-responsible and exclusive. The exclusivity of the new luxury is not the accommodation service (or if it is, it remains a secondary element) but rather the possibility of getting to know the nature and culture of the tourist destination, through local stakeholder narratives and through bottom-up tourism management. The latter element also plays a significant role in the economic development of mountain villages undergoing tourist development. However, resorts, hotels and, as we will see in a few lines, glamping sites provide activities and services that can influence the local ecosystem and therefore it is necessary to find ways to make luxury and sustainability compatible. The survey conducted on the spot already highlights an important attention and concrete actions towards the issue of the ecological footprint (hotels in Finland), the collection of differentiated waste, the thoughtful use of water with a strong awareness of tourists on its value and on how it is supplied in hospitality services through

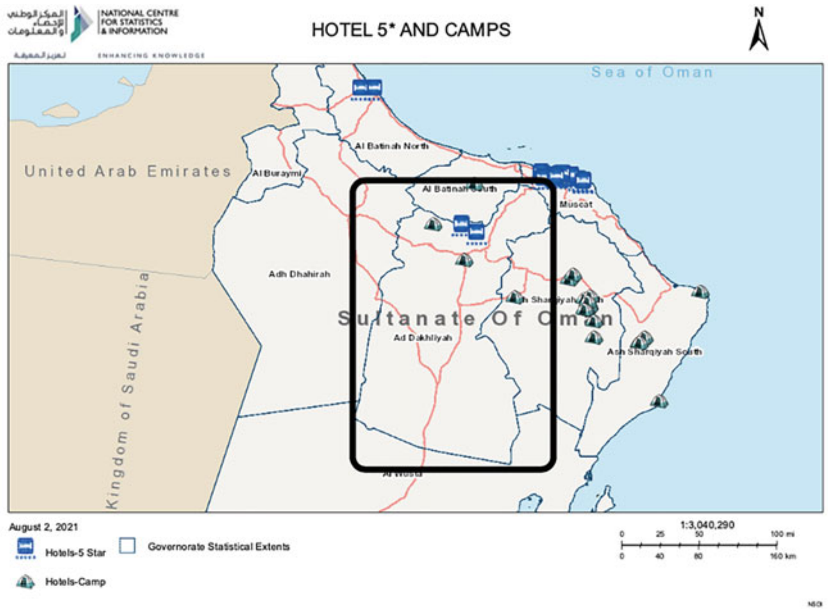

Fig. 7 Distribution of five-star hotels and glamping sites in Ad-Dakhiliya governorate. *Source* National Centre for Statistics and Information (NCSI), www.ncsi.gov.om

aflaj and other themes of cultural and ecological sustainability (Luppis, 2016; Turco, 2012; de-Miguel-Molina et al., 2014; Alonso-Almeida & Rodríguez-Anton, 2011; Barsky, 2009; Ciornea et al., 2012; Moscardo & Benckendorf, 2010; Ryan & Stewart, 2009).

In villages such as Misfah, for example, it is possible to stay in structures that do not have any particular luxury comforts, but which, immersed in the mountain environment at over 2000 m above sea level, with the help of a few decorative elements in Omani style and meals seated on the floor on comfortable Persian carpets located on the typical mountain view terraces, create a comfortable situation of a new luxory experience. In addition, villages such as Misfah are the starting point for hiking and climbing routes (one example is the Jabel Shams Via Ferrata) (Fig. 8).

This new meaning of luxury has led to the introduction of glamping in the Omani mountains, a transformative style of travel that is practiced in open spaces and in accommodation facilities, some of which have been created from typical local stone dwellings, in glamorous tents typically used for camping and furnished with every type of comfort.

An example of this is Jabel Shams Resort, which contains glamping rooms with a small outdoor area with panoramic views as well as traditional camping perimeters. Instead, the first glamping in Oman was built in the Empty Quarter Desert under the name 1000 Nights Camp, described as one of the best in the world (https://www.nytimes.com/2011/02/27/travel/27next-oman.html) (Fig. 9).

Fig. 8 Via Ferrata hiking and climbing path, Jabel Shams. *Source* Shot by Giovanna Giulia Zavettieri, Jabel Shams, 14 November 2020

Fig. 9 Jabel Shams Resort, Jabel Shams. *Source* Shot by Giovanna Giulia Zavettieri, Jabel Shams, 13 November 2020

Glamping is a place where the environment meets modern luxury, which consists in getting off the beaten track and away from superficial tourist activities in favor of an encounter with an engaging cultural environment. Although local actors claim that glamping goes against the essence of camping, they believe that glamorous tents can attract a new market among today's luxury hotel guests who want comfort, sustainability and class. According to Omani mountain stakeholders, glamping is expected to play a crucial role in rediscovering the attractions of both camping and the surrounding area.

In short, luxury, with this change of perspective, facilitates the affirmation of transformative travel that enriches the individual and, at the same time, is more compatible with the environment and local communities.

5 Conclusion

The Omani mountains, as a geo-cultural context, lend themselves to meeting the demand for New Heritage tourism and New Luxury tourism, thanks to their rich cultural heritage (authorized, bottom-up and New Heritage) and the unspoilt natural environment that is the protagonist of the luxury experience.

The results of this research show that new heritage practices and the introduction of glamping are creating a new tourist demand in the Omani mountains. New Heritage and New Luxory offer opportunities for local actors to intercept a new, generally young audience of visitors whose satisfaction with the protagonism of the choice already becomes a pleasure in itself.

This leads to personal satisfaction, self-feedback processes, acceptance of the local offer, search for contact with nature, but also search for contact with the local actors and the local community. All this is also sustainability.

The field survey also found that accommodation facilities and public institutions in the ad-Dakhliya Governorate have been applying standards to prevent, or at least limit, environmental damage and preserve the landscape for a few years. To date, we are not able to assume that the practice of the new luxury and the enhancement of the new heritage will lead to local-tourist co-participation in the preservation of the mountain heritage. This does not mean that the local community and green tourists do not want to support sustainable tourism; in fact, the interviews administered to the actors directly involved in tourism practice reveal a strong attention towards green procedures, towards the respect of strict rules for the most common activities. In the face of this co-participation of the local community tourists towards cultural and environmental sustainability, the problem currently lies in the lack of formal regulations approved by policymakers that set limits and rules for the conservation, enhancement and use of the territory. Therefore, the future effort must be to work strategically and in co-partnership to create a specific regulation for the sustainable tourist use of the Omani mountains. Certainly, regulation in support of sustainable development will require sacrificing those services and activities that may be unsustainable today.

In terms of advice to the tourism industry, we can conclude that the creation of eco-innovative tourism requires not only existing bottom-up participation but new ideas, new creativity and new political laws and institutional regulations. Investing in the protection of healthy mountain ecosystems is a strategy with significant co-benefits that requires urgent preventive measures, since it is still a context that does not suffer from all the problems that we find in many European mountain areas (hyper-tourism, economic and cultural morphogenesis, depopulation, etc.).

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Determinants of Travellers’a Interest in Creative Tourism

Diana-Cristina Sava and Alina Badulescu

Abstract Recently, a new type of tourism activity has come under the spotlight, namely, creative tourism. As a new concept, it is relatively unfamiliar to the academic and business environment; its particularity resides in the activities the tourists are involved in. In order to design a framework of practices specific to creative tourism, these activities have to actively engage the tourists in the habits and customs of the tourist destination, experiencing certain aspects of the natives’ culture. Certainly, there are various practices similar to those described, some of them known as creative tourism, and others as experimental, adventure or cultural tourism. Due to this ambiguity, this paper implies both a theoretical and a statistical descriptive approach, aiming to highlight the distinctions of this particular form of tourism and the importance of exploiting it, due to its connection to the creative and cultural industries. A quantitative, survey-based approach was employed to determine those traits that could influence the tourists to engage in creative tourism’s practices. The survey was applied in Romania, and it is designed to analyse the relationship between specific tourists’ traits on one hand—age, level of education and income, residence, country of study, travel frequency, length of stay, accommodation type and interest in specific types of tourism, other than the creative one—and their involvement in activities specific to creative tourism, on the other hand.

Keywords Creative tourism · Cultural tourism · Tourism consumption · Survey

JEL Classification O15 · Z10 · Z31 · Z32

D.-C. Sava (✉)
Faculty of Economic Sciences, Doctoral School of Economic Sciences, University of Oradea, Oradea, Romania

A. Badulescu
Faculty of Economic Sciences, Department of Economics and Business, University of Oradea, Oradea, Romania

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_37

1 Introduction

In the last decades, a new touristic product is evolved from the cultural tourism, as the creative tourism. The creative tourism implies specialized consumption of creative and cultural industries' goods and services (Carvalho et al., 2019), the travellers' decision being determined by the entertainment offers with a high creative and cultural content. This type of tourism aims to meet specialized and experienced travellers' needs, who seek authentic and emotional stimulating experiences. As the creative tourism implies natural and manmade attractions but they are not mandatory for its development, this sector could flourish both in urban and also in rural areas, as the most important exploited resources are represented by human capital and intangible cultural heritage.

Our research focuses on Romania and it aims to determine the interest of Romanian travellers in experiences typical to creative tourism. In this regard, we surveyed 155 persons in order to investigate where and how they spend their vacations and how much interest they have in certain entertainment activities. Our research is relevant for policymakers, hospitality management and other academics concerned by creative tourism and cultural—creative industries.

This paper is structured in six sections: the second section of this paper frames the most important findings concerning the creative tourism; the third section provides the steps taken in conducting this research; the fourth section includes the survey's results and data analysis, followed by further discussion in the fifth section. Finally, the sixth section presents the conclusions.

2 Literature Review

The novelty of the creative tourism concept determines us to briefly characterize it and emphasize its importance and advantages with the intention to make it more familiar. The increasing demand for authentic and more diverse experiences caused the emergence of a new type of tourism, the creative tourism. Greg Richards is the first and the most noticeable promoter of this concept, and he describes it as a type of tourism providing the visitors with "the opportunity to develop their creative potential through active participation in courses and learning experiences which are characteristic of the holiday destination where they are undertaken" (Richards & Raymond, 2000). In other words, the creative tourism is an active type of leisure tourism, a combination of cultural and experience types of tourism (Pintea & Badulescu, 2020). The creative tourism stands out as a niche of the cultural tourism (McKercher et al., 2005; Al-Ababneh & Masadeh, 2019; Richards in Palenčíková & Csapó, 2021) differencing itself from the latter by the activities implied; these activities provide uniqueness and authenticity of the travel experience, the travellers are rather performing habits, customs and activities specific to the native population of the visited destination, as Palenčíková and Csapó stated "cultural tourism mostly focuses on passive knowledge of cultural and historical heritage, creative tourism involves greater interaction and involvement of the visitor in achieving an authentic experience based on the visitor's emotional and social connection with the destination, its culture and local community" (2021). As mentioned before, this new offer meets the more sophisticated travellers' needs and also brings something new on the tourism market in order to raise the competitiveness of those areas that practice and promote it (Richards, 2020). The tourists who prefer this type of tourism have a high level of travel experience, income and education (Richards, 2020; Sigala & Leslie, 2005). The "new ingredient" used in the creative tourism recipe is represented by the creative and cultural industries. The creative tourism is linked to the creative economy through entertainment activities, these being linked to the local/national culture and performed as creative activities, implying the exploitation of the cultural and creative industries and the labour of the creative class.

The creative economy propels economic development in the area where the creative and cultural industries flourish (Florida, 2005; Harvey et al., 2012; Skavronska, 2017; Boal & Herrero, 2018; Tajtáková & Olejárová, 2021; Cerisola & Panzera, 2021); both urban and rural developments were linked to the presence of creative economy and cultural tourism (Fridgen in Sigala & Leslie, 2005; Oakley, 2006; Rogerson, 2010; Richards, 2011; Miles in Drummond, 2021). The economic development generated by the connection between the creative and cultural industries on one hand, and the tourism, on the other hand, is confirmed in numerous cases, such as in Canada where tourism was enhanced by investing and developing various facilities specific to creative and cultural industries (Stolarick et al., 2010), in Sweden where the village Jokkmokk developed as a tourism destination based on its cultural history as settled by the Sami people (Brouder in Drummond, 2021). However, even if Drummond (2021) agrees that this connection had a positive impact in the developed countries, the author cannot see the possibility of the same results in South Africa due to apartheid, poverty, inequalities, low skills and education level. The explanation of her argument relies upon the features of the creative class, the persons needed to work in creative and cultural industries, described as talented, possessors of high skills and highly educated (Barringer et al., 2004; Florida, 2014; Londar et al., 2020; Sava & Badulescu, 2017).

The economic growth and development is desired to be met rather through high value-added activities, such as services, tourism services (Pine & Gilmore, 2011), more exactly creative tourism, a practice that encompasses a great value given by the human resource and his performance. An example of creative tourism practices is found in Japan, where many Japanese women visit a rural area near the Lake Suwa in order to learn traditional silk weaving (Creighton in Drummond, 2021); in France, where the skills of the chocolatiers were exposed in tastings and demonstrations (Terrio in Drummond, 2021); in the Italian old town Favara where The Farm Cultural Park brought back the vitality of the area (Culture Action Europe, online); in Portugal, where the city of Obidos is famous for its development as a creative city and for enhancing its tourism through the creative and cultural industries (Musikyan, 2016); practices typical to the creative tourism could be found also in Romania, in

Maramureș, where travellers can experience the local culture by visiting both natural and manmade attractions and also, by crafting pottery (Visit Țara Oașului, online).

The knowledge in this field is scarce even if the subject is researched since 2005 as Palenčíková and Csapó (2021) show in their study regarding the creative tourism in Slovakia, another relevant work for our research as it includes also a survey-based analysis of the demand for creative tourism products. The interest for the creative tourism is high due to the given possibilities to overcome the COVID-19 pandemic's effects on tourism, culture and creative industries.

3 Methodology

In order to conduct this research, we provided first of all, a theoretical foundation concerning the creative tourism concept and features, followed by an empirical investigation consisting in a qualitative analysis of primary data gathered surveying 155 respondents from Romania during June 2021. The questionnaire used 31 closed questions designed to analyse the demand's behavior and motivation, and it was structured in three parts: description of sample; travellers' profile as tourism consumers; openness and interest in creative tourism. The data collected were analysed through direct observation of the tourist behavior and preferences correlated to the interest in creative tourism's practices.

4 Travellers' Openness and Interest in Creative Tourism

4.1 Description of Sample

There were 155 persons surveyed and the general information regarding the sample, as age, gender, residence, place of studies, education and income level, is presented in Table 1.

As we notice, the majority of respondents are between 25 and 35 years old, females, living in the urban area, they had studied in their home country and they possess a Master degree. Considering their level of education, 78% of the sample had graduated higher education, whereas the income level is average, most of the respondents (27.7%) earning between 2,501 and 3,500 lei (508–711 euro) and 74.9% of the sample earning a monthly net income over 2,500 lei (508 euro); the amount of 2,500 lei/month represents an average level of income in Romania, the minim wage in Romania being in net values, 1,386 lei (288 euro). In other words, almost half of the sample (47.2%) earns high average to high incomes (>3,501 lei/711 euro), this aspect being consistent with the respondents' level of education.

Table 1 Description of sample

Age	%	Education level	%
<18	1.9	High school	19.4
18–24	23.9	Postsecondary school	1.9
25–35	45.2	Vocational school	0.7
36–49	18.7	Bachelor	27.7
50–65	9	Master	40.6
>65	1.3	Doctoral/Postdoc	9.7
Gender	%	Income level	%
Females	77.4	<1,400 (285 euro)	16.1%
Males	22.6	1,401–2,500 lei (285–508 euro)	9.0%
Residence	%	2,501–3,500 lei (508–711 euro)	27.7%
Rural	19.3	3,501–4,500 lei (711–915 euro)	16.8%
Urban	71	4,501–5,500 lei (915–1118 euro)	8.4%
Metropolitan area	9.7	5,501–6,000 lei (1118–1220 euro)	7.1%
Place of studies	%	6,001–7,000 lei (1220–1423 euro)	5.2%
Home country	81.9	>7,000 lei (1423 euro)	9.7%
Abroad/home country + abroad	18.1		

Source: Survey

4.2 Travellers' Profile as Tourism Consumers

The sample's description from the tourism consumption's point of view is presented below in Table 2, where the respondents' travel frequency, vacation length, transport means, accommodation and booking preferences are listed.

More than half of the respondents use to travel 1–2 times/year and 43.2% travel even more often. The vacation length options are more equally distributed; the option of 1–3 nights is the most popular (35.5%), being followed by the preference for a longer voyage—the 6–7 nights' option (30.3%). When it comes to travel arrangements, 69.7% of the respondents prefer to travel by personal car, to stay in hotels (54.8%) and pensions (27.1%) and to book their holiday both in advance (51.6%) and spontaneously, shortly before as last minute vacations (48.4%).

4.3 Openness and Interest in Creative Tourism

Even if the concept of creative tourism is not so well known, or even if the travellers don't realize or think about the type of tourism they practice when they travel, their choices can talk for themselves. Table 3 presents a strong preference for seaside, mountains and city—breaks. The pilgrimage tourism doesn't arouse the interest of

Table 2 Tourist profile

Travel frequency	%	Vacation length	%
1–2 times/year	54.2	1–3 nights	35.5
3–4 times/year	28.4	4–5 nights	26.5
>5 times/year	14.8	6–7 nights	30.3
I don't travel	2.6	>8 nights	7.7
Transport means	%	Accommodation	%
Personal car	69.7	Hotel	54.8
Train	3.2	Pension	27.1
Coach	4.5	Hostel	0.65
Airplane	22.6	Rented apartment/house	15.5
Booking preferences	%	Guest house	0.65
In advance	48.4	Tent	1.3
Shortly before	51.6		

Source: Survey

Table 3 Destination preferences of travellers

Current number	Destination preferences	Very much (5) (%)	Moderately (4) (%)	Indifferent (3) (%)	Slightly (2) (%)	Not at all (1) (%)
1	Seaside	61.9	17.4	10.3	4.5	5.8
2	Mountain	56.8	17.4	18.7	5.2	1.9
3	City—break	42.6	25.2	2	6.5	5.8
4	Pilgrimage	10.3	11.6	24.5	21.3	32.3
5	Thematic camp	11.6	14.2	29	22.6	22.6

Source Survey

a great share of the sample (32.3%), although the answers vary a lot due to diverse reasons: confession, pilgrimage popularity, etc. Considering the option of thematic camp, there are also various answers, but the trend is negative for the analysed sample, there being only a few persons very attracted to this type of tourism.

As the options for tourist destinations are unlimited, in addition, we analysed specific decision factors considered as interest triggers for creative and cultural tourism. Table 4 presents 10 such decision factors, except the factors: local dialect/official language (3), destination's popularity (7) and natural attractions (10)—the tendency towards these shows a typical type of tourism consumption, all these three manifesting a moderate and strong influence, the natural resources being the essential determinants manifesting a very strong influence. The other factors could be divided into three categories:

Table 4 Decision factors in choosing the tourist destination

Current number	Decision factor	Very much (5) (%)	Moderately (4) (%)	Indifferent (3) (%)	Slightly (2) (%)	Not at all (1) (%)
1	Local cuisine	29.7	29	20.6	11	9.7
2	Local/traditional dance and music	29.7	21.9	27.7	13.5	7.1
3	Local/national customs and habits	35.5	29	24.5	8.4	2.6
4	Local dialect/official language	25.8	22.6	29	12.9	9.7
5	Cultural differences	15.5	20.6	27.7	12.3	23.9
6	Possibility of learning the official language/local dialects	9.7	9.7	27.1	20	33.5
7	Possibility of learning local habits and customs	11.6	12.3	29	21.9	25.2
8	Destination's popularity	21.9	23.9	31.6	14.8	7.7
9	Possibility to access cultural events	11.6	21.3	31	18.7	17.4
10	Possibility to access different local activities (parties, competitions, local habits and customs)	21.3	21.9	29.7	17.4	9.7
11	Natural attractions	68.4	16.1	10.3	3.2	1.9
12	Manmade attractions	24.5	31	25.8	9	9.7

Source Survey

- Trigger factors for creative tourism: Possibility of learning the official language/local dialects (6), possibility of learning local habits and customs (7);
- Trigger factors both for creative and cultural tourism: local/traditional dance and music (2), local/national customs and habits (3), cultural differences (5), possibility to access cultural events (9), possibility to access different local activities (parties, competitions, local habits and customs) (10);
- Trigger factors for cultural tourism: local cuisine (1), manmade attractions (12).

If we look to the first decision factors, the triggers of the creative tourism—the possibility of learning the official language/local dialects (6) doesn't influence the travellers' decisions and almost the same is valid for the possibility of learning local habits and customs (7), but in this case, the factor enjoys a slightly greater importance.

Further on, analysing the decision factors considered triggers for both the creative and cultural tourism, the situation changes; the local/traditional dance and music (2), and the local/national customs and habits (3) are almost equally important when choosing the tourism destination, impacting strongly and positively the travellers' choice. The cultural differences (4) manifest a balanced influence, but the tendency is not to represent an obstacle, nor an attraction in itself, in the vacation planning process. The possibility to access cultural events (9) and the possibility to access different local activities (parties, competitions, local habits and customs) (10) don't enjoy a strong importance, their influence being rather indifferent and moderate.

The last decision factors, the local cuisine (1) and the manmade attractions (12), considered triggers for practicing the cultural tourism, manifest a rather positive strong influence in determining the travellers' options.

Analysing the importance of these factors when choosing the tourism destination, we observe the inclination towards the cultural tourism triggers and those combining the triggers of cultural and creative tourism. However, exhaustively the most important decision factors are those specific to typical tourism consumption, then those specific to cultural tourism and the least important are the factors triggering the creative tourism. Even if the respondents use to travel, we have to correlate these preferences with the frequency of traveling (54.2% travel only 1–2/year), explaining so the low interest for active leisure practices and the fact that the majority of respondents are perhaps frequent first-time travellers and not so experienced.

The idea of first-time travellers is confirmed by the chosen options regarding the activities the tourists are involved in during their holiday; the respondents had the possibility to choose multiple options - their choices were not limited only to a single entertainment activity - so we can see that the respondents opted for:

- Sightseeing: 72.3%;
- Relaxing at the beach/spa/hotel: 68.4%;
- Relaxing actively (practicing sports specific to the tourist destination): 29%;
- Attending cultural events: 18.1%;
- Meeting new people: 14.2%.

Also, their behavior specific to a tourist who travels once or twice a year, escaping from reality and recharging his batteries, is confirmed by the strong preferences for sightseeing and relaxing at the beach/spa/hotel. However, based on the respondents' answers to the question "When you travel, how often do you get involved in the activities you attend (shows, artistic performances that also involve spectators, etc.)?", the openness towards active involvement in the holiday's activities is confirmed as 15.5% of the respondents admitted they always involve in this kind of activities because they enjoy trying new things, 25.2% are often involved, 38% are seldom involved, 12.3% didn't know what to answer and only 9% of the respondents never involve because they feel themselves uncomfortable or they don't enjoy doing so.

Contradictory to their answers regarding the decision factors in planning the holiday, 41.7% of the respondents are often engaged in entertainment activities or they are eager to try new experiences, probably not so much those listed as learning activities. Generally, travellers often get involved spontaneously in various experiences, so we could explain the results of the survey as the respondents enjoy the active involvement, but it doesn't have to be planned ahead, nor written down on the to-do list; as many respondents travel just once or twice a year, we assume that planning to learn new skills in the annual holiday triggers stress, shortening the time left for sightseeing, visiting or for the lazy days of the vacation.

5 Discussion

Our survey provides information regarding a sample from Romania, females of 25–35 years old, master study graduates without experience of studying abroad, living in urban areas and earning a monthly net income of 2501—4500 lei (508–918 euro). The respondents are well educated and have a high level of living considering their income level and residency area. These features are also noticeable in their tourism consumption, they travel on a regular basis once—twice a year or even more often for 43.2% of the respondents. They prefer to travel using their personal car, to book hotel or pension rooms, to book the holiday both in advance or shortly before, but when it comes to the length of the stay it varies a lot, the respondents being fans both of the shorter and longer vacations.

Analysing their tourist destination preferences, there is a tendency towards the traditional forms of tourism: seaside, mountain and city—break tourism. The respondents are not interested in the pilgrimage tourism, but they show a slightly interest in thematic camps (adventure, experience and creative tourism). Their vacation agenda is filled mostly with activities such as sightseeing and visiting tourist attractions, and relaxing at the beach/spa/hotel. Few of them spend their vacation also relaxing actively and attending cultural events, although their answers suggest that 37.5% of them enjoy being involved in various activities and to have new experiences.

Regarding the factors influencing their destination's decision, the respondents are very receptive, in this specific order, to the natural resources, local/national customs and habits, local/traditional dance and music, local cuisine, local dialect/official language, manmade attractions, destination's popularity, possibility to access different local activities (parties, competitions, local habits and customs), cultural differences, possibility of learning local habits and customs, possibility to access cultural events and lastly, to the possibility of learning the official language/local dialects. More precisely, they pay more attention to the traditional factors in choosing a tourism destination and also to the cultural ones; the creative factors are not reflected as essentials on their options' list. Even so, their answers regarding the entertainment options and their active involvement in this kind of activities reflect a rather great openness and interest in spending their holiday trying new experiences. However, the active leisure has to be included and not to be their holiday's aim, most of them preferring sightseeing and relaxing at the beach/spa/hotel and just additionally to take part actively in various activities—this fact being a proof that the respondents are rather incidental than intentional creative tourism consumers.

6 Conclusion

In the last 20 years, a new type of tourism has emerged within the cultural tourism—more actively involving, authentic experiences—oriented and culture-based type—known as creative tourism. We frame as creative tourism's practices those activities requiring the travellers' curiosity and interest for the tourism destination's culture. The creative tourism places the traveller in a central role and it gets him familiarised with the destination's customs and habits involving him actively in the experiences meant to teach him new skills specific to the local or national culture. The creative tourism's offer attracts more experienced travellers and seekers of cultural knowledge and authentic experiences.

Our survey-based research presented the tourism preferences and interest for creative tourism of a sample consisting of 155 Romanian respondents. The majority of the respondents are represented by women, aged between 25 and 35 years, master graduates, earning net incomes higher than 2,501 lei/month (508 euro/month) and living in urban areas. Considering their traveller profile, they travel for 1–2 times/year, for both short (1–3 nights) and long (6–7 nights) periods, using their personal car and booking hotels or pension rooms. The holiday planning preferences are almost equally distributed, 51.6% of the respondents are booking in advance and the others 48.4% are booking shortly before the voyage. As the majority of the respondents travel only 1–2 times/year, they prefer seaside, mountain or city—break types of tourism and most of the entertainment activities they get involved in include sightseeing and relaxing at the beach/spa/hotel. However, the answers targeting to assess their openness towards active involvement show a high interest and availability. When deciding their holiday destination, the most important decision factors were related to the natural attractions, culture and finally, to those combining the triggers for cultural and creative tourism.

However, considering the analysed sample and the creative tourism's popularity, we think the travellers should be familiarised with these practices by developing and including them in the tourism offer of lesser—visited destinations (such as cheaper and not so crowded seaside/mountain resorts or with other natural attractions) or by including activities such as short trips to the seaside or mountains, or by offering accommodation with spa and pool amenities. This type of travellers needs to visit new places, to relax both actively and passively, and only after satisfying these needs, their curiosity and availability can be triggered in order to learn, try new experiences and create authentic memories.

The creative tourism does not target only foreign travellers or of different cultures; it has the ability to raise interest also in the domestic travellers, interested in discovering their roots, practicing old habits and customs of their country. This aspect appears to be crucial in the times of COVID-19 pandemic as in the last year the travellers had to face numerous travel restrictions and also the tourism sector has faced important losses. Another advantage of promoting the creative tourism consists in reducing the seasonality of various destinations dependent on climate and natural resources, as their offer could be diversified with creative tourism practices. On the other hand, the creative tourism generates revenues, creates jobs, supports culture and spreads knowledge, providing education and training both for the tourists and the suppliers, as well.

Acknowledgements This research paper has been financially supported within the project entitled "SmartDoct—High quality programs for doctoral students and postdoctoral researchers of the University of Oradea to increase the relevance of research and innovation in the regional economy's context", project ID: 123008, cofinanced by European Social Fund through Operational Programme for Human Resources Development 2014-2020.

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Paused Renaissance: Factors Affecting the Athens Byzantine and Christian Museum Branding

Anna Zarkada and Vassiliki Markaki

Abstract This paper examines the socio-political factors affecting the Byzantine and Christian Museum of Athens (B&CMoA) brand transformation through the theoretical lens of Service Science using a triangulated mixed methods case study approach. Primary data comprised documents (critical discourse analysis of policies, laws, and regulations), physical evidence (participant observation of exhibitions and peripheral services and netnographic study of its websites and social media), and visitor experience (content analysis of online reviews and critiques). It demonstrates that only the B&CMoA core services have shifted from the 'Museum as Mausoleum' paradigm toward that of a co-creator of meaningful experiences which facilitate the personalized interpretation of how the past lives in the present. Government decision, archaic laws, and Volatile, Uncertain, Complex and Ambiguous (VUCA) socio-political conditions have obstructed the full deployment of a coherent omnichannel phygital brand. Guidelines are proffered for reimagining the museum as a visitor-centric servicescape and navigating challenges to develop resilient museum brands.

Keywords Museum branding · Core and peripheral museum service design · Servicescapes · Museum relevance · Interpretation of exhibition · Service-dominant logic · Resilience

JEL Classification M31 Marketing

1 Introduction—Setting the Context

The national Byzantine and Christian Museum of Athens (B&CMoA) documents the transition of the wider Greek, Asia Minor, and Balkan region from Antiquity to Modernity (3rd to twentieth century), thus covering one of the three 'canonized' periods of Greek history and interpreting it in a publicly acceptable and recognizable way to prove the unbroken continuity between antiquity, Byzantine era and modern

A. Zarkada · V. Markaki (✉)
Cyprus University of Technology, Limassol, Cyprus
e-mail: vi.markaki@edu.cut.ac.cy

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_38

times (Gazi, 2008). The museum houses more than 25.000 exhibits (Gazi, 2008; Poulios & Touloupa, 2018). In this sense and as decided by political priorities, the B&CMoA is one of the three national museums that have molded the Greek modern national identity through the interpretation of their collections (Gazi, 2008).

Much of its strategic decisions through the years have been directly linked to the museum's legal status; Greek national museums are directly affected and managed by the Ministry of Culture with little to no possibility for initiatives and decision-making. More precisely, most Greek state museums are managed by the different local ephorates that fall under the Ministry of Culture. One ephorate can manage more than one museum, and most decisions are still centrally taken. As for the most emblematic museums, such as the B&CMoA, these fall directly under the Ministry, which appoints their directors from the community of archaeologists. Directors can make decisions for the institutions they manage but the decisions need to be authorized by the Ministry (Poulios & Touloupa, 2018). In general, the dependence on the Ministry is problematic, and obfuscates the decision-making with time consuming and highly bureaucratic processes (Poulios & Touloupa, 2018).

The museum has been going through a series of metamorphoses, many of which reflect dramatic geopolitical events. For example, the Asia Minor refugees in 1922 brought with them heirlooms which were immediately accepted in the B&CMoA collection. Yet, at that point its museographical set-up resembled what is described and defined as a Mausoleum: a simple container of artifacts, whose meaning was communicated through explanatory labels on the walls (Witcomb, 2003), attributing a passive role to visitors who were not given the option to critically reflect on the exhibits (Bolognesi & Aiello, 2020) or to build upon them to construct one's different layers of complex identity (Maalouf, 2012). Despite such drastic additions, the museum itself followed the traditional display approach, focusing on academic information and archaeological displays rather than interpretation (Gazi, 2008) until its major transformation which coincided with the turn of the twenty-first century and heralded its rebranding This transformation is the subject of our investigation.

2 The Major Transformation of the *B&CMoA* Core Activities: From Mausoleum to a Modern Museum

The major transformation of the B&CMoA is taking place since the early 2000s. Two factors affected this: first, it was then that Greece was receiving a constant flow of generous European funds that due to political pressure were partly channeled to the formation of new, peripheral museums (Poulios & Touloupa, 2018), instead of being used to format a central strategy on museum management, a decision that attracted much criticism. This fact affected the management of museums on a national level and their future, in ways that will be underlined through the case of the B&CMoA.

But most importantly, the new director decided to retell the story adopting a fresh look at Byzantium and what it meant for modern Greece. His purpose was to modernize the museum following proved best practices and to accommodate different visitor needs and expectations. The permanent exhibition was to now project a modern interpretation of the transition from the ancient world to the Byzantine one, and Christianity in the modern era and art. The aims of the interventions have been (a) to attract the visitors' attention and create a space, whether exhibition-wise or related to the complementary or peripheral services, where they would like to hang out (Andoniadis, 2010), (b) to support their 'identity work' (Rounds, 2006), (c) to learn in their own social, personal and physical contexts (Falk, 1994), and to (d) enjoy being and learning in an aesthetically sound and modern museum space (Bedford, 2014).

To achieve the above, the new director displayed exhibits related to Egyptian Copts and the period of Frankish occupation in Greece that were put on display for the first time. So were exhibits of the life of Greek communities during the Ottoman rule, along with interpretations of what constituted the 'Greek' identity before the 1821 revolution (Gazi, 2008). Overall, this is considered a breakthrough for the B&CMoA as the display change also put visitors in the center for the first time, understanding that people may visit with different purposes in mind but expect to learn, and to be seen in the museum space (Kwon, 2015). This display change also helped the visitors who felt uncomfortable defining themselves by a single layer of pre-described identity (Maalouf, 2012).

2.1 Reflection and Critiques on the Permanent Exhibition Updates

It should be noted here that the new director chose to tread carefully in this process rather than advocate for a fully critical approach of the country's historical relation to Byzantium (Gazi, 2008). Even so, the updated museology and museography, even though it followed the universal shift of views on the subject—a clear change of views on this historical period in academia and museums alike (Gazi, 2008; Tziovas, 2008) —caused negative reactions as well. The visitors' comments, documented in 2007, clearly show how they considered this new exhibition approach as a threat to the common Greek understanding of the past and the links between society and the Orthodox Church (Konstantios, 2007). Emotions, mixed in this case, are extremely important for the modern museum scenographer, but so is securing a balance between the display of content in a tailor-made way that will be well-accepted, and its proper communication in a way that the public will understand and accept the offered perception (Greppi, 2021). What was made clear at this point of the museum's existence was that up to its latest transformation, the focus had been on memory and not on the reflection of the past (Sontag, 2003), and that eventually the shift of public opinion was very hard but not impossible. In this sense, what the former museum director aimed to do was to balance the B&CMoA role as a national museum with its operation as a memorial museum that would preserve the past in order to 'tell the truth about what happened to present and future generations and to preclude those who might deny the history' (Sodado, 2018). Thus, visitors were now given the tools to in order to face the facts and use them to re-construct their identity in a multifaceted, based-on-facts manner (Maalouf, 2012).

2.2 Greek Crisis and Pandemic: The VUCA Period

A few years later though, following the Olympic Games, the Greek crisis struck affecting every sector and activity. Museums, as was the case worldwide, were not immune to this change. On the contrary, they experienced harsh measures that affected their personnel and planned activities, cultivating a sense of volatility and uncertainty. Moreover, they were suddenly expected to increase their income and they did so at first by adopting controversial strategies such as the reinstatement of the entrance fee. The volatility of this financial crisis resulted in a complete shift of the museums' international landscape. One example coming from the other side of the Atlantic is that of the Metropolitan Museum of Art, which faced a 2.2 million cut in its 220 million funding in 2009, thus being forced to fire about 250 employees, or 10% of its workforce (Kearney, 2009). On a Greek national level, the budget of the Greek Ministry of Culture allocated to museums was reduced by half between 2010 and 2011 (Poulios & Touloupa, 2018). The state museums, including the B&CMoA, confronted significant salary cuts and reduced or even cancelled budgets for temporary exhibitions. Moreover, the B&CMoA was then about to re-open some of its galleries after a major renovation project but found it impossible to operate smoothly due to lack of guards for its exhibition space (Poulios & Touloupa, 2018). Overall, due to the aforementioned factors, the B&CMoA experienced a decrease of visitors from 56,610 in 2005 to 13,270 in 2010 (Poulios & Touloupa, 2018).

When the ten-year long crisis came to an end, no-one was the same. Mindsets had shifted, new approaches were already implemented or planned, private donors were located. And then the worldwide pandemic came. Though it was expected by markets and politicians alike to last only a few months, the medical community knew it would stick around for two to three years; as it did, only adding to the VUCA conditions the museum sector and in particular the B&CMoA would have to face.

2.3 After the Decade-Long Crisis: A Critical View of B&CMoA's Peripheral Services

When it comes to its peripheral services, the B&CMoA, does not manage the profit generated by the shop and restaurant because these are pooled with those of all Greek state museums (with the exception of the Acropolis Museum that due to a different legal status enjoys a higher level of individuality), by the Hellenic

Organization of Cultural Resources Management fund, and re-distributed to various cultural projects according to the priorities and set goals of the Ministry of Culture (Poulios & Touloupa, 2018). So, these state museums deeply affect the local and state economy; yet unfortunately, for a number of reasons including central government decisions, archaic laws, their peripheral services were not allowed to evolve following international trends and good practices. Could this be linked to the archaic perception that museums are ‘cultural institutions and thus above and beyond such lesser practicalities?

The new restaurant was opened in a carefully redesigned vast garden that celebrated the building’s and area’s history and could be used as a retreat from the Athenian heat and extreme noise. The fact that the Restaurant enjoys an individual Facebook account (though dormant) is evidence of a will to allow it to operate as a semi-autonomous activity that affects deeply the brand and reputation of the museum and also its relationship with its visitors. Being the last stop before a visitor’s exit, the café along with the shop may deeply affect or even improve the visitors’ view of the museum and their lasting impression (Wallace, 2016). In some cases, visitors only come for the peripheral services that provide pleasure and satisfy their need for a haptic connection with the museum objects (Hirschman & Holbrook, 1982).

With respect to the shop, current research increasingly argues that it is an activity directly linked to a museum, and in essence part of it (Albuquerque & Delgado, 2015; Kaya, 2015; Latta, 2019). In 2015, the Hellenic Organization of Cultural Resources Management announced a reformation of its merchandize offered through the state museum shops. Though the system of profit collection and funds allocation would remain the same, the new products were expected to increase the museum income and add to the museum’s positive externalities or have no negative effect (Maden, 2020). The new lines that resulted from an international contest were to become objects of desire whose acquisition add to their owner’s status; thus, the museum shop becomes a brand with enhanced symbolism (Aaker, 1996). Besides, being reputable and respectable, the B&CMoA (as any of the other state museums for that matter) can certify some objects as attention-worthy and offer them for sale, using discreet yet effective marketing techniques (Chernick, 2017).

But the Ministry’s attempt was not fruitful due to legal approach used by excluded parties that froze the process for years, and in the worst possible period: in 2017 when a new record number of 30M tourists chose Greece for their vacations. For years, the state museum shops remained tragically empty and, in many cases, closed, adding to the overall uncertainty. And that followed a McKinsey research published a few years earlier, explaining how the average visitor of archaeological sites in France spends 6.5 euros in the shop, whereas the average visitor of archaeological sites in Greece only spends 0.2 euros in the shop (McKinsey & Company, 2012).

Unfortunately, by the time the issue was only partially resolved with the re-introduction of older lines and the production of limited new items, in late 2019, the pandemic was at its beginning, and it greatly affected tourism. But overall, museums seem to understand nowadays that the formation of steady relationships with the museum visitors is vital for the fostering of the level of customer loyalty that generates a steady income (Andoniadis, 2010) and the expected personalized experiences that today's museum visitors demand (French, 2011), the Byzantine Museum of Athens tried to extend these shifts to its services to the extent allowed.

Yet, when in 2020 the Hellenic Organization of Cultural Resources Management decided to use some known but little-used loopholes to bypass the bureaucratic ordinary path and produce some face masks, it was confronted with public accusations of shady practices and had to publicly explain itself by stating both the laws allowing his recent decisions, and by making a comparison with masks sold in other, private, museums in terms of quality and final cost.

3 Results—Proposed Actions and Guidelines Through the Service-Dominant Logic and Value Co-creation Lenses

The museum's peripheral services, which could have acted as a lever of recovery were facing their own ordeal. During the financial crisis the B&CMoA had to learn how to be resilient in order to overcome current and future obstacles in this volatile and uncertain environment. For example, it investigated the context and limitations of their soft power and ways to use it. Soft power brings change and deeply affects individuals and communities, and it is now being investigated how the recent economic changes shifted the way museums use their soft power worldwide (Decker, 2016). One such way is to influence the visitors' demand by offering specific services and activities and eventually connect the museum's expectations to those of the visitors (Blankenberg, 2015).

It is true though that if the museum doesn't manage its brand, then the world will do it for the museum, and most probably erroneously (French, 2011). The Byzantine Museum seemed to grasp this notion early on mostly thanks to a series of visionary directors that pushed forward the modernization of all its services, core (including the exhibitions and offered learning activities) and peripheral (mainly the shop and café) (Gazi, 2008). What is quite unfortunate for the B&CMoA is that museum visitors may nowadays spend more time enjoying the museum's peripheral activities, and namely the shop and restaurant, than the actual exhibition.

The ministry's noble goal was to render the B&CMoA shop a brandscape, symbolic space where all the elements, tangible and intangible, affect among other things how the visitors/consumers see the world (Sherry Jr., 1998). Unfortunately, it has not yet succeeded; perhaps the recently announced initiative in 2021 to change the legal status of five major museums (with B&CMoA being one of them) from state to legal entities of public law, will act as a solution to the museums' problems deriving by their legal status. The museum employees are deeply dissatisfied with this decision, for understandable reasons. Firstly, they will lose their job permanence, a major advantage of working in the Greek public sector, though their contracts will still be indefinite. Secondly, they are afraid for their salaries as well as any additional benefits. Despite the government's reassuring for their protection, recent history has shown that in times of financial crisis it is easier to terminate the contract of employees of legal entities of public law due to the respective legislation.

But the Ministry of Culture insists that this change will give the museums freedom to operate, to manage their own profits from any core or peripheral activities and to set up their brands as they wish and proceed in the value co-creation with their visitors instead of expecting the inexplicably slow bureaucratic system to operate. The requested outcome is of course balancing the need for money-making to the not-for-profit status of museums, while satisfying the impulse for hedonic consumption that surpasses utilitarian consumption, stepping on the consumer's need for a sentimental and imaginative contact with the products (Hirschman & Holbrook, 1982).

4 Conclusion

In the case of the B&CMoA, the full scope of consumer engagement is not at all achieved as a result of the institution accepting the old way of operation dictated by the Ministry of Culture despite new managerial advances in the sector (Zarkada, 2014). When it comes to the exhibition and to other object-centered services alike, such as the museum shop, although objects are always a central part of the display approach and are aimed to be interpreted without the, nowadays expected, aid (Bedford, 2014), the new exhibition demonstrates how the past lives in the present in an aesthetic manner rather than a historical approach.

As the next step and following the status update, value co-creation needs to be analyzed on the level of consumer engagement and the motivation behind it. Issues in need of in-depth study are whether people visit the museum in order to express loyalty, or as part of their identity construction through conspicuous membership of aspirational brand communities (Zarkada, 2014). At the same time, the B&CMoA needs to hear the different stakeholders' changing expectations of the museum and its overall activities (including the shop) and correspond to them.

Eventually, following developments in its field, the B&CMoA has pioneered in breaking the national norm of historical continuity (Gazi, 2008). The museum is above all a service provider that has shifted away from the paradigm of the service provider whose role is providing joy (Panigyrakis & Zarkada, 2013) and has rather become a value co-creator that acts as the facilitator of personalized, deeply meaningful customer relations, (Cascella, 2012), that offers societal and financial value along with a more advanced though publicly accepted view on history, and the possibility to enjoy a leading museum's peripheral services.

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Sustainable Tourism and Cultural Routes in the Ionian and Adriatic Regions

Dimitrios Mylonopoulos, Polyxeni Moira, and Paraskevi Kakaroucha

Abstract The Ionian Sea connects the Adriatic Sea, Southern Italy and the west regions of Greece: the Ionian Islands and some areas of Epirus and the Peloponnese. The climate in the area is characterized by mild winters, while summers are quite cool with long-lasting sunshine. The coastline of both the complex of islands and the mainland offers an interesting geomorphological variety. The whole region is socially, economically, culturally and touristically developed. The Ionian touristic product is based primarily on sea-and-sun model, which over the past three decades has gradually been enriched with special forms of tourism. One form of alternative tourism that has not been systematically developed either along the Ionian Sea or in the rest of Greece is ***lighthouse tourism***. Since the era of primitive beacons and the archetypal Pharos of Alexandria, lighthouses have incorporated a lot of universal symbols, which make them particularly attractive and appealing to people seeking original and sophisticated tourist experiences. Thus, in addition to their purely functional utility as navigational aids, which tends to be abolished, lighthouses occupy a vibrant cultural space and have become a point of reference and central to many regional and national tourism development plans globally. The Hellenic Lighthouse Network, one of the longest and most organized in the world, includes 1.604 lighthouses, beacons, and buoys, 144 of which are stone-built and recognized as Monuments of Modern Cultural Heritage by the Greek Ministry of Culture. However, the Greek State has not integrated this cultural capital in the tourist offer on a regular basis for many reasons, predominately because lighthouses are managed by the Hellenic Navy and consist an important component of the national defense system. A properly prepared and methodically promoted cultural route of traditional stone lighthouses

D. Mylonopoulos (✉) · P. Moira · P. Kakaroucha
Department of Tourism Management, University of West Attica, Athens, Greece
e-mail: dimilon@uniwa.gr

P. Moira
e-mail: polmoira@uniwa.gr

P. Kakaroucha
e-mail: pkakarouha@uniwa.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_39

along the Ionian Sea, starting from the oldest lighthouse of the current Greek Territory built in Corfu when being under British rule (1822) and ending at the newest Greek lighthouse in Antikythera Island (1926), combined with other forms of niche mild tourism, could showcase the multifaceted interpretation of lighthouses, enhance the Greek tourist product and invigorate the bonds among cultures in the Ionian Sea.

Keywords Hellenic Lighthouse Network · Lighthouse tourism · Sustainable tourism · Cultural heritage · Cultural route · Ionian Sea

JEL Classification L8 · L83 · Z1 · Z3 · Z32

1 Introduction

The Ionian Sea connects the Adriatic Sea, Southern Italy, and the western regions of Greece. It laps at the Ionian Islands and the western shores of Greece. The climate in the area is mild, while the coastline of both the complex of islands and the mainland displays an interesting geomorphological variety. The whole area has been worldwide known since antiquity and includes a significant number of cultural, natural and man-made, sites and monuments. The Ionian touristic product is based primarily on sea-and-sun model, which has gradually been enriched with special forms of tourism over the past three decades.

One form of alternative tourism that has not been systematically developed either along the Ionian Sea or in the rest of the country is “lighthouse tourism”, although Greece owns one of the most extensive and best-organized lighthouse networks across the world. 144 of the historic stone-built lighthouses all over the country are being characterized as Monuments of Modern Cultural Heritage (ongoing process). However, the Greek State has not integrated this cultural capital into the tourist offer on a regular basis for a series of reasons being discussed in this paper. A properly prepared and methodically promoted cultural route of traditional lighthouses along the Ionian Sea could showcase the multidimensional interpretation of lighthouses, enhance the Greek tourist product and invigorate bonds among cultures in the Ionian Sea.

2 Geographical Definition and Environmental Characteristics

The Ionian Sea, the deepest part of the Mediterranean Basin, connects the Adriatic Sea, Southern Italy and the western side of Greece. It is located between the Balkan and the Apennine Peninsulas and washes the Heptanese (or Ionian Islands) and the occidental shores of Epirus, West Greece and Peloponnese Regions. The six northern Ionian Islands (Corfu, Paxos-Antipaxos, Lefkas, Kefalonia, Ithaka, Zakynthos), including the Diapontia or Othoni Islands (Othoni, Mathraki, Erikoussa, Meganisi, Strofades and some uninhabited islets), are off the west coast of Greece, whilst the seventh one, Kythera (with Antikythera of the same municipality), is opposite the southern edge of the Peloponnese Peninsula and administratively pertains to the Attica Region.

The climate in the area is pleasant, with radiant days all year round. It is characterized by mild winters, during which air temperature, rainfall and atmospheric humidity levels are high, while summers are quite cool with long-lasting sunshine and average sea temperature of 25 °C. The landscape of both the complex of islands and the mainland is of high aesthetic and ecological value. It affords a unique geomorphological heterogeneity, ranging from high mountains that lead to rocky and unreachable strands, to vast fertile plains with lush, impressive caves and lagoons, gentle pebble or sandy beaches. The variegated shape of the Ionian Sea coastline is largely the result of the frequent and intense seismic activity, since the most dynamic part of the Hellenic Arc crosses the area. These variations in the environmental structure produce and nourish rich biodiversity in the area. It is noteworthy that many renowned ecosystems, over 30 Natura 2000 sites (around 1/10 of the Greek protected areas), one National Forest and four National Parks are located in this part of Greece (Μοίρα, 2018: 28–32; INSETE, 2019).

3 Economic, Social and Cultural Characteristics

The population living in this side of Greece is difficult to be accurately calculated, since: (i) its size fluctuates due to the presence of university students and seasonal workers (e.g. in primary production or tourism sector) and (ii) the latest data available by the Hellenic Statistical Authority/HSA refer to the whole acreage of the three Regions (17 Prefectures) encompassed or washed by the Ionian Sea [according to the 2011 Population-Housing Census: 1.800.000 people = 1/6 of total Greek population] (HSA, 2020). The four Regions are economically, socially and culturally quite developed and they significantly—although in different ways—contribute to the GVA and per capita GDP of the country [2.5% on average] (HSA, 2020). As implied before, the Regions host some of the main higher education institutions and support an efficient transport infrastructure [three national highways and roadways, four ports connecting Greece to Italy, seven civil airports serving domestic and international flights, two military bases] (INSETE, 2019).

Most of the Ionian Islands and parts of the west coast of Greece have been inhabited since the Paleolithic Age and have been worldwide known since antiquity through Homer's epic poems and Odysseus' adventures after the Trojan War, the Olympic Games, the Peloponnesian War, the Antikythera Ephebe and Mechanism, the Naval Battle of Actium between Octavian and Marc Antony or the Navarino Gulf where the last major naval battle in history only with sailing ships took place.

Since the fourth century BC Greece (as a whole or parts of the country) was attacked, conquered, ruled or protected by many nations and empires (e.g. Macedonians, Romans, Normands, Byzantines, Franks, Venetians, Ottomans, British) and plundered by hordes of pirates (Λαζάρη κ.ά. 2019: 49 κ.ε.). The Ionian Islands have been "the apple of discord" among the most powerful and influencing nations in every period of their history (Καλογερόπουλος-Στρατής, 1995: 575). Such historic transitions defined the development and profile of the locales along the Ionian Sea since they have always been on imperialistic and commercial sea routes.

Their recent historic trajectory, particularly their felicitous unification (as "Septinsular Republic" or "Heptanesian State"), as well as the close interaction of the Ionian Islands with West Europe, distinctively reflects upon their cultural characteristics (architecture, fine arts, gastronomy, language idiom, literature etc.). These features resemble the extrovert European style of life, more than in Epirus, West Greece and Peloponnese that had been conquered and affected by the Ottomans for many centuries in their recent history. The geographical proximity, the peaceful coexistence and the cultural interchange of the Ionian Islands, especially with Italy, resulted in the emergence of the first modern art movement in Greece, known as "Heptanese School" (Χωρέμη-Σπετσιέρη, 2011: 1 & 101; Δεμέτη, 2019: 427–455).

4 Tourist Development

The Ionian Islands tourist product is based primarily on sea-and-sun model, which, over the past three decades, has gradually been broadened by special forms of tourism, such as adventure (e.g. trekking, diving), nature, culinary, pilgrimage, disaster, business and educational tourism (INSETE, 2019). Until recently, tourism development has no substantial negative impact on the environment or the reputation of these regions since there have been only a few cases of violation of law, e.g. construction activity in protected zones (Mylonopoulos et al., 2011). Land and coastal zone management restrictions have intercepted environmental pressures associated with anthropogenic disturbance from tourism and real estate development (Spilanis, 2013).

The international flight arrivals at the Regions have reached 15% of the total international passenger traffic recorded throughout Greece in 2018. The most common origins of tourists were the United Kingdom, Germany, Italy, Poland, The Netherlands, France, Austria, and Russia. The Ionian coastline is also quite popular for cruise ship visitors [20% of the entire cruise ship arrivals in Greece] (INSETE, 2019).

Tourist development in the area under study, especially the Heptanesian part, can be considered as mature, although tourist marketing, management and offer are differentiated among prefectures. As a result, benefits from tourism are concentrated on one or two islands and some of the coastal locations of the mainland and do not diffuse across the Prefectures. The creation of a transregional, innovative and value-added cultural route of traditional stone lighthouses that involve at least some of the islands and the shores along the Ionian Sea could mitigate inequalities.

Additionally, a strategic partnership with other countries in the Ionian (e.g. Italy) and/or the Adriatic (e.g. Croatia) Sea, which have culturally and touristically highlighted and valorized lighthouses, could strengthen links among cultures, produce reciprocal advantages and subserve the tourist industry of each one of the participating countries. This scenario could be realized, e.g. in the context of a "Cultural Route of the Council of Europe" (CoE, 2020).

Furthermore, the EU Strategy for the Adriatic-Ionian Region provides numerous opportunities for networking and collaborative projects to connected countries (EU Member-States: Croatia, Greece, Italy, Slovenia and five Accession Countries: Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia) with similar or complementary priorities and objectives at macro-regional level. The strategy promotes the connection of cultural tourism with creative industries through the development of art networks (festivals, museums, archeological sites etc.). A lighthouse cultural route might fall under the thematic pillar of "Sustainable Tourism" (European Commission, 2020).

5 Lighthouses and Lighthouse Tourism in Greece

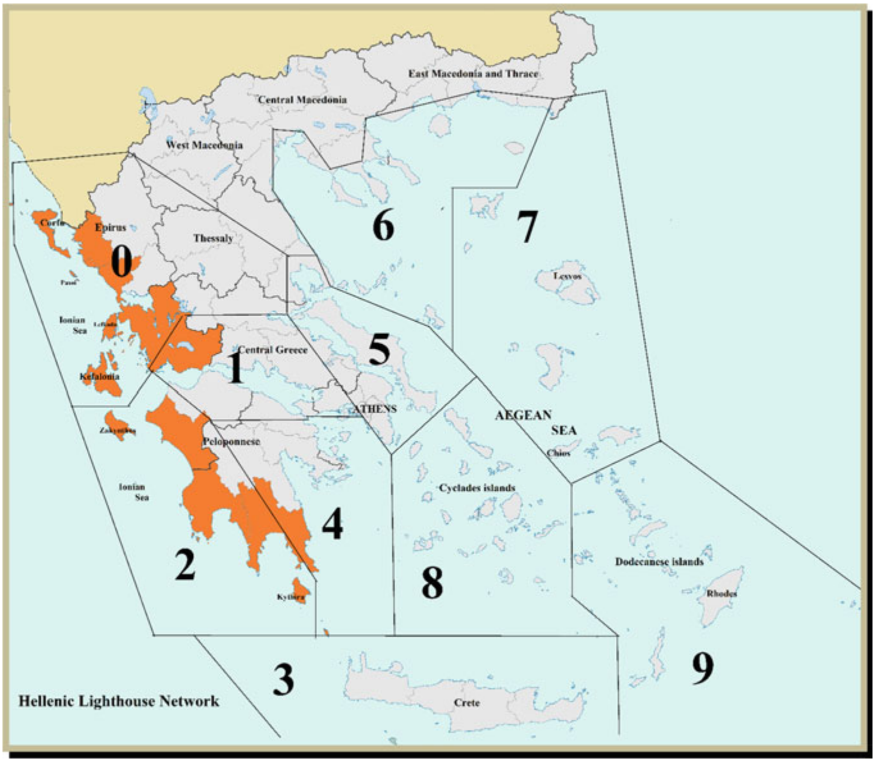
"Lighthouse tourism" is one form of alternative tourism that has not been consistently promoted and developed either along the Ionian Sea or in the rest of the Greek Territory. Since the era of primitive beacons and the archetypal Pharos of Alexandria, lighthouses have safeguarded navigation, assuaged mariners' anxiety and nostalgia, and incorporated a lot of universal symbols that make them appealing to people seeking original and sophisticated tourist experiences. Thus, in addition to their purely functional utility as navigational aids, which tends to be abolished, lighthouses occupy a vibrant cultural space (MacDonald, 2018: 19) and have become a core element or even a competitive advantage of many regional and national tourism development plans globally.

The Hellenic Lighthouse Network (HLN), one of the longest and most organized coastal and open sea lighting systems in the world, includes 1.604 lighthouses, beacons and buoys. The creation and growth of the network corroborate the Greeks' intertemporal and uninterrupted relationship with sea, which occurred and flourished due to the crossroads location (among three Continents) and the rich geomorphology of the country (15.000 km of coastline, almost 10.000 islands and islets). Lighthouses were used in Greece since the Homeric Era (1200 to 800 BC), within a rudimentary lighting sequence of signal fires established on strategic or treacherous points. Besides, plain lighthouses and beacons flashed in the most important ports of the Aegean, Myrtoo and Cretan Seas long before 1650 (Δάβαρης & Χριστοδουλάκη, 2014: 17; Γρίβα, 2015: 18; Υπηρεσία Φάρων, 2021).

Until nineteenth century (Greece still under Turkish Rule), new torches were not installed, because of the rough living conditions and the fear of piracy. Most of the lighthouses in the geographical area nowadays defined as Greek Territory were built between 1822 and 1926, by the British (in areas under their rule), the French Company of Ottoman Lighthouses (a contractor company that undertook the construction of over 30 lighthouses and collected 50% of the light dues from vessels), and the newly founded Greek State. During that period, the criteria for the positioning of lighthouses were based on the requirements of local populations, seafarers and representatives of European steamship companies. The legislative framework established by the Prime Minister of Greece Charilaos Trikoupis (late nineteenth century) was crucial for the systematic planning and coordination of the lighthouse network henceforth. Stylianos Lykoudis, a Hellenic Royal Navy officer who served in the Lighthouse Service for almost 30 years (until the beginning of the German invasion of Greece), contributed to the expansion of the HLN decisively (during his service, 226 lighthouses were added to the network). World War II had a devastating effect on the HLN because lighthouses were an apparent and high-payoff target during aerial and sea raids. In 1945, less than 10% of the lighthouses and only 28 of the 388 torches existing before the war had endured (Ολυμπίτου, 2008: 8; Δάβαρης & Χριστοδουλάκη, 2014: 17; Γρίβα, 2015: 8; Παπαδόπουλος, 2015: 23; Tassopoulou et al., 2018: 341; Υπηρεσία Φάρων, 2021).

At present, the HLN is divided into 10 areas, following the numbering of the whole Greek Maritime Area (Map 1) and is managed, funded, preserved and retrofitted by the Lighthouse Service, an independent authority supervised by the Hellenic (Army) Navy. The Lighthouse Service also collaborates with the Hellenic Navy Hydrographic Service for the publication of the "List of Lights of Hellenic Coasts", according to which the majority (60%) of the Greek lighthouses are circular, 30% of them are square, and only 7 lighthouses are hexagonal or octagonal. 51 of the 144 austere and delicate traditional stone buildings of the HLN have already been declared Monuments of Modern Cultural Heritage by the Greek Ministry of Culture since they were erected at least 100 years ago. This is an ongoing procedure that is gradually implemented to all historic lighthouses of the country (Δάβαρης & Χριστοδουλάκη, 2014: 17 & 28; Κακαρούχα, 2020: 42–49 & 70; Υπηρεσία Φάρων, 2021).

In addition to their self-evident, although declining, usefulness for navigation (and air traffic), as well as their importance as part of the country's heritage, lighthouses encapsulate a variety of universal technological, social, political, psychological and religious symbols construed in multi-level readings (Gabellone & Monte, 2019; Nakajima, 2014). Although modern lighthouses are "*more functional and less picturesque*" (Gómez y Patiño, 2010: 41), over time they have held a significant position in the history of science and technology, since improvements in lighthouses often caused advancement in other fields of human activity. They have been transformed into recognizable landmarks and important carriers of tangible and intangible, social and cultural heritage, too. Lighthouses "*occupy a dynamic cultural space*" (MacDonald, 2018: 19), as they absorb and represent the sense of time and place, the collective memory, values, customs, traditions, construction and maintenance techniques, gastronomy and everyday practices. They speak for the people who lived and



Map 1 The Hellenic Lighthouse Network and the research areas 0 and 2. *Source* Hellenic Navy. *Source Processing* P. Moira

worked in lighthouses but also for the areas those people came from, the neighboring plantations and the entire social context (Papayianni & Pachta, 2013: 8; Nakajima, 2014; Blake, 2007: 9; Magnani & Pistocchi, 2017: 125).

For the above-mentioned reasons, lighthouses are surrounded by charm and mystery that stimulate the imagination and creativity of writers, artists and scientists. Likewise, lighthouses attract enthusiasts (e.g. volunteers, supporting associations and clubs, social media groups) and visitors pursuing authentic and detoxicating experiences in order to escape from the stressful modern way of life. While in older times they were shelters for sailors, fishermen and travelers, nowadays lighthouses are "recycled" and "remodeled", since they are converted into refuges for "*minoritaire*", "*intellectual elitist tourism*" (Gómez y Patiño, 2010: 39 & 43). Scilicet, lighthouses gain increasing popularity that cannot be overlooked by tourism policymakers, although their average size and location do not allow massive or intensive use (Gómez y Patiño, 2010: 43).

Lighthouses are treated by the Greek State with respect and are recognized as an unrivaled part of the Greek intangible and tangible cultural heritage, as stupendous remnants of the country's maritime and industrial past (Μοίρα & Παρθένης, 2011: 164–165). In fact, this practically means that the utilization of lighthouses as cultural or touristic attractions is rather limited and fragmentary. Lighthouses in Greece are available exclusively for small-scale, non-profit, cultural purposes, predominantly because they still consist a component of the national defense system, despite the continuing progress in navigational systems and aids. Furthermore, the Greek membership in the International Association of Lighthouse Authorities (IALA), in combination with the characterization of traditional lighthouses as modern monuments, imposes specific principles and rules for their maintenance, protection and use, which narrow the perspective of alternative or commercial uses. Greek Law 4278/2014 validates the participation of local authorities, public bodies and NGOs in the cultural use of lighthouse buildings (subject to the prohibition of access to their functional parts) and introduces a sponsorship system that could be put into practice under certain conditions (for a specific period of time and with the consent and control of the Ministry of Culture). The standards that the above law sets have not been specified yet, consequently the Lighthouse Service continues being the unique manager of lighthouses in Greece. It is also worth mentioning that, according to a field survey, lighthouse visitors in Greece seem to be quite skeptical about any further or non-conventional use of lighthouses and the private sector involvement in their management (Κακαρούχα, 2020: 68–81 & 123–136).

6 Cultural Route of Traditional Stone Lighthouses along the Ionian Sea

In the context described above, suggestions or plans on any cultural route of traditional stone lighthouses along the Ionian Sea or anywhere else in Greece should be made meticulously, in ways that are in consonance with the national legislation and take the particularity of each lighthouse (e.g. history, location, structural condition, lighthouse keeper's presence), visitors' opinions and expectations, local communities' needs or other critical factors into serious consideration. Of course, lighthouse tourism could be combined with other forms of niche mild tourism (e.g. cultural, religious tourism and pilgrimage, wellness, gastronomy, fishing, bird-watching or even dark tourism). Thereby, capitalizing lighthouses along with other popular or less famous contiguous cultural resources could showcase the multifaceted interpretation of lighthouses, promote European values and local identities, tighten bonds among cultures and rebrand the Greek tourist product.

Concerning the Ionian Sea lighthouses (Photo 1), two of the HLN areas, 0 and 2, refer to the North and South Ionian Sea, respectively, and enclose 27 of the most spectacular and legendary lighthouses constructed 100–200 years ago by British or Greek authorities. The oldest (Sideros, Corfu: 1822) and the newest (Apolytares, Antikethyra: 1926) modern lighthouses of the Hellenic Network are located in these areas (Υπηρεσία Φάρων, 2021):

Area 0: North Ionian Sea	Area 2: South Ionian Sea
1. *Sideros (1822, Corfu)*	16. *Skinari (1897, Zakynthos)*
2. *Peristeres (1823, Corfu)*	17. *Keri (1925, Zakynthos)*
3. *Lakka (1825, Paxoi)*	18. *Spathi (1857, Kythera)*
4. *Panagia (1825, Panagia Islet, Paxoi)*	19. *Kapsali (1853, Kythera)*
5. *Antipaxoi (1906, Antipaxoi)*	20. *Apolytares (1926, Antikythera)*
6. *Lefkas (1861, Lefkas)*	21. *Kafkalida (1906, Kafkalida Islet, Ileia)*
7. *Doukato (1890, Lefkas)*	22. *Katakolo (1865, Ileia)*
8. *Fiskardo (1892, Kefalonia)*	23. *Sapientza (1885, Messinia)*
9. *Dichalia (1907, Kefalonia)*	24. *Kitries (1892, Messinia)*
10. *AgioiTheodoroi (1825, Kefalonia)*	25. *Limeni (1922, Lakonia)*
11. *Vardianoi (1824, Kefalonia)*	26. *Tainaro (1887, Lakonia)*
12. *Gerogompos (1906, Kefalonia)*	27. *Kranai (1859, Lakonia)*
13. *Kastri (1907, Othoni)*	
14. *Mourtos (1884, Thesprotia)*	
15. *Kopraina (1893, Arta)*	

Most of the Ionian lighthouses are wreathed by a halo of heroic, lurid or moving stories: corsairs, conquerors, saints, ghosts are the most common protagonists in stories that have been preserved through lighthouse keepers' narrations and popular tradition. Haunted buildings, life on the edge, eerie figures, family dramas, unfulfilled love affairs, mysterious deaths and heinous crimes are some of the components of the narratives regarding lighthouses. Reality is often intermixed with imagination. Isolation made conditions very importunate for lighthouse keepers, who invented incidents that they discovered they had not really happened when in mental alertness.

Papadopoulos (2015) cites some of the dismal stories and morbid rumors that are connected to the Ionian lighthouses. Human sacrifices in antiquity (there was a sanctuary of Apollo at the site) and lyric poet Sappho's suicide at Doukato (Lefkas), the shipwreck of the Apostle Paul at Vardiano (Kefalonia) en route to Rome, the ghost ship at Cape Apolytares (Antikythera), the Turkish spy in Mourtos (Thesprotia) are just some of them. In Jules Verne's philhellenic book "The Archipelago on Fire" (1884), some of the most historic lighthouses and beacons of the Ionian Sea (in Antikythera, Tainaro, Oitylo, Methoni) become silent witnesses of events that determined the History of Modern Greece. A number of modern poets (e.g. Empeirikos, Elytis, Ritsos) were inspired by the light and solidity of lighthouses, while contemporary Greek novelists (e.g. Amanatidou, Kourtzi, Patronou-Papapetrou) craft lighthouse stories around the Ionian Sea that captivate their audience.

Many of the Ionian lighthouses are accessible by land, often through craggy paths; some of them can be reached only by boat. All of them are located on sites of exceptional beauty, in places neighboring with other points of interest that magnetize sightseers, tourists, artists, nature lovers, athletes and researchers. Promoting the grandeur, the pulchritude and the sturdiness of the lighthouses in a sustainable way, in combination with other cultural resources in their wider area of Greece, the Ionian

Photo 1 Lighthouses in Areas 0 and 2. *Source Processing* P. Kakaroucha, personal archive

and/or the Adriatic Sea, and according to high standards (e.g. of the Council of Europe) could become a real challenge. The selection of the Ionian lighthouses that could be included in the proposed route is another demanding task.

7 Identification of the Route

For all the reasons explained above, multiple routes should be suggested with each one of them being designed on the basis of dilemmatic criteria: lighthouses in Greece and/or in other countries of the Ionian and the Adriatic Seas; in Area 0 and/or in Area 2; built by the British and/or built by the Greeks; on islands and/or in the mainland; in popular touristic destinations and/or in less known ones; accessible by boat and/or by land; preserved and/or in ruins and so forth. Since the description of alternative lighthouse routes would go beyond the aims and limitations of this study, identifying a specific one that represents largely the long—written and oral—history, the palimpsest of culture and the diversity of the landscape on this part of the Ionian Sea seems prudent. Half of the typical and outstanding lighthouses of Areas 0 and 2 of the HLN are included in the suggested route (Map 2), in order to "illuminate" less known aspects of this side of Greece and satisfy almost every aim of visit. Several

Map 2 Suggested cultural route of traditional stone lighthouses. *Source-Processing* P. Kakaroucha

wonderful narratives and facts accompany those lighthouses (Παπαδόπουλος, 2015; Μοίρα, 2018; Φάροι της Ελλάδας, 2020; Υπηρεσία Φάρων, 2021), namely (from North to South):

1. Kastri (Othonoi): It is located on the westernmost point of Greece. It was so important for navigation that the entire island was mentioned as "Fanos" ("Light") in the nautical charts.
2. Peristeres or Kaparelli (Corfu): It is exactly on the borders of the territorial waters of Greece and Albania and is the only lighthouse of the HLN that had huge urns in the ground for safe water storage.
3. Sideros (Corfu): It was the first modern lighthouse lit in Greece; it was built by the British when the Ionian Islands were under their rule. It is located on a Venetian fortress, one of the most magnificent fortification constructions in Europe. The citadel is separated from the town of Corfu by an artificial fosse.
4. Mourtos (Thesprotia): The lighthouse is associated to an espionage story. After the disclosure about a Turkish lighthouse keeper acting as a spy on behalf of the

Ottoman Authorities, all the keepers were replaced by Greeks at the beginning of the twentieth century.

5. Panagia or Madonna (Panagia Islet, Paxoi): The lighthouse and the lighthouse keeper's residence were built in the courtyard of the homonymous monastery dedicated to Holy Mary. In the past, monks supervised the maintenance of the light signal, which flashed from the bell tower of the monastery.
6. Doukato (Lefkas): The area is also known as "Lady's Cape" or "Sappho's Jump", because of an unhistorical tradition according to which Sappho the poet committed suicide after falling in love with a man for the first time. The entire island of Lefkas perhaps owes its name to the white ("lefka") steep cliffs of the cape (also known as "Lefkata").
7. Fiskardo (Kefalonia): There are two lighthouse constructions close to each other, the Venetian (sixteenth century) and the modern (late nineteenth century) one. The latter was severely damaged during the 1953 earthquakes and it was almost completely rebuilt afterwards. Recently, the lighthouse complex was restored by sponsors. In Kefalonia, visitors can also enjoy the Drogarati Cave, the entrance of which was revealed when a strong earthquake caused a collapse, the underground Melissani Lake, a unique geological phenomenon caused by a mechanical–chemical process of rock dissolution etc.
8. Agioi Theodoroi (Kefalonia): The lighting equipment was initially placed on a windmill, so the lighthouse is also known as "Sea Mill" ("Thalassomylos"). It is regarded as an architectural masterpiece, the only one of this kind among the HLN, because it is supported by 24 columns of Doric order that ensure anti-seismic protection.
9. Skinari (Zakynthos): The lighthouse is located at the end of an educational botanical path, which is full of representative species of Thermo-Mediterranean flora. The path connects Cape Skinari to Ano Volimes, a traditional village famous for stone-built houses and hand-made embroideries.
10. Katakolo (Ileia): This lighthouse is found in a short distance from Ancient Olympia. Visiting the lighthouse could be combined with a tour to the nearby Museum of Ancient Greek Technology, where a collection of 250 functional ancient Greek models of inventions is exhibited. Katakolo also affords a state-of-the-art marina of large capacity (up to 140 ships).
11. Sapientza (Messinia): Venetians advised sailors to navigate with wisdom ("Navigare con sapienza") and this recommendation was written on maps where the word "Sapienza" coincided with the island. Nonetheless, a lot of shipwrecks of inestimable archeological value lie at the bottom of the sea. From the top of the lighthouse, one of the few octagonal ones of the country, visitors can observe the heart-shaped contour of the island. 240 acres of Sapientza have been declared "Preserved Monument of Nature" (Natura 2000) by the Greek State due to the endangered species of flora and fauna existing on the island.
12. Tainaro (Lakonia): Cape Tainaro (or Matapas) is the southernmost point of mainland Greece, the Balkan Peninsula and Europe. A trip to the lighthouse

could offer trekkers and mythology lovers a memorable experience that amalgamates ancient Greek temples (of Poseidon) and oracles (Death Oracle to reach the Cave of Hades, where Orpheus descended while looking for Eurydice), Byzantine chapels (of Agioi Asomatoi) and historic naval battles (1941, between the British Royal Navy and the Italian Regia Marina).

13. Apolytares (Antikythera): Apolytares is the latest entry in the Greek catalog of stone lighthouses and has become a milestone on many trails. The island is worldwide known for the bronze statue of the Ephebe and the astronomical calculating Mechanism. The Russian Admiral Nikolaos Filosofof, who served as a lighthouse keeper in Antikythera, connected his name to the island, too.

8 Management and Marketing Plan of the Route

As indicated before, the Lighthouse Service is the unique manager of the HLN. As a result, any management or marketing planning should be under their control and approval, in coordination with the Greek Ministry of Culture that characterizes stone lighthouses as monuments. In case the legislative framework enables other legal and non-legal authorities to contribute to the cultural and tourist utilization of lighthouses, a transregional network of local authorities and populations, NGOs, academic and research institutions should be established. Vulnerable cultural heritage needs to be preserved, properly interpreted and promoted with criteria of quality and sustainability, as a result, consensus is a prerequisite for the success of any endeavor regarding lighthouses.

If the route expands to include lighthouses in Italy or Croatia, collaboration with public or private sector organizations with an interest and/or jurisdiction over lighthouses, culture and tourism (such as the Italian "Il Mondo Dei Fari" Association or the Croatian state company "Plovput Ltd.") would give the route a multinational perspective, especially in view of a certification from the Council of Europe.

Virtual multi-media mapping (required especially in the midst of the COVID-19 pandemic), eclectic and focused marketing, and social media promoting of the route would render it recognizable to any individual or organized group interested in the fabulous past, the enchanting present and the unforeseen future of the Ionian lighthouses.

9 Conclusion

Lighthouses constitute an inextricable part of both the Greek national defense system and the cultural capital of the country but have not been embedded in the Greek tourist offer yet. In addition to their obvious, although lessening, utilization for navigation and air traffic, lighthouses condense a variety of discernible symbols that can be interpreted in a myriad of ways.

Besides, all Ionian lighthouses are located on sites of amazing natural beauty and border on other points of interest for sightseers, tourists, artists, nature lovers, athletes and researchers. Identifying and implementing the suggested cultural route, that largely represents the history, culture and landscape on this part of the Ionian Sea, could mitigate developmental inequalities among neighboring Regions. Additionally, a transregional, functional, strategically promoted lighthouse route along the Ionian Sea could underline the polysemic meaning of lighthouses, add value to the Greek tourist product and invite cultural synergies across Europe.

Certainly, any management or marketing plans should be under the control and approval of the Greek Lighthouse Service and the Ministry of Culture. In case the legal framework permits other authorities and individuals to get involved in the cultural and tourist valorization of lighthouses, a concrete and innovative network should be set up.

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Customer Behaviour in Tourism

Consumer Behavior and Cognitive Factors in Relation to Gastronomic Tourism and Destination Marketing in Greece

Gerasimos Panas, Natalia Thrasidi, Constantinos Halkiopoulos, and Evgenia Gkintoni

Abstract Tourism has developed into a distinct phenomenon in contemporary times, primarily associated with leisure and consumerism. It is worth noting that tourism is both a noteworthy branch of economic activity and a remarkable employer of many employees since it employs a sizable number of jobless people and has a seasonal character of labor. Greek Tourism, in particular, contributes to the development of new employment at a time when other industries are struggling. Culinary tourism is a significant segment of alternative tourism, earning billions of dollars globally via the purposeful pursuit of authentic, unique culinary experiences, making food the ultimate travel motivation. The nations that place a premium on culinary tourism are developing marketing opportunities. Tourists' desires to sample indigenous flavors in locations and hotels have paved the way for the growth of gastronomy tourism. The primary purpose of the study is to highlight the aspects of tourists' consumer behavior and the cognitive parameters that lead their choice (decision-making) concerning their preference regarding the tourist destination, as well as, the perceptions of tourist operators regarding gastronomy and destination marketing policies applied. The present study employs a combination of primary research with a questionnaire and a review of worldwide and local academic publications and articles on the aforementioned subject topic. A critical component of completing the questionnaire provided to visitors was preserving the participants' anonymity and ensuring that no personal information was collected to draw the right conclusions. Tourism enterprises have recognized the value placed on gastronomy tourism by domestic and international tourists, having included culinary elements into their facilities. There is also a general acknowledgment that tourism is handled in collaboration with all tourist-related foundations and civil society groups with the support of relevant ministries. Additionally, culinary tourism developers are expected to make

G. Panas · N. Thrasidi
Department of Digital Media and Communication, Ionian University, Corfu, Greece

C. Halkiopoulos (✉) · E. Gkintoni
Department of Management Science and Technology, EDILAB, University of Patras, Patras, Greece
e-mail: halkion@upatras.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_40

measurable promotional efforts to address better the tourist preferences that influence their consumer behavior in connection to the tourism destination's marketing policy.

Keywords Gastronomic tourism · Consumer behavior · Cognition · Decision-making · Tourism destination

JEL Classification Z32 · Z33 · D91

1 Introduction

Tourism has always been one of the primary sources of life and income in many countries. In recent years, various types of tourism have been developed, which are defined as alternatives and cover the need for a person always to find a different and unique reason to travel. Mass tourism has been the main engine of the tourism industry for many years. Although Greece is rich in many natural and cultural values, alternative tourism has attracted the attention of traders in recent years. Health, sports, cultural, religious, and gastronomic tourism activities are the new tourist products. A lot of travel literature and promotional material of various destinations show that gastronomy's role in destination marketing has recently attracted the attention of marketers both locally and internationally. Gastronomy is the art of food and drink and the interaction of food and drinks with art, culture, and science. Greece's history, monuments, natural wealth, and scenery have always attracted the interest of various travelers worldwide. Greek products have always been accredited and used by international chefs. People that highly value good food are traveling to Greece in order to try local delicacies. The variety of Greek food on offer covers different tastes. Tourists will have the opportunity to try different dishes in Crete than those offered in the Ionian Islands, or Cyclades, and different ones in big cities, such as Athens and Thessaloniki. The aforementioned situation is further enhanced by the fact that people are traveling with the dream of experiencing intangible local cultural goods such as local cultures, lifestyles, but also food. Gastronomic products are one of the most important cultural values of a destination. The local gastronomic culture differentiates one destination from another. The gastronomic values of a destination reflect the identity of its local culture. Visitors consume the products of a destination. Local gastronomic products are reflections of local cultural identity and offer value to a destination. These products must meet the wishes and needs of the visitor. The uniqueness of local cultural values such as gastronomic culture supports sustainable competitiveness and makes it easier for advertisers to promote (Crouch & Ritchie, 1999). Greece is a country with a diverse cuisine from east to west and from north to south. All the different destinations of the country have their own gastronomic culture. Therefore, the country has sufficient factors of attraction for gastronomic tourism.

Food is a critical component of tourism and has been researched in a variety of different fields. While the majority of tourism literature emphasizes the importance of food as a motivator for travel, researchers (McKercher et al., 2008) argue that the methods used to study food tourists do not examine the reasons for travel; rather, they establish only tenuous causal relationships between actions (visiting a food destination) and motives (wanting to eat Food). Thus, a more holistic approach to studying food tourists is necessary to better understand the link between tourists' motivations for travel and their involvement in food-related events. As such, this study analyzes the vacation decision-making of a group of Slow Food members with a strong interest in food in terms of the holiday places they choose and the activities they engage in while there. Additionally, food is a fundamental component of the human experience, since it is necessary for existence and has meaning and importance for individuals and society that extends beyond just subsistence. There are aesthetic and health concerns associated with food intake. The preferences of various foods, eating habits, and consumption of certain foods reflect an individual's socioeconomic status. Food has behavioral, cognitive, psychological, and cultural effects on individuals and communities as a result of its meaning. Thus, food has both concrete and intangible connotations for humans, as demonstrated by the culinary systems and cultures developed by societies. Food culture has been defined as "a culinary order characterized by the characteristics of a particular group of people" (Bessiere, 1998). According to a researcher (Başaran, 2020) traditional dishes embody a significant part of the Cultural Heritage. He indicates that the increased demand in gastronomy tourism raises the value of traditional foods.

The destination must be differentiated from the competitors in destination marketing, and its culture must be combined with the gastronomic identity. This study discusses the relationship between destination marketing and gastronomic tourism in the literature, especially sustainability, with different examples. So, this alternative form of tourism, gastronomic tourism, is treated as a new tourism product and as it seems already, has not left the world of destination marketing unmoved, since its contribution to the promotion of our country abroad and to tourists who seek new gastronomic experiences (Hall, 2006).

2 Literature Review

2.1 Gastronomy Concept

The concept of gastronomy raises a significant level of confusion, as it is primarily associated with the provision of original and often costly food. This term refers to the art of preparing quality and good food available in every type of restaurant from a typical tavern to high-end luxury restaurants. The gastronomy industry refers to the combination of good food with fine wine but is not limited exclusively to culinary experience and depends on a range of products and services (Cohen & Avieli, 2004). To a large extent, the person interested in gastronomy is also interested in the particularity of the place from which each food comes. Important terms used in the international literature on food tourism are the terms: "food tourism," "gastronomy tourism," and "culinary tourism". Over the years, the term "gastronomic tourism" has been established. It is a compound word consisting of the words "gastir" and "nemo". According to SETE (Association of Greek Tourist Enterprises), it is the art of good and delicious food, and in general, it is the science of human nutrition. The taste and the quality are not only served in luxury shops but even in a tavern. Thus, in practice, gastronomy includes the combination of good food with good wine or other beverages and is not limited exclusively to cooking but extends to a range of products and services. This term was first used in 1835 by the French Academy, where it was formalized. Already in "The Fourth Book of Pantagruel" by François Rabelais, there are references to Gastros, the God of food. Archestratos was recognized as the father of gastronomy, wherein the fourth century, his work "Idydapathy", was a gastronomic text of antiquity that told secrets about the best food preparation and ways to find the finest. Finally, it is stated that gastronomy can be defined as any proposition referring to the historical, cultural, and interpretive influences on what a tourist should eat, when to eat, where to eat, how to eat. At the same time, as a science, it includes general rules regarding food and beverages to a destination that is part of the cultural heritage.

2.2 Gastronomic Tourism

Gastronomic tourism is a combination of tourism, cultural heritage, and agriculture. Different geographical parts of the world produce different goods, and societies create their cuisine with what they have. Traditions, tastes, and culinary techniques are passed down from generation to generation and become part of the cultural heritage. These lead to the attractiveness of a destination and make it possible to position and market it as a gastronomic tourism destination. Every person who travels to a destination for any reason consumes local food. Research indicates that gastronomy is part of the tourist experience and, in some cases, can be the primary motivating factor (Horng & Tsai, 2011). Anyone visiting a destination expects to see new places, meet new cultures, try different things and gain new experiences. The taste of new cooking methods and local flavors are the experiences that attract the tourist to a destination. Recent research suggests some correlation between tourists interested in wine and food and tourists interested in museums, markets, festivals, and events. According to the United Nations World Travel Association, food expenditures account for 30% of tourism revenue. 88.2% of tourists point out that "food is vital in deciding their destination." It is worth mentioning, as confirmed by the data of the World Travel Travels Association that only 8.1% of tourists who travel for food describe themselves as "gourmand," a fact that proves that gastronomic tourism is addressed to every tourist who visits a gastronomic destination. The primary motivating factors for every tourist of gastronomic tourism are initially monitoring the production process of exceptional food, the visit to restaurants and festivals, local food producers, and finally the observation of different food production techniques.

In today's society, people are interested in the local, regional, and national cuisine so gastronomic motivation increases the intention to travel. Gastronomy and gastronomic heritage can be recognized as a branding mechanism for destinations (Halkiopoulos et al., 2021). In particular, it is stated that in such a competitive market, in order for companies to compete with other destinations, it is necessary to improve their culinary initiatives. Gastronomic tourism has significant potential to enhance tourist attraction and assist marketing and tourism sustainability. To apply this, local foods must be researched, studied, and applied in modern cuisine in perfect balance, used as local ingredients in various flavors (Gross & Brown, 2006). In many places, local dishes have changed to suit the tastes of foreign tourists or adapted to meet specific needs such as vegetarian alternatives of original recipes. However, this results in the loss of traditional dishes and flavors. In many countries, when it comes to food tourism, local food in the form of regional cuisine rarely exists as an essential resource in mainstream advertising. However, the number of travelers interested in food and wine was small because travel was often difficult, time-consuming, and costly.

Food has an early impact on each individual, with data indicating that immigrants alter their food culture more slowly than other aspects of their lifestyle. This demonstrates how food plays a critical role in the communication patterns and social rituals of families and other groups. Food consumption behavior is researched across disciplines and in tourism as a result of its key function (Kivela & Crotts, 2005; Telfer & Wall, 1996). It is self-evident that every traveler must consume food when visiting a tourism destination. Up to one-third of overall visitor expenditure in a place is expected to be spent on food. Food has also developed into a key component of the vacation experience. Although food was formerly thought to have a minor part in a tourist's visit, the relevance of food in tourism has grown over the last several decades. Studies on culinary destinations indicate a strong correlation between a destination's food image and a tourist's intention to visit, as well as a growing emphasis on food in destination advertising. Food tourism is classified as "culinary," "gastronomic," "cuisine," or "gourmet" tourism, reflecting the perspective of customers who see their interest in food and wine as "serious leisure." The major reason food tourists travel is to attend food-related activities. Gourmet travelers, for example, may travel to France or Italy in search of top Western food experiences. In comparison, gourmet package tours from Asian nations to Europe may include Michelin-starred restaurants (Hjalager & Richards, 2003). Numerous academic studies have concentrated on tourists who travel seeking specific culinary experiences. Food tourists as a distinct interest group are receiving more attention since they spend more, stay longer, travel more frequently, and engage in more activities than other tourists; hence, they represent an appealing target market for research (McKercher & Chan, 2005).

Food has evolved particularly from the realm of functionality as hospitality is combined with the demands of modern cuisine, which is important in today's western lifestyle. This facilitates the recognition of food and drink from a necessity, in a modern commercial regime. The relationship between food and tourism presents significant opportunities for sustainable rural development. In particular, their connection can create jobs, leading to a reduction in unemployment and the development of local producers and cooperatives. In addition, the food represents the identity of a destination, being a symbol for each location acting as a significant promotion tool of tourism destination. Finally, food is the "authentic" representation of the destination's culture for potential tourists, in particular through the preservation of regional identity and its contribution to regional development, while also being a key element in the context of competitiveness of marketing aspects, most importantly destination marketing as will be seen below.

Food tourism, gastronomy tourism, culinary tourism, tasting tourism, and wine tourism all refer to travel motivated by food (or wine). Food tourism, for example, is defined as "visitation to primary and secondary food producers, food festivals, restaurants, and specific locations where food tasting and/or experiencing the attributes of specialist food production regions are primary motivating factors for travel." Food is also a significant motivator for some tourists, according to definitions for gastronomy tourism, tasting tourism, and gourmet tourism. Brown and Getz (2005), on the other hand, defined wine tourism as "a type of special-interest travel motivated by a desire to visit wine-producing regions or in which travelers are induced to visit wine-producing regions and wineries in particular while traveling for other purposes." This suggests that traveling for wine may not be the primary reason for visiting a destination. On the other hand, existing research on tourist-related topics indicates that food tourists' motivation to travel to destination locations is frequently influenced by a desire to sample local cuisine. Gastronomy plays a major role in the way tourists experience the destination and indicate that some travelers would return to the same destination for its unique gastronomy.

Gastronomy is significantly associated with the object of tourism, as food is part of the travel experience in various ways and methods. Providing good cuisine is a great pleasure, providing satisfaction to many tourists (Buhalis & Deimezi, 2004). At this point, it is worth mentioning that many tourists have as their sole travel motivation the pursuit of activities of gastronomic interest, promoting to a considerable extent gastro tourism, traveling to discover new flavors in combination with the history of the destination (Lee, 2015). In conclusion, gastronomy associated with tourism, upgrades the travel experience, attracting a particular category of tourists, the gastro tourists (Aziz et al., 2012).

2.3 Gastronomic Tourist Profile

The term "gastronomic tourism" is commonly used to describe the relationship between tourists and their food-related activities. Gastronomic tourists are initially associated with their level of interest in local food, distinguishing themselves from gourmet tourists and farmers. From the marketing point of view, gastronomic tourists can be distinguished into three different types based on their participation rate in gastronomic tourism activities, starting from the higher participation in food activities and moving to a lower participation rate (McKercher et al., 2008).

Also, according to Hjalager & Richards (2003), who offered a phenomenological model of gastronomic experiences in tourism, tourists are distinguished into leisure tourists and test tourists. Recreational gastronomy tourists are conservative, while for them, food-related entertainment is limited to non-participatory watching. For gastronomic tourists, the consumption of food is not simply intended to satisfy hunger but aims to provide knowledge about the destination's local or regional cuisine and culture. According to Cankül and Demir (2018) travel agencies organize gastronomy tours under culture tours. Therefore, they prefer exceptional restaurants "where only the locals eat." In particular, they visit farms and crops, participate in cooking classes, visit cheesemakers, and prefer to fish with professionals to discover new flavors and high gastronomy. Another research highlights the role of high-end Michelin-accredited restaurants in the creation and development of gastronomy tourism (Meneguel et al., 2019).

It is also mentioned that for gastro tourists, food and alcohol consumption is a way to meet friends and enjoy life, while at the same time, their gastronomic tourism activities are part of their image and prestige. According to Hall (2006), gastronomic tourists are mostly middle-aged, highly educated, middle-income women who travel mainly during the summer months, accompanied by a spouse/partner and mostly without children. Finally, highly adventurous and experienced travelers appear with a pure and deep interest in the cultural elements of the destination they are visiting. Demographic factors include age, gender, marital status, level of education, occupation, and income that reflect the socio-economic and demographic situation of the tourist. These are essential variables in explaining fluctuations in food consumption in different contexts. According to SETE research, the most common ages of gastro tourists are (mainly) 30–50 years old and then 51–64 years old, with professional reputation and high income. In particular, this category of tourists spends a significant percentage of its travel budget on activities of gastronomic interest, coming mainly from the USA, France, Italy, Germany, the Netherlands, and Britain (Hjalager & Corigliano, 2000).

2.4 Consumer Behavior and Gastronomic Tourism

Consumer behavior mainly refers to obtaining and organizing any form of information that form via the evaluation process positive perceptions toward a product or service in order to complete a purchase. In the tourism sector, the consumer's buying behavior is remarkable, as it refers to any investment that does not have an actual profit rate. It is a high-involvement purchase, as the decision encompasses a sufficient amount of time and the cost is relatively high. There are essential factors that must be taken into account, economic and social that influences the decision of the tourist-consumer (Halkiopoulos et al., 2020). Initially, the consumer customer recognizes the need for travel and then looks for the necessary information in order to evaluate each alternative destination. The next step is related to the degree of satisfaction with the purchase or the service he has chosen (Lee, 2015).

2.5 Gastronomic Tourist and Cognition (Decision-Making)

A choice is the consequence of a mental process in which a certain action is chosen from a range of accessible possibilities. Thus, decision-making is the process via which this particular outcome appears. Economics, psychology, sociology, management, and marketing sciences all study this process. The purpose of the research is to better understand why, how, and when individuals make choices. According to decision-making theories and consumer culture research, visitors' behavior is impacted by their personal traits and motives. For example, in Pearce's (1991) travel career ladder, places were chosen based on the lifestyle, personality, and motivational profile of each individual. Numerous decision-making models incorporated this pattern of human traits. The FLAG (fits-like-a-glove) choice model used in this study is based on practice theory and implies that each individual's decision is heavily impacted by prior experiences. According to FLAG theory, visitors' travel selections and activity preferences within a place may be impacted significantly by their past personal experiences and traits. Not only is food necessary for survival, but it also has psycho-sensorial, social, and symbolic implications. Tourism study into food began with studies on agriculture and production, the food services industry, and food hygiene, with the rising recognition of the role of food in tourism over the previous two decades. Indeed, recent studies examining the function of food in the tourism experience have revealed that, under some situations, food may serve as a key motivator for travel. McKercher & Chan (2005) study differs from the majority of previous food tourism studies pointing that eating food is a mandatory activity for all tourists and arguing that "food" may not be sufficient to establish a particular interest group. These writers argue that food tourism research should take a more comprehensive approach (McKercher & Chan, 2005; McKercher et al., 2008). Henderson (2009) examined studies on food in tourism and identified four distinct themes:

- Food, tourism, and tourists are all inevitably linked.
- Possibilities for commercialization of food as a tourism product.
- Food marketing to visitors.
- Food tourism as a tool for destination development and overall development.

Henderson's (2009) research adds a fifth sector: food production and services. Food plays a critical part in hospitality services and may have an effect on tourists' pleasure with the place. Henderson (2009) examined food production from a demand-side viewpoint, as well as culinary schools for tourists visiting a certain area. Henderson (2009) notes that the first topic is the connection between cuisine, tourism, and visitors. Food can be regarded as intrinsically linked to certain places or as a global phenomenon. Due to global migration and fast technological advancement, classic foods such as sushi, pizza, and hamburgers are now available in every metropolitan city on the planet. On the other hand, cuisine reflects local culture, and tourists' tolerance for novel foods varies according to place. Food may also serve as a symbol of a country's identity, which should be utilized with caution while marketing a place. Numerous food service providers are torn between internationalizing meals and including indigenous components into their menus, as food consumption is an integral element of tourists' entire experience in a place. There are three types of decision-making models now available: microeconomic models, cognitive models, and interpretative frameworks. Microeconomic analysis is predicated on the concept of the economic person. Money is utilized to get happiness and enhance utility, and pricing influences decision-making. The cognitive method places a premium on socio-psychological factors and processes in decision-making, using both structural and process models.

The evolution of decision-making models in tourism is examined chronologically, which assumes that a tourist is a rational decision-maker, which assumes that a tourist's choices are not always rational. According to Sirakaya and Woodside's study, one of the next research topics in decision-making might be to examine underlying characteristics impacting choosing behavior, such as lifestyle. Their self-image impacts their travel behavior selections; moreover, an individual's travel behavior patterns are inextricably linked to the ideas and values that they adopt. However, tourist activities are frequently determined after the visitor arrives at the site (McKercher & Chan, 2005). When examining tourist decision-making as a process and the interpretative approach to decision-making, there are two stages involved in tourist decision-making. The first stage is making the decision to travel to a certain place, and the second stage is making the decision to engage in activities while there. Consumer behavior influences the creation of new decision-making models in tourism. Consumer culture theory aims to illuminate how consumers aggressively rework and alter symbolic meanings encoded in advertisements, brands, commercial locations, or products in order to express their unique personal and social circumstances, as well as their identities and personal lifestyle objectives.

2.6 Destination Marketing Concept-Context

The concept of destination marketing applies essential marketing and branding strategies in every region, city, and nation. Tourists are led to a choice of destination before selecting transport and accommodation, making destination marketing a significant issue in the development and growth of tourism (Murphy et al., 2000). Therefore, a variety of experiences and services must be provided to optimally promote a destination while maintaining and increasing its popularity. It is estimated that food is an integral part of the cultural heritage of each place, with gastronomic tourism playing a significant role in promoting each destination. Hotels and tourism businesses should integrate local gastronomy, with the aim of more effective promotion of their destination. The use of social media also plays an important role. It is observed that many businesses have their page on Instagram or Facebook, through which every gastronomic event is promoted, able to attract several tourists to the specific destination. In conclusion, the gastronomic experience is one of the main reasons people prefer to travel to a place. At the same time, the consumption of food is not the only goal of tourists. In particular, the largest volume of tourists is interested in learning the origin in combination with the way food is produced, proving the ever-increasing demand for unique gastronomic experiences. Businesses are encouraged to diversify their culinary offerings in order to satisfy even the most discerning customers. Sánchez-Cañizares and López-Guzmán (2012) highlights the opportunity to design a specific tourism product and to promote a destination through its gastronomy.

Tourists are looking for "series of experiences" achieved through the combination of various products and services. For visitors, the product is the overall experience, covering all aspects, formed by their expectations. According to Middleton and Clarke (2012), the offer of total tourism can be defined in five main parts: destination facilities and services, destination accessibility (including transportation), images, perceptions, and costs. In addition, a tourist destination is a unit that includes a complex system of initiatives, plans, actions, and a variety of roles and environmental factors that interact for their performance. According to other research, tourists generally perceive their visit as hollistic experience, even though different businesses offer their services. Their visit consists of a structured series of services and products, which operate separately. The value chain reflects the number of different factors involved in providing tourism-related services and products. It is a structured set of businesses, interactions, resources, and knowledge which create and deliver value to the final consumer. This creates the need to integrate supply chain activities by identifying consumer needs through product development, production, and distribution. Stakeholders in the value chain have to deal with issues such as the integration, collaboration, networking of their activities. In tourism marketing, it is essential to determine tourists' motives in order to create the desire to travel. Factors that form tourists' motivation to visit a specific destination are environment and climate related, as well as, cultural, economic, and psychological.

2.7 Gastronomic Tourism in Greece

After analyzing the concepts of gastronomy and gastronomic tourism, in this section, we will study the Greek gastronomic offer by referring to areas of Greece with a unique gastronomic identity, with more characteristic Santorini Chios, Crete, and areas in the rest of Greece. In particular, it is mentioned that gastronomy is an important and valuable cultural heritage, capturing the way of life of an area through food and drink. The products that characterize the Greek cuisine are widely based on the Mediterranean diet such as olive oil, herbs, vegetables, honey, Greek yogurt, and cheeses, giving extraordinary well-being in combination with the wine. In the Peloponnese, an area of purely rustic cuisine, the areas are combined to create island and mountain dishes. The main ingredient is olive oil in combination with the production of olives. Similar to the cuisine of the Peloponnese is the cuisine of Thessaly, with many elements from Macedonia. The key ingredient of the diet is meat, highly used on local dishes. The characteristics of the mainland cuisine are pies and the abundance of dairy products due to the rustic character of the region, while in Macedonia, the main characteristics are the peppers and a variety of cabbage (Katsoni, 2020). On the other hand, the Ionian and Aegean islands are characterized by different flavors, without spicy elements and highly digestible foods. At the same time, fish is the basis of a variety of dishes. Ionian islands cuisine is highly influenced by the Italian one.

3 Research Design—Methods

3.1 Purpose of the Research

The objective of the following research is to gain an understanding of how an alternative form of tourism in Greece—gastronomy tourism—operates and how it functions as a tourist attraction through destination marketing. To do research effectively, specific objectives must be established: To begin, the concept of "gastronomic tourism" should be thoroughly researched, as it is a distinct and modern form of tourism. Following that, places of Greece that must provide a truly unique gastronomic experience for tourists should be studied, as well as areas that tourists like. Additionally, it is critical for study to comprehend the notion of destination marketing and how Greece uses gastronomy to entice travelers with delectable quests. Finally, travelers' perceptions and knowledge about gastronomy tourism in Greece should be analyzed.

3.2 Research Questions

- [RQ1] What is the value to investigate Gastronomic Tourism as a modern type of Tourism?
- [RQ2] What is the importance of Gastronomic Tourism in Tourism Destination Marketing?
- [RQ3] What are the cognitive parameters that influence the decision-making regarding gastronomic tourism and the choice of the final tourist destination?
- [RQ4] Investigation of the case study of Greece regarding the field of gastronomy and the policies of attracting tourists that it adopts?
- [RQ5] Analysis of the concept of destination marketing and how gastronomy is used in Greece to attract tourists with tasty quests?

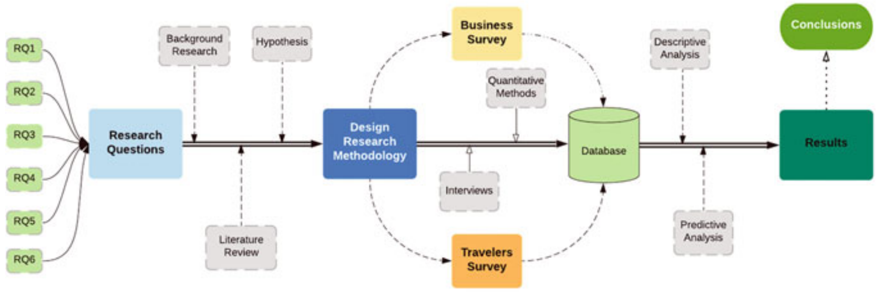


Fig. 1 Research questions flowchart

– [RQ6] What is the opinion and knowledge of tourists on gastronomic tourism in Greece?

The secondary investigation, and particularly the bibliographic review, involved the examination of linked themes via papers, books, and internet sources. The primary survey was conducted using two questionnaires. The set of questions is the same for all respondents, so the results are more precise and lead to a more accurate conclusion. The surveys had both closed-ended questions with standardized responses and some open-ended questions. Likert scale was used, as well as multiple-choice. Tourism experts responded to the first questionnaire. There was telephone conversation or email communication with everyone (Fig. 1).

The questions were designed to ascertain their understanding of the term "gastronomic tourism," their use of promotional strategies, and their perception of the sector of gastronomic tourism in Greece. The questionnaires were delivered to more than four companies, but responses were not quick, necessitating additional communication in each case. The second questionnaire sought to ascertain travelers' understanding of gastronomic tourism in general and Greek food in particular. Aim was to examine their familiarity with Greek cuisine before visiting a Greek destination and their experience during their stay. The distribution was made to employees of enterprises based abroad, as well as to members of Facebook groups devoted to Greek tourism. Due to Covid-19 restrictions, none of the two questionnaires received a high response rate, thus the sample of tourists contains no more than 152 responses, while the sample of professionals contains four (4) respondents.

4 Results

4.1 Sample Characteristics

The results of the survey conducted with 2 questionnaires, using Google platform (Google Forms). During the second part, the research was conducted with a sample of 152 foreign tourists who have visited Greece at least once and consequently have tasted Greek food. The first question concerns the gender of the people who participated in the research.

As far as the research sample is concerned, 55.3% are female, while 44.7% are male. Regarding the age groups, the largest percentage belongs to the group of 31–43 years (48%), followed by the age groups of 18–30 years (24.3%) and 44–56 years (24.3%) and then the 18–30 years (3.3%). The majority with a percentage of 47%, as it seems, holds a bachelor's degree, followed by those with a Master with a percentage of 39.5%. Then, with lower percentages follow those who have graduated from College (7.2%) and those who have a Ph.D. (5.9%). At the employment level, the largest percentage (39.5%) is employed in professional-managerial occupations. Immediately after, follow those employed with intermediate occupations (32.2%). The lowest percentages are held by those employed with routine-manual occupations (19.7%). Few are students (3.9%), full-time parents (2.6%) and retirees are last (2%).

Regarding the place of residence of the respondents, 36 declare Sweden as their place of permanent residence, 34 Germany, 27 Italy, 21 England, 16 France, 5 the Netherlands, 4 Spain, 3 Greece and 3 Denmark while just 1 Switzerland, Serbia, and Iceland (Fig. 2).

Continuing with the nationalities of the respondents, we see a number of 36 people having Swedish nationality (Fig. 3). They are followed by 29 Germans, 26 Italians, 18 English, 17 French, 8 people of Greek nationality, 6 Spanish, 5 Dutch, 3 Danes. Finally, South Africans, Indians, Icelanders, and Serbians accounted of 0.7% each. Regarding the religion of the respondents, 42.1% of them are Catholics, 21.1% are non-religious, 11.8% follow another Christian religion, 11.2% are Protestants, 5.9% represent the Christian Orthodox. While, 4.6% have chosen "Other", their answerers consist of two spirituals and a Lutheran. Then Buddhists with 2.6% and a Hindu with 0.7%. Of the total number of respondents, 42.8% are married, 33.6% are single, while 23.7% are in a long-term relationship.

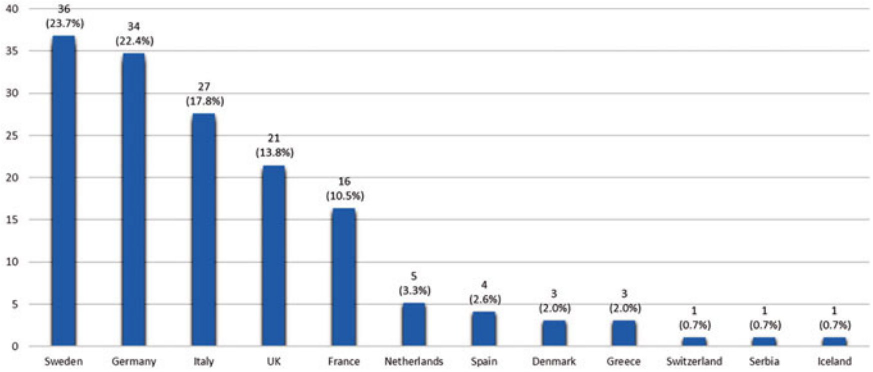


Fig. 2 Sample characteristics (country of residence)

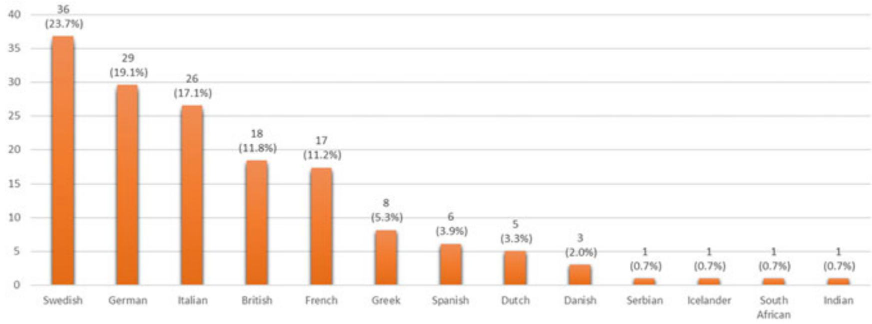


Fig. 3 Sample characteristics (nationality)

It is then observed that only 33.6% have children, while a large percentage of 66.4% say they have no children. Below are the tourists' choices as to who they choose to travel with. Most answered that they like to travel with friends (35.5%), with their partner (31.6%) and with their family (22.4%). Then smaller percentages, those who travel alone (5.9%) and those who prefer traveling with organized groups (3.9%). Regarding the annual family income of the respondents, the largest percentage (44.7%) preferred not to answer. The immediately higher percentage (17.8%) indicates an annual income over € 50,000. Immediately after are those (13.8%) whose income ranges from 30,001–40,000 €, while follows the percentage (13.2%) which declares income 40,001–50,000 €. Finally, we have smaller percentages of 7.9% and 2.6% that declare income of 20,001–30,000 € and 0–20,000 €, respectively.

Concluding with the demographic data, the different types and dietary trends that exist and whether the respondents follow any of them will be examined. It seems that the vast majority of 96.7% do not follow a vegan diet, while only 3.3% are vegan. Also vegetarians cover 14.5%. Those who avoid gluten are 7.9%, while 92.1% do not avoid it. 17.9% follow a low fat diet. Finally, 22.4% of the respondents prefer organic products. Regarding accommodation, the majority prefers 4 * hotels (66.4%) followed by Airbnb (63.8%), 5 * hotels (32.9%) and 3-star hotels and below (25.7%). All-inclusive hotels account for (17.1%), and Bed and Breakfast (10.5%) (Fig. 4). The type of Breakfast that most people choose, 50% prefer the continental breakfast, 30.9% choose English breakfast, while there is a percentage of 13.2% who choose Greek breakfast. Finally, the answer "Other" consists of answers such as drink only coffee in the morning, not having breakfast, only fruit, or smoothies (vegan) (Fig. 5).

This section described the items of the administered questionnaires. The results of the alternative types of tourism are chosen by the respondents. 28.3% answered that choose sometimes gastronomic tourism, also 28.3% do not often choose gastronomic tourism, (21.7%) never, while in smaller percentages 15.8% and 5.9% choose this form most of the time or always respectively.

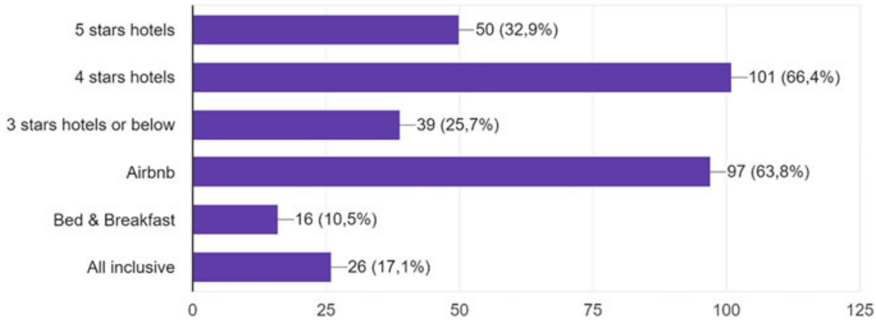
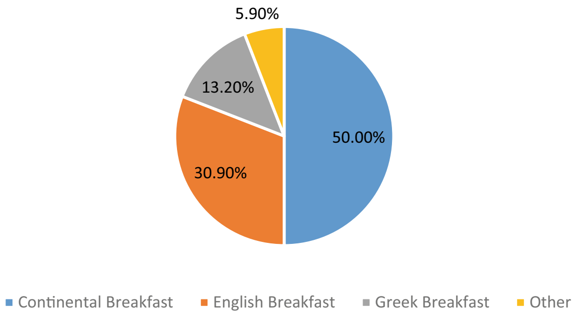


Fig. 4 Accommodation in travel destination

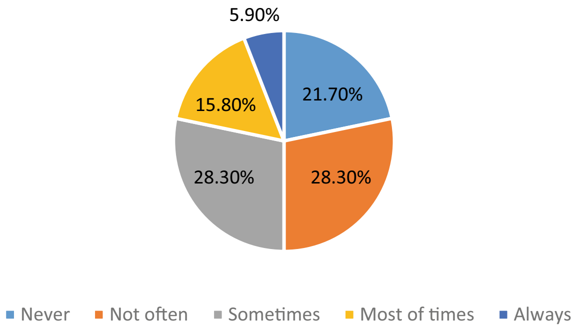
Fig. 5 Which type of breakfast do you prefer?



Q1: Do you choose gastronomic tourism and how often?

Regarding gastronomic tourism, a large percentage of 62.5% do not choose it at all as a type of tourism, followed by those who do not choose it often 22.4%, those who choose it sometimes 13.2% and those who choose it most times 2% (Fig. 6).

Fig. 6 Gastronomic tourism



Q2: Do you know what gastronomic tourism means?

115 people responded to the fresh products. 78 people consider Michelin-starred restaurants very important, while 59 people consider street food very important followed by those that chose luxury restaurants (51) and expensive food (36).

Q3: How important gastronomic tourism is for you?

The importance of gastronomic tourism for the respondents is quite shared, with most saying it's somewhat important (35.5%), 30.9% saying it's important, and 13.8% saying it's very important to them. Finally a small percentage of 3.3% does not give any importance to gastronomic tourism.

Q4: What characteristics define gastronomy for you?

In this question we try to find out how gastronomy is defined from the personal point of view of each visitor/tourist. 75.7% people responded to the fresh produce. 51.3% people consider Michelin-starred restaurants very important, while 38.8% people consider street food very important. Next are those who chose luxury restaurants 33.6% and expensive food 23.7% (Fig. 7).

Q5: I have visited a destination for its gastronomy?

Some people (33%) held a more neutral attitude in whether they have visited a destination for its gastronomy. 16% have visited a destination for this reason, and another 22% also support this view. While in percentages 16% and 13% do not seem to agree (Fig. 8).

Q6: Greece is a destination of gastronomic interest?

The majority are very happy with the gastronomic experience they had in Greece. 66 out of 152 people answered that they completely agree with this (44%), while another 72 people also agree (47%). Only 10 people had a more neutral attitude (6%) (Fig. 8).

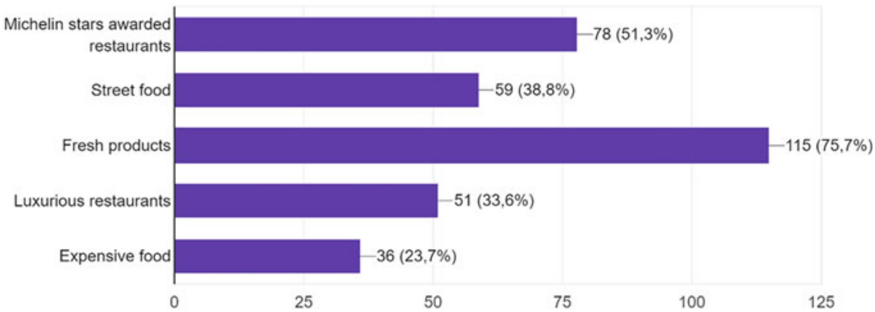


Fig. 7 Decision-making about gastronomy

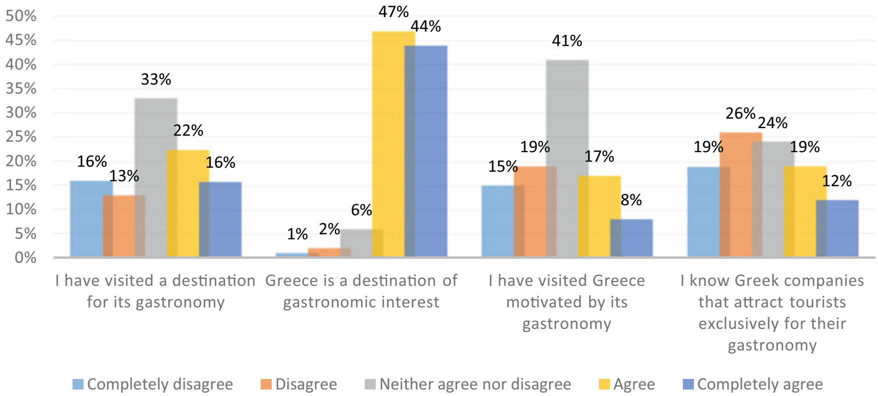


Fig. 8 Gastronomy destination

Q7: I have visited Greece motivated by its gastronomy?

Few people have visited Greece motivated by its gastronomy. These percentages are one 17% and one 8%. Again, it is observed that many have a more neutral opinion (41%). While 19% and 15% hardly agree at all and not at all respectively (Fig. 8).

Q8: I know Greek companies that attract tourists exclusively for their gastronomy?

Also, most of them notice that they do not know Greek companies exclusively for their gastronomy. 26% do not agree, while 19% do not agree at all. 37 people accounting for 24% are in the middle, while 19% agree and 12% completely agree (Fig. 8).

Q9: In which area have you eaten the best Greek food in Greece?

There is variety in the areas visited by our tourists with specific preferences from specific nationalities. In Crete, most people have eaten the best food (23.7%), while many acknowledge the food in Athens (18.4%). They are followed by Zakynthos (7.9%), Corfu (5.9%), and Mykonos (5.9%).

Slightly lower percentages are observed in Kefalonia (5.3%), Santorini (5.3%), and Sifnos (4.6%). Finally, very small percentages mention Kythira (2.6%), Lefkada (2%), Skiathos (2%), Ios (2%). With a percentage of 1.3% each, follow Ioannina, Kalamata, Ithaca, Mani, and Thessaloniki. While finally, there were answers that occupy 0.7% each. These are Andros, Halkidiki, Ikaria, Koufonisi, Nafplio, Naxos, Paros, Peloponnese, Pelion, Rhodes as well as “Northern, Central Greece, and Ionian Islands” and “It depends on the type of food” (Fig. 9).

Q11: How much money did you spend per person on your food? Daily budget on food?

Regarding Daily budget on food the amount spent by tourists for daily meals per person varies with most common answer the amount of 25–50 € (39.5%). 29.6%

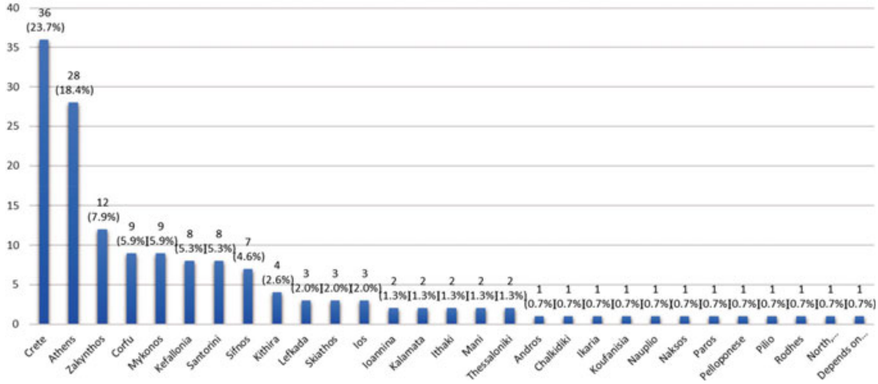


Fig. 9 In which area have you eaten the best Greek food in Greece

have spent 0–25 €, 26.3% between 50 and 75 € and finally only 4.6% between 75 and 100 €.

The next question concerns the most important Greek dishes. Unanimously, with a percentage of 76.3%, the village salad is first, while the souvlaki comes second with a percentage of 67.1% and the tzatziki comes third with a percentage of 50.7%. They are followed by moussaka 38.2%, spinach pie 27.6%, dolmathakia 13.8%, and courgettes-balls 13.2% (Fig. 10).

Q12: Choose the 3 most important Greek foods?

Based on the answers of the respondents about which Greek dishes they have tried, it was observed that 65.8% have tried moussaka, 51.3% have tried pastitsio, revithada has tried only 17.8%, wedding pilaf 21.7%, snails 17.1%, and sofrito only 7.9%. Next is the meat pie that 25.7% have tried, while 55.6% have tried Cretan dako. Almost everyone has tried Choriatiki and souvlaki, with percentages of 99.3% and 86.2% respectively. Lachanodolmades has been tasted by 39.5%, while stuffed by 55.9%. In

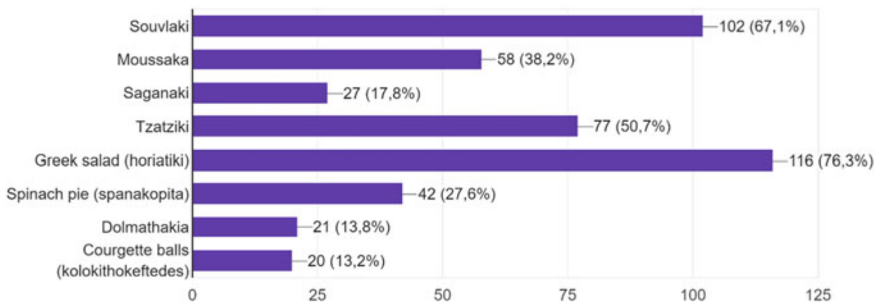


Fig. 10 Greek gastronomy products

contrast, cod pie (5.9%) and garlic cod 15.1% do not have high percentages. Finally, courgette-balls have a high-test rate 71.1%.

Q13: How did you find out about the gastronomy of Greece?

The means by which tourists were informed vary. First in the ranking, with a percentage of 54.6% is Instagram and second Facebook 38.2%. It is followed by Youtube 36.2%, Pinterest 32.9%, television 30.9%, the press 16.4%, Twitter 13.8% and radio 4.6% (Fig. 11). An important percentage is the answer "Other," where the answers received were the following: There are those who did not know Greek food at all, those who knew it from their partner, because their origin is Greek even though they have not lived in Greece, by documentaries, colleagues, and tour guides. Most, however, knew about Greek gastronomy from friends 41.9% (Fig. 12).

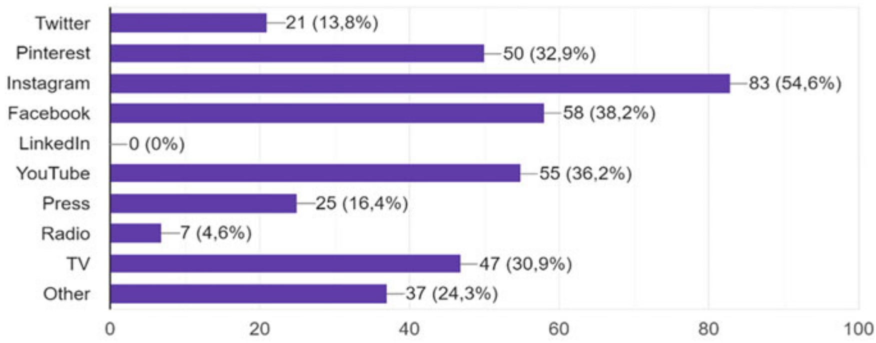


Fig. 11 Formal information sources about Greek gastronomy

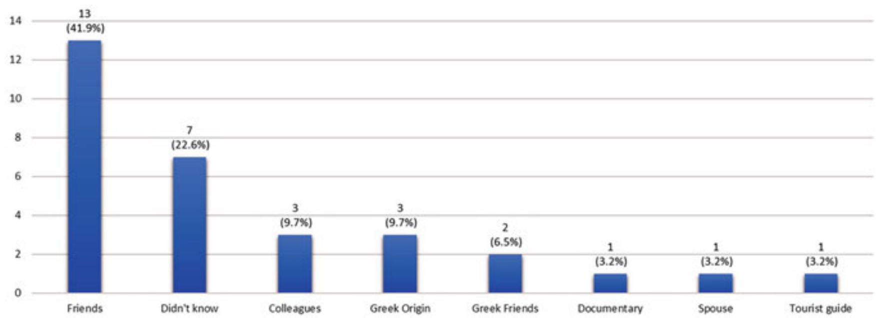


Fig. 12 Informal sources about Greek gastronomy (other option)

5 Discussion

Completing the research on gastronomic tourism in Greece and its contribution to destination marketing, the results obtained have positive and negative conclusions. Initially, in the answers to of tourism professionals, gastronomic tourism is more common in the areas of the respondents compared to other alternative types of tourism. However, there is a need for improvement and more emphasis should be given in order to further develop and promote gastronomic tourism. It was pointed that the development of gastronomy in the region could increase companies' turnover and government's revenues and more significant further promote the tourist destination. They did not mention particular obstacles to develop gastronomic tourism. Their personal efforts to implement it have had positive results. However, factors that make its development difficult have been identified the lack of funding and lack of strategic tourism planning. Tourists seem to seek the taste of Greek flavors, so it would be good to overcome the obstacles to offer them the entire experience. They believe that they offer as much as they can to provide a gastronomic experience that tourists are looking for.

Moreover, they are trained in new dietary trends and habits and apply these new tactics in practice and at a significant level. Of course, it is a not so good time for gastronomic tourism, as for any other type of tourism, due to the pandemic of Covid-19. Nevertheless, it might be a good time for a proper tourism redesign strategy resolving any fundamental problems that have arisen during the pandemic.

According to the majority, the success factors of gastronomic tourism, are mainly the hosting of a place, the strong internet presence, accessibility, and finally, the connection with tradition and cultural heritage. Especially for the latter's development, there could be the creation and implementation of a gastronomic map combined with archaeological and cultural excursions, since Greece is an ideal country to combine them having a wealth of archaeological and historical sites.

Tourism professionals who participated in the sample, underline that using the media (mainly: Instagram, Facebook, press, radio, etc.) is the best way to obtain the desired results (Halkiopoulos et al., 2021). However, they would spend more money to promote their businesses especially with innovative e-Tour Facilitator Platforms Supporting marketing strategies (Panteli et al., 2021).

Regarding tourists' survey the largest sample of tourists surveyed is aged 31–43 years, which means that they are at the most productive age category or at the age they already have a family or are preparing to create. This is proved by 42.8% who say they are married and 23.8% in a long-term relationship. It is also observed that a large percentage already have children (33.6%). The most significant percentage of the sample are Swedes, Germans, and Italians. Most say they are Catholics and prefer to travel with their partner or friends and then with their family.

It is impossible to draw a clear conclusion since many chose not to answer concerning family income. There is not a large percentage of tourists having particular eating habits, except for organic products (22.4%). In terms of accommodation, they prefer 4* hotels and Airbnb with continental breakfast. A small number of course

(13.2%), shows that some are familiar with the Greek breakfast and prefer it. So, this could be an incentive for its even greater promotion, since it could have a variety of Greek foods and options, greatly promoting Greek cuisine, and combining the organic and fresh products that one can find in many areas of Greece, highly preferred by tourists. Gastronomic tourism comes third in the preferences of tourists, first the cultural and then the nature loving. It makes sense since 30.9% have answered that they consider it very important, and 58 people have answered that they have visited a destination for its gastronomy. An excellent image for promoting Greek products is observed since 113 people consider Greece a destination of gastronomic interest. It is also observed that Crete and Athens are the predominant places for tourists who have tried and will eat good Greek food. Regarding the daily cost for the meals, there are not very high prices, since the highest percentages are the prices 0–25 € and 25–50 € and the vast majority had a high level of satisfaction regarding the culinary experience in Greece.

The three most promoted Greek dishes seem to be souvlaki, choriatiki, and tzatziki, as they are the ones that the respondents have chosen as the most important of Greek gastronomy. The majority have tried the Greek salad, which stands out. Gastronomic tourism strengthens local identity (Sormaz et al., 2016). What is observed is that many local recipes such as (sofrito, revithada, meat pie, etc.) have not been particularly tried by tourists. So, observing that most people knew about the gastronomy of Greece through social media, maybe more effort should be made to promote local delicacies from various areas of Greece. A gastronomic lecture could be helpful to people coming to our country or a food festival with exclusively Greek food from all over Greece. Also, cooking schools and chefs can be trained, while complex foods with local flavor, aroma, and ingredients can be developed without jeopardizing the local culture and tradition.

6 Conclusion

Although gastronomic tourism is widely established in the highly competitive worldwide tourism sector, scholarly research indicates that it is still underdeveloped. From the perspective of food consumption, it is critical to understand the needs, desires, and wishes of tourists, both for hosting organizations and tourism personnel, as well as for the tourists themselves. As a result, the hospitality industry requires an in-depth understanding of the elements that influence tourists' food intake and how they finally choose culinary products. The purpose of this study was to clarify the profile of tourist consumer behavior through the use of qualitative and quantitative approaches, while also capturing cognitive elements, specifically how tourists make decisions about culinary tourism and tourist destinations. The model offered in this study clarified the emotional, functional, attitude, and social values that influence tourist behavior and provided a complete explanation of tourist food, their motives, and sources of satisfaction. Tourism food consumption patterns, tourism prospects, and sociological aspects were all incorporated into a framework in this study in order to discover the most critical factors influencing the behavior and marketing of tourism food.

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Neuromarketing as an Indicator of Cognitive Consumer Behavior in Decision-Making Process of Tourism destination—An Overview

Constantinos Halkiopoulos, Hera Antonopoulou, Evgenia Gkintoni, and Anthimos Aroutzidis

Abstract Neuromarketing is a growing multidisciplinary area that combines consumer behavior, neuroscience, and economics to give the tourism industry with new methods that are more effective than standard marketing methodologies in responding to changing market conditions. In addition, human behavior rules in tourist activities, tourism consumer behavior, and consumer psychology inclinations are all impacted by variables such as motivation, perception, learning, beliefs, and attitudes in the decision- making process while choosing a vacation location. The goal of this review is to present modern neuroscientific techniques such as eye tracking to show, in general, tourism consumer behavior and the components of the decision-making process, as well as the higher cognitive processes involved in travel destination selection. Additionally, including cognitive and neurocognitive characteristics for the purpose of forecasting consumer behavior might be a beneficial technique for creating a knowledge database comprising stimulus data pertaining to a range of vacation places. To summarize, integrating contemporary neuromarketing methods with a knowledge database is fundamental for exporting and receiving findings in the decision-making process, notably in tourism and consumer behavior, gender trends, perception, and cognition in general.

Keywords Neuromarketing · Consumer behavior · Decision-making · Cognition · Tourism destination · Data analysis

JEL Classification Z32 · D70 · D91

C. Halkiopoulos (✉) · H. Antonopoulou · E. Gkintoni · A. Aroutzidis
EDILAB, University of Patras, Patras, Greece
e-mail: halkion@upatras.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_41

1 Introduction

Business transition to Neuromarketing

Large corporations and organizations are always looking for methods to become closer to consumers and adapt to their requirements and expectations. Neuromarketing has lately being used by these firms to do this. They get closer and closer to the expectations of the purchasing public by attempting to comprehend people's brains and demands through neuromarketing and its applications *(*Conrady & Buck, 2011*)*. Neuromarketing is making inroads into the market, affecting advertising, product design and development, pricing, and, more broadly, enhancing consumer-company contact. Companies have aspired to apply neuromarketing approaches to their websites, improving their operation and making them more appealing to their users, realizing the importance of the internet and the time people dedicate to it.

Commercial and non-commercial uses of neuromarketing are also mentioned. Advertising effectiveness, unlocking purchase decision-making, internet experience, and entertainment efficacy are utilized to accomplish neuromarketing, branding, product design, and innovation.

According to studies, individuals consume both tangible and intangible commodities, such as services, on a regular basis. Consumer behavior is influenced by a number of variables (Javor et al., 2013*;* Wilson, 2008). They are cultural (culture, subculture, and social class), social (reference groups, family, roles, and social status), and personal (reference groups, family, roles, and social status) (age and stage of life cycle, profession and economic conditions, personality and perception, lifestyle, and values).

Consumers are emotionally tied to certain brands; thus, they are hesitant to switch brands even if a better product is released by a different firm. As a result, neuromarketing is a tool for improving customer relationships and recognizing their requirements.

Neuromarketing has the potential to transform marketing, and without it, campaigns will fall behind rivals that employ a fresh approach to consumer behavior and branding. Limited knowledge on how consumers interpret marketing stimuli will be provided by neuromarketing (such as advertisements, logos, or package designs). Marketers can gain from the newest insights on how customers think, feel, and make market decisions by using neuroscience ideas (Fortunato et al., 2014; Kolyovska, Maslarova & Maslarov, 2016). There are three (3) key pieces of neuroscience evidence that have significant marketing implications: In their minds, consumers have two (2) parallel circuits: one for thinking and the other for "doing." Nobel Laureate Daniel Kahneman (2011) called the circuits System 1 and System 2 to make them seem to traders as a mind that "does" and thinks accordingly. Furthermore, according to Harvard professor Gerald Zaltman, the unconscious portion of the mind makes 95 percent (95%) of purchase choices (Fortunato et al., 2014; Kolyovska, Maslarova, & Maslarov, 2016). When making purchase decisions, the brain utilizes a "shortcut." The mind's impact "does" reach rather far. For example, the mind "does" have developed energy-saving methods since it is meant to help people live in the environment.

The marketer faces a problem in forming the brand in the consumer's mind. When thinking about how to strengthen a brand from a neuroscience viewpoint, the most important task is memory management, not marketing management.

2 Literature Review

Brain mapping

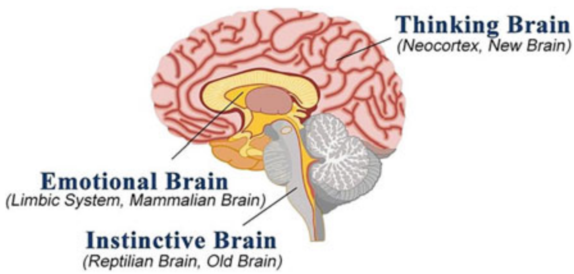
The structure of the brain is critical to understanding how it operates. The mind develops through the interaction of numerous brain regions (Damasio, 2003). MacLean illustrates that there is one brain separated into three sections: the lizard brain, the mammalian brain, and the human brain that contain distinct levels (Georges et al., 2013; Giudici et al., 2017) (Fig. 1).

The reptile brain (or subcortical mind) comprises the brainstem and cerebellum. It connects the brain to the spinal column and is the brain's oldest component. In the evolutionary steps of organisms on the earth, the Lizard brain or reptile cerebrum was named 500 million years ago. It is the first human brain system to develop and is comparable to the brain of reptiles. The cerebrum developed over time, but its fundamental components remain, and it is the smallest portion of the brain.

The reptile brain's main job is to feed, drink, sleep, defend territory, and maintain species survival (reproduction). The brainstem regulates vital bodily functions including pulse and respiration. This brain is traditionalist and imitative. It prioritizes scent above other senses. Its actions are intuitive and predictable. Primarily, all motor and sensory nerves pass via the brainstem, which plays a role in fundamental attention and consciousness.

The limbic system (mammalian brain or emotional brain) is part of the mammalian brain. Pleasurable deeds are remembered. Unpleasantness is avoided. It compares everything to reality. It values hearing beyond anything else. It is considered to have originated in animals, thus the name. Emotions and feelings are generated here, as are many behaviors. It is responsible for developing and displaying instinctive sensations and actions. It also creates our non-verbal communication. Intuitively, the

Fig. 1 Brain regions



fear system recognizes danger and develops responses and behaviors that increase our chances of survival. The Human brain (or new brain) has neocortex and frontal lobes. This portion of the brain is also known as the thinking brain or the intellectual brain.

The neocortex examines, anticipates, and decides. It values sight beyond anything else. It works like a machine, without feelings. It aids reasoning and foresees. The neocortex is what makes us smart. The neocortex's frontal lobes make it human. They allow us to be altruistic, think of others, create, and look forward. In other words, humans have a neocortex and frontal lobes. The human brain can analyze and translate data. That is, it absorbs and processes sensory information and governs mental functions like thinking and speaking (Giudici et al., 2017).

Choices, actions, feelings, and actions are heavily reliant on subconscious mind activity. While we may conceive of ourselves as reasonable, logical thinkers and decision-makers, most of our real-life impacts occur in the more basic, unconscious parts of our brains. To recap, each person has three brains, but only one decides (Hazeldine, 2013).

A human's brain thinks and processes facts, whereas a lizard's brain feels and decides. It considers input from the other two brains, but it is the Lizard brain that makes choices.

3 Importance of Neuroscience in Tourism

Neuroscience is a fundamental field that examines the central nervous system. Cognitive neuroscience arose by applying neuroscience to cognitive science. Human cognition is studied in detail by neuroscientists studying the neurological bases of cognition (Giudici et al., 2017; Ma et al., 2014).

Can it be beneficial to note that neuroscience has grown and changed quicker than ever? Slowly, over 100 years, qualitative descriptions and intrusive manipulation of few creatures gained anatomical understanding.

Over the last decade, the use of neuroscience to marketing has grown in prominence. The emergence of the young discipline of consumer neuroscience sparked extensive and ongoing discussions over the advantages they provide. (Ariely & Berns, 2010; Cohen et al., 2014; Lee et al., 2018; Plassmann et al., 2012).

It's worth emphasizing that, while the word "neuroscience" is frequently used in this subject, it's overly broad for the study of consumer behavior. A crucial distinction is that "consumer neuroscience" should be defined as the scientific examination of the biological underpinnings of the cognitive and emotional processes that underpin consumer behavior.

A primary and critical distinction is made between "consumer neuroscience," which refers to academic research at the interface of neuroscience, psychology, and marketing, and "neuromarketing," which refers to practitioner and popular interest in using neurophysiological tools—such as eye tracking, skin conductance, electroencephalography (EEG), and functional magnetic resonance imaging (fMRI)—to conduct collaborative research. Neuromarketing has gotten a lot of interest in the business sector.

The rising importance of cognitive neuroscience has prompted multidisciplinary research to focus on new frontiers: neuroeconomics, neuromarketing, neuro-decision-making, and neuromanagement.

Several of the features active in neurology are relevant to management studies, particularly tourist studies. Among the many features, it is helpful to study the "mirror neurons," a kind of neuron identified in 1996 by Rizzolatti and colleagues (Giudici et al., 2017; Rizzolatti & Craighero, 2004; Rizzolatti & Vozza, 2008). They discovered that mirror neurons "become active" in the frontal lobe of macaques when they execute a task and when they watch someone else complete the same activity. They discovered synchronization between action and observation (Georges et al., 2013; Giudici et al., 2017).

To identify a significant improvement in knowledge and a significant advantage in the firm's implementation, neurosciences applied new views to other disciplines of research. Mirror neurons can help us comprehend group dynamics and the gregarious attitude typical of mass tourism, despite rising individuality (Liebman, 2012).

A new potentiality is already penetrating neuroscience (and, presumably, related areas like neuromanagement, neuromarketing, and neurotourism, to mention a few): device fulfillment using nanotechnologies. As this study's following part explains, the rising usage of nanotechnologies opens unexpected perspectives.

Read Montague, Professor of Neuroscience at Baylor College of Medicine, published the first scientific neuromarketing study in 2004 in Neuron. The research had participants consume Pepsi or Coca-Cola while their brains were examined by an MRI scanner. While the study's findings were intriguing, Dr. Montague failed to explain how our brains manage brand decisions. When individuals consume products from unknown companies, different regions of the brain light up.

The study found that a powerful corporation like Coca-Cola may "own" a portion of our frontal brain. The executive function (EF) is located in the frontal brain and governs our attention, short-term memory, and our finest thinking, especially design. According to the study, those who know they are drinking Coca-Cola really prefer it than Pepsi, which upsets their EF.

When they don't know the brand, they choose Pepsi. In this case, the most active portion of the brain is not the EF, but an earlier structure in the lymphatic system. This part of the brain controls our emotions and instincts. Many marketing scholars were concerned about the potential of neuroscience to assist crack the brain code of our judgments after studying Coca-Cola and Pepsi and made attempts to incorporate neurocognitive factors into research projects in order to describe the method for decision-making in other spheres of consumer behavior, such as tourism, and the criteria that influence tourist destination selection.

4 Cognitive Neuroscience and Neuromarketing—History and Implications

People have been trying to figure out how humans make decisions for centuries. Philosophy and psychology were kept alive by the question. Decades of study demonstrate that much of our brain activity is subconscious, including our consumer choices. These unconscious mechanisms explain why we frequently fail to foresee our own decision-making. What we believe we desire often has little or no impact on the decisions we make (Kolb & Wishaw, 2008). Consumer neuroscience is a fast-emerging field of consumer research that attempts to better understand consumer behavior by applying neuroscience concepts and methodologies.

The development of consumer neuroscience has generated continuing discussions over whether this blended area promotes its parental sciences (consumer psychology and neuroscience), and if so, how. To comprehend the advantages of combining cognitive neuroscience with consumer psychology, one must first acquire the knowledge of cognitive neuroscience.

Cognitive neuroscience is the study of the nervous system that aims to understand the biological foundation of conduct. Clinical and nonclinical studies are separate in cognitive neuroscience. The first, neurology, investigates people and how nervous system diseases, trauma, tumors, and injuries influence their cognition, emotion, and behavior. The second studies healthy consumer reactions. As previously stated, consumer neuroscience refers to academic research combining neuroscience and consumer psychology, whereas "neuromarketing" refers to the use of neurophysiological tools like eye tracking, electroencephalography and functional magnetic resonance imaging (fMRI) to c Indeed, neuromarketing may be defined as "the field of research that utilizes the techniques of the neuroscience to evaluate and comprehend the human behavior connected market and economic exchanges."

Hence, neuromarketing is connected to marketing like neuropsychology is related to psychology. Also, neuropsychology explores the brain's link to cognitive and psychological functioning, while neuromarketing studies consumer behavior from a brain-based approach.

Although the term "neuromarketing" was coined by Professor Ale Smidts of Erasmus University's Rotterdam School of Management in 2002, it is not clear who coined it. At the time, two US companies, BrightHouse and SalesBrain, were the first to offer neuromarketing research and consulting services, advocating the application of cognitive neuroscience technology and expertise in business.

BrightHouse, located in Atlanta, has announced the development of an fMRI marketing research department. This shows that before the prefix "neuro," some firms were already employing neurophysiologic methods like EEG to address marketing problems (Cherubino et al., 2019; Markgraf et al., 2012).

Neuromarketing is a blend of neuroscience and marketing. Ale Smidts defined it as "the study of brain mechanisms to better understand consumer behavior" (Boricean, 2009).

Several definitions of neuromarketing emerged during the next decade. Others define neuromarketing as "the field that focuses on the effects of marketing on understanding the interactions of knowledge and emotion in human behavior.

However, neuromarketing combines commercial (retail) and non-commercial (social) uses of neuroscientific ideas and methodologies to collect consumer and marketing information (Barfield, 2015). Distinguishing it from consumer neuroscience (Plassmann et al., 2012) and behavioral economics (Nemorin & Gandy, 2017).

Unlike typical market research, neuromarketing collects data from both consumers and observers (facial expressions, eye movements, mouse cursor changes, etc.). These data, derived mostly from respondents' unconscious emotions, reveal far more about their real goals and opinions than questionnaire responses.

Neuromarketing allows marketers to relate normal reactions to video clips, website components, package design, etc. We will assist you to enhance those sections of a film or marketing content that elicit unfavorable emotional feedback.

Consumers' unconscious thinking is reached via neuromarketing and gives a deeper knowledge of the subconscious reactions that occur in each consumer's mind. Analyzing such replies helps understand client decision-making tendencies (Haynes & Rees, 2006; Lee et al., 2018).

Consumers can intentionally lie, but their minds can't. Neuromarketing allows marketers to access the unconscious and therefore better understand client motivation, product, website, and packaging reactions. This data may be utilized to better serve consumers' needs.

Neuromarketing is quickly becoming popular. The popularity of the term "neuromarketing" has grown from a few hits in 2002 to thousands in 2010. Meanwhile, advertising firms are seeing the value of brain-based techniques like eye tracking, EEG, and fMRI in forecasting campaign performance. Finally, the recent economic downturn continues to put pressure on executives to forecast and assess the return on big advertising expenditures. Considering all of these aspects, it is clear that fresh novel brain research is needed (Apperly, 2011).

5 Neuroscientific Methods of Neuromarketing in Tourism

However, while the discipline of neuroscience has developed rapidly in the previous decade, it has failed to fully penetrate the academic research academy. First, few marketing researchers have rigorous cognitive neuroscience training. And most significantly, marketing researchers have long anticipated public backlash over potential ethical and privacy problems raised by commercial neuroimaging technologies. Thus, few scientific neuromarketing research on advertising efficacy have been published. But things are changing fast (Ariely & Berns, 2010). In this challenging framework, neuroimaging methods have provided intriguing methodological options. By describing why, a message eventually succeeds or fails, such approaches allow marketers to study the consumer's brain (Gleitman, et al., 2011). They achieve this by eliminating the fundamental flaw in conventional advertising research: trusting that people will and can report how an ad affects them (Ariely & Berns, 2010).

Neuromarketers make use of EEG (electroencephalography) and fMRI (functional magnetic resonance imaging) technology that have historically been utilized by doctors and researchers to examine neuropsychological problems. In the near future, additional technologies like as MEG (magnetoencephalography) and TMS (transcranial magnetic stimulation) may potentially join the market. While EEG and fMRI equipment differ significantly in terms of cost, look, and method of operation, they both provide near-real-time readings of brain activity. They are claimed to give a more complete picture of customers' feelings and preferences than standard market research techniques like as surveys and focus groups. Although it is typically more expensive, it comes with the promise of completely understanding consumers' purchasing decisions. fMRI—an abbreviation for functional Magnetic Resonance Imaging—is a non- invasive imaging technique that relies on fundamental physics and biology. It creates a high-resolution picture of the live brain using a strong magnet and radio waves. It is based on the fact that Red Blood Cells (RBCs) in the blood contain iron in the oxygen- carrying portion of hemoglobin, and these iron atoms cause distortions in the magnetic field surrounding them. When a certain region of the brain becomes active, the blood arteries in that region widen, allowing for increased blood flow to deliver the more oxygen and glucose necessary for the more active brain cells to function. This massive inflow of freshly oxygenated blood creates a little shift in the magnetic field in the area. The result is a patchy region of color set against the brain's high-resolution gray background. The colored area denotes the active part of the brain, whereas the gray backdrop denotes the dormant region. With such high-resolution real-time 3D pictures of the brain, one can determine precisely which region of the brain is active.

This domain-specific information is critical to the usefulness of fMRI. Numerous components of our brain communicate with one another. While you are reading this article, the connectomes associated with your visual sense, as well as those associated with reading and comprehension, are active. Each area with a dense network of neurons is accountable for a certain function. The more you exert pressure on any activity, the more work that area of the brain does and the more blood flow that region receives. The intriguing aspect is that the area of the human brain responsible for each action is clearly defined. While the whole brain has yet to be mapped by scientists, different brain centers associated with various thought processes have been identified, including the reward center, the facial recognition center, the self-referencing center, the liking center, and the anticipation center.

Neuromarketing measures customer responses and behavior using a range of instruments and methodologies. These range from relatively straightforward and low-cost approaches such as eye tracking (measuring eye gaze patterns), facial expression analysis, and behavioral experiments (for example, observing how changes in product displays affect a consumer's choice) to more complex, sensor-based approaches such as biometrics (body signal measurements) that measure perspiration, respiration, and heart rate.

Thus, how is neuromarketing applied in practice? To begin, the consumer's brain is scanned using fMRI scanners (other technologies are also employed), which enables neuromarketers to ascertain how customers unconsciously react to advertising, brands, and goods. This will indicate to neuromarketers what elicited a response from the customer, such as the form of the package, the color of the packet, or the sound the box produces when shaken. This uncommon capacity to peer into consumers' minds and observe how sensory inputs such as vision, smell, and touch combine to form judgments helps advertisers and marketers to optimize their advertisements, campaigns, and product or service characteristics to increase their acceptability. Not just fMRI is employed. While functional magnetic resonance imaging (fMRI) is primarily used to refine product attributes, electroencephalography (EEG) measures fluctuations in response to advertisements, magnetoencephalography (MEG) measures fluctuations but with greater accuracy than EEG, and transcranial magnetic stimulation (TMS) is used to determine causal roles.

Frequency of EEG

It's worth noting that neuromarketing is not synonymous with subliminal marketing. The latter is a subset of the former and is concentrated on the application portion as carried out by marketers. Neuromarketing entails much more, such as engaging test participants, conducting tests using biometric and physiological sensors, and measuring the brain's reaction (and, in some cases, heart rate, respiration, and skin response) to social stimuli. Neuromarketing's ultimate result is its use in the actual world to increase sales or acceptance (for example, of a presidential address). A critical component of Neuromarketing that is more closely connected to subliminal messaging is "priming," which refers to subtle recommendations given intentionally to the subconscious mind without the subject's knowledge that may impact later behavior.

GSR

Galvanic skin response is a technique for determining the electrical conductance of the skin, which fluctuates in response to its degree of wetness. This is significant because the sympathetic nervous system controls the sweat glands, and so skin conductance is used to indicate psychological or physiological arousal. As a result, when the sympathetic branch of the autonomic nervous system is overstimulated, sweat gland activity rises, resulting in an increase in skin conductance. Skin conductance can therefore be used to quantify emotional and sympathetic responses.

However, there are only three well-established non-invasive techniques for monitoring and mapping brain activity: EEG, ME, and functional visualization. IN (MRI). All three imaging methods are non-invasive and thus safe for marketing research. That's why they dominate the recent five years' studies. Each approach has benefits and drawbacks (Breedlove et al., 2007).

The role of emotions in cognitive processes (perception, attention, memory, decision-making), their neurological foundation at the cortex and subcortical level, and individual variations in reacting to emotionally evocative stimuli are all explored in cognitive neuroscience. The amygdala (emotional brain structure) is vital in emotional life. An almond-shaped medial temporal lobe. It is known that the amygdala is involved in emotional training, storing emotional experiences, and processing emotional signals, notably facial expressions. Insula is a Brodman multimodal sensory region. Its activation is shown when we recollect an emotional experience. Coordinates sensorimotor and cognitive responses to hazardous material. Insula's signaling job alerts the body when under danger. In this way, we explain how self-initiated and withdrew guilt, shame of melancholy, and unpleasant stimuli stimulates the insula. Gyrus consulate's anterior cingulate cortex is limbic. Its ventral subdivision relates to emotional processes in the Brodmann area (cingulate region). Understanding the emotions evoked by tourist experiences is critical in the tourism business, hedonic consumption, adventure, escape, fun, happiness, pleasure, positive and pleasurable emotions.

To ascertain emotional reactions to visitor experiences, research studies must be conducted. The "self-report" approach is used to study an individual's emotional state in relation to a collection of useful items. While self-report methods are successful, they are subject to cognitive bias and need socially acceptable responses. Emotions require a variety of procedures with different measures. Thus, EDA (electro-dermal analysis) monitors autonomic nerve activity. As is well known, the autonomous nervous system (ANS) governs most of our organs and muscles automatically. The heart rate response (HR) is the time-dependent measurement of heart rate. The activation of facial muscles is a critical physiological indicator of internal mental activity. Typically, all of the aforementioned techniques are used in combination with additional psychophysiological tools. Eye movements and memory are inextricably linked. Excessive blinking or tears might skew measures of eye movement. Fear is associated with changes in blood pressure, volume, and pulse (Ohme et al., 2009). Vascular activity is more easily quantifiable owing to the smaller measurement equipment.

Tourism neuroscience requires first understanding social neuroscience. Social neuroscience is an interdisciplinary subject that studies the connections and impacts between social and biological layers of an organization. It emerged in the early 1990s as an interdisciplinary academic field dedicated to understanding how biological systems conduct social processes and behaviors, and how social and behavioral concepts and data inform and refine theories of neural organization and functions (This viewpoint has been a cornerstone of neuroscience for a century." Tourism is a key contribution to our planet's depletion. Tourism is vital in tackling global issues because it promotes global knowledge, understanding, and awareness. New technologies are propelling companies, ideas, and people around the globe faster than ever before. Compression of time and space leads to increased economic and cultural globalization. Time and space compression, as well as population expansion, are driving a need for greater global consciousness to understand and manage an ever-changing world.

Benefits of Travel refer to the positive effects of travel Inclusion, sociability, and health are some examples of travel advantages. Participation in vacation planning is a motivating factor. Making decisions requires numerous sub-decisions, from intent to where to go and beyond. Most of the time, people pick a place based on facts or descriptions. Or they might assess their prior adventures. As a result, behavioral or self- reporting measures may not be sufficient. There is a paucity of empirical data on the advantages of travel, and research on tourist decision-making is limited (Tosun et al., 2016).

Neuroscience EEG and fMRI might supplement current travel habits. Dopamine is a key substitute for intrinsic motivation. Midbrain dopamine neurons respond to positive and irreversible visual experiences. As a result, dopamine can be used to track travel habits. When someone travels, their dopaminergic value system activity increases, indicating intrinsic drive (involvement). High dopamine levels in the striatum and frontal brain are linked to positive emotion and voluntary action control. Intentions, rewards, or inherent values can motivate tourism consumers (Njegovanovic, 2019).

6 Consumer Behavior in Tourism Destination

Consumer behavior entails specific choices, actions, ideas, or experiences that meet consumer requirements and desires. It is "concerned with all activities immediately associated with the acquisition, use, and disposal of items and services, as well as the decision processes that precede and follow these acts" (Cohen et al., 2014). Consumer behavior continues to be a hot topic of research in the marketing and tourism sectors, with the phrases "travel behavior" or "tourist behavior" being used to refer to this field of study.

The use of neuroscience to the study of consumer behavior in tourism improves the efficacy of marketing, brand, communications, shopper marketing, pricing, and innovation tactics—all of which include, of course, social and other digital media techniques.

The following are brief overviews of three significant neuroscience findings, each of which has several significant marketing implications:

Consumers' minds are divided into two parallel circuits, one for thinking and one for acting. Daniel Kahneman, a Nobel Laureate, referred to them simply as *System 1* and *System 2*, while marketers may choose to refer to these circuits as the consumer's "doing" and "thinking" minds, respectively.

In *System 1*, a person's unconscious "doing" mind, finds memories of past sensory stimulations (such as advertisements, purchase and consumption experiences, and word of mouth), emotions, rules of thumb, stereotypes, archetypes, associations, visual images, spontaneous behavior (such as impulse or habitual purchasing), intuition, and non-verbal communication, among other things.

System 2, the conscious "thinking" mind of an individual, helps thinking by supplying working memory for processing verbal information, weighing the cost–benefit of alternative alternatives, and planning ahead (e.g. organization and planning of a trip). This is the mechanism that reacts to consumers' attempts to explain why they do the things they do in surveys and group discussions.

The “doing” mind is quick and strong, capable of doing millions of tasks continuously. Notably, it is the “doing” mind that determines which of the billions of sensory impulses received by the brain will be retained in memory. To do this, the “doing” mind must attach meaning and value to these inputs, just as it must determine which old memories to link the new memories. In comparison, the “thinking” mind is sluggish and can only focus on one job at a time. As a result, it’s unsurprising that successful marketers generally need to have an impact on the “doing” mind that drives most purchase decisions.

In the following part are described three critical implications: To begin, System 1 marketing—marketing activity directed at the consumer’s unconscious “doing” mind— is critical when consumers are: • repeat buyers, • purchasing something of minor importance, • under time constraints, • suffering from information overload, • uninterested in the subject, and • unsure how to decide (e.g. in a situation of commoditization or complexity). These criteria are applicable to the vast majority of purchases that consumers are expected to make throughout the course of their lives.

Second, evaluating the efficacy of advertising and other marketing activities only on the basis of recollection, stated purchase intentions, or claims about how the campaign altered customers’ attitudes about the brand is not only inaccurate, but also potentially deceptive. The reality is that consumers are unaware of what is occurring in their unconscious “doing” mind, yet it is here that the success or failure of the campaign is determined (Halkiopoulos et al., Halkiopoulos, Dimou, et al., 2021).

Third, avoid projecting the possibility of consumers purchasing a new product based on focus groups or interviews. Consumers just do not know what they will do—which is why 85 percent of new goods fail, despite extensive market research and focus groups.

Insight 2: The brain is wired in such a way that it is intended to avoid thinking while making purchases. The impact of the “doing” mind extends much farther. Due to the fact that the “doing” mind was created to assist humans in surviving in a difficult natural environment, it has developed energy conservation methods. And because the brain—which amounts for roughly 3% of total body weight—consumes approximately 20% of total energy, the “doing” mind appears to have concentrated on developing creative decision shortcuts that remove the need for thinking. There are literally hundreds, if not thousands, of case studies demonstrating how the unconscious mind steers consumers into shortcuts by activating judgment heuristics or by allowing primes to influence purchase behavior. While consumers who utilize these shortcuts frequently exhibit illogical behavior, this behavior is predictable, given the majority of consumers will react similarly when a judgment heuristic is engaged or when a marketer primes their choice.

Insight 3: The marketer’s task is to form the consumer’s brand memory. To do this, the marketer must invest in building a positive, emotionally powerful brand memory that is connected to one or more of the consumer’s goals. However, contemporary practice frequently violates this concept. Many marketers, particularly in social media, feel they have achieved success when they see thousands, if not millions, of 'likes, views, and comments—forgetting the reality that they may be related to the promotional exposure rather than the brand itself.

Numerous studies have referred to fundamental principles in tourist consumer behavior (Cohen et al., 2014). These concepts fall into two broad categories: cognitive and emotional—decision-making, motives, self-concept, values, personality (Halkiopoulos et al., 2021b), expectations, attitudes, perceptions, satisfaction, and trust- loyalty (Katsoni & Fyta, 2021). For the purposes of this review, we will refer to one of the cognitive factors that shapes and determines consumer behavior in tourism, more precisely in the choosing of a tourism destination: *decision-making*.

7 Decision-Making in Tourism Destination

One of the fundamental concerns in marketing research is how consumers cope with diverse product choices depending on their unique perceived advantages and costs. Numerous areas of the prefrontal cortex (PFC), located in the brain's frontal lobe, are involved in the fundamental processes of human decision-making. Numerous studies demonstrate that both the orbitofrontal cortex (OFC) and ventromedial prefrontal cortex (VMPFC) participate in decision-making processes by evaluating the (perceived) worth of various alternatives and possible outcomes (Bastiaansen et al., 2016; Bermeintiger et al., 2009; Cook et al., 2011). Notably, the OFC is related with the assessment of trade-offs and the anticipated capacity of outcomes in terms of their potential to satisfy one's wants. It is critical for selecting appropriate behaviors, particularly in uncertain settings. The dorsolateral prefrontal cortex (DLPFC), which is involved in cognitive regulation of emotion, also plays a key role in decision-making. It contributes to impulse control for adhering to social norms in particular, whereas the ventrolateral prefrontal cortex (VLPFC) may contribute to social norm compliance by projecting the prospect of punishment from others in the event of disobedience. Intriguingly, cognitive effort in the PFC appears to be greater in dangerous situations than when a certain reward is predicted.

Measuring the activity of these areas might thus shed light on marketing concepts such as perceived value and the neurological underpinnings of consumers' decision (Cherubino et al., 2019).

Dahiya and Batra (2018) as referred previously by Hamilton et al. (2003) highlighted climate as a critical element in tourism destination selection. According to the study, tourists consider the factor "climate" at three distinct stages of the decision-making process: first, during the planning phase; second, following the decision phase, when tourists inquire about climatic conditions shortly before the trip; and third, one week prior to the trip. The climatic conditions of the locations stay consistent throughout the year and are primarily determined by the destination's nature; nevertheless, the weather is a subjective variable that changes by day. That is the reason the researchers wonder if it is necessary to establish a fine boundary between tourist information search criteria based on weather and those based on climate (LaMondia et al., 2010).

Additionally, Dahiya and Batra, as referred also by Dunne et al. (2011) identified four distinct categories of factors that impact both the entire decision-making process and the city break decision of tourists. Internal variables, external variables, the nature of the journey, and situational considerations are all considered. Internal factors relating to the tourist's own characteristics such as motivation, attitude, and lifestyle seem to determine decision-making for tourist destination. Furthermore, external variables include the destination's crowd draw elements as well as familial and societal impacts on the destination's decision-making process. The nature of the trip entails a variety of decisions regarding the trip's dimensions, duration, and activities. Situational variables vary according to the kind of travel. In other studies, there were made efforts to investigate decision-making processes of tourists. A study (Moore et al., 2012) identifies four new decision-making aspects. The dimensions included "decision-making cognitive flexibility," "travel location and timing," "social composition," and "trip stage."

Cognitive flexibility enables decisions to be modified at a later point of the decision-making process whereas the term "social composition" refers to the degree to which group members participate in decision-making. Word of mouth is also increasingly important in shaping public perceptions of tourism destinations (Katsoni & Fyta, 2021). Interpersonal influence and word of mouth serve as an essential source of knowledge. With the advancement of technology, information exchange has become more simpler, and potential tourists now have access to a broader range of information sources (Halkiopoulos et al., 2020, 2021a). Individuals might rely on the views of others while making trip plans. The project established a conceptual framework for electronic word of mouth. Blogs and virtual communities, websites, newsgroups, chat rooms, instant messaging, and e-mails are just a few of the proposed avenues.

As far as the determinants for location selection that comprise tourist decision-making is concerned, there are more information sources from which travelers obtain travel information. In order to choose a tourist destination, tourists gather information from a variety of sources, including airlines, coach operators, travel agents, visitor centers, motoring organizations, friends and family, magazines, newspapers, brochures, and the Internet (Fuller et al., 2007; Djeri 2007).

Sema (2013) identified social media conversations as a significant element influencing a tourist's location decision. A tourist's choice of location is also influenced by an online review and marketing reference. One significant research changed the attention away from tourists being influenced by social media and word of mouth and toward environmental variables and other affecting tourist decision-making. Other studies have investigated the factors that tourists consider when deciding on a tourist destination. These factors include transportation access to and within the destination, the availability and affordability of suitable accommodation, the cost of transportation, infrastructure, tourist attractions, local people, tour operator recommendations, and weather conditions and availability (Dahiya & Batra, 2018; Pars & Gulsel, 2011; Ragavana et al. 2014).

Certain factors that influence tourist decision-making have been identified previously; these factors include trip distance, the environment of the destination, entertainment options, the culture and history of the destination, activities for children, knowledge of the local language, and adequate lodging facilities (Al-Kwifi, 2015). Some other studies that have been conducted, point out the importance of gastronomy in decision-making formulation for the final selection of tourism destination and cited cuisine as the primary reason international visitors visit a destination like Greece (Panas et al., 2017). In many cases, travelers are mostly interested in discovering regional foods and specialties. The research recommended that the food business, including food vendors, caterers, and restaurant owners, be developed and promoted. It was advised that the food sector maintain a high standard of service quality. The study paved the way for future research to examine visitors' eating motivations in other nations, as the same may be performed in the Indian setting and may give different results (Dahiya & Batra, 2018).

8 Discussion

Ethical Issues and Future Trends

The importance of ethical considerations in doing academic and commercial neuromarketing research is a critical problem that neuroscientists must address. Indeed, ethics is a critical and difficult topic when it comes to integrating neuroscience to marketing. There are two (2) major drawbacks of utilizing neuroscientific marketing approaches:

Subject protection: Subject protection is a critical ethical problem in neuromarketing research. The importance of informed consent, confidentiality, and vulnerability cannot be overstated. Affecting an individual's autonomy is more difficult when prior consent is obtained. The researcher must get informed consent and maintain anonymity while conducting human studies.

Children, patients, inmates, and individuals (or family members) suffering from neurological diseases or psychological disorders are all sensitive groups that might be easily duped or influenced by the use of neuroscientists' technology.

Establishing ethical committees: To address concerns regarding the protection of brain study participants, laws governing neuroscientific studies must be developed. These rules should safeguard subjects by outlining the study's objectives, hazards, and benefits in simple language. Additionally, to create protocols for the treatment of significant neuroscientific findings. Although it is not required for the majority of neuroscientific procedures, test subjects should always be informed of their autonomy and freedom to withdraw at any time for any reason.

Additionally, national ethical commissions should exist to protect the rights of individuals, particularly vulnerable groups, but also to assess and regulate neuromarketing operations at all levels (i.e. in industry). Finally, neuromarketing researchers seek to help their target market without endangering their economic or psychological well-being.

Social responsibility education: To address issues about neuroscience research's credibility, validity, and transparency, marketing researchers should first enroll in accredited neuroscience courses and programs. Before any neuroscientific study may have consequences for marketing theory and practice, it must demonstrate science reliability and validity, as well as acknowledgement and limitations of the neuroscientific methodologies used. Marketing researchers might use automated meta- analytic maps to excite the brain, therefore avoiding erroneous conclusions and assisting in the production of supported results (Murphy et al., 2008).

Adhering to a principle of responsible communication and truth in advertising should also contribute to scientific transparency, the elimination of deceptive marketing, and a positive public impression of neuromarketing. In general, neuromarketing approaches should be utilized only when there is sufficient research, the demand is unique (other methods are unable to satisfy the research need), and the benefits of certain neuromarketing methods are obvious and justify their use (Cherubino et al., 2019).

9 Conclusion

The purpose of this review was to demonstrate the importance of neuromarketing in shaping consumer behavior in the tourism industry, specifically in the preference of tourist destination when planning a trip, by exploring cognitive neuroscience findings and the decision-making process concerning the final destination choice. The significance and influence of neuroscience in tourism can be connected to individual decisions made using medical, psychology, and tourism. Tourism research relies on studying travelers' cognitive processes. Neuroscience tools collect data on cognitive and emotional processes using neuroscientific tools (monitoring and programming)—integrating neurophysiological data into the management information system (Ma et al., 2014; Njegovanovic, 2019).

Implementing neuromarketing techniques generates objective data that enables the creation of internal knowledge about consumer behavior. Neuromarketing enables marketers to do research on consumer behavior, advertising, pricing, product distribution, and decision-making in the field of tourism industry. Researchers have the opportunity to integrate neuroimaging technologies in their research projects such as fMRI and EEG to map the brain areas that are engaged in response to marketing stimuli. These technological applications of neuroscience pose ethical questions regarding consumer privacy and autonomy that should be taken into consideration by researchers conducting further studies in the aforementioned scientific field.

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Tourists’ and Employees’ Psychology in the Framework of Strategic Management in Greek Tourism

Ioanna Giannoukou, Aleksia Nikolopoulou, and Constantinos Halkiopoulos

Abstract Tourism is a social phenomenon that manifests itself at numerous levels of society and is subject to change. Greece is a prominent tourist destination worldwide, and tourism is a critical social and economic activity. Due to the tourist phenomenon’s importance, a detailed examination is required, both for its impact on a place, the natural and built environment, and on society and culture. Tourism psychology assists in the examination of the tourist phenomena. The purpose of this research is to examine tourism psychology in Greek tourism, not only from the perspective of visitors who have visited a Greek destination, but also from the perspective of tourism sector personnel in Greece. The research attempts to shed information on the visitors’ motivations, their perceptions of the trip, and the elements that influence their behavior. Additionally, the research will document any psychological illnesses that may be related with tourism activity. Furthermore, the research aims to capture the motives, behaviors, perceptions of work, and psychological effects of tourism job from the perspective of employees. It was explored whether the tourism profession’s practice has an influence on their attitudes, perceptions, and actions, with a common conclusion being that tourism has a two-way effect on the psychology of tourists, as well as the tourism profession’s practice on the psychology of employees.

Keywords Tourism psychology · Strategic management · Greek tourism · Employment · Motivation · Perception · Behavior

JEL Classification D91 · Z32 · M12

I. Giannoukou
Department of Tourism Management, Open University, Patras, Greece

A. Nikolopoulou · C. Halkiopoulos (✉)
Entrepreneurship & Digital Innovation Laboratory (EDILAB), Department of Management Science and Technology, University of Patras, Patras, Greece
e-mail: halkion@upatras.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_42

1 Introduction

Tourism, as defined by the World Tourism Organization (1997), is the aggregate activity of people who travel and reside in locations other than their typical surroundings for a time of less than a year for leisure, business, or escape from ordinary life. The second definition of tourism is the collection of occurrences and connections that develop because of interactions between visitors, suppliers and companies, governments, and other public and private entities in the host locations (Theodoropoulou, 2006). The Greek term "psychology" refers to the science that examines an individual's or group's psychic phenomena, psychosynthesis, and psyche, as well as the typical manner of thinking or acting, and, more broadly, how individuals think and act under certain situations (Babiniotis, 2012). Tourism and psychology are both human-centered ideas. On the one hand, tourism practice has the potential to impact the mental world of someone who travels or works in tourism professionally. On the other hand, the psychology of the tourist or employee has a significant role in molding the trip and the quality of the tourism industry's services. In this view, tourist psychology serves as a tool for all those involved in the tourism process, whether directly or indirectly, to contribute to the formulation of a plan for sustainable tourism development.

2 Literature Review

Purpose of Tourist Psychology

The study of tourism psychology is a subfield of applied psychology. Its application serves two purposes:

- To research, comprehend, and interpret the varied actions, attitudes, and motivations of man as a tourist (Simkova, 2014).
- To conduct research and build generalized models of tourist employees' behavior, and then to apply that knowledge in real-world work situations to propose solutions based on the research findings (Muchinsky, 1997).

Following these principles, tourist psychology strengthens the bond between tourism workers and travelers, resulting in the best impressions on both sides. It is a pillar of tourism development, considerably contributing to the economic prosperity of destinations.

The Tourist

The phases of the voyage are inextricably linked to the traveler's psychological state. The first phase, which involves the planning, organizing, and preparation of the trip, is closely related to the tourist's psychological profile—aside from elements such as information, advertising, and marital status. It is critical during this first portion of the journey since the choices made might influence social and purchasing patterns, particularly in the area of leisure (Zacharatos & Tsartas, 1999).

The second phase, which is the transition to the destination, is critical for the individual's psychological well-being. The visitor is confronted with reality in this second phase and produces images and emotions about the transition process and the location of living, based on how well they match his expectations and goals.

The third phase of a journey entails returning to one's permanent house and valuing it. It is concerned with the traveler's reintegration into his or her own personal, family, and professional daily life. Reintegration may become easier or more difficult depending on the objective of the journey and the extent to which it is accomplished. The impression that the trip leaves on the tourist, based on the experiences he has had, will influence his appraisal of the trip positively or negatively.

It is obvious that throughout each part of the voyage, numerous mental processes occur in the individual undertaking the journey (Halkiopoulos et al., 2020). Therefore, tourist psychology plays a key role in improving tourism. By examining the mentality and wants of tourists, as well as their interests and reactions, it is possible to analyze a variety of tourist behaviors. It is feasible to persuade individuals to travel and offer services that boost their enjoyment using tourist psychology.

The Tourism Worker

Becker and Wellins (1990) state that an employee must possess the following characteristics to provide satisfactory customer service:

- Capacity for communication, i.e., the ability to communicate in a clear and unambiguous manner.
- Capability to recognize the sensitivity of a customer. Recognize and demonstrate concern for their concerns.
- Determination. To make judgments and act in order to meet the needs of customers.
- Energy. Maintain vigilance.
- Flexibility. To adapt one's approach to the customer based on the circumstances and to deal with unforeseen events.
- Monitoring, to meet the company's commitments on time.
- Initiative. Take action to avoid exceeding customers' expectations as much as possible.
- Integrity, i.e., adherence to and acceptance of various social standards.
- Crisis. To effectively address the needs and problems of customers based on available information.
- Motivation. To derive satisfaction from the accomplishment of his work's objectives.
- Persuasion. To gain customers' consent and convince them of the product's benefits.
- Capacity to design work in such a way that it anticipates customer reactions.
- Capacity to analyze situations.
- High standards of performance with a constant effort to meet them.
- Work skills, in terms of superior product and service knowledge.

Additionally, basic guidelines for employee-customer relations are as follows (Velissariou et al., 2000):

- Customers must feel at ease.
- A pleasant smile elicits a favorable response.
- Individuals desire to feel desired.
- Customers who are demanding must be treated with patience.
- The public appreciates wit.

Along with the formal qualifications that define an employee in the tourism industry, he or she must possess several additional qualifications or characteristics that vary according to his or her psychological state. Certain features may be altered, enhanced, or removed depending on the context.

Mental health of employees is inextricably linked to physical health and productivity. Psychological stress can result in a variety of physical problems, including headaches, hormonal imbalances, and insomnia. As a result, respect for the company and its employees is dwindling, as is profitability. In the tourism industry, qualitative and quantitative productivity are inextricably linked to employee satisfaction and mood (Laloumis, 2015). As a result, tourism psychology values employees' mental worlds to protect their mental health and shape the behavior they must exhibit.

Psychology of Tourists

The modern tourist's traits are shaped by a variety of socio-psychological, demographic, economic, and institutional-organizational elements (Tsartas et al., 2020). Tourism, as a social phenomenon intimately linked to contemporary social and consumer trends, is defined by the variety of travel options available to tourists and the variety of tourist services available during the same trip. Numerous psychologists argue that people's propensity for "wandering" is a result of the human brain's "programming" (Nanduri, 2020). When a person travels, his or her psychological state is altered by the experiences gained throughout the trip. By speaking with one another and with the locals they meet, tourists develop social ties, form friendships, resolve conflicts, and strengthen human links.

People's perspectives about the rest of the world shift because of travel. They observe the environment in which they are visiting more objectively, operate more freely, and create more secure perspectives (Panteli et al., 2021). Interests and knowledge broaden, which benefits not only educational or professional development, but also self-awareness. The voyage is curative for both the body and the psyche. Tourists relish the opportunity to escape from stress, monotony, and routine (Panas et al., 2017). All the senses are satiated, creating a sense of contentment and accomplishment in completing the journey's objective. Tourists form memories that offer them joy and make them look forward to their next vacation (Valeri & Katsoni, 2021).

The primary characteristic of the tourism market is that it is composed of diverse groups of individuals with distinct aspirations and demands. Psychography is used to categorize travelers according to their psychological characteristics (Halkiopoulos et al., 2021). The term psychographic refers to the depiction of an individual's spiritual views and psychological makeup (Middleton & Clarke, 2001). Psychographic segmentation is critical in the tourism sector since it allows for the classification of tourists based on their features, needs, perceptions, and behavior. Psychographic study aims to ascertain and characterize visitors' motivations, as well as the relationship between such motivations and their personality and way of life (Varvaresos & Sotiriadis, 2002).

Tourist Behavior

Human behavior is composed of a series of activities, the way he reacts to internal and external stimuli. Tourists' individual conduct is influenced by a variety of elements that also contribute to the development of their character.

- *Biological factors*. At various periods of their lives, individuals have varying experiences, exhibit varying needs and skills, and prioritize their activities according to varying criteria. Additionally, males and women have diverse biological and mental features, as well as temperaments.
- *Psychological factors*. Similar conduct is shaped by the psychological state of tourists at any time.
- *Social factors*. Tourist behavior is influenced by family, profession, social environment, and relationships with other people.
- *Cultural factors*. Tourists' behavior is shaped by their culture, religious beliefs, conventions, and values.
- *Economic factors*. The way visitors behave is largely determined by their income, the expense of the trip, and the prevailing economic conditions.
- *Physical-Environmental factors*. Tourist behavior is influenced by a variety of factors, including weather conditions, the quality of the natural environment, and unforeseen natural phenomena.

The decision to travel motivates people to engage in specific activities prior to, during, and after the journey.

A. Before the trip

The steps before the journey include the recognition of the excursion's necessity or desire. This is followed by trip information investigation and processing, the challenge, acceptance of relevant data, and lastly, the final decision (Lytras, 2004).

Prior to embarking on the journey, the individual's processes produce a sequence of mental states that are manifested through similar behavior. The mind conjures up hypothetical circumstances, while the imagination conjures up visions of the future adventure. The anticipation and joy for the rewards he anticipates from the trip's completion generate a euphoric mood.

B. During the trip

The tourist encounters a range of emotions during the trip's implementation phase. He is aware of and adapts to the new reality, attempting to experience the anticipated satisfaction. He enjoys his vacations and exhibits strange actions, perhaps for his own amusement. The modern traveler engages all his senses, observes everything around him, and concentrates and intensifies his attention to gather fresh knowledge about the destination. A tourist can tailor his travel to his desired way of life and shape it in such a way that he can appreciate what he lacks in everyday life. Throughout the journey, the visitor exhibits a variety of characteristics. During the vacation, the dynamic, busy, and concerned professional tries to isolate himself and avoid new contacts to have a moment of tranquility and relaxation. On the other hand, the introverted and cautious worker has a desire for new social encounters. As a result, he develops an extroverted, chatty, and communicative personality. Outside the confines of stressful everyday life, the sense of freedom allows for a more open display of emotions in tourist behavior. During the holidays, many consume more than their daily quotas (Wang, 2002). To a degree, the sense of moderation and logic recedes. The constraints of daily living give way to transitory liberties. Excessive alcohol and substance intake during the holidays might result in extreme and undesirable behavior.

C. After the trip

The tourist encounters the end of the travel experience, depending on the degree to which the trip's objective is accomplished. If the journey lived up to expectations, the individual is identified by their sense of contentment. Pleasurable memories elicit pleasurable feelings and a sense of "sweet" nostalgia. This is because the brain modifies and removes negative memories more quickly than it does positive memories, which it retains for a longer period (Walker et al., 2003). Thus, lovely vacation memories brighten people's lives and increase their optimism.

Psychology of Employees

Psychosocial elements affecting employment in the tourism industry include the physical environment in which the business operates, the nature of the work itself, and the human and working relationships that form within the organization. Employees are influenced by workplace surroundings, and their emotions are reflected in their conduct and performance, and ultimately in the quality of services offered.

Natural Conditions in Tourism Companies

The presence of proper conditions in tourism enterprises' work environments and the construction of a pleasant and safe climate all contribute to employees' concentration and efficiency. However, the work atmosphere can be both pleasurable and depressing. Exposure to an "ugly" or risky job daily can result in disorders such as sadness, rage, and tiredness.

- *Illumination and Vision*

In tourism businesses, lighting conditions must be modified to accommodate job requirements (Coolican, 2008). Goggles and computer screen filters significantly reduce eye strain, headaches, and overall weariness.

- *Disturbance*

A big disadvantage in tourism businesses is a noisy workplace, which results in employees having difficulties concentrating and appearing fatigued. However, the ideal noise level can be achieved using sound-absorbing materials, sound-absorbing decorating elements, and, where available, headphones.

Employees' moods can be improved by listening to appropriate music while they work.

- *Temperature*

The ambient temperature must be proportional to the production of body heat, i.e., it must be proportional to the physical effort used by the tourism company employee in performing his tasks (Trebuna et al., 2017). As a result, staff must be at ease with the room temperature. On the other hand, temperatures that are excessive in comparison to the external environment and that fluctuate constantly in the workplace are likely to elicit negative sensations and even health concerns in personnel.

The space's natural airflow is great for air renewal. Otherwise, the ventilation systems in which they are utilized must be maintained on a regular basis.

- *Tidiness*

Good working conditions are directly related to adequate space cleaning. Apart from the professional experts assigned to this task, it is the individual responsibility of employees to keep their work areas clean. Keeping a clean workplace reduces employee tensions, potential injuries, and disease.

- *Safety and Health*

International agreements, European Union directives, and Greek regulations/laws all control the health and safety of personnel in tourism enterprises and facilities. Employers and employees in Greek tourism are required to adhere to the legislation to safeguard human resources, the natural environment, and to avoid dangerous circumstances. The features of a healthy natural working environment in tourism should include safety, functionality, harmony, aesthetics, and comfort. These features influence the development of good feelings in both employees and the tourist public in tourism businesses that come into close touch with the client (Lytras, 2015).

The nature of work in tourism

The tourist industry is not a discrete, distinct industry; rather, it is comprised of numerous distinct industries. The supplied tourist product is complicated and encompasses services provided by many tour firms as well as services provided by the same tour business. Employees from a variety of specialties in the tourism sector contribute to the creation and distribution of the tourist product, each of which is defined by specific traits, cultures, and habits (Laloumis, 2015).

Tourism employment is unique in comparison to other sectors of the economy:

- *Periodicity*

Seasonal employment is the primary element of tourism in Greece (Lytras, 2004). Summer months see the highest visitor demand, owing to climatic conditions and legal or customary vacations such as school holidays, religious holidays, and so on.

Insecurity among Greek tourism employees is exacerbated by a lack of professional stability and unpredictable pay during periods of low tourist demand.

- *Flow of work*

The workflow in tourism businesses varies. Work intensification is a fascinating phenomenon that occurs during the tourist season, resulting in physical and mental exhaustion. As a result, even during the day, the intensity of work varies. There are times when the employee is expected to generate a great amount of work, and other times when the employee's work rate falls.

- *Working hours*

Working in tourism companies entails working shifts and frequently overtime. The alternate work schedule with frequent shift changes results in decreased job satisfaction, problems planning social life, and higher health risks for workers owing to circadian rhythm disruption (Coolican, 2008). Furthermore, excessive overtime work results in decreased employee performance and an increased risk of errors and occupational failure.

Human and labor relations in tourism

The term "human relations" in the context of tourism companies refers to the informal relationships between employees (Salesiotis, 1999). The tourism industry's successful operation is largely dependent on the strength of human relationships. Employees must work cooperatively and communicate well. By demonstrating an interest in colleagues, mutual understanding, and mutual respect, an atmosphere of trust is created. As a result, work becomes more enjoyable, disagreements become less frequent, and productivity increases. Employment relationships, according to the International Organization of Employers, refer to the interaction between employers and employees at the national, regional, or corporate level, as well as any economic or social concerns governing their cooperation.

In the highly sensitive and, for the most part, anthropocentric tourism sector, successful service supply requires the integration of raw materials, methods of operation, capital, technological equipment, client, and staff (Salesiotis, 1999). The human aspect is the most critical link in the system. In tourism, the quality of services supplied is directly related to the employee. Existing employment ties influence the level of satisfaction received by the client and on the employee's perception of the tourism business as a whole (Ostroff et al., 2013).

Employment relationships must be constructed with great care, considering all relevant variables to avoid difficulties and conflicts on both the employee's and employer's sides. To summarize, the tourism industry's human and labor relations must ensure the harmonious cohabitation of individuals and their seamless absorption into the group. Only in this manner will it be feasible to meet the employee's and company's needs and objectives.

3 Research Design—Methods

Purpose of the Research

Tourism is a social phenomenon that manifests itself at numerous levels of society and is subject to change. The purpose of this research is to examine tourism psychology in Greek tourism, both from the perspective of visitors who have visited a Greek destination and from the perspective of tourism sector personnel in Greece.

The research aims to shed information on the visitors' motivations, perceptions of the trip, and the elements that influence their behavior. Additionally, the research will address the following questions:

- [RQ1] Record possible psychological disorders associated with tourism activity
- [RQ2] Identify the motives, behaviors, and perceptions of work in tourism, as well as the psychological implications of the work in tourism.

The questions reflect the association between practice and theory by conducting a comprehensive evaluation of the references and research data.

Type and method of research

Quantitative research conducted, using structured questionnaires. Two surveys were created: one for visitors and another for staff. Additionally, an opening statement discussed the background of the research, the subject, and the goal of the investigation. The tourist questionnaire was written in both Greek and English. It consisted of sixteen (16) closed-ended questions, the first seven (7) of which were on demographic factors, while the remainder were about the trip itself.

Employees completed a questionnaire in Greek that comprised seventeen (17) closed-ended questions. The first four (4) pertained to the respondents' demographic traits, while the subsequent ones linked to their employment in the tourist industry. The bulk of queries are quantitative in nature (Likert type). Both questions were developed using the Google forms (https://docs.google.com) web platform. This guaranteed the confidentiality of the research participants.

Additionally, access to the research was enhanced by the broad usage of digital platforms and the rapidity with which responses were collected and processed. They were sent by email, Viber, and Messenger apps, as well as on Facebook. The survey was placed between 1 and 30 June 2021.

Research sample

A sample is a subset of the overall population that has certain characteristics with the subject of the investigation (Vitouladiti, 2000). In this study, the population was required to fulfill the criterion of having visited a Greek destination in the tourist questionnaire and of working in the tourism sector in the employee questionnaire. The sample was contacted through the internet, which ensured ease and sped up the process. As a result, the sample is composed of Internet users during a specified time period. As such, it is an indication of convenience. The sample size for the tourist questionnaire was 197 persons, while the employee questionnaire had a sample size of 108 people.

3.1 Tourist Survey Results

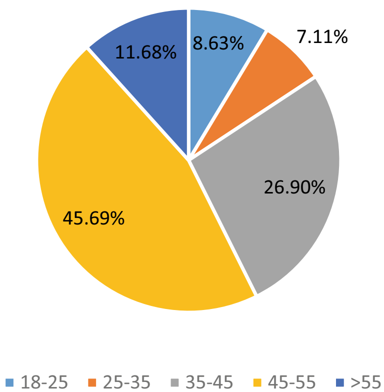
Descriptive analysis of results

From the sample of 197 people, 165 declared as country of origin Greece, eight the United Kingdom, four the United States of America and 4 Germany, three people Canada, 2 Australia, as well as Cyprus and Luxembourg, one person Russia and by one person the countries Belgium, France, Denmark, Spain, Italy, and Slovenia. At a rate of 45.7%, the age of tourists ranged between 45 and 55 years and 26.9% between 35 and 45 years. 11.7% were tourists over the age of 55, and the remaining 15.7% almost shared between the ages of 18–25 and 25–35 (Fig. 1).

These percentages correspond specifically to 90 people aged 45–55, 53 people aged 35–45, 23 people over 55, 17 people between 18–25, and 14 people between 25 and 35 years old. Regarding the gender of the respondents, 121 were women, i.e., 61.4%, and 76 were men, i.e., 38.6%. Also, almost half of them, 50.8%, corresponding to 100 people, are married or have a permanent relationship and have children, 23.9%, i.e., 47 people are free, 35 people, 17.8% are married or in a permanent relationship, and 15 people 7.6% are free with children. The employment status of the sample was as follows: 67% are public or private sector employees, 14.2% are managers, 13.2% unemployed, and 5.6% are retirees. Seventy people have a university education, 59 people have postgraduate or doctoral level, 40 have higher education, and 28 have basic education. In percentages, the educational level was 35.5%, 30%, 20.3%, and 14.2% respectively.

Due to the dissimilarity of income criteria between countries, respondents were asked to describe their standard of living. At a rate of 60.4%, i.e., 119 people, characterized their standard of living as comfortable. 30.5%, 60 people described it as marginal. 5.6% very comfortable and 3.6% difficult, i.e., 11 and 7 people respectively. Of the respondents, 90.4%, corresponding to 178 people, have traveled to a Greek destination more than five times. This was to be expected since the most significant percentage of the answers come from Greeks. Twelve people, a percentage of 6.1%,

Fig. 1 Demographic characteristics (Age range)



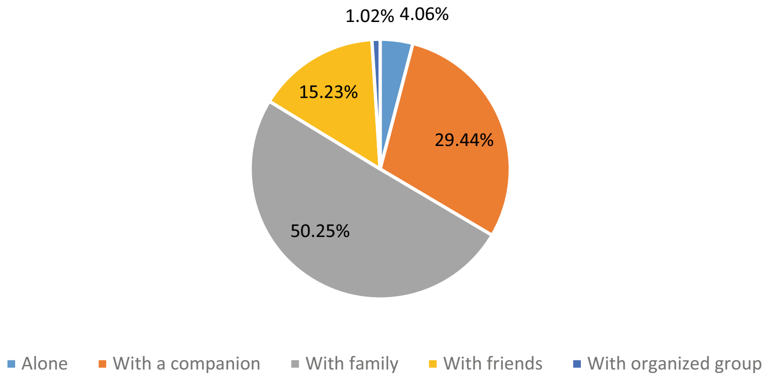


Fig. 2 Way of travelling

have traveled to Greece 3 to 5 times, and the remaining 3.6%, i.e., seven people, 1 to 2 times.

The following graph illustrates that the largest percentage, 50.3% (99 people), traveled to Greece with his family, followed by travel with a partner (58 people) at 29.4%, 15.2% (30 people) with friends, and only eight people traveled alone at 4.1% (Fig. 2).

- TS_Q1: "Evaluate the following reasons why you traveled to a Greek destination (Fill in all the answers with a scale from" Not at all important "to" Very important")". This question indicated the main purpose of the trip. The most important motivation to push was relaxation with 102 of the 197 options on the "Very Important" scale and 65 on the "Very Important" scale. On the other hand, with 132 choices on the "Not at all" scale, it was social prestige (Fig. 3).
- TS_Q2: "In the decision to choose a Greek destination to fulfill the purpose of your trip, how important were the following factors? (Fill in all the answers with a scale from "Not at all important" to "Very important")". A major motivation for the choice of destination was the climate and natural environment of Greece,

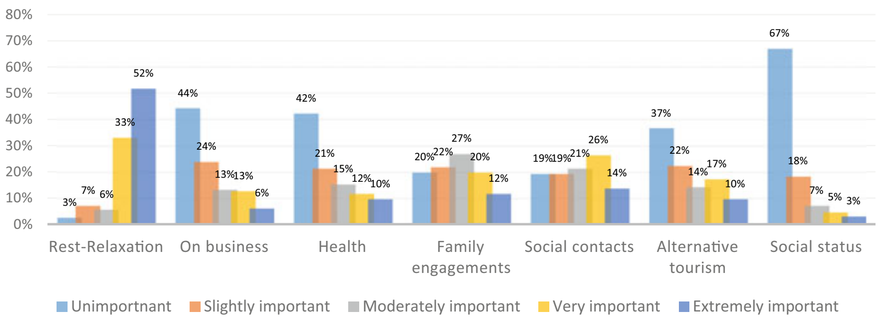


Fig. 3 Push motivation (Table of summarized responses)

with 98 and 61 responses on the scale "Very important" and "Very important" respectively. The quality of services, accessibility, facilities, cost, and security were taken together in the scales "Very important" and "Very important" from 130 to 139 options. Criticism of the destination was not particularly attractive (Fig. 4).

- TS_Q3: "To what extent did the following influence your decision? (Fill in all the answers with a scale from "Not at all" to "Too much")". The question was intended to highlight the extent to which specific factors influenced the perception of tourists, for the choice of destination. 74.11% made their decision, influenced by their knowledge and opinions about the Greek destination, in the rank of "Very" and "Very much", 72.59% from previous travel experiences and 68, 03% from the belief that the purpose of the trip will be achieved by choosing the specific destination (Fig. 5).
- TS_Q4: "To what extent did the following factors influence your reactions during your trip? (Fill in all the answers with a scale from "Not at all" to "Too much")".

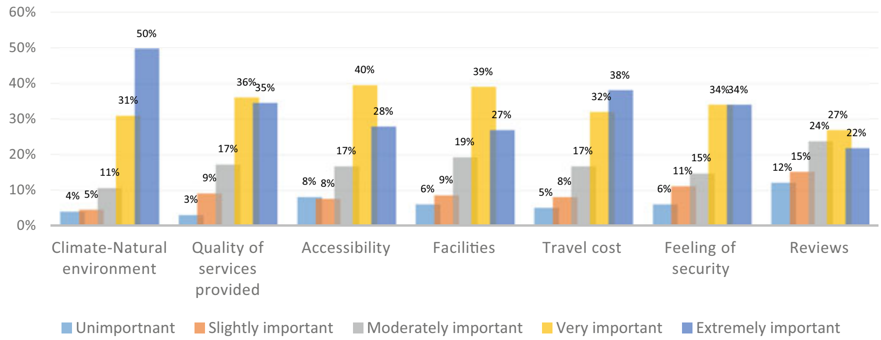


Fig. 4 Pull motivation (Table of summarized responses)

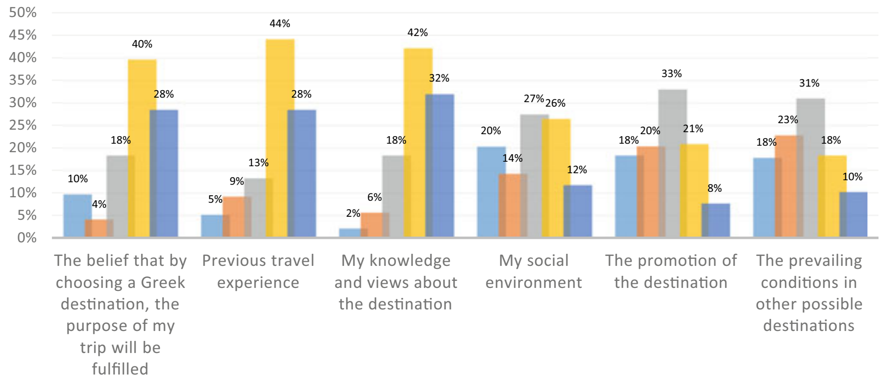


Fig. 5 Factors shaping tourism perception (Table of summarized responses)

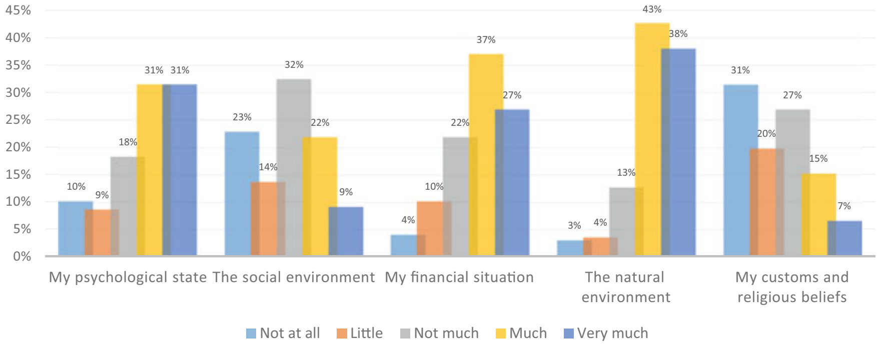
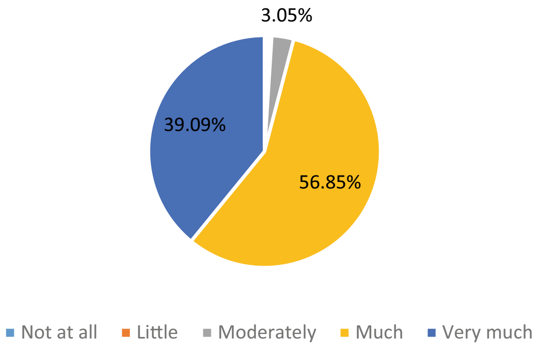


Fig. 6 Factors shaping tourist behavior (Table of summarized responses)

The natural environment is the one that mainly influenced the behavior of the tourists during their trip, receiving a percentage of answers in the scales "Very" and "Very much" 80.71%, corresponding to 84 and 75 options respectively, on the rating scale. It is followed by the financial situation of the tourist, with the percentage on the same scales, amounting to 66.66% and his psychological condition with a percentage of 62.94%. Morals, customs, and religious beliefs affect the behavior of half (51.27%) of tourists, from "Not at all" to "Little" (Fig. 6).

- TS_Q5: "To what extent was the purpose of your trip achieved?" Dissatisfied tourists scored a minimal percentage, with the options "Not at all", "Little" and "Moderate", amounting to 4%, while 56.9% and 39.1% of respondents, considers that the purpose of his trip was achieved by "Very" and "Too much", respectively (Fig. 7).
- TS_Q6: "Have you experienced any anxiety disorder during your trip? (Fill in all the answers with a scale from "Never" to "Always")". In more than 90% of cases, tourists are faced with an anxiety disorder from "Never" to "Rarely", with the highest percentages being found in the "Never" option (Fig. 8).
- TS_Q7: "Did you feel intense sadness returning from your trip to Greece? (Fill in all the answers with a scale from "Never" to "Always") ". 38.07% have felt

Fig. 7 Level of achievement of the purpose of the trip



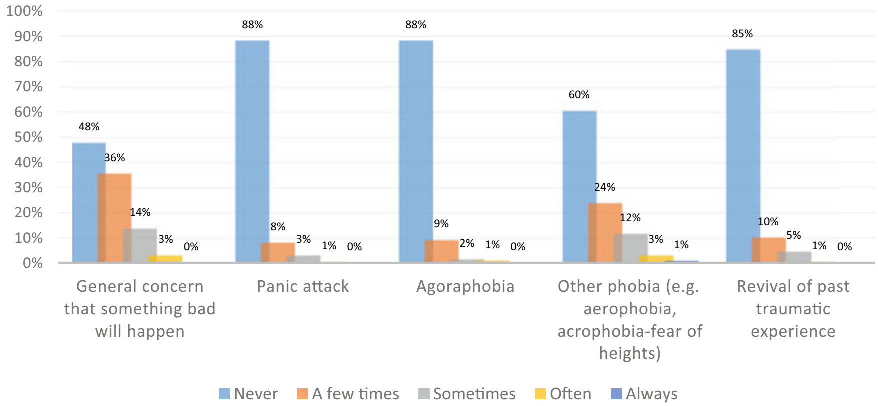


Fig. 8 Anxiety disorders during the trip (Table of summarized responses)

often and 33.5% sometimes, intense sadness due to the difficulty of adapting to the obligations of everyday life, after a pleasant trip. 79.69% have never been disappointed by an unpleasant trip, while about 40% of tourists often, forever, are not significantly affected by positive or negative emotions and quickly return to their daily lives (Fig. 9).

Research findings in Tourists

The tourist survey sampled 197 people. Greece was chosen as the nation of origin at an 84% rate. As a result, it is reasonable to assume that the research findings mostly pertain to the category of tourists who possess the nationality of the country they visit (Zacharatos, 1999). The sample's primary age group is 45–55 years old, closely followed by 35–45. Women outnumber men numerically, accounting for 61% of the population. In terms of marital status, approximately half of the sample is married or in a stable relationship with children, while a tiny fraction is single with children.

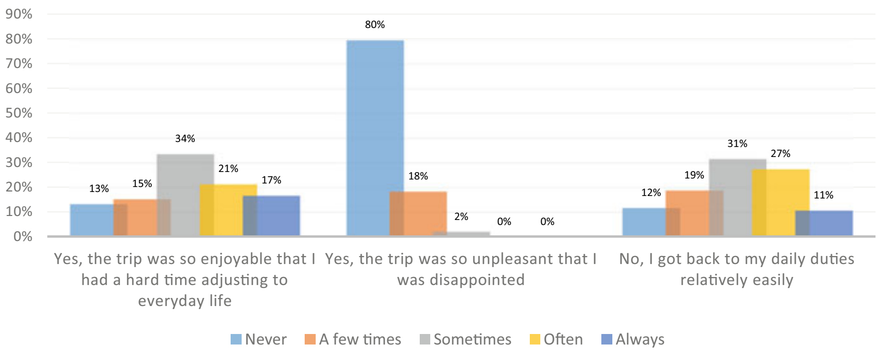


Fig. 9 Post-vacation depression (Table of summarized responses)

The remainder of the sample is married or in a committed relationship, while the remainder is single.

Most respondents are employed in the private or public sectors. Except for 14% who have only completed primary education, the sample comprises of individuals with a higher, postgraduate, or primarily higher education. The research participants' standard of living is described as comfortable in 60% of cases. 30%, on the other hand, barely covers their necessities. Because the sample is predominantly composed of Greeks, this also explains the high frequency of excursions to Greek destinations, with 90% having visited more than five times, primarily with family, followed by their spouse and friends.

The primary element that influenced travelers' choice of Greece as a destination is relaxation. Greece demonstrates that as a tourism destination, it possesses the traits necessary to satisfy the unique motivations of tourists. The climate and natural environment play a significant role in this and emerge as the primary reason for attraction. Travel costs, service quality, security, accessibility, and facility availability are all quantifiable incentives. Given that these are primarily Greek tourists who have made more than five journeys and formed the same viewpoint, the reviews have little bearing on the destination selection process. An aspect that reinforces this is the fact that family commitments and social contacts were major motivators for the journey. A striking finding is that most of the sample went in accordance with their personal requirements and aspirations, rather than social prestige.

The vacationers' personal traits were the key determinant of their location choice. Tourist perceptions were shaped by their knowledge and opinions about the destination, their past travel experiences, and their conviction that choosing the specific destination will satisfy the objective of their trip.

During their visit to Greece, travelers' conduct was influenced by the natural surroundings. At this stage, the dependency between the trip's motivation and the reactions that occur during its execution becomes apparent. Tourists' behavior was influenced by their general psychological state, as well as their financial circumstances. On the contrary, it was discovered that manners, customs, and religious views did not influence tourist behavior. With the primary goal of leisure, the visitors viewed the trip as a reprieve from their daily lives, free from the constraints of social, cultural, and religious reality.

There is no such thing as frustration associated with an uncomfortable vacation. On the contrary, the assessment on the trip's accomplishments was overwhelmingly positive. In many situations, visitors who had enjoyed a good trip found it difficult to return to the responsibilities of regular life and were confronted with deep melancholy following the trip's conclusion. The situations of those who soon abandoned the trip and transitioned to their social and professional lives are comparable. Anxiety disorders associated with travel are essentially non-existent in the research sample.

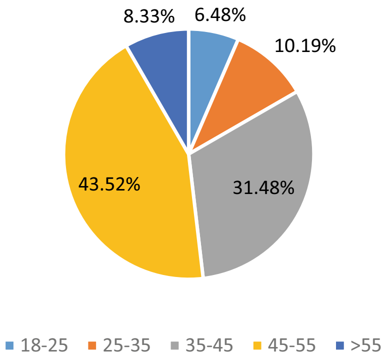


Fig. 10 Demographic characteristics (Age range)

3.2 Employee Survey Results

Descriptive analysis of results

The age of employees in the tourism industry ranged from 43.52% in the age category 45–55, 31.5% in the age category 35–45 and the ages between 18–25 years, 25–35 years and over 55 years follow with percentages of 6.5%, 10.2% and 8.3%, respectively. The total number of people who took part in the research was 108 (Fig. 10).

Most of the sample were women at 67.6%, compared to 32.4% of male employees. Regarding the marital status of the employees, 73% were equally divided into married or in a permanent relationship with children and single. 17.6% were married or in a permanent relationship (without children), and 9.3% were single. In the following question, information was obtained on the educational level of employees in tourism. 29.6% belong to the categories of higher and university education, precisely 32 employees in each category. 21 out of 108 employees come from basic education, 19.4% and 23 belong to the postgraduate-doctoral category.

More than half of the sample is employed in the housing and food sectors. 12% work in a public agency and 8% in a travel agency. Also, for more than ten years, most of the sample has been working in tourism, namely 65 employees, which corresponds to 60%. From 5 to 10 years, 21% are employed, and the remaining 19% work in the industry for up to 5 years.

- ES_Q1: "To what extent does your work in the tourism industry fulfill: (Fill in all the answers with a scale from" Not at all "to" Too much ")". At the "Very" scale, all the needs of the employees are met, while the percentages of those who consider that they are not met at all are small (Fig. 11).
- ES_Q2: "How much do the following conditions in the workplace affect your performance? (Fill in all the answers with a scale from "Not at all" to "Too much")". The most important role in the performance of employees is played by health and safety in the workplace, with the answers on the scales of "Too much" and "Too", amounting to 57%, and 30% respectively, as well as the cleanliness,

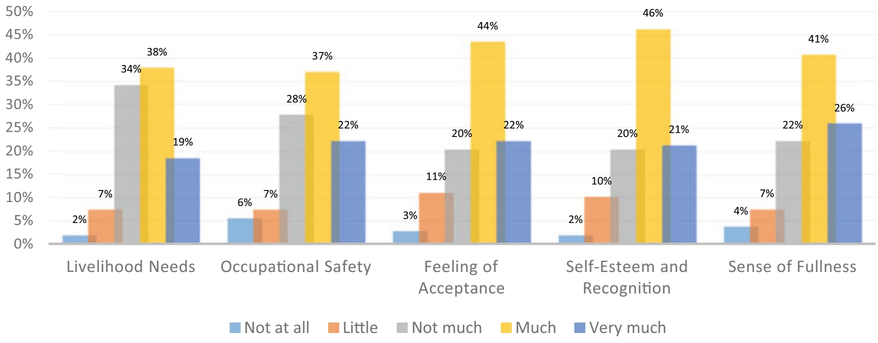


Fig. 11 Employment motivation in the tourism industry

with the percentages ranging in the scale "Too much" 54% and "Very" to 28%. Next, the temperature, noise, and lighting that exist in the workplace (Fig. 12).

- ES_Q3: "How much do the following affect your physical and psychological condition? (Fill in all the answers with a scale from "Not at all" to "Too much")". Regarding the nature of work in the tourism sector, the highest percentage was recorded in the workflow, where 45% stated that they are physically and psychologically affected on the "Very" scale (Fig. 13).
- ES_Q4: "How satisfied are you with your relationship with your colleagues?" In the scale from Not at all (0) to Too much (4), the percentage that chose the scale 1 was minimal. The rating chosen by most of the respondents was 3, with a percentage of 54%.
- ES_Q5: "How much is your efficiency affected by relationships with colleagues?". On the scale from Not at all (0) to Too much (4), 6.5% answered that his efficiency is not affected by the relations with his colleagues, while 38% answered that he is very much affected.

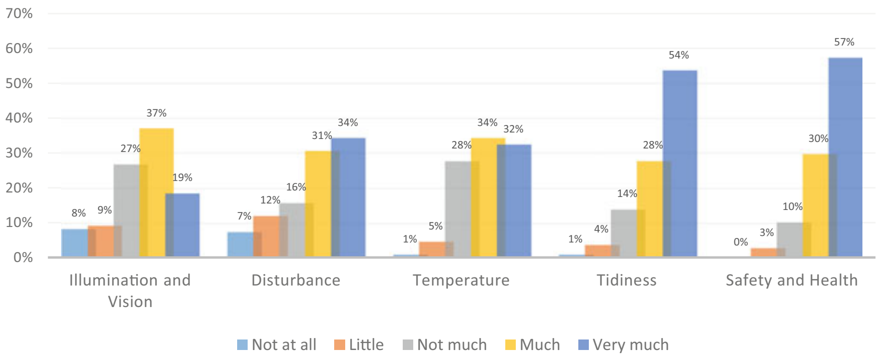


Fig. 12 Degree of effect of natural workplace conditions on employee performance

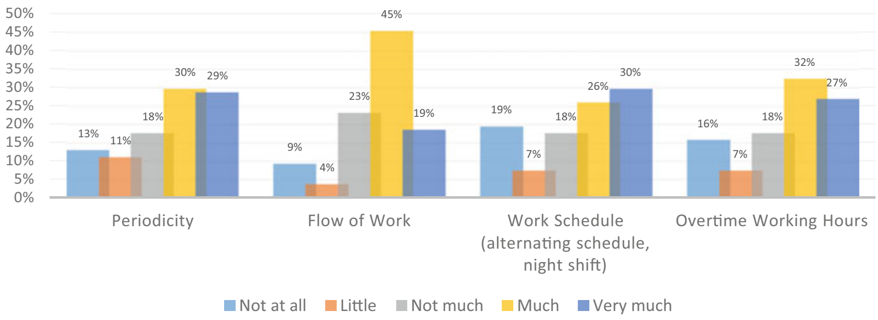


Fig. 13 Degree of physical and psychological impact of the nature of work on employees

- ES_Q6: "Do you consider employee evaluation necessary?". At a rate of 94%, the employees of the tourism sector, consider the evaluation at work necessary.
- ES_Q7: "The evaluation of the employees in the tourism company where you work, challenges you:". 41% of employees believe that the evaluation that takes place in their work, is done with objective criteria, so they feel expectation, as opposed to 33% who feel stress because they believe that there is no objectivity. 26% belong to the category of tourism workers, who treat evaluation with indifference.
- ES_Q8: "To what extent do the following causes you work stress? ((Fill in all the answers with a scale from "Not at all" to "Always")" (Fig. 14).
- ES_Q9: "Have you ever suffered from physical problems due to work stress? (Fill in all the answers with a scale from "Never" to "Always")". Headaches and sleep disorders have similar rates at all levels. 49% of employees have never suffered from high blood pressure due to work stress and the percentages of employees who always have physical problems are below 10% (Fig. 15).
- ES_Q10: "Have you ever experienced psychological consequences due to work stress? (Fill in all the answers with a scale from "Never" to "Always")". 36% of employees have never felt fear due to work stress with the corresponding

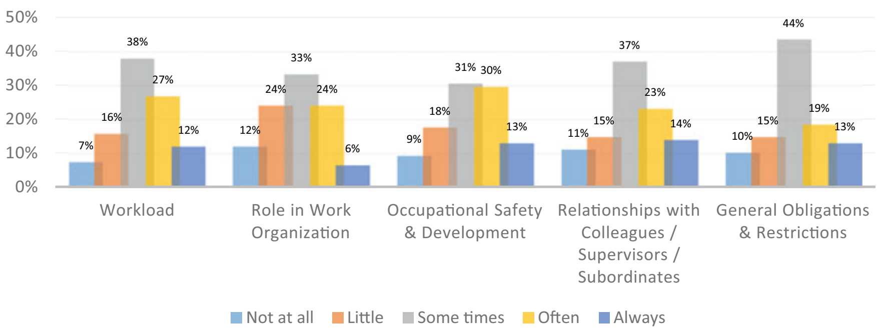


Fig. 14 Sources of work stress (Burnout)

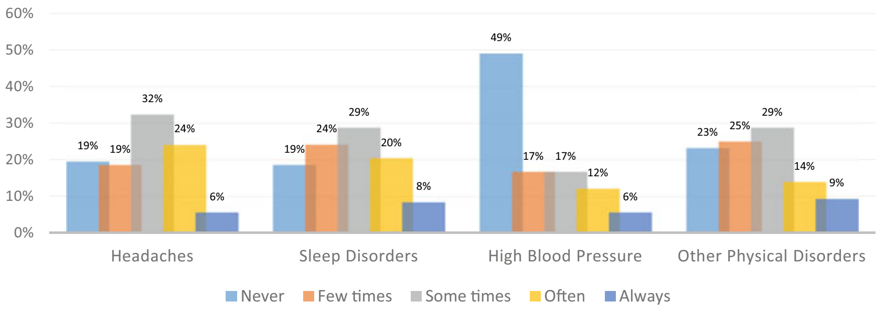


Fig. 15 Physical disorders due to work stress

percentage on its scale often, amounting to 9%. 40% experience irritability sometimes and 27% often (Fig. 16).

- ES_Q11: "To what extent do you think your psychological state affects your efficiency?" Out of the 108 employees, the psychological condition greatly affects the efficiency of 19% and a lot, of 43% (Fig. 17).

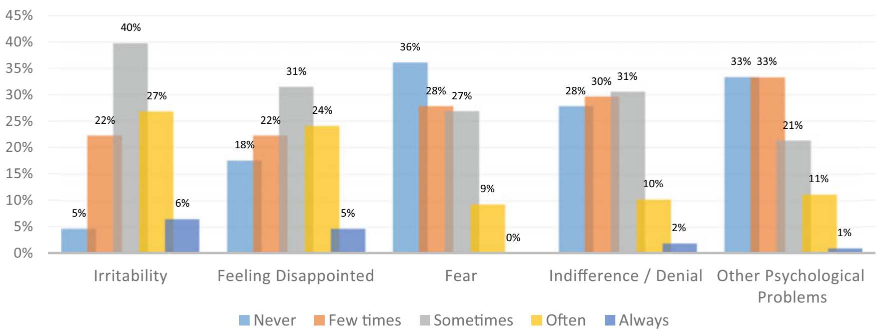
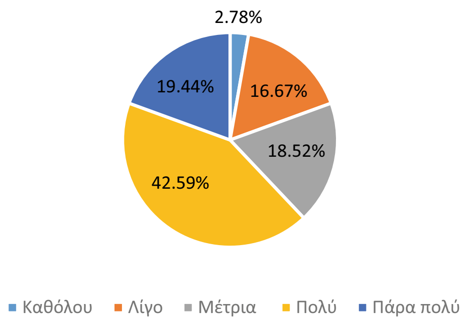


Fig. 16 Psychological consequences of work stress

Fig. 17 Effect of employees' mental health on their productivity



Research findings in employees

From a sample of 108 tourist sector employees, the majority are between the ages of 45 and 55, followed by those between the ages of 35 and 45. Women replied twice as frequently as males to the survey. The sample is equally divided between those who are married or in a permanent relationship with children and those who are single. Most employees have a higher or university education, with a combined rate of 30%, and the remainder has a basic or postgraduate-doctoral degree.

The research sample is primarily employed in the housing industry (32%), followed by the food sector (30%). Employees of public tourist agencies account for 13%, while those employed by travel agencies account for 8%. Follow the employees of tourist attractions, the transportation industry, and businesses that sell tourist items in smaller percentages. Sixty percent of respondents have worked in the sector for more than ten years, twenty percent have worked in the industry for five to ten years, and the remainder have worked in the industry for less than five years.

Working in the tourism business first satisfies the sense of completeness, the need for self-esteem, and the acceptance of employees. Following that, it addresses feelings of employment security and livelihood requirements.

Employee productivity is directly related to the physical environment in which they work. According to the research, workplace hygiene and safety standards, as well as the area's cleanliness, have a significant impact on efficiency. Additionally, efficiency can be improved by considering aspects such as noise, temperature, and proper illumination. Labor relations are a significant issue affecting efficiency. The percentage of people who claim their performance is unaffected by their existing ties with coworkers is negligible.

On the contrary, they are dissatisfied with this relationship, as indicated by the percentage. Workflow, seasonality, overtime, and alternate schedules all contribute to the physical and psychological changes experienced by more than half of employees. A sizable majority, necessary, considers work appraisal. However, 33% of the sample is remarkable, which is compensated for by stress because of the evaluation, as it considers that it does not occur according to objective standards. Nonetheless, the greater the fraction of those who have an opposing view and anticipate the review process.

Most work-related stressors are moderate. However, it is counterproductive to disregard them since they exist in significant numbers. Workload, safety, professional growth, relationships with coworkers/supervisors/subordinates, general job-related obligations and limits, and the employee's position in work organization are all elements that contribute to work stress. Physical symptoms of work stress occur at a medium to low frequency, with headaches occurring more frequently and rarely high blood pressure. Irritability and frustration are discovered to be psychological effects of workplace stress, albeit without displaying a significant density. According to research, work-related denial, dread, and other psychological repercussions are uncommon and controllable. Positive and negative emotions influence an employee's performance. Most employees in the tourism industry confirm this idea, believing that his general psychological state influences his work performance.

4 Conclusion

Tourism is a resilient source of revenue and employment in Greece. Tourism psychology enables a deepening of the mental worlds of tourists and tourism sector employees. Their wants and motivations are investigated, as are the factors that influence their perception and conduct. The factor "temperature and natural environment" of the destination, as it relates to the tourist's relaxation, is appropriately considered the research's protagonist. It is a main motivator for destination selection and a significant influence in shaping tourist behavior. Greece possesses the necessary supplies to cater to tourists' fundamental need for escape from the pressures of obligations and the exhaustion of daily living demands.

Additionally, the climatic conditions, natural splendor, geographic diversity, and extensive coastline all contribute to the accomplishment of the trip's objective and, ultimately, to the production of a sense of contentment in the tourists. Working in the tourism business satisfies both basic human needs and more complicated ones that fall under the category of social and psychological human needs. However, elements such as physical conditions in the workplace, interpersonal interactions, and a workflow that includes periods of high intensity and burden are all factors that contribute to employees' limited productivity, which influences the quality of services offered. Along with the workload, a source of stress is the appraisal of personnel, as there is uncertainty regarding the process's objectivity. Working in the tourism industry is not simple. Along with official qualifications, it demands unique abilities and a variety of mental and spiritual values, as befits a career that involves ongoing monitoring and communication with people who have varying needs, personalities, and cultures.

5 Future Research

Intervention in the natural environment is deemed inevitable and required in the context of tourism development. However, it must be done in such a way that the consequences are not detrimental to the environment. Thus, nature will stay untouched, and each place in Greece will keep the important features that influence tourists' destination selection and behavior. Any project, activity, or program that is associated with tourist planning should be accompanied by an environmental impact study. This procedure clarifies the potential effects on the natural environment and establishes the safety of their execution. Tourism enterprises must adhere to environmental protection regulations and make every effort to mitigate climate change. This can be accomplished through conserving energy, utilizing alternative energy sources, reusing liquid and solid waste, reducing and recycling waste, and educating workers and tourists about environmental issues. Additionally, to ensure the natural environment's sustainability, it is necessary to decongest prominent tourist locations through the sensible growth of less popular places, as well as to decongest the July–August tourist season through the development of alternative tourism. At this point, it's worth noting that Greece's "temperature and natural environment" was identified as a significant consideration nearly solely by domestic tourists, who comprised most of the research sample. A pleased employee is an undeniable fact. A contented employee is a happy and efficient employee. The increasing competitiveness among tourism businesses necessitates the adoption of strategies and activities that ensure employee happiness and, as a result, the tourism business's success. Several of them include the following: I the existence of hygiene and safety rules and the supervision of their compliance by all employees; (ii) the configuration of a clean, comfortable, and pleasant workplace; (iii) the development of cooperative and trusting relationships; (iv) conducting an objective evaluation; (v) providing ethical and/or monetary compensation based on employee performance; and (vi) recognizing the efforts of employees.

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Approaches to Tourism Motivation Focusing on Acropolis Museum Visitors

Effimia Papaefthymiou, Fragiskos Bersimis, and Paris Tsartas

Abstract The paper attempts an inquiry on tourism motivation having examined a random sample of 300 tourists after they have visited the Acropolis Museum of Athens. The issue of tourism incentives and more specifically the push and pull factors of tourism behavior were explored using quantitative method with questionnaires, while the collected data were analyzed by SPSS. The results showed that experiencing emotions, gaining meaningful experiences and opportunities for personal improvement are among the moderate to very important motivations for travel, while the experience of seeing the monuments and "real" objects themselves, the desire for knowledge and acquaintance with different places and people are included to very strong motivations. The members of the sample regarding pull factors degraded physical activities and sports as well as nightlife and shopping, while, on the other hand, cultural heritage, sights, archeological sites, and other cultural institutions, like museums and galleries, attracted a very high percentage of interest. The data were also analyzed in terms of gender, age, and educational level, in order to map with more pluralism the tendencies and interests of the participants. The conclusions are expected to contribute to a more efficient tourism planning in the future and to achieve a greater degree of tourist satisfaction.

Keywords Tourism motivation · Acropolis Museum · Tourism behavior · Tourism experience

JEL Classification Z390 Tourism · Other

E. Papaefthymiou (✉) · P. Tsartas
Harokopio University Athens, Athens, Greece

F. Bersimis
Agricultural University of Athens, Athens, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_43

1 Introduction

The main purpose of this paper is to make an approach to the issue of motivation in Tourism, having as research field, the Acropolis Museum of Athens. The main research questions that occupied this research were given below:

Which are the motivations for traveling and obtaining a tourism behavior—the push factors (Question block C1).

By which criteria a person chooses a travel destination—the pull factors (Question block C2).

More specifically, how important was for the tourist the visit to the Acropolis Museum of Athens, in order to choose Greece as a travel destination (Question C3).

2 Literature Review

Motivation is a psychological element that guides individuals' behavior and decisions and has been given special consideration in relation to options regarding tourism and other leisure activities. Although not all tourists can be homogenized in terms of a consumer behavior, it is important for tourism management to understand how they make decisions when choosing their travel destination and what kind of services and products meet their needs in the best way (Heitmann et al., 2011).

In the beginning it was the need. As early as the middle of the twentieth century, Abraham Maslow (1943) started to investigate the motives of human actions and stated that they exist in order to meet human needs. When one need is met, individuals seek to satisfy the next and continue to do so until the "self-realization", a concept introduced by Maslow (1954). The needs of people were organized in the well-known Maslow Pyramid, with 5 (five) horizontal levels which actually expanded to seven according to a review of the same theory. This indisputable finding, that behind the motives lay fundamental human needs, has since been a solid theoretical background for understanding this key issue.

Šimková & Holzner's research (2014: 661) attempted to link the levels of human needs, with tourism, revealing how tourism responds to these needs. More specifically:

1. The physiological needs of the first level for the support and maintenance of life are related to gastronomy and the provision of accommodation in tourism.
2. The needs for security of the second level are very important in the field of tourism. A calm and safe environment is a prerequisite for the tourism experience and is determined by the friendly behavior, the sense of calm, the traditions, and the degree of hospitality at the destination.
3. Social acceptance and self-esteem needs, characterizing the next two levels that are linked to tourism with the tourist's need to feel a member of the host society, to develop relationships with the locals, to become accepted, familiar, and "belonging". At the same time, a person satisfies needs of self-esteem, through

the sense of success from practicing social skills in an unfamiliar environment, where the routine and comfort of everyday life is absent.

4. Finally, to the top of the pyramid lay the cognitive and aesthetic needs, the needs for knowledge and aesthetic satisfaction, which are covered by understanding the culture and history of a place, by learning the heritage and by enjoying the arts and the beauty of the landscape or the structured environment in a destination.

As the Ancient Romans have stated, the "primum vivere, deinde philosophare" principle is also true in this case and so, another concept about human needs is prominent, that of self-realization which corresponds to tourism with the need for personal cultivation and development through travel, the feeling of inner fulfillment, the meaningful experiences, and the unfolding of the personal potential through various occasions.

Decision-making for destination selection according to some scholars consists of five (5) stages (Kotler, 2010) and, first of all, is the recognition of the need. The potential tourist feels a difference between his current situation and a desired one for himself. After having the information that one needs about destinations from various sources, such as family, neighbors, friends, newspapers, social networks, and tourism fairs, a market intention begins to emerge. Choosing between similar tourism products the person evaluates the alternatives, depending on the prevailing needs of the consumer and the destination that may best meet these needs. The degree of satisfaction results from the relationship between the consumer's expectations and the final intake of the product or service.

One of the main motivations for travel is the escape from the daily routine and work, but also social needs for meeting other people and experiencing unusual and unique events (Šimková & Holzner, 2014). Tourist motivations are very important factors for better communication with customers and support for tourism businesses.

The psychographic system of S. Plog (1974) attempted to explain the variation in the popularity of tourist destinations, according to the different personality types of tourists. Personality traits are what determine their travel patterns and preferences. Having defined two types of personality at opposite ends, the dependable (or psycho-central) type and the venturer (or other-central) type, with the intermediate-central type in between, he created the Diagram of the Psychographic Positions of Destinations (1972). The ideal position of the destinations was determined in the middle, essentially in the position corresponding to the middle-central type of personality.

Destinations move in the psychographic curve, depending on how well they ensure the satisfaction of the initial motivation of tourists to travel to the specific destination. The ignorance of the psychological data and the motivations of the tourists by the planning and marketing of the tourism development in a destination can lead to the gradual degeneration of the destination until its complete decline and often this process which takes time to be completed is not perceived, except when it is too late. In fact, Plog strongly expresses the concern that the inability to plan tourism development in accordance with the psychological data of the personality of tourists and the disproportion depending on the time and the cost invested by the tourist in relation to the offered experience result in the demotion of the importance of travel in a person' s life and the inevitable replacement by other activities, such as video games and home entertainment series.

Satisfaction that people expect and which determines their tourist behavior, according to Iso-Ahola (1982), is associated with two driving forces: Escape (escape) and search (seeking). The element of escape refers to the fact that the person leaves behind the daily environments in which he moves, the daily problems, the routine, the stress, the tension, while the element of the search refers to the pursuit and acquisition of rewards and benefits, such as obtaining knowledge, feeling emotions, acquisition of social, athletic, and other skills (Iso-Ahola, 1982: 258).

Motivation for tourist behavior and satisfaction of needs are in an interactive relationship and as Dann (1981) argued, to consider motivation as an unconscious process and to study satisfaction detached from its motivations, is of little value.

Returning to the theory of Iso-Ahola, if on a case-by-case basis tourism is considered to be more of an escape activity than an activity of seeking and obtaining rewards and benefits does not mean that this second weaker part of the comparison is less important than the first. Also, as the same scholar points out, the opposite can happen, giving the example that if one lives and works in the Bahamas, may not have a strong motivation to escape, but may have a strong motivation for personal rewards and thus travels to Greece, "To learn more about the history of the human species" (Iso-Ahola, 1982: 258). Then, the second factor acts as a "threshold" for the realization of the journey and vice versa.

The two main factors of escape and search (escaping and seeking) have both personal and interpersonal dimensions which the individual is called to manage in his attempt to decide what is most important for his journey. He can also escape from a close personal environment or a wider and interpersonal environment, such as family, friends, co-workers, and can claim purely personal or interpersonal rewards, such as with old friends in a new environment or young people, friends in an old environment, or with family, etc. He may also choose to travel with a group of strangers, in order to satisfy the need to escape from the everyday environments of the familiar persons.

The components of escape-search are present in every leisure activity (Iso-Ahola, 1982: 312–13) and tourism in particular (Iso-Ahola, 1982). The way in which the individual chooses and accepts one or the other factor or both, as primary causes and purposes for the journey, determines the choice of specific plans and behaviors to achieve the goals (Iso-Ahola, 1982: 260).

Finally, a very interesting theory is that of Crompton and Mc Kay (1997), presenting the incentives for tourism, as a combination of push and pull factors, where the internal motivations are considered as push factors and the external stimuli, that make a person willing to travel, are considered as pull factors.

In conclusion, tourism is a dialectical process between push and pull factors, in order to achieve the optimization of meeting the needs, as individuals strive for the best result and for a form of social interaction through travel. It simultaneously provides a way out of something and the ability to seek out some experiences, transforming the escape from a simple escape into a constructive and complex action.

3 Methodology

The research was conducted with a quantitative methodology and as a method of data collection a questionnaire (Appendix 1) was used, which was distributed to a random and representative sample of 300 foreign tourists in the months of June to September 2019, at the exit of the Acropolis Museum of Athens (Cohen, 2007). In the questionnaire used in this survey, a five-point Likert scale was used with appropriate verbal matching of the answers (1—Not at all, 2—slightly, 3—moderately, 4—much, and 5—Very much).

That means, low values (lower than 3) correspond to a disagreement, median values (close to 3) correspond to a neutral view, and high values correspond to an agreement (greater than 3) with the attitude expressed by the corresponding question. In the present study, the push and pull theory (Crompton & Mc Kay, 1997) was taken into account. As far as the motivation is considered to be the internal impulse, which is investigated by the C1 block of questions, the C2 block of questions are considered as factors of attraction, from an external stimulus. The relationship between motivation and criteria even restores and researches the relationship between the two blocks of questions (C1–C2), in exploring which element attracts the individual the most as an external stimulus (the pull factors), when the individual is motivated internally by specific needs (the push factors).

The data were analyzed with appropriate statistical software (IBM SPSS version 25). In this work, besides the descriptive statistics presented as mean value ± standard deviation for each variable, parametric and non-parametric tests were conducted. More specifically, the means' equality test was used for one, two, or more than two samples (t-test and ANOVA test), as the sample size is sufficiently large, although the variables are of ordinal scale. In any case, the corresponding non-parametric one-sample Wilcoxon signed rank test, Mann–Whitney U test, and Kruskal–Wallis test were used to confirm the above results. Especially, in the case of more than two samples, the robust tests of equality of means by Welch and Brown-Forsythe were conducted, in the cases that the test of homogeneity of variances failed. All pairwise comparisons were conducted by using Bonferroni or Tamhane's T2 adjustment.

The sample consists of 167 women (55.67%) (Fig. 1) and the respondents' age distribution is presented in Fig. 2, where it is observed that as age increases, the corresponding percentage decreases and majority of respondents belong to the age group of 20 to 30 years old. Most of the respondents are university graduates (54.33%) while 25.00% of the sample have a master's or doctoral degree. In addition, 19.00% of the sample have completed secondary education and 1.67% have completed a basic education (Fig. 3). The sample consists of private employees at a rate of 37.00%; students at a rate of 21.67%; civil servants at a rate of 11.67%; and the rest are entrepreneurs, freelancers, and others (Fig. 4). Majority of visitors come from Europe and America (Fig. 5). Some of the countries of origin where the sample comes from are Germany, Italy, Turkey, Ukraine, etc. (Appendix 2).

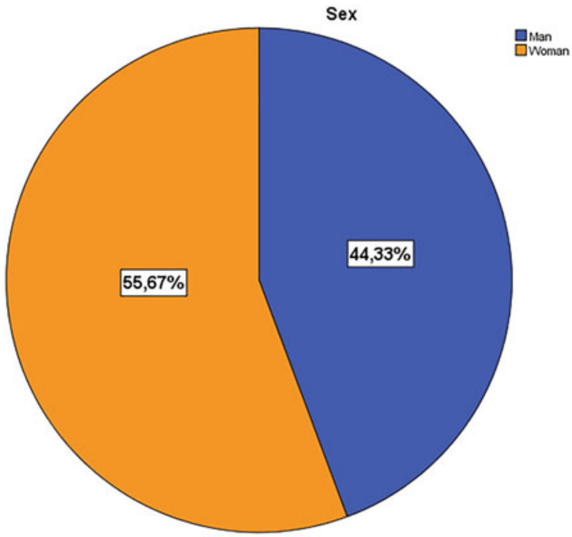


Fig. 1 Frequency distribution of respondents by gender

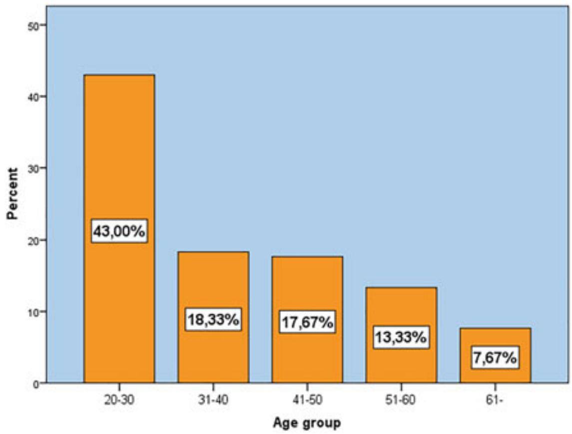


Fig. 2 Frequency distribution of respondents by age

4 Results

Respondents had a high degree of agreement in various attitudes expressed by questions included in blocks C1, C2, and C3 of the questionnaire used. More specifically, for questions of block C1, the averages per question are given in Fig. 6 in ascending order.

It is observed that the respondents had a significant degree of disagreement with the attitudes: «To obtain prestige and social status» (not at all to slightly agreement) (1.78 ± 1.11, $t = -9.025$, $p < 0.01$) and «To have a healing experience that help me

Fig. 3 Frequency distribution of the respondents according to the educational level

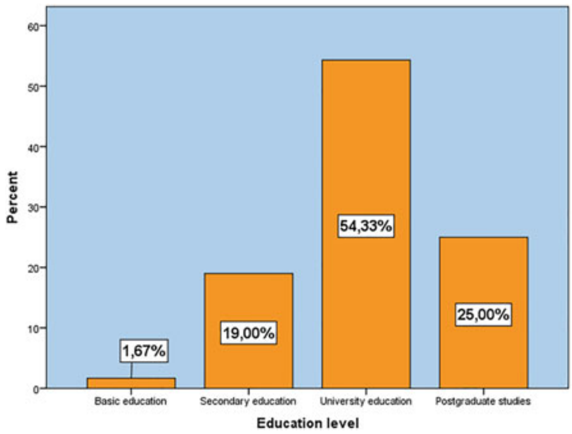
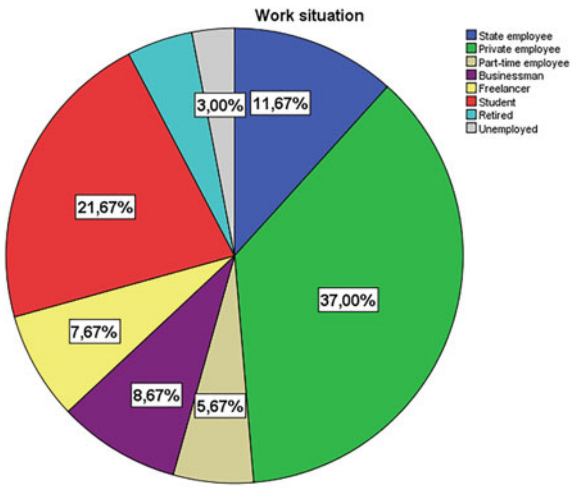


Fig. 4 Frequency distribution of respondents in terms of professional status



recover, after a difficult period or trial in my life» (slightly to moderate agreement) (2.58 ± 1.34, $t = -5.440$, $p < 0.01$).

Respondents had a neutral view (moderate agreement) on attitudes, as: «To live adventurous or even risky experiences and feel like an explorer» (2.88 ± 1.22, $t = -1.657$, $p = 0.099$) and «To give meaning to my life» (3.10 ± 1.28), $t = 1.354$, $p = 0.177$).

In addition, respondents had a significant degree of agreement (moderate to much) in the following seven (7) attitudes (i.e., mean value greater than 3): «To live meaningful experiences that will enable me to understand my deeper self» (3.19 ± 1.29), $t = 2.550$, $p = 0.011$); «To escape the boredom of everyday life and routine» (3.22 ± 1.24, $t = 3.087$, $p = 0.002$); «To give myself the ability to be «transformed» through unprecedented and unique experiences» (3.49 ± 1.15, $t = 7.353$ $p < 0.01$); «To relax

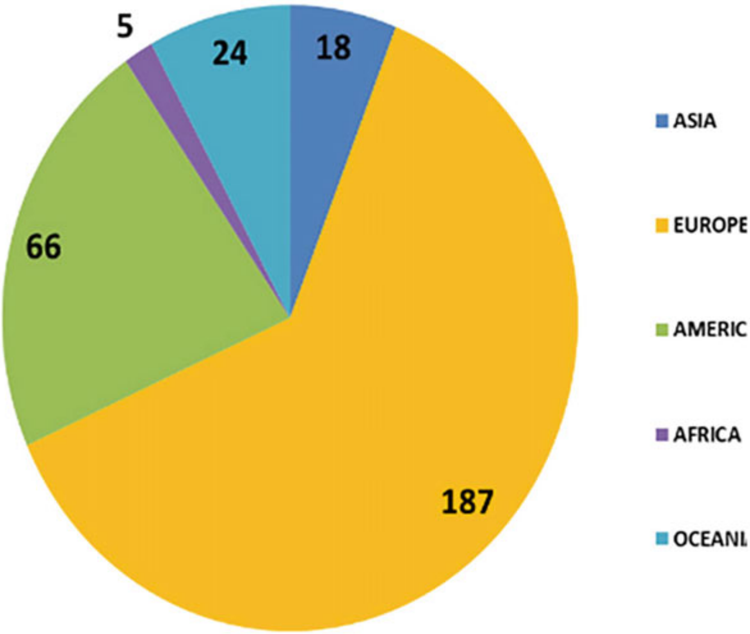


Fig. 5 Frequency distribution of respondents in terms of origin

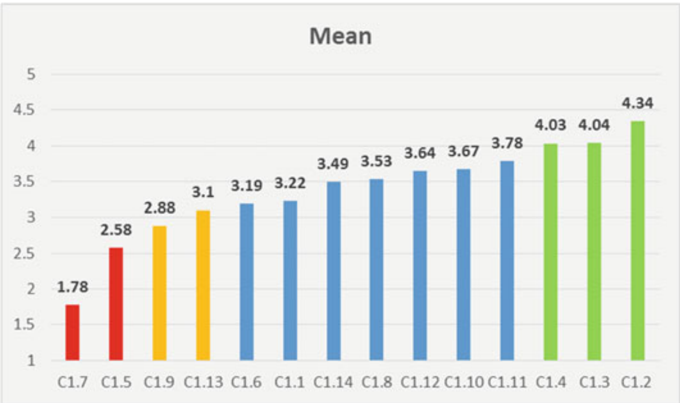


Fig. 6 Mean values of C1 group's questions. Red color corresponds to questions expressing disagreement (mean value statistically significant lower than 3—$p < 0.01$). Orange color corresponds to questions expressing neutral attitude (mean value non-statistically significant different than 3—$p > 0.10$). Blue color corresponds to questions expressing agreement (mean value statistically significant greater than 3—$p < 0.01$). Green color corresponds to questions expressing high agreement (mean value statistically significant different than 3—$p < 0.01$)

and calm in quietness and nature» (3.53 ± 1.05, t = 8.729, $p < 0.01$); «To interact with the local people» (3.64 ± 0.97, t = 11.457, $p < 0.01$); «To collect moments and not things, as I do in my country of origin» (3.67 ± 1.14, t = 10.318, $p < 0.01$); and «To feel emotions, like surprise, inspiration, harmony, freedom, love» (3.78 ± 1.09, t = 12.390, $p < 0.01$).

Finally, respondents had a statistically significant very high degree of agreement with three (3) attitudes (mean value greater than 4, i.e., much to very much agreement): «To view specific monuments, museums, works of art, cultural heritage» (4.03 ± 1.07, t = 19.693, $p < 0.01$); «To satisfy my quest for knowledge and first-hand information» (4.04 ± 0.90, t = 19.896, $p < 0.01$); and «To learn about different places and people» (4.34 ± 0.79, t = 29.120, $p < 0.01$). The aforementioned results of parametric tests are in line with those of non-parametric controls (Appendix 3).

As regards the gender, women (3.35 ± 1.23) had a higher mean value than men, in the attitude described by the statement «To escape the boredom of everyday life and routine» (3.05 ± 1.23) (t = −2.097, p = 0.037) (Table 1). Similarly, women (3.90 ± 1.11) had a higher mean value than men in the attitude «To feel emotions, like surprise, inspiration, harmony, freedom, love» (3.62 ± 1.05) (t = −2.225, p = 0.027) (Table 1). Women also (4.44 ± 0.79) had a higher mean value than men in the attitude «To learn about different places and people» (4.20 ± 0.81) (t = −2.624, p = 0.009) (Table 1).

As regards the age, respondents with age from 20 to 30 years (3.21 ± 1.25) had a higher mean value in attitude «To live adventurous or even risky experiences and feel like an explorer» than respondents with age greater than 51 years (2.43 ± 1.28) as well as than respondents with age from 41 to 50 years (2.66 ± 0.92) (Fig. 7) (Appendix 4—F = 6.985, $p < 0.01$).

Similarly, respondents with age from 20 to 30 years (3.41 ± 1.27) had a higher mean value in attitude «To live meaningful experiences that will enable me to understand my deeper self» than respondents with age greater than 51 years (2.69 ± 1.30) (Fig. 8) (Appendix 4—F = 4.624, $p = 0.004 < 0.01$). Once again, respondents with age from 20 to 30 years (3.69 ± 1.09) had a higher mean value in attitude «To relax and calm in quietness and nature» than respondents with age greater than 51 years (3.13 ± 1.06) (Fig. 9) (Appendix 4—F = 4.637, p = 0.003).

In addition, respondents with age from 31 to 40 years (4.07 ± 1.07) had a higher mean value in attitude «To collect moments and not things, as I do in my country of origin» than respondents with age from 41 to 50 years (3.84 ± 0.89) (Fig. 10) (Appendix 4—F = 5.050, p = 0.002).

As regards education, respondents with postgraduate studies (4.27 ± 0.78) had a higher mean value in attitude «To view specific monuments, museums, works of art, cultural heritage» than respondents with basic and secondary education (3.84 ± 0.99) (Fig. 11) (Appendix 5—F = 4.985, p = 0.015). In the contrary, respondents with postgraduate studies (2.41 ± 1.02) had a lower mean value in attitude «To live adventurous or even risky experiences and feel like an explorer» than respondents with basic and secondary education (3.10 ± 1.36) (Fig. 12) (Appendix 5—F = 7.860, $p < 0.01$). In addition, respondents with postgraduate studies (2.76 ± 1.19) had a

Table 1 Equality of means as regards sex—parametric and non-parametric tests

Question	Sex	Mean ± St. Dev.	Levene's test for equality of variances F (p-value)	t-test for equality of means	Mann–Whitney U	Wilcoxon W	Z	p-value
C1.1—To escape the boredom of everyday life and routine	Women (167)	3.35 ± 1.23	0.485 (0.487)	−2.097 (0.037)	9572.50	18,350.50	−2.009	0.045
	Men (132)	3.05 ± 1.23						
C1.2—To learn about different places and people	Women (167)	4.44 ± 0.79	0.001 (0.982)	−2.624 (0.009)	9170.00	18,081.00	−2.855	0.004
	Men (132)	4.20 ± 0.81						
C1.11—To feel emotions, like surprise, inspiration, harmony, freedom, love	Women (167)	3.90 ± 1.11	0.025 (0.875)	−2.225 (0.027)	9273.50	18,184.50	−2.553	0.011
	Men (132)	3.62 ± 1.05						

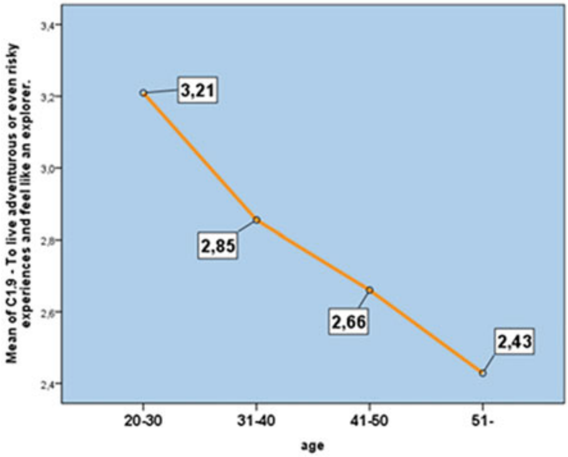


Fig. 7 Mean values of «To live adventurous or even risky experiences and feel like an explorer» as regards age

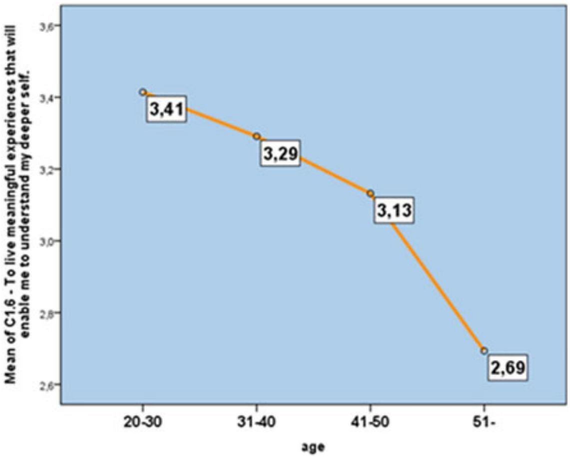


Fig. 8 Mean values of «To live meaningful experiences that will enable me to understand my deeper self» as regards age

lower mean value in attitude «To give meaning to my life» than respondents with university education (3.21 ± 1.21) (Fig. 13) (Appendix 5—$F = 5.486$, $p = 0.005$).

In the case of questions of block C2, the corresponding mean values per question are given in Fig. 14 in ascending order. It is observed that the respondents had a significant degree of disagreement in the attitudes «Sporting and physical activities in general» (slightly to moderate agreement) (2.59 ± 1.05, $t = -6.774$, $p < 0.01$) and «Possibilities of night entertainment and recreation» (2.82 ± 1.07, $t = -2.905$, $p = 0.004$).

Respondents also had a neutral view of attitudes in question «Shopping and local market» (i.e., moderate degree of agreement) (2.92 ± 1.13, $t = -1.275$, $p = 0.203$). In addition, respondents had a significant degree of agreement(i.e., mean value greater than 3, meaning agreement moderately to much) on attitudes «Low cost of goods and

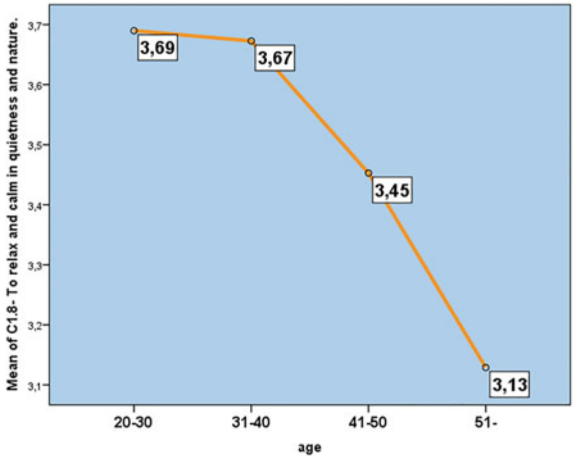


Fig. 9 Mean values of «To relax and calm in quietness and nature» as regards age

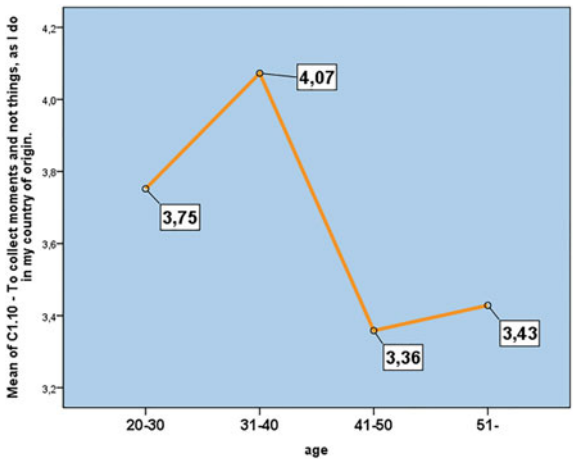


Fig. 10 Mean values of «To collect moments and not things, as I do in my country of origin» as regards age

services» (3.13 ± 1.06, $t = 2.183$, $p = 0.029$); «Easy transportation» (3.31 ± 1.07, $t = 5.085$, $p < 0.01$); «Safe socio-political situation at destination» (3.40 ± 1.13, $t = 6.163$, $p < 0.01$); «Gastronomy and local cuisine» (3.58 ± 1.05, $t = 9.490$, $p < 0.01$); «Friendly environment and inhabitants» (3.68 ± 0.97, $t = 12.254$, $p < 0.01$); «Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.)» (3.83 ± 0.97, $t = 14.770$, $p < 0.01$); and «Natural environment and climate (sea, sun, mountain, snow, forests, etc.) (3.98 ± 0.95, $t = 18.026$, $p < 0.01$).

As regards the gender, men and women have the same degree of agreement and disagreement in all the attitudes expressed by the questions of the second block. As regards the age, respondents with age from 20 to 30 years (3.59 ± 1.09) had a lower mean value in attitude «Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.)» than respondents with age from 31 to 40 years

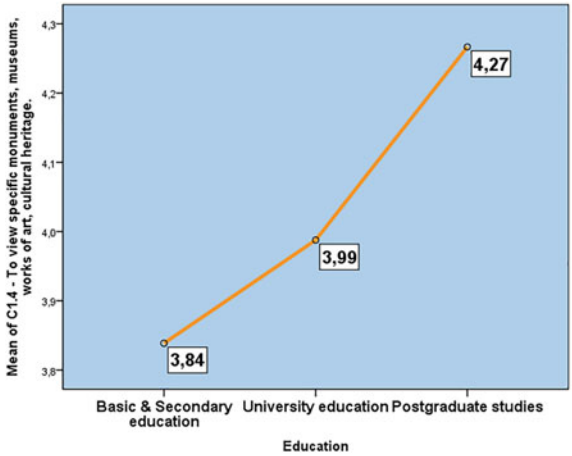


Fig. 11 Mean values of «To view specific monuments, museums, works of art, cultural heritage» as regards education

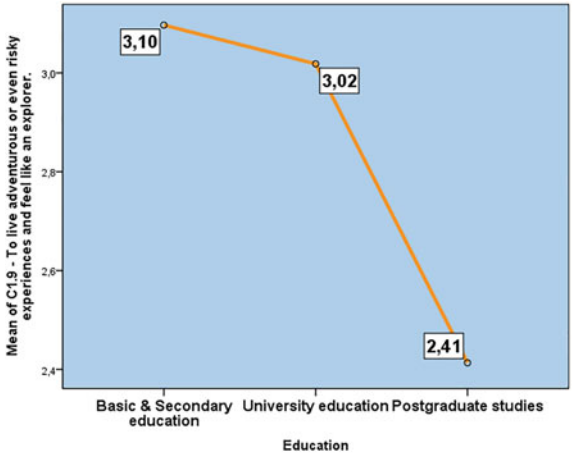


Fig. 12 Mean values of «To live adventurous or even risky experiences and feel like an explorer» as regards education

(4.04 ± 0.77) and respondents with age greater than 51 years (4.02 ± 0.85) (Appendix 4—F = 4.758, p = 0.003 < 0.01). In addition, respondents with age greater than 51 years (2.32 ± 1.09) had a lower mean value in attitude «Possibilities of night entertainment and recreation» than respondents with age from 20 to 30 years (3.06 ± 0.95) and with age from 31 to 40 years (3.05 ± 1.15) (Appendix 4—F = 9.220, p < 0.01).

As regards educational level, respondents with postgraduate studies (4.17 ± 0.95) had a higher mean value in attitude «Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.)» than respondents with basic and secondary education (3.058 ± 0.92) and respondents with university education (3.76 ± 0.96) (Appendix 5—F = 4.758, p = 0.003 < 0.01).

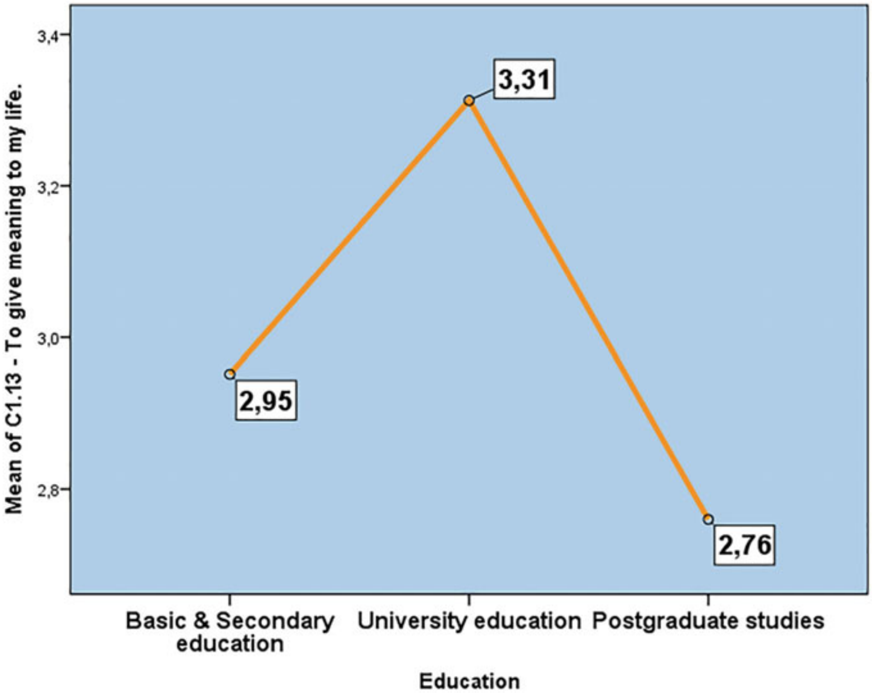


Fig. 13 Mean values of «To give meaning to my life» as regards education

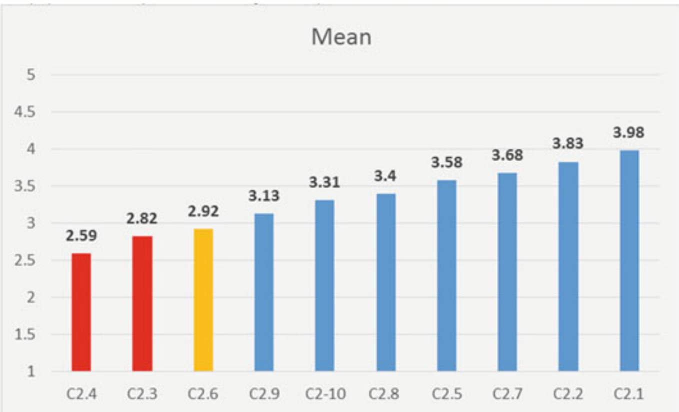


Fig. 14 Mean values of C2 group's questions. Red color corresponds to questions expressing disagreement (mean value statistically significant lower than 3—$p < 0.01$). Orange color corresponds to questions expressing neutral attitude (mean value non-statistically significant different than 3—$p > 0.10$). Blue color corresponds to questions expressing agreement (mean value statistically significant greater than 3—$p < 0.01$)

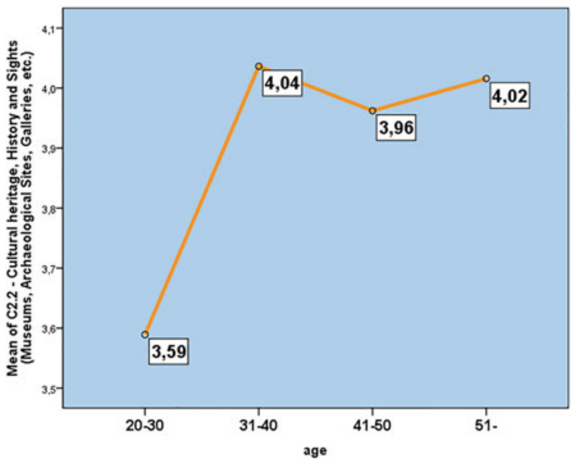


Fig. 15 Mean values of «Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.)» as regards age

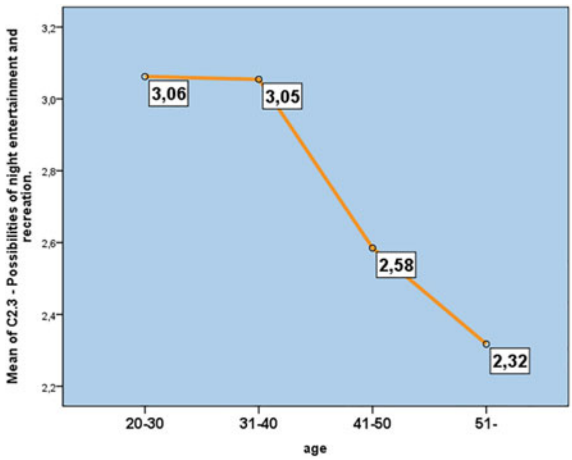


Fig. 16 Mean values of «Possibilities of night entertainment and recreation» as regards age

In the question "How important motivation was the visit to the Acropolis Museum for choosing Greece as a destination?", the corresponding mean value is greater than the median, i.e., 3, (3.57 ± 1.30, $t = 7.731$, $p < 0.01$) expressing a moderate to much degree of agreement. The 56% of the participants answered that they considered the visit to the Acropolis Museum, for choosing Greece as a destination, as an important motivation from much to very much (Fig. 18).

As regards age, respondents with age from 20 to 30 years (3.34 ± 1.40) had a lower mean value in attitude «How important motivation was the visit to the Acropolis Museum for choosing Greece as a destination?» than respondents with age greater than 51 years (4.02 ± 1.02) (Fig. 19) (Appendix 4—$F = 4.375$, $p = 0.005 < 0.01$).

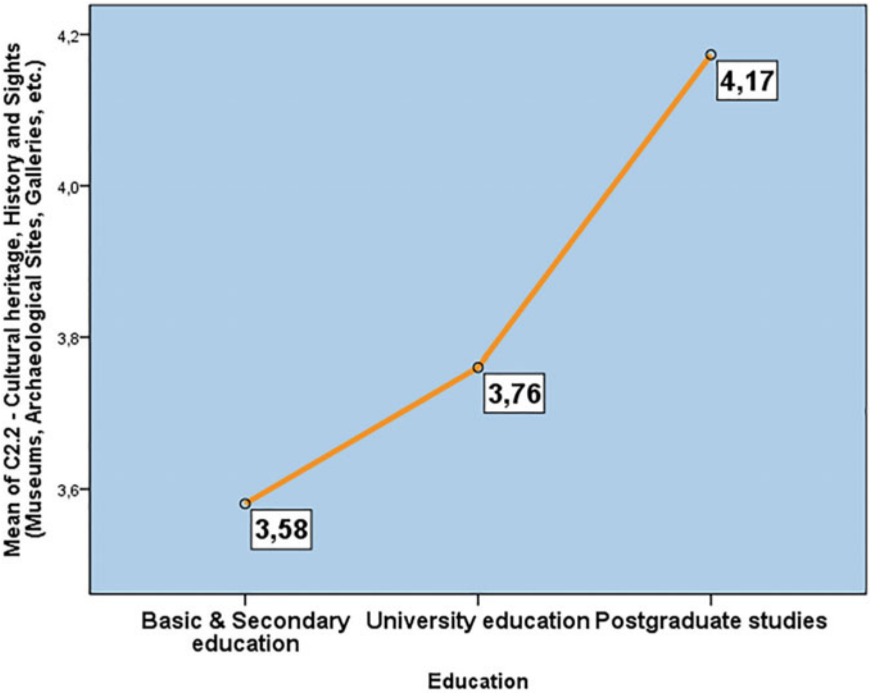


Fig. 17 Mean values of «Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.)» as regards education

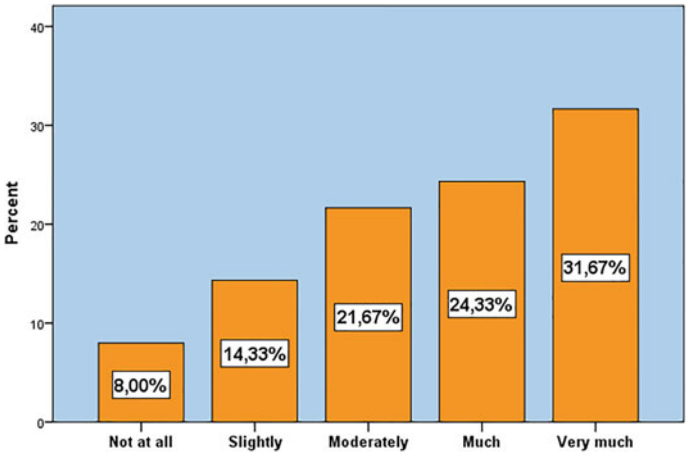


Fig. 18 Distribution of respondents in question "How important motivation was the visit to the Acropolis Museum for choosing Greece as a destination?"

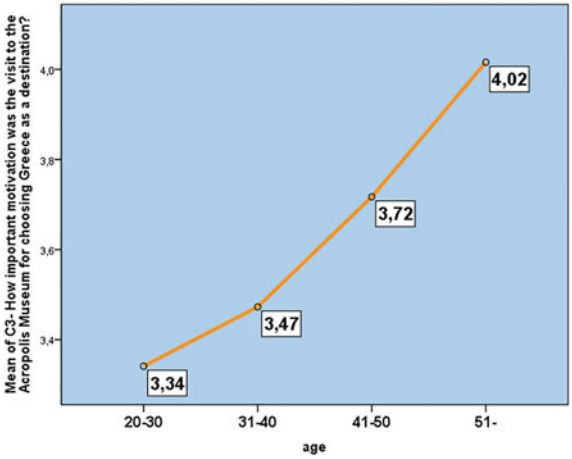


Fig. 19 Mean values of «How important motivation was the visit to the Acropolis Museum for choosing Greece as a destination?» as regards age

5 Conclusions

In conclusion, push factors (Crompton & Mc Kay, 1997) that are related to experiencing emotions, creating memories, having meaningful experiences, and also experiences with transformative power to self are included in the middle to high ranking of the requests and needs of the people who took part in the research. At the same level of importance is also the need to interact with other people at the destination. The strong need to escape from boredom has been confirmed, a kind of escaping everyday life, as has been defined in Iso-Ahola' s theory (1982) about the two main factors of "escaping" and "seeking" and also the need for calm and relaxation.

Three factors marked a very high percentage of agreement in the questionnaire's statements and are related to the desire to see the authentic monuments and works of art, to satisfy the thirst for knowledge and to get to know different places and peoples. The data of ANOVA analysis on the special preferences of the respondents according to gender, age, and educational level showed that women responded more positively than men to factors such as experiencing emotions, escaping the boredom of everyday life, and the desire to acquire knowledge.

As far as it concerns the pull factors (Crompton & Mc Kay, 1997), the visitors of Acropolis Museum in our sample were not attracted by activities such as sporting and physical activities, nor by nightlife possibilities, and also they had a neutral attitude on shopping and local market opportunities. On the contrary, they were moderately to much attracted by specific socio-economic factors, such as the safe social environment, the friendly behavior of the residents, the low cost of goods and services, and the easy transportation. They were strongly attracted by cultural heritage and natural environment and these attitudes through the ANOVA analysis appeared uniformity between men and women, regarding the grade of agreement of the research participants.

Experiencing emotions is a significant motivation for traveling. Emotions like pleasant surprise, proximity, feeling of “belonging”, contemplative mood, emotional involvement with the locals during the stay in a destination. The last years many researchers have dealt with the examination of the role of emotions in tourism experience and the possibility of measurement (Bigné & Andreu, 2004; del Bosque & Martin, 2008; Hosany & Gilbert, 2010; Kim et al., 2012; Yuksel et al., 2010; Wirtz et al., 2003). In tourism, emotions arise as a result of evaluating the experience in relation to the goals, motivations, or interests of tourists. In the laws of emotion formulated by Frijda (1988), when something does not respond to the interests and concerns of a person, it ceases to concern the tourist or give any pleasure (Bigné & Andreu, 2004).

Tourism produces voluptuous experiences (Alistair, 2006), which include adventure, challenge, escape and fun (Otto & Ritchie, 1996), and happiness (Gretzel et al., 2006; Floyd & Wooldridge, 1997). Imagination, emotions, and fun are central to voluptuous experiences (Holbrook, 2006) and positive and pleasurable emotions are the most important components of tourism experiences (Tung & Ritchie, 2011).

The search for meaning, in the sense of a deeper revelation of truths about life and self, through contact with culture and arts has an important place along with emotions. As Baumeister (1991: 3) have stated, “every person with his energies builds the meaning of his life. He can dedicate his life to his children, his work, his religious faith or his garden “. It could be added that traveling constructs a meaning to life, for persons who are seeking for experiences that help them realize their true self. As the results have showed, a “moderate” to “much” agreement has been pointed out for the statements about living meaningful experiences and be transformed by traveling and experiencing tourism. This is very relevant to what Mc Cannell (1973) implied with his theory about regarding tourism as a modern pilgrimage in the request of more authentic ways of existence. According to J. Rieger and Jensen (2011), journey is strongly related to the meaning of life and also the divine. In this sense, the journey is closely linked to the person’s effort to give meaning to his life and from this arises the necessary inclusion of these parameters in any tourism planning attempted.

In the modern world, the gap of values seems to be a considerable obstacle in obtaining a sense of meaningful life and leaves humans exposed to an existential agony, as the values they have embraced during their life seem limited constructions, instead of having characteristics of universality and timelessness. Thus, death is not only the end of a person’s life but also the end of the values he has embraced during his lifetime (Baumeister, 1991: 6). Individuals not only find meaning in the social and cultural environment in which they live (Baumeister, 1991: 23), but also in other places and societies, as Cohen (1979) has showed in his phenomenology of tourism experience.

Familiarity with values of universal importance, such as democracy or the ideals emanating through art, gives persons a chance to overcome limits and obtain a sense of “belonging” to something bigger and wider than their limited everyday life. May be that explains why the visit to the Acropolis Museum has achieved the high score of 56%, as an important and significant motivation from much to very much, for choosing Greece as their traveling destination.

In her interesting research, Vazeou-Nieuwenhuis (2018) showed that the ability of the persons to travel mentally to faraway times and places increases people' s desire to search for their lives' meaning. Especially museums not only give a chance for mental traveling, but make it their main role. Through the real objects and remnants of the past, the historical information, and the museological guidance, visitors may realize that their life stories include more than what is happening in their everyday reality. As Burgelman (2000) has referred "space and time determine our position in the universe" and these key concepts of traveling through time and space are about to be accessible to man, thanks to information and communication technologies. Yet, new experiences are planned based on an alternative model of tourism development and cultural tourism, such as innovative cultural tours in the city of Athens, (Sarantakou & Xenitellis, 2019).

These findings are consistent with other studies that cite spiritual pursuits and the need for enrichment with knowledge as important motivators for leisure in general (Beard & Ragheb, 1983) and vacations in particular (Crompton, 1979; Rubenstein, 1980). In recent years, academics have shown particular interest in understanding the characteristics of the tourism experience (Morgan et al., 2010. Ritchie & Hudson, 2009; Tung & Ritchie, 2011; Wang & Pizam, 2011). Also, the use of Internet is not just a tool for more tourist information, but contains platforms of alternative experiences and a variety of technological products related to tourism and the reception of culture which bring significant changes to tourism consumption and tourism enterprises (Tsartas et al., 2016; Kavoura & Katsoni, 2013). Future research regarding these issues will certainly enlarge the present theoretical frameworks on tourism motivation and advance their applications to tourism planning and development.

Appendix 1: Questionnaire

A. Demographic characteristics

A1. Sex

A1.1 Man	A1.2 Woman

A2. Age group

A2.1 (20-30)	A2.2 (31-40)	A2.3 (41-50)	A2.4 (51-60)	A2.5 (61 and above)

A3. Education level

A3.1 Basic education	A3.2 Secondary education	A3.3 University education	A3.4 Postgraduate studies

A4. Work situation

A4.1 State employ ee	A4.2 Privat e emplo yee	A4.3 Part-time emplo yee	A4.4 Business man	A4.5 Freelanc er	A4.6 Stud ent	A4.7 Retir ed	A4.8 Unemplo yed

A5. Country of origin:______________________

C. General Inquiry on Tourists' motivation

C1. What motivates you to travel?

To what extent do the following statements apply to you? Please rate ***all of the following*** incentives, from 1-5.	*1* *Not at all*	*2* *Slightly*	*3* *Moderately*	*4* *Much*	*5* *Very much*
C1.1 To escape the boredom of everyday life and routine.					
C1.2 To learn about different places and people.					
C1.3 To satisfy my quest for knowledge and first hand information.					
C1.4 To view specific monuments, museums, works of art, cultural heritage.					
C1.5 To have a healing experience that help me recover after a difficult period or trial in my life.					
C1.6 To live meaningful experiences that will enable me to understand my deeper self.					
C1.7 To obtain prestige and social status.					
C1.8 To relax and calm in quietness and nature.					
C1.9 To live adventurous or even risky experiences and feel like an explorer.					
C1.10 To collect moments and not things, as I do in my country of origin.					
C1.11 To feel emotions, like surprise, inspiration, harmony, freedom, love.					
C1.12 To interact with the local people.					
C1.13 To give meaning to my life.					
C1.14 To give myself the ability to be «transformed» through unprecedented and unique experiences.					

C2. When you choose a destination, which are the criteria?

To what extent do the following statements apply to you? Please rate ***all of the following*** criteria, from 1-5.	*1 Not at all*	*2 Slightly*	*3 Moderately*	*4 Much*	*5 Very much*
C2.1 Natural environment and climate (sea, sun, mountain, snow, forests, etc).					
C2.2 Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.)					
C2.3 Possibilities of night entertainment and recreation.					
C2.4 Sporting and physical activities in general.					
C2.5 Gastronomy and local cuisine.					
C2.6 Shopping and local market.					
C2.7 Friendly environment and inhabitants.					
C2.8 Safe socio-political situation at destination.					
C2.9 Low cost of goods and services.					
C2.10 Easy transportation.					

C3. How important motivation was the visit to the Acropolis Museum for choosing Greece as a destination?

C3.1 Not at all	C3.2 Slightly	C3.3 Moderately	C3.4 Much	C3.5 Very much

Appendix 2: Frequency Table—Country of Origin

	Frequency	Percent	Cumulative Percent
AFGHANISTAN	1	0,3	0,3
ARGENTINA	4	1,3	1,7
AUSTRALIA	19	6,3	8,0
AUSTRALIA	1	0,3	8,3
AUSTRIA	1	0,3	8,7
BELGIUM	5	1,7	10,3
BRAZIL	14	4,7	15,0
BULGARIA	1	0,3	15,3
CAMBODIA	1	0,3	15,7
CANADA	9	3,0	18,7
CHILE/USA	1	0,3	19,0
CHINA	2	0,7	19,7
COLOMBIA	5	1,7	21,3
CROATIA	3	1,0	22,3
CYPRUS	2	0,7	23,0
DENMARK	2	0,7	23,7
EGYPT	3	1,0	24,7
FRANCE	15	5,0	29,7
GERMANY	32	10,7	40,3
GREECE	1	0,3	40,7
HOLLAND	1	0,3	41,0
ICELAND	2	0,7	41,7
INDIA	3	1,0	42,7
IRAN	2	0,7	43,3
IRELAND	3	1,0	44,3
ISRAEL	6	2,0	46,3
ITALY	27	9,0	55,3
JAPAN	3	1,0	56,3
KAZAKHSTAN	1	0,3	56,7
KOREA	2	0,7	57,3
MALAYSIA	1	0,3	57,7
MALTA	2	0,7	58,3
MEXICO	3	1,0	59,3
NETHERLAND	4	1,3	60,7
NEW ZEALAN	4	1,3	62,0
POLAND	2	0,7	62,7
PORTUGAL	4	1,3	64,0
REPUBLIC O	1	0,3	64,3
ROMANIA	1	0,3	64,7
RUSSIA	4	1,3	66,0
SCOTLAND	1	0,3	66,3
SICILY	1	0,3	66,7
SLOVAKIA	1	0,3	67,0
SOUTH AFRI	2	0,7	67,7
SPAIN	23	7,7	75,3
SYRIA	2	0,7	76,0
TURKEY	6	2,0	78,0
UK	33	11,0	89,0
UKRAINE	3	1,0	90,0
USA	30	10,0	100,0
Total	300	100,0	

Appendix 3: Nonparametric Tests—One Sample

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of C1.1 - To escape the boredom of everyday life and routine. equals 3.	One-Sample Wilcoxon Signed Rank Test	.004	Reject the null hypothesis.
2	The median of C1.2 - To learn about different places and people. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
3	The median of C1.3 - To satisfy my quest for knowledge and first hand information. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
4	The median of C1.4 - To view specific monuments, museums, works of art, cultural heritage. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
5	The median of C1.5 - To have a healing experience that help me recover after a difficult period or trial in my life. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
6	The median of C1.6 - To live meaningful experiences that will enable me to understand my deeper self. equals 3.	One-Sample Wilcoxon Signed Rank Test	.023	Reject the null hypothesis.
7	The median of C1.7 - To obtain prestige and social status. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
8	The median of C1.8- To relax and calm in quietness and nature. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
9	The median of C1.9 - To live adventurous or even risky experiences and feel like an explorer. equals 3.	One-Sample Wilcoxon Signed Rank Test	.080	Retain the null hypothesis.
10	The median of C1.10 - To collect moments and not things, as I do in my country of origin. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
11	The median of C1.11 - To feel emotions, like surprise, inspiration, harmony, freedom, love. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
12	The median of C1.12 - To interact with the local people. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
13	The median of C1.13 - To give meaning to my life. equals 3.	One-Sample Wilcoxon Signed Rank Test	.200	Retain the null hypothesis.
14	The median of C1.14 - To give myself the ability to be «transformed» through unprecedented and unique experiences. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of C2.1 - Natural environment and climate (sea, sun, mountain, snow, forests, etc). equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
2	The median of C2.2 - Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.) equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
3	The median of C2.3 - Possibilities of night entertainment and recreation. equals 3.	One-Sample Wilcoxon Signed Rank Test	.004	Reject the null hypothesis.
4	The median of C2.4 - Sporting and physical activities in general. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
5	The median of C2.5 - Gastronomy and local cuisine. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
6	The median of C2.6 - Shopping and local market. equals 3.	One-Sample Wilcoxon Signed Rank Test	.260	Retain the null hypothesis.
7	The median of C2.7 - Friendly environment and inhabitants. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
8	The median of C2.8 - Safe socio-political situation at destination. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
9	The median of C2.9 - Low cost of goods and services. equals 3.	One-Sample Wilcoxon Signed Rank Test	.030	Reject the null hypothesis.
10	The median of C2-10 -Easy transportation. equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.
11	The median of C3- How important motivation was the visit to the Acropolis Museum for choosing Greece as a destination? equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of C3- How important motivation was the visit to the Acropolis Museum for choosing Greece as a destination? equals 3.	One-Sample Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Appendix 4: ANOVA Tests, Robust Tests of Equality of Means and Nonparametric Tests as Regards Age

			Test of Homogeneity	A NOVA	Robust Tests of Equality of Means		Kr uskal Wallis Test	Multiple Comparisons
Question	Age	Mean ± St.Dev	Levene Statistic (p-value)	F (p-value)	W elch (p-value)	Bro wn-Forsythe (p-value)	Ch i-Square (p-value)	Bonferroni or Tamhane (p-value)
C1.6 - To live meaningful experiences that will enable me to understand my deeper self.	20-30 (129)	3.41 ± 1.27	0.392 (0.759)	4. 624 (0. 004)	4 .444 (0.005)	4.6 33 (0.0 04)	12. 756 (0.005)	(20-30)>(51-) (p=0.005) (Bonferroni)
	31-40 (55)	3.29 ± 1.29						
	41-50 (53)	3.13 ± 1.23						
	51- (62)	2.69 ± 1.30						
C1.8- To relax and calm in quietness and nature.	20-30 (129)	3.69 ± 1.09	0.958 (0.413)	4. 637 (0.003)	4 .358 (0.006)	4.9 38 (0.002)	13. 364 (0.004)	(20-30)>(51-) (p=0,003) (Bonferroni)
	31-40 (55)	3.67 ± 0.96						
	41-50 (53)	3.45 ± 0.89						
	51- (62)	3.13 ± 1.06						
C1.9 - To live adventurous or even risky experiences and feel like an explorer.	20-30 (129)	3.21 ± 1.25	4,129 (0.007)	6. 985 (<0.01)	6 .529 (<0.01)	7.4 54 (<0.01)	18. 656 (<0.01)	(20-30)>(41-50) (p=0.008) & (20-30)>(51-) (p=0.001) (Tamhane)
	31-40 (55)	2.85 ± 1.15						
	41-50 (53)	2.66 ± 0.92						
	51- (62)	2.43 ± 1.28						
C1.10 - To collect moments and not things, as I do in my country of origin.	20-30 (129)	3.75 ± 1.08	1,392 (0.245)	5, 050 (0.002)	5 ,037 (0.002)	4,9 70 (0.002)	15, 446 (0.001)	(31-40)>(41-50) (p=0.005) (Bonferroni)
	31-40 (55)	4.07 ± 1.07						
	41-50 (53)	3.36 ± 1.09						
	51- (62)	3.43 ± 1.21						
C2.2 - Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.)	20-30 (129)	3.59 ± 1.09	7.732 (<0.01)	4. 758 (0.003)	4 .484 (0.005)	5.4 73 (0.001)	13. 364 (0.004)	(20-30)<(31-40) (p=0.011) & (20-30)<(51-) (p=0.021)
	31-40 (55)	4.04 ± 0.77						
	41-50 (53)	3.96 ± 0.88						
	51- (62)	4.02 ± 0.85						
C2.3 - Possibilities of night entertainment and recreation.	20-30 (129)	3.06 ± 0.95	2.423 (0.066)	9. 220 (<0.01)	8 .816 (<0.01)	8.6 72 (<0.01)	25. 152 (0.013)	(20-30)>(51-) (p<0.01) & (31-40)<(51-) (p=0.001) (Bonferroni)
	31-40 (55)	3.05 ± 1.15						
	41-50 (53)	2.58 ± 1.03						
	51- (62)	2.32 ± 1.09						
C3- How important motivation was the visit to the Acropolis Museum for choosing Greece as a destination?	20-30 (129)	3.34 ± 1.40	5.436 (0.001)	4. 375 (0.005)	5 .203 (0.002)	4.7 88 (0.003)	11. 664 (0.009)	(20-30)<(51-) (p=0.001) (Tamhane)
	31-40 (55)	3.47 ± 1.12						
	41-50 (53)	3.72 ± 1.31						
	51- (62)	4.02 ± 1.02						

Appendix 5: ANOVA Tests, Robust Tests of Equality of Means and Nonparametric Tests as Regards Education

			Test of Homogeneity	ANOVA	Robust Tests of Equality of Means		Kruskal Wallis Test	Multiple Comparisons
Question	Education	Mean ± St.Dev	Levene Statistic (p-value)	F (p-value)	Welch (p-value)	Brown-Forsythe (p-value)	Chi-Square (p-value)	Bonferroni or Tamhane (p-value)
C1.4 - To view specific monuments, museums, works of art, cultural heritage.	Basic & Secondary education (62)	3,84 ± 0.89	0,218 (0,804)	4.234 (0.015)	4,993 (0,008)	4,542 (0,012)	8,238 (0,016)	(Postgraduate studies)>(Basic & Secondary education) (Bonferroni) (0.017)
	University education (162)	3.99 ± 0.94						
	Postgraduate studies (75)	4.27 ± 0.78						
C1.9 - To live adventurous or even risky experiences and feel like an explorer.	Basic & Secondary education (62)	3.10 ± 1.36	3,167 (0,044)	7,860 (<0.01)	9,476 (<0,01)	7,702 (0,001)	16,456 (<0,01)	(Postgraduate studies)<(Basic & Secondary education) (0.004) & (Postgraduate studies)<(University education) (<0.01) (Tamhane)
	University education (162)	3.02 ± 1.19						
	Postgraduate studies (75)	2.41 ± 1.02						
C1.13 - To give meaning to my life.	Basic & Secondary education (62)	2.95 ± 1.47	3.002 (0.051)	5.486 (0.005)	5.862 (0.004)	5.071 (0.007)	10.395 (0.006)	(Postgraduate studies)<(University education) (0.005) (Bonferroni)
	University education (162)	3.31 ± 1.21						
	Postgraduate studies (75)	2.76 ± 1.19						
C2.2 - Cultural heritage, History and Sights (Museums, Archaeological Sites, Galleries, etc.)	Basic & Secondary education (62)	3.58 ± 0.92	0,052 (0.950)	7.480 (0.001)	7.582 (0.001)	7.643 (0.001)	13.364 (0.004)	(Postgraduate studies)> (Basic & Secondary education) (0.001) & (Postgraduate studies)>(University education) (0.006) (Bonferroni)
	University education (162)	3.76 ± 0.96						
	Postgraduate studies (75)	4.17 ± 0.95						

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The Development Prospects of Sports Dance Events in Greece

Athina Papageorgiou and Ioulia Poulaki

Abstract Events are considered as an important element in the tourism sector and many destinations define events as a key tool for their development and promotion. This paper examines the context of dance competitions and sports dance (or dancesport) events held in Greece, focusing on the cities of Athens and Kalamata. Literature review offers the concepts of cultural tourism, sports tourism, and event tourism, as well as the whole theoretical framework around festivals and festival tourism. In addition, the concept of sports dance is clarified and important information about dance competitions and sports dance events is provided. The research approach focuses on sports dance and concerns a primary survey with questionnaires to those who participate in such events. According to the results of the survey, dance competitions and sports dance events are not only an attraction for a significant number of tourists, since there is a remarkable number of participants usually accompanied by their families, supporting financially the destinations either to a small or a greater extent. Besides, in Greece, apart from Athens and Kalamata, there are many festivals and events related to sports dance. Furthermore, there are important bodies that are significantly involved in sports dance at national and global levels, demonstrating that the contribution of such events is particularly important. In addition, the levels of satisfaction of the individuals from their experience in the events highlight that it is necessary to make improvements and changes that will attract more interest and will contribute to a greater number of participants.

Keywords Events · Sports dance events · Dance competitions · Dance festivals · Tourism development · Greece

JEL Classification Z32 · Z21 · Z31

A. Papageorgiou
Department of Tourism Management, University of West Attica, Athens, Greece

I. Poulaki (✉)
Department of Tourism Management, University of Patras, Patras, Greece
e-mail: ipoulaki@upatras.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_44

1 Introduction

Tourism is an industry that trades products—nature, events, culture, and history—and presents them to the visitor as unique experiences (Craik, 1995). Today, tourists are increasingly looking for a connection to an unforgettable experience and visiting local events is a way to get these feelings. Tourists who visit cultural attractions and attend events are more likely to feel that the travel experience has contributed to their cultural enrichment and will therefore be more satisfied and more willing to return in the short or long term (Mendes et al., 2011).

Events belong to the group of created attractions, which every destination must have in order to plan a successful development (Susic & Dordevic, 2011). The same authors also add that events are continuous activities that "happen - take place" at some point in a year and that promote the tourism of a destination through the events and encourage visitors to participate. Such events serve a particular appeal because they are characterized by limited duration, which in turn defines them as different from permanent exhibitions or attractions (Susic & Dordevic, 2011). All events affect the participants and the local community in different ways—positively and negatively. Janeczko et al. (2002) stated that there is a direct relationship between the size or scale of the event and the impact it produces—as the size of the event increases, so does its potential costs and benefits. Tourism must maximize the benefits and minimize the costs in terms of the economic and the social impact on the local community and the impact on the preservation and promotion of cultural heritage and the environment (Andersson & Lundberg, 2013).

2 Literature Review

Events as a tourism parameter—Key elements in the sports events tourism industry

Events are an important motivator in tourism and many destinations use them in their development and marketing plans (Getz, 2008). Only a few decades ago, "event tourism" was introduced as in the 1980s event tourism expanded dramatically as a research topic and in the 1990s scholars began to explore the event management side (Getz, 2008). Today, the importance of cultural attractions and events for the promotion of regional economic development and especially tourism development is recognized (Richards, 2003). Tourists are interested in cultural aspects and seek out exciting cultural experiences (Agarwal & Brunt, 2006), and events can be considered as a way to gain unique experiences (Richards, 2003). Bjeljac (2006) defines event tourism as "a public performance in the form of an event or several events (with the same or different content), different categories of human achievement, distinguished by specialization and attractiveness, achieving the goals and results of tourism, and are organized in areas of interest, with huge performances and public expression, which are important in scale, size, quality and quantity of content, with a clear and prominent central theme and a recognizable event date, which results in efficiency as part of a tourist destination" (Bjeljac et al., 2013).

Events have become important and lucrative for global tourism (Getz, 2005) involving many different places. Presenza and Iocca (2012) identified a variety of events-related stakeholders, including media, public authorities, sponsors, facility providers, food and beverage stakeholders, visitors, tourism entrepreneurs, and also non-profit organizations (Presenza & Iocca, 2012). Events are one of the top tourism products in the world with unlimited potentials, which are mainly associated with the maturity of destination countries in innovative design and implementation of events through public–private partnership (Susic & Dordevic, 2011). Bowdin et al. (2006) defined events as "special ceremonies, presentations, performances or celebrations that are continuously planned and created to mark specific events and/or to achieve specific social, cultural or corporate purposes" (Shanka, 2003). Jayswal (2000) defined events as triggers performed with a perceptual idea, and then adapted to achieve the goal of organizing this event (Jayswal, 2000). According to Getz (2008), planned events are temporary developments with a predetermined beginning and end. The same author added that each planned event is unique because of the interactions between the environment, people, and the management system (including design and program aspects).

For an event to be a successful tourism product, it is important to extract the main elements that promote the product: attractiveness and uniqueness, content, order, tradition, quality of organization, number of visitors, location, and also the time and duration of the event (Bjeljac et al., 2013). The more events well designed and organized in attractive locations and convenient in time, the more people will visit these events and greater the value of events as tourism products (Bjeljac et al., 2013). Getz (2008) identified different types of planned events based on their obvious differences in purpose and program. These planned events include cultural celebrations (festivals, religious ceremonies, heritage celebrations), art and entertainment (concerts, award ceremonies), political and state events (summits, VIP visits), business and commerce (trade exhibitions), educational and scientific events (seminars, clinics), sports competitions (professional and amateur), recreational events (games and sports for fun), and private events (weddings, social networks) (Getz, 2008).

Some sports events are used as a means of attracting tourists to a particular area and enhance repeat visits, either to other sports events and activities or to other aspects of tourism of destination (Weed & Bull, 2012). Higham (2007) suggests that developments in sports tourism are more often pursued in favor of short-term economic returns, as long-term strategic visions are less clear. Since many sports events in tourism are "short-term events with long-term consequences for the cities that host them", studies have shown that the long-term consequences for destinations that host major sports events are often negative. The same author added that small-scale sports events can have a more positive impact on host communities (Higham, 2007). Such events include regular seasonal sports such as soccer, rugby, ice hockey, and adventure/outdoor events such as cycling or skiing. These sports events require less investment, usually operate within the infrastructure and are more manageable than large sports events. Dancesport may be also considered in this category of sports events.

Local bodies and cooperation in sports events tourism

Hakansson and Engstrom (2010) have shown that collaboration and communication between the community, visitors, and entrepreneurs is very important, because in this way all stakeholders can benefit from eventual cooperation in the context of an event—economies of scale, high occupancy rate, new and better job opportunities, improvements in infrastructure quality, etc. (d'Angella and Go, 2009). However, despite that cooperation is beneficial to the community, it is not always easy to achieve.

Due to the fact that there are many stakeholders and groups involved in events and their planning process (event organizers, local organizations, local government, visitors, etc.) and due to the lack of communication between them, the effects that cause the events may be dissimilar to each stakeholder. Implications can vary due to conflicting goals and motivations or even due to the due to lack of communication skills. For example, the government uses an event to promote tourism and the image of destinations, while the organizers just want to bring the locals together and have fun. In his article, Greenwood (1976) describes a similar conflict between residents and local government, in which the municipal government turned one of Fuenterrabia's assets into a tourist product, which in turn violated the concept of ritual and destroyed its authenticity.

The rapid development of events has led to the creation of an event industry, with its own suppliers, professional associations, and professionals (Allen et al., 2010). The formation of this industry was also accompanied by a globalization of markets and communication, which influenced the nature and the trends of the industry. The key elements of the event industry are cited. Event organizations have the main task of hosting or organizing events. Corporate events are often organized by in-house event groups or by project groups within the companies participating in the event. Event management companies are professional groups or individuals who organize events on a contract basis on behalf of their clients. These types of specialized companies often organize a series of events at the same time and develop a long-term relationship with their customers and suppliers (Allen et al., 2010).

Event industry suppliers may work in areas directly related to the event, such as stage, sound production, lighting, entertainment, catering, and audiovisual production, or may work in related areas, such as transport, communications, legal services, security, and accounting services. This network of suppliers is an integral part of the event industry and their knowledge helps to produce professional and high-quality events (Allen et al., 2010).

Site management includes an event management component, either as part of site marketing or as part of event customer service. Many venues generate additional revenue by hiring their facilities for various events. These spaces are, for example, galleries, museums, universities, libraries, and theaters. Hotels, convention and exhibition centers, sports stadiums, heritage sites, theme parks, shopping malls, and markets are places that usually include an event management feature (Allen et al., 2010).

Industrial associations are professional associations that provide networking, communications and industry links, training and accreditation programs, codes of ethics, and pressure from their members. External regulators, such as governments and local councils, are responsible for overseeing the safe conduct of events. For example, many local councils require a development application for outdoor events, which may cover regulations related to traffic plans, noise restrictions, and so on. In addition, event organizers have the legal responsibility to provide a safe workplace and comply with all regulations related to employment, contracts, and so on. It is also important for event organizers to stay in touch with public authorities who have a vested interest in the industry (Allen et al., 2010).

Socio-cultural impact on the local community

As it turns out, a very important group associated with events is the locals. Residents' attitudes are important because they are the most directly influenced by tourism activity and therefore have a strong ethical premise that must be heard and taken into account (Weaver & Lawton, 2013). Fredline and Faulkner (2000) stated that, although perceptions are subjective, they still provide an indication of the real impact through people's response to development. As mentioned earlier, different parties participating in events could have different purposes and goals. In any city there could be many merged communities with different goals and views, while the concept of community refers to the group, the collective unity, the whole (Zhou, 2006). This could also be a problem, for example, event organizers have different goals and ideas when it comes to event planning and do not involve residents in this process.

In order to achieve a good balance and gain the support of local communities, it is important to understand the goals, aspirations, and views of communities when planning events (Zhou, 2006). Madrigal (1995) stated that the perceptions and attitudes of residents toward the effects of events should be understood, because it will enhance the experience of spectators and contribute to the overall attractiveness of the site as a tourist destination for events. Zhou (2006) added that it is important to maintain the goals and motivations of governments/organizers and the perceptions of residents to be harmonious with each other.

Sports tourism can have a positive impact on social health and well-being. Sports tourism, if properly developed and planned with the commitment of all stakeholders, should reap the following economic, social, and community benefits:

- Bringing values to people.
- Represents diversity.
- Creation of communication channels.
- Creating natural benefits.
- Providing happiness.
- Promotion of culture and information.
- Transformation and restructuring of society.
- Strengthening and developing culture.

- Promoting the conservation of natural resources.
- Awareness training by sports organizations.
- Work.
- Interaction: intercultural exchange.
- Pride in the local community.
- Upgrading skills/ability.

Economic impact on the local community

Like any other form of special interest tourism, event tourism must also be considered both in terms of supply and demand (Getz, 2008). On the supply side, destinations develop and promote events to achieve different goals:

i. to attract tourists,
ii. serves as a catalyst (to increase infrastructure and tourism capacity),
iii. to promote a positive image of destination,
iv. to promote the general marketing of the specific area, and
v. to promote specific areas or attractions.

On the demand side, it is important to determine who travels to events and why, as well as who attends events while traveling. This demand-driven approach also includes the evaluation of events, the positive promotion of the destination image and the destination co-branding (Getz, 2008). In addition, cost–benefit analysis is best applied in events. The most important element of the financial impact on events is the costs. It is necessary, however, to distinguish the results for the event organizer and for the host city. Despite the negative aspects of sports tourism, its positive impact on the regional economy is too great to ignore. As a result, sports tourism industry development plans are being taken up by governments around the world. The increase in tourism activities in an area that may achieve sports tourism leads to an inevitable increase in monetary profitability.

Sports dance

In recent years, sports dance or dancesport (competitive dance) has been particularly developed in Greece. More specifically, dancesport, nowadays, is considered as the style of dance which is transformed into a sport that pushes athletes to engage in dance on a competitive level and contributes to the further development of the dancer through continuous training and gaining more knowledge about dance. This sport can be practiced by children up to adults, provided they have physical strength, endurance, and enough flexibility, so that they can meet the high demands of sports dance. In fact, it is considered partly a team sport (mainly in pairs), as long as the dancers participate in competitions either solo or duet or trio or even in larger groups (artdance.gr). Also, dance athletes include those who are members of dance schools, dancesport clubs, or dance departments created by the Municipality, who can be either beginners or advanced depending on their abilities. For everyone, however, sports dance is a sport that offers fun even at a competitive level without seeking any monetary reward (exoe.gr).

Sports dance in Greece

Dancesport in Greece was presented and began to be developed in the 1990s with the help of the competent bodies involved in dance. This resulted in the creation of Dance Associations, Councils, and Federations. In fact, at that time, the first dance competitions in Greece began to be organized as well as championships, cups, or dance festivals. These first attempts to organize such competitions and events were made by a pair of professional dancers from the USA, helping to start the dancesport in Greece as well. Some of the competitions had a huge impact on the public, and thus they began to increase, and their level became higher and more demanding, as foreign couples also participated as well. It is also worth mentioning the fact that the training of many Greek couples on dancesport took place abroad. Two major Greek competitive dance federations are the Hellenic Dancesport Federation and the National Dancesport Federation of Greece. Dance competitions can also be organized by individuals, such as dance schools, in addition to the official bodies (pro-dance.gr).

Dance competitions

Dance competitions worldwide play a crucial role for the existence and evolution of dancesport. There are various categories of sport dance competitions, which depend mainly on the age of the dancers, whether they are beginners or advanced—in terms of their skill level—but also on the type of dance they represent, including rules that all participants must to strictly adhere to.

Also, the participants in dance competitions must know the basic rules and criteria that will determine their victory and their differentiation from the rest, which include the correct execution of the choreography, comfort, and flexibility of dancers, elements such as melodicity and rhythm, or even an impressive appearance with nice clothing. Dance competitions play a very important role in the participants themselves as stimulate them to a greater effort in the field of sports dance, since the primary purpose of competitions is to reward and recognize the value of the dancers.

Another important part of the dance competitions is the adjudicators (judges), which must work professionally but also strictly follow the basic rules that have been set for such competitions. In particular, the judges need to be specialized in the field of dance in general (e.g., knowledge of the technique) and also to have the basic knowledge on the various types of dance in which couples compete. The judges, in fact, it is important to recognize the effort of the dancers and to be objective in terms of the score they will give, which will be shaped according to the abilities of the dancers. The more professional and trained the dancers are, the more competent the judges must be in order to properly evaluate the contestants (pro-dance.gr).

Given all the aforementioned it is worth investigating the development prospects of dance sports events in Greece, focusing on two cities, Athens and Kalamata.

3 Research Methodology

A primary research has been undertaken in order to approach the participants in dance sports events and investigate their statements regarding the development of such events, focusing on the participants in events of two different cities, Athens and Kalamata. In the quantitative method used to conduct the research, a questionnaire was created, upon bibliographic research. The questionnaires are created in a simple way and the selected sample can answer with great ease, helping to draw conclusions. The structure of the questionnaire of the present research is simple, with short questions, placed in a specific order between them. It is worth mentioning the fact that thanks to the anonymous nature of the questionnaire, the participants answered comfortably, without being influenced by any factor.

The questions used in the questionnaire are mainly close ended and minimal open ended, to facilitate the participants and help to give more answers in an easy way. Therefore, close-ended questions are those that not only gather all the necessary information and opinions but also enable the statistical analysis of the resulting numerical data. This research may be considered as a pilot one in order to produce some initial conclusions on the research question, while the time interval of the distribution and collection of the questionnaires concerns the first months of 2021, given the difficulties the COVID-19 pandemic crises provoked in such effort.

4 Findings

The case of Athens

The present study involved a total of 52 people who either participate or do not participate in dance competitions and dance events. However, it should be noted that in fact a total of about 100 questionnaires were distributed via email and messenger, finding that the survey participation was about half. Therefore, a total of 37 women participated who reach the majority, i.e., 71.2%, while men constitute only 28.8% of the sample (15 men). Thus, it seems that women are more responsive to such events. The age group that dominated the research was that of 19–29, which belongs to 59.6% of the total sample. The ages of 30–39 follow with a percentage of 26.9%, while approximately 7.7% and 5.8% of the sample had the ages of 40–49 and 14–18, respectively. The survey, however, shows that of the 52 people aged 49–59 did not participate. The vast majority of participants come from Attica with a percentage of 71.2%, as Attica is the destination with the most dance competitions and dance events in Greece. Also, the remaining percentage belongs to participants from Crete and the Peloponnese, sharing it at 15.4% and 13.5%, respectively. When it comes to the level of education of the participants, most of them were graduates of university at a rate of 57.7%, indicating that there is a high level of education, followed by the holders of a master's degree with a percentage of 19.2%. Regarding the annual income level, it is observed that the participants mostly receive less than 12,000 euros per year with a percentage of 69.2% of the total sample. The percentage of 17.3% occupies the income of 12,001–15,000 euros, while the percentage of 9.6% corresponds to the income over 20,000 euros. Participants were asked to answer whether or not they generally participate in dance competitions and dance events and then provide relevant information depending on their answer to this question.

Regarding the participation rate of the sample, it is observed that the vast majority of the respondents participate (71.2%). In contrast, respondents who do not participate in similar events account for the 28.8% of the sample with the 66.6% of them to declare not interested in participating or not generally involved in dance competitions and sports dance events. On the contrary, the minority corresponds to people who do not like the meaning of the dance competition (6.7%) or who do not participate for their own personal reasons (6.7%). Respondents who have never participated in dance competitions and sports dance events stated that they do not intend to take part in such events in the future with a percentage that approach the 80%. On the contrary, 20% stated that in the future they would like to live the experience of participation. The 34.6% of the respondents did not answer the question about how they were informed about these events. However, the majority stated that they were informed about such events through social media, from the Internet and through the dance schools. When it comes to the changes or improvements that should be done in the dance sports events, the participants stated that they believe that there should be more interesting events, to give more imagination and ingenuity to both choreography and sets, and to make these events more innovative. In addition, it is important for them to be better informed through relevant advertisements, as a more correct and interesting promotion of an event to “attract” more people to participate. Another important element is the intensive competition as they find important to upgrade the dance level and compete with high-level couples from abroad—with foreign judges as well—to be motivated to participate themselves. In fact, they underline that dance competitions should not only care to attract young people. Additionally, the respondents in the research stated that these events should be accessible to all and free of charge, for a large crowd to come and watch them and make the experience of the participants more special. Moreover, many of the dancers perceive that the venues need to be improved in terms of space and decoration. Finally, there were answers regarding the communication between the clubs but also opinions regarding the implementation of voluntary actions during an event. In fact, they stated that any dance event should have a public benefit character.

In respect of the respondents who answered that they participate in dance competitions and dance sports events (71.2%), the 30.8% stated that they participate two to three times per year, while the 28.8% only once per year and the 11.5% of these people participate more than four times per year. It is obvious that the largest percentage of the people who participate in such events move from their place of permanent residence in order to experience the participation in other destinations and perhaps to experience something different from what they are used to. These individuals, therefore, belong to the percentage of 53.8% and they spend the night in the area where the events take place. When it comes to the number of nights spent it is found that individuals choose 1 or even 2 nights with rates of 26.9% and 23.1%, respectively. The 21.2% of the respondents do not choose to spend the night in the event area. Regarding the costs of participation and accommodation, the answers vary. The 25% of the respondents spend from 50 to 100 euros, followed by people who spend 0–50 euros at a rate of 19.2%. Also, the 17.3% corresponds to expenses 100–150 euros, while only 5.8% and 3.8% belong to people who spend 150–200 euros and 200 euros and above, respectively. Finally, among the respondents who participate in such events, 24 people stated their satisfaction of their experience in participating in dancesport events, while 13 respondents stated dissatisfied.

The case of Kalamata

The study involved 58 participants, with the percentage recorded being in favor of women versus men with 58.6% and 41.4%, respectively, for both sexes. The main age groups that completed the questionnaire were the groups 18–29 years old, 30–39 years old, 40–49 years old, and 50–59 years old with percentages of 39.7%, 32.8%, 17.2%, and 10.3%, respectively. Regarding the educational level of the respondents, the majority were of higher education, university graduates with a percentage of 46.6%. The annual income level the percentage recorded is overwhelmingly in favor of the amount of <12,000 €, with a percentage of 63.8%, compared to the amounts of 12,001 €-15,000 € and >15,001 € with percentages of 17.2% and 19.0, respectively. Respondents, who do not participate in dance events/sport dance events, were asked to answer the reasons for their non-participation in these events with the answers: I am not interested in participating and I do not deal with competitions to collect 39.3% and 42.9%, respectively. Then, 75% of them do not intend in the future to participate in dance events as opposed to 25% who intend to. Finally, the respondents believe that in order to attract the interest of these events, they need to make changes such as becoming more meritocratic, having better organization and offering greater spectacle with percentages of 46.4%, 35.7%, and 17.9%, respectively. When it comes to those who participated in dancesport events, 63% were informed through the Internet and social media while 37% through dance schools. The annual participations of the respondents range between one and two to three times with percentages of 36.7% and 40%, respectively, while the 23.3% participates more than four times.

Regarding whether they move to another area in order to attend such events, the majority answered positively with a percentage of 63.3% while 36.7% answered negatively. As to whether or not they spend the night in the area where the respondents go, the percentage is divided equally by 50%. In respect of the overnight stay, the respondents stay once or twice with a rate of 46.7% for both cases, also a 6.7% spend three nights. Compared to the amount of the average daily expense paid by the respondents, it amounts to <50 €, 50 € −100 €, 100 € −150 €, and finally >150 €, in percentages of 36%, 10%, 37%, and 17%, respectively. As for who covers these expenses, the majority of respondents cover with their own resources in order to attend and participate in dance events. When it comes to the satisfaction of the respondents from the experience of participating in these events, the majority of them remained from quite to very satisfied with a percentage of 63.4%, while a percentage of 33.3% remained moderately satisfied. Finally, the respondents showed moderate to sufficient satisfaction from the organization of dancesports events, at a rate of 36.7% and 40%, respectively. Respondents intend 100% to take part in dancesports events in the future, while for similar events held abroad 86.7% answered positively for their participation. Finally, it appears that most of the respondents have not attended or participated in similar events abroad. As can be seen from the descriptive and inductive statistical analysis, the research questions asked during the design of the research proved to be valid and indeed the annual income affects the participation in competitions of dancesports events, as well as the gender influences the movement from the place permanent residence in another area for participation in dancesports events, and finally gender affects the nights in the area where the dancesport event takes place.

5 Conclusions

The findings demonstrate the need to focus on a strategic approach in order to create, maximize, and maintain the benefits of the events. A special and important form of tourism is cultural tourism, which helps each society to highlight its identity and reveal its diversity, as well as sports tourism, which has a great impact on the world that visits a destination. The present research deals with the participation or not in dance competitions and dancesporting events, a fact that proves that in many cases these two forms of tourism are combined, thus helping any destination to stand out on the tourist map. Greece, including Athens and Kalamata, seems to hold a large number of festivals and events related to sports dance. The findings show the need to focus on a strategic approach in order to create, maximize, and maintain the benefits of the events. So, from the literature review, it is clear that the festivals and events that take place play a very important role in the development and evolution of a community, which comes largely from the participation of either people who visit a destination or residents an area, as such events are a source of income for each place. At the same time, from the results of the research, which was conducted on people responsible for sports dance, it was found that dance competitions and the corresponding dance and sport events held in our country have a special impact on the public, thus showing that they increase more traffic than other people. Areas in which they travel motivated by experience, through their participation in such dance events.

Specifically, all individuals participating in dance competitions and dance events stated that they participate at least once a year. Of course, many of the respondents participate two to three times or even more than four times a year. In fact, it should be noted that most of them not only move from their place of permanent residence but spend one to two nights at the destination they choose to motivate their participation in dance and sporting events. In fact, the amount they spend for their participation and their stay, in case of overnight stay, ranges mainly from 50 to 150 euros, expenses which are covered by most of them. According to the above data, there is a sufficiently significant number of participants in dance competitions and dance events.

A reasonable conclusion, then, is the fact that such events financially support to a greater or lesser extent any destination, as many sub-sectors are strengthened, such as catering or accommodation. The hotel sector and the accommodation sector, in general, seem to be strengthening not so strongly, as it was observed that many make day visits and do not spend the night in the area.

It is obvious, therefore, that dance competitions and dance events are a pole of attraction for a significant number of tourists. However, as the results and the evaluation of the research show, it seems that, although more than half of the respondents participate in such events, they are not completely satisfied either with their experience or with the way they are organized and conducted. For this reason, it is extremely necessary to utilize the findings related to the events and make all the necessary improvements, since there is room for better organization and greater satisfaction of the participants. They are, therefore, several important and decisive changes which will attract more interest and contribute to the increase of participation, even of those who until now did not take part in dance events.

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The Road to a Tourist's Heart is Through Their Stomach: Exploring Culinary Tourist Motivation in Zimbabwe

Edinah Tendani, Magdalena Petronella (Nellie) Swart, and Ciné van Zyl

Abstract The paper explores culinary tourist motivation (CTM) as a unique behaviour that is portrayed by a guest. The study is linked to the ethnic Zimbabwean cuisine and the desire to taste new gastronomy experiences offered by the destination. Dimensions such as culinary symbolic, culinary obligation, guest contrast and guest pleasure with their sub-dimensions are used to investigate CTM. An empirical research study was conducted. Self-administered questionnaires were distributed at designated ethnic restaurants in Harare, Kariba, Mutare/Nyanga and Victoria Falls, Zimbabwe. Convenience sampling was used to collect 500 responses from June until August 2018. An exploratory factor analysis was conducted using IBM SPSS (V24.0). Results from the factor analysis for CTM on the four dimensions yielded Bartlett's test of sphericity $X^2 = 2588.57$ ($df = 105$; $\rho \leq 0.001$) and KMO-MSA (0.93) supporting the overall significance of the correlations. The two factors were retained for the development of the CTM scale based on the number of eigenvalues larger than unity, which explained 86.01% of the variance in the factor space, and $\alpha = 0.84$. Inter-correlations between these factors were further investigated using the Pearson correlation where Factor D1 (guest pleasure) and Factor D2 (authenticity) ($r = 0.72$, $n = 500$, $\rho \leq 0.001$) had a large effect size to support the newly developed CTM. These results may benefit destination planners and policymakers on the importance of guest pleasure and authenticity in the designing of their marketing strategies and policies in motivating tourists to eat at traditional restaurants.

Keywords Culinary tourist motivation · Gastronomy · Food tourism · Authenticity · Traditional restaurants

JEL Classification Z3 · Tourism economics/Z31 · Industry studies

E. Tendani (✉) · M. P. (Nellie) Swart · C. van Zyl
Department of Applied Management, University of South Africa, Pretoria, South Africa
e-mail: swartmp@unisa.ac.za

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_45

1 Introduction

Motivation has been discussed from sociology, psychology and anthropology perspectives (Cohen & Avieli, 2004; Maslow, 1943) to understand customer decision-making behaviour. Lin et al. (2011) applied food as motivation in each of the five steps as (i) physiological need (taking the essential food elements to survive); (ii) safety stage (storing food for any purpose of security); (iii) belongingness stage (an interaction and cultural identity medium); (iv) status (eating together with other people/social gathering about food) and (v) self-realisation (motivated to experience different cultural and local food). The theory of motivation by Maslow (1943) has been applied by researchers in the proposed culinary tourism motivation construct. Diners are motivated to consume food and beverages of other ethnicities (Rocha et al., 2016). According to Sánchez-cañizares, López-guzmán and Marı (2012), food has become an attraction and motivation for tourism in many destinations around the world. Food enhances the experience of tourism (Chaney & Ryan, 2012). Furthermore, tourists actively search for authentic food experiences in the countries they visit (Sukalakamala & Boyce, 2007).

Research by Guzel and Apaydin (2017) points out that food is a symbol that expresses and strengthens the identity, making food a different motivation for tourists to travel for. Despite the discussion of tourist motivation in various tourism sectors (leisure, business, heritage, rural and gastronomy), there is little information on how tourists perceive and experience different food roles as a desire for travel (Richards, 2012). More research on tourists' motivations for local food (ethnic) consumption is needed from an African perspective. A new generation guest has a desire for healthy eating, which is commonly used as in the form of local and authentic ingredients.

In the study, CTM is explained from a guest motivation perspective as the guest's intrinsic drive is reflected in the consumption of culinary products which is served at ethnic Zimbabwean restaurants. This research defines CTM as a unique behaviour portrayed by a guest that is linked to the ethnic Zimbabwean cuisine as well as a desire to taste new gastronomy experiences offered by the destination. The approach partakes have been further applied in gastronomy/food/culinary tourism in Zimbabwe. The paper commences with literature of CTM, the design of the proposed framework. This is followed by the method as applied in the design, the discussion of the hypothesis and results thereof reaching valuable conclusions.

2 Literature Review

The literature is unpacked with a brief discussion of the dimensions of CTM. Dimensions such as *culinary symbolic* (Kujala, 2016; Mak, Lumbers, Eves & Chang, 2013, 2017), *culinary obligation* (González et al., 2019; Mak et al., 2013), *guest contrast* (Mak et al., 2013; Pappas & Biregoli, 2016) and *guest pleasure* are given (Amonhaemanon & Amornhaymanon, 2015; Mak et al., 2013, 2017) with their sub-dimensions that is used to investigate the value of the proposed framework. This is indicated in Fig. 1.

From Fig. 1, each of the four dimensions, sub-dimensions and explanatory items is displayed in the order of the figure.

Dimensions of Culinary Tourist Motivation

Culinary Symbolism

A symbol is regarded as an intangible quality in the service industry; hence, customers in service environments must rely on tangible cues or physical evidence to evaluate both the service and their satisfaction with the service (Zeithaml, Bitner, Gremler & Pandit, 2006). Literature from general business, tourism and hospitality studies have been used to inform culinary symbolism as a dimension of this study (Kujala, 2016; Kujala & Nurkka, 2012). Hence, culinary symbolism is defined as the image guests have of ethnic Zimbabwean food products and beverages.

Kujala (2016) suggests that symbols are formed by cultural principles, which can be norms, values or social categories. Findings from the above literature revealed that symbolic meanings are challenging to design. It is hard to anticipate other people's reactions, and the designer as users thereof might attach different importance to a product (Kujala & Nurkka, 2012), especially as strong branding and customer satisfaction are interrelated (Purushotam, 2016). Research by Privitera et al. (2018) recommends the integration of food tourism policy into the preservation and development of the cultural ethnic identity to attract tourists. Nicolaides (2014) also proposes that people are motivated to enjoy an authentic experience. The understanding of Zimbabwe's culinary tourism is still in the early stages. The concept of culinary symbolic would be further explored in this research through the following sub-dimensions: (i) local ethnic-cultural knowledge (Okech, 2014), (ii) seeking authentic experiences (Kalenjuk & Banjac, 2018; Yun, Hennessey & MacDonald, 2011), (iii) prestige (Rousta & Jamshidi, 2020) and (iv) favourite culinary brand (Kim & Lee, 2018).

Culinary Obligation

Obligations associated with one's traditions or the extended family system are also motivating factors in culinary tourism. Good organisations make guests feel safe, and it is almost mandatory, as guests do not like risky situations or experiences (Sengel et al., 2015). Literature from culinary studies informed the definition of culinary obligation (Guruge, 2020; Mak et al., 2012) as the provision of ethnic Zimbabwean food, beverages and related culinary products that provide health benefits to guests.

Obligatory is one of the essential dimensions underlying tourist food consumption behaviour (Cormany, 2013). Based on these studies, there is a need to investigate how cuisine affects food consumption at a specific destination. Culinary obligation seeks to explore the essentiality of tourist food consumption. It includes sub-dimensions such as (i) health concerns (Mak et al., 2012), (ii) the physical need for sustenance (Kim & Eves, 2012), (iii) ontological comfort (Reinisch, Kofler & Kastner, 2010)

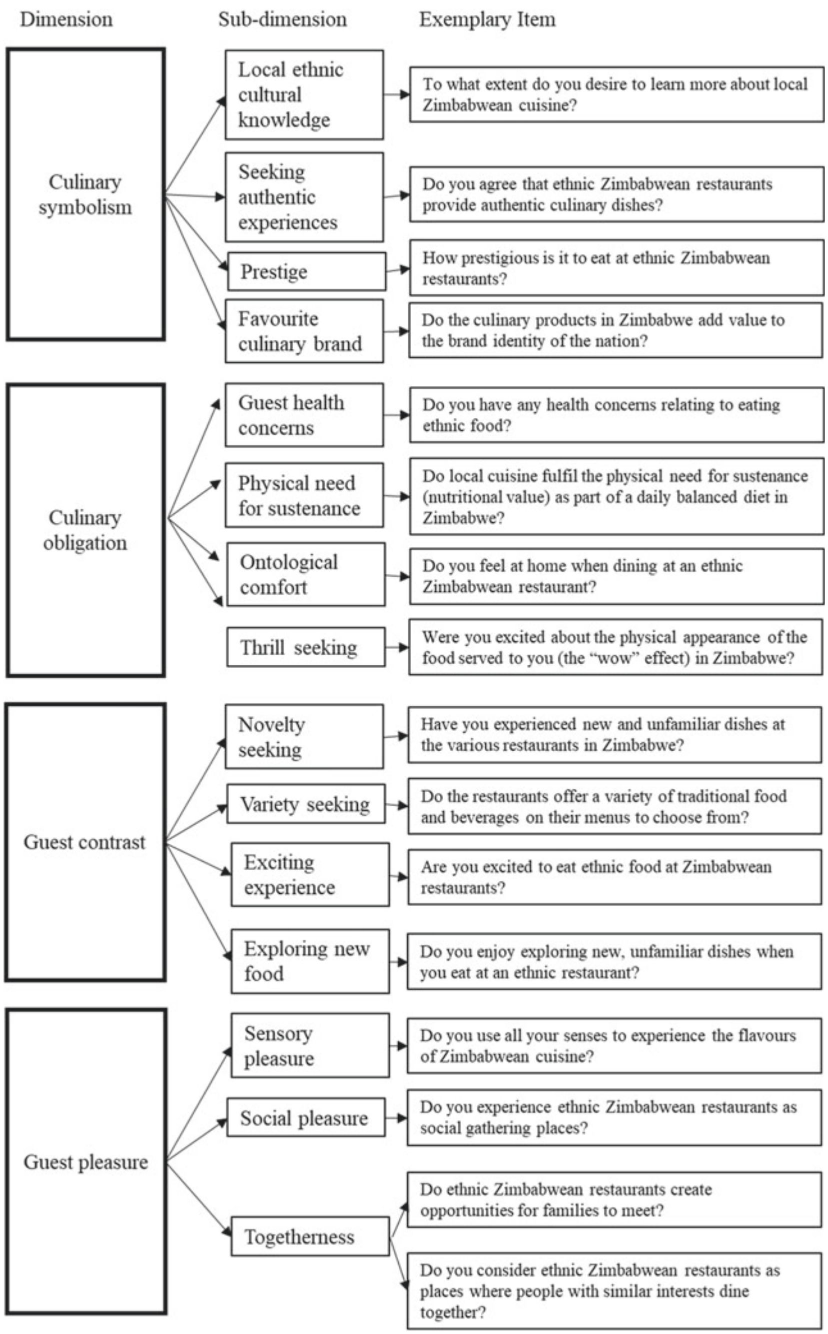

Fig. 1 CTM theoretical framework (adapted from Aldefer, 1969; Herberg, 1968; Lai, 2011; Mak et al., 2012; Maslow, 1943; McClelland, 1989; Sekhar et al., 2013)

and (iv) thrill-seeking (Próchniak, 2014), which will be further investigated in this study.

Guest Contrast

Guest contrast seeks to explore the culinary variances of products and a culinary experience as patronised from various culinary destinations, which differ from the everyday consumption experienced at home (Clemes et al., 2013). The definition of guest contrast has been informed by Dayour and Adongo (2015) and Streimikiene and Bilan (2015), as the feeling of excitement when guests explore new ethnic food at a traditional Zimbabwean restaurant, which differs from daily food eat at home.

The rise of an affluent and educated society increases the demand for quality, value and a desirable environment away from everyday life pressures (Pappas & Biregoli, 2016). Sumarjan, Arendt and Shelley (2013) assert that customers are guided by safety, freshness, storage, preparation, consumption, price, packaging and place of purchase when opting for contrasting experiences, while restaurant owners prefer to inculcate menu items with authenticity meanings (Chhabra et al., 2013). The guest contrast experience in culinary tourism is explored through sub-dimensions (i) *novelty seeking* (Toyama & Yamada, 2012), (ii) *variety seeking* (Choi, 2019), (iii) *exciting experience* (Arifin, Jamal, Aziz & Ismail, 2014) and (iv) *exploring new foods* (Mak et al., 2012).

Guest Pleasure

Pleasure has been observed in general business and tourism literature (Amonhaemanon & Amornhaymanon, 2015; Langsner, 2017; Vabø & Hansen, 2014). Research by Kringelbach and Berridge (2017) as well as Chun (2011) informed the definition of guest pleasure for this study as the psychological process of enjoyment when tourists consume ethnic food and beverages at a traditional Zimbabwean restaurant.

Pleasurable experiences signify a sense of stimulation in terms of taste, smell, texture and the visual impression of food, drinks and meals (Andersson et al., 2017). Tasting local food is a pleasurable and exciting activity and experience (Kivela & Crotts, 2006). Dining out is a pleasurable sensory experience; hence, the pleasure factor or the feel-good factor results from food consumption at the destination. However, guest pleasure seeks to explore happiness, satisfaction and enjoyment when dining at a local restaurant in Zimbabwe. The following sub-dimensions, namely, (i) *sensory pleasure* (Berridge et al., 2010), (ii) *social pleasure* (Sengel et al., 2015) and (iii) *togetherness* (Hattingh & Swart, 2016) were used to explore guest pleasure.

From the above theoretical discussion, the following study hypothesis is derived:

SH: Culinary tourist motivation with its proposed dimensions culinary symbolic, culinary obligation, guest contrast and guest pleasure can be reliably and validly measured.

The research method applied in the study is introduced next.

3 Methodology

Zimbabwe reported a total of 2,6 million international tourist arrivals in 2018 (Zimbabwe Tourism Authority, 2018). TripAdvisor recorded 5062 culinary tourists (guests) patronised designated ethnic restaurants during the period of data collection while the Hospitality Association in Zimbabwe (HAZ, 2018) reports that guests who visited restaurants were approximately 4570 from May to August 2018. The study's target population is culinary tourists (also referred to as diners) who patronised ethnic Zimbabwean restaurants at the four selected Zimbabwean tourist towns (Victoria Falls, Mutare/Nyanga, Kariba and Harare) from June 2018 to August 2018.

This empirical research study employed a self-administered questionnaire managed by the fieldworkers at these designated culinary restaurants. Convenience sampling was used to gather a sample of 500 responses used in the data analyses. The culinary tourist motivation questionnaire comprised of 16 items that were extracted from the literature review discussed earlier. This multi-dimensional measurement instrument consisted of *four dimensions* as illustrated in Fig. 1.

Primary research data was generated through the cross-sectional survey, which required the researcher to use systematic and sophisticated procedures to test, prove and verify the study's research question and hypothesis. The study's hypothesis was tested quantitatively (Cooper & Schindler, 2011), using IBM SPSS (V24.0).

Reliability and Validity of the CTM

Although no information was available to support the reliability and validity of the CTM construct, this measurement instrument was developed based on the identified dimensions following a comprehensive literature review. The reliability of the CTM instrument is embedded in the reliability of Van Vuuren and Slabbert (2011) (α.84), where tourist motivation has been investigated. Construct validity was supported in the process of the exploratory factor analysis (Martin et al., 2013). The CTM measurement instrument was developed through an exploratory factor analyses process to yield the validity and reliability of the instrument.

The Rationale for the Inclusion of the CTM

According to research by Agyeiwaah, Otoo, Suntikul and Huang (2019), tourists' motivation positively influences both the culinary experience and satisfaction. Furthermore, the culinary tourist experience is positively associated with both culinary tourist satisfaction and loyalty. The latter further suggests that the more tourists are motivated to participate in cooking classes, the more experiential value and satisfaction are perceived. Nicoletti et al. (2019) argue that prestige, status, physical and cultural factors encourage some tourists to show a noticeable interest in local cuisine. Furthermore, these authors also note that the desire to choose new gastronomic experiences also influences decision-making in which destination to choose and visit. Gheorghe et al. (2014) state that tourist motivations form the key concept and services that add value to tourists are therefore considered a key element in understanding the decision-making process of the visitor. This background literature provided from the previous citation of scholars contributed to the rationale of CTM for the study.

4 Results

The four dimensions, namely, D1_CulinarySymbolism (four items), D2_CulinaryObligation (four items), D3_GuestContrast (four items) and D4_GuestPleasure (four items), of the CTM, construct in this study used the exploratory first-order analysis. Results from Bartlett's test of sphericity $X^2 = 2588.57$ ($df = 105$; $\rho \leq 0.001$) and the KMO-MSA (0.93) indicated the overall significance correlations with each of the identified dimensions. Varimax rotation and principal axis factoring and Kaiser normalisation were used to extract the factors. Two factors (D1_GuestPleasure = α 0.89 and D2_Authenticity = α 0.84) were stated based on the number of eigenvalues more than unity, explaining 48.08% of the variance in the factor space. The two factors were retained for the development of the CTM model. Inter-correlations between these factors were further investigated using the Pearson correlation, where Factor D1 (guest pleasure) and Factor D2 (authenticity) ($r = 0.72$, $n = 500$, $\rho \leq 0.001$), the effect size was large, suggesting a strong relationship between the factors (Pallant, 2011). A Kolmogorov–Smirnov test was conducted on the two factors (Guest Pleasure and Authenticity), which were negatively skewed, meaning that data were not normally distributed. However, the normality test is not critical when the sample size is more than 200 (Tabachnic & Fidell, 2007), as illustrated in Fig. 2.

The newly developed CTM model explained 86.01% of the variance in the factor space and was supported (α 0.84) by the data, as the Cronbach alpha coefficient was more than 0.60 (Malhotra, 2004; Nunnally & Bernstein, 1994).

5 Conclusion

The paper explores CTM as a unique behaviour that is portrayed by a guest, as was further investigated by exploring if culinary symbolism, culinary obligation, guest contrast and guest pleasure supported the reliably and validly measurement thereof. The reliability of the study's self-administered questionnaires was confirmed by the achievement of the minimum reliability scores (more than 0.60). Exploratory factor analysis and Pearson's correlation supported the development of the newly developed CTM. The purpose of this hypothesis was to measure the motivation of culinary tourists from a literature perspective when traditional food and beverages are offered by ethnic restaurants (Kivela & Crotts, 2006). Culinary tourists are motivated by ethnic food and beverages, which contribute to their experience. The proposal by Mak et al. (2012) that motivational factors in gastronomy tourism are influenced by symbolic, obligatory, contrast and pleasure was confirmed in the research and is

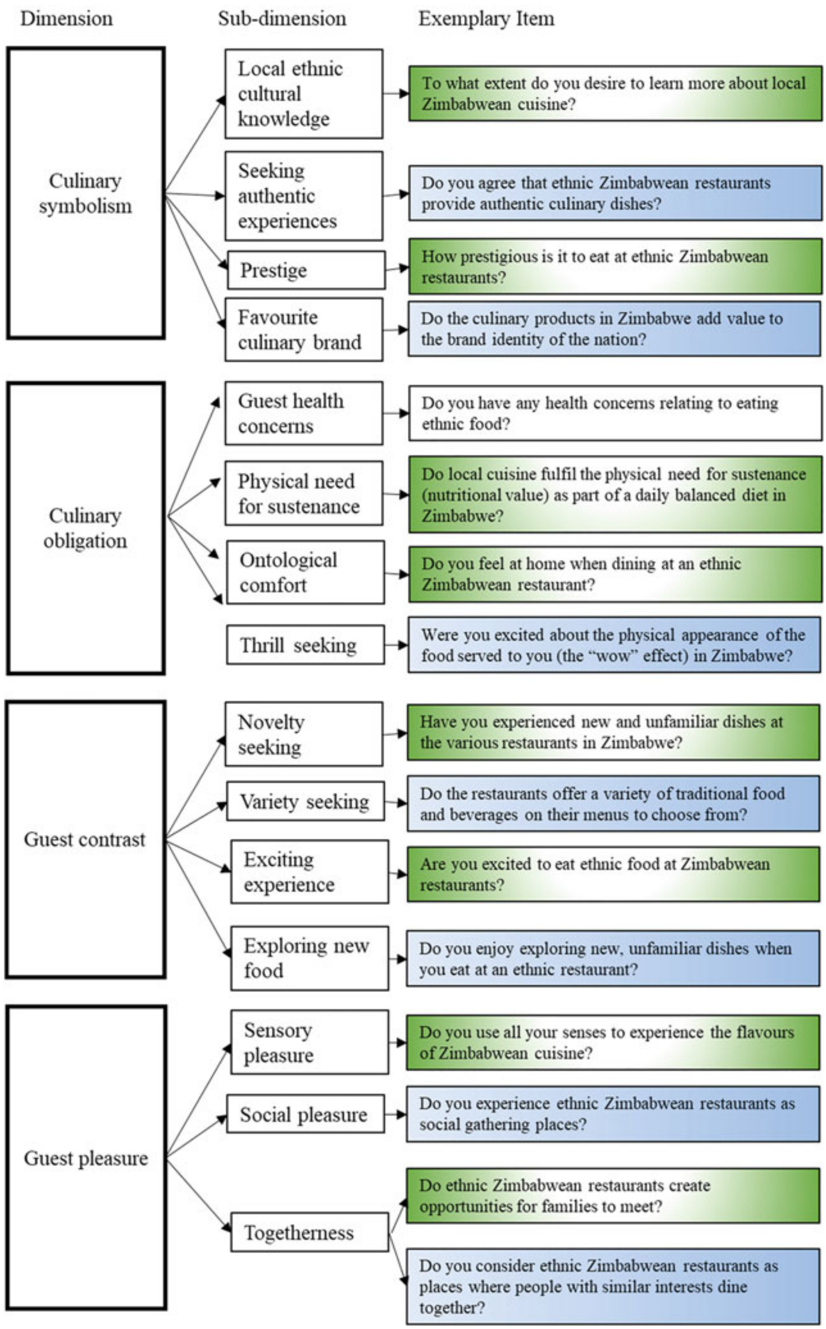

Fig. 2 CTM items (Author's compilation)

also relevant to ethic gastronomy in Africa, but these were refined to guest pleasure and authenticity as factors. These findings were also consistent with the suggestion made by Sukalakamala and Boyce (2007) that tourists actively search for authentic food experiences in the countries they visit, especially when restaurant owners use authenticity meanings to explain food items on the menu (Chhabra et al., 2013). The interdependence of a strong brand and customer satisfaction (Purushotam, 2016) was also confirmed.

Findings from the literature informed research that culinary tourists are motivated to select a destination based on the access to participate in food-related activities at a specific destination of their choice (Levitt, Zhang, DiPietro and Meng, 2019, 2019), which was also consistent with the findings from this study. Two dimensions retained for CTM results are consistent with previous literature related to guest pleasure (Langsner, 2017; Vabø & Hansen, 2014), and authenticity (Kalenjuk & Banjac, 2018). This study's findings support those of Nicolaides (2014), who proposed that people are motivated to enjoy an authentic experience. The study contributes through the unique combination of dimensions to better understand CTM and address general customer research.

Managerial Implications

Destination managers may use this study's results to indicate the motivations that diners of ethnic Zimbabwean restaurants might have. This study's results may also be used as a guideline when training chefs and culinarians to perform services about ethnic foods and beverages in ethnic restaurants for a specific destination. Additionally, tourism educators may infuse the traditional/ethnic dishes in their training curriculum to maintain the destination legacy, as authentic experiences motivate tourists to visit a destination.

There is a need for touchless food and beverage ordering and delivery as well as expanding the menus on cruise ships, hotels and resorts to reflect the rich culinary cultures of the African diaspora. Airlines are advised offering traditional food from the specific destination when passengers are in transit or travelling with their airplanes.

CTM provides a more in-depth understanding of the culinary needs of tourists when visiting a destination such as Zimbabwe. This study contributed to developing a questionnaire from a theoretical perspective and implemented it in a culinary tourism perspective in the Zimbabwean context.

6 Contributions

The study's practical contributions may benefit destination planners (such as the Zimbabwe Tourism Authority—ZTA), associations (for example, HAZ), managers, marketers, employees, educators and policymakers in creating a better understanding of which factors motivate culinary tourists to visit Zimbabwe. Managers could use this study's results to develop marketing strategies to further stimulate the interest of culinary tourists visiting ethnic Zimbabwean restaurants. The findings of the CTM may assist culinary tourism managers in assessing the standards expected by culinary tourists in the hospitality sector. The CTM scales from the questionnaire could be adopted to investigate the scenarios in different culinary destinations.

This study makes a unique contribution through the combination of the identified dimensions in a culinary tourism context. There are several attempts in the literature to explore tourist's motivations for purchasing local food, the feasibility of food tourism and the development of food tourism (Sobal, Bisogni & Jastran, 2014). However, little attention has been given to explaining tourists' involvement and related food purchase behaviour (Hsu et al., 2018). To date, no other study in the culinary tourism context has included a comprehensive motivation measure consisting of culinary symbolic, culinary obligatory, guest contrast and guest pleasure. Therefore, this study contributes to the theoretical understanding of food tourism, tourists' involvement and their related gastronomy behaviour when patronising culinary restaurants in Zimbabwe. CTM has been proved as a valid instrument that consists of different but integrated theoretical dimensions (namely, guest pleasure and authenticity).

Possible Limitations of this Study

The cross-sectional survey is used to generate this study's primary data in developing CTM. Convenience sampling was used to select respondents from the culinary tourist population. The sampling method only included guests who visited ethnic Zimbabwean restaurants from June to August 2018; hence, all culinary tourists did not have an equal chance to participate in this study.

Furthermore, the development of the CTM was conducted in the culinary tourism context. Therefore, these results may not be generalisable outside this target population. Similar studies are needed among other types of tourists. Future research may use other sampling methods than convenience sampling.

In conclusion, this study supports the notion that the road to a tourist's heart is through their stomach, as culinary tourists are motivated to visit Zimbabwe based on the variety of ethnic cuisine on offer.

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Sequential Quality Competition in the Restaurant Industry: Effects of Restaurants' Reputation

Fernanda A. Ferreira, Flávio Ferreira, and Paula Odete Fernandes

Abstract In the present paper, a model has been considered, in which two asymmetric restaurants, with respect to their reputations, compete, non-cooperatively, on both quality and quantities. First, at the quality stage, restaurants take their decisions sequentially, with the small restaurant acting as a leader. Then, at the quantity stage, both restaurants take their decisions simultaneously. The aim is twofold: the first is to compute the decisions that give higher profits and the second is to study the effects of the difference of restaurants' reputation. One of the main results of the research is that the reputation is an important feature, influencing the comparative results of the two restaurants in qualitative terms. In fact, reputation difference decreases the profits of the small (leader) restaurant, while it can either increase or decrease the profits of the large (follower) restaurant. However, less reputation difference between the restaurants decreases social welfare.

Keywords Restaurants' reputation · Healthy food · Duopoly

JEL Classification L83 · Z30

F. A. Ferreira (✉) · F. Ferreira
Polytechnic Institute of Porto, School of Hospitality and Tourism, Applied Management Research Unit (UNIAG), Rua D. Sancho I, 981, 4480-876 Vila do Conde, Portugal
e-mail: faf@esht.ipp.pt

F. Ferreira
e-mail: fff@esht.ipp.pt

P. O. Fernandes
Applied Management Research Unit (UNIAG), Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal
e-mail: pof@ipb.pt

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_46

1 Introduction and Literature Review

With the growing obesity epidemic in several countries, more and more people are looking for healthier options when dining out. This has led to a rise of healthy restaurant and slow food concepts. Slow food is a concept of food that is characterized by three interconnected principles: good (quality, flavorsome, and healthy food), clean (production that does not harm the environment), and fair (accessible prices for consumers and fair conditions and pay for producers). Slow food, and in particular healthy food, has attracted in recent years the attention of more and more people. Therefore, the food industry must attach great importance to the quality of its products. This research considers a duopoly model with two restaurants.

In a standard duopoly, the most common competition characterized by the firms choose either quantities or prices in a non-cooperative fashion. If the decisions are taken simultaneously, these models were introduced, respectively, by Cournot (1838) and Bertrand (1883). In some markets, one of the firms can have the opportunity to make its decision before the other firm. In a quantity setting, the situation was introduced by Stackelberg (1934). In this case, there is a first mover (leader) and a second mover (follower). In the earlier literature, endogenous leader/follower has been imbedded most often in the context of a timing game played by oligopolists. Hamilton and Slutsky (1990) constructed an "extended game" framework, in which each firm faces the choice of production timing. Effects of a priori informational heterogeneity between firms, broadly defined, have been discussed in some research papers (Mailath, 1993; Norman, 1997). On the other hand, when the oligopolists are a priori equally uncertain about the market demand, an earlier producer can utilize less information against the strategic advantage of commitment, whereas later producer does the converse.

In addition to the quantity and price variables, firms will also be able to decide on the quality of their products. So, price, quantity, and quality are the main factors that should be considered by industrial managers (Lambertini & Tampieri, 2017). Kurokawa and Matsubayashi (2018) explored price and quality competition between two firms, with quality positions based on a vertical differentiation model, where the firms have given quality positions and must incur repositioning costs that are convexly proportional to the difference between the quality positions and the product quality levels they set. By analyzing this model, they obtained insights into the competitive effects of these factors.

Luca and Reshef (2020) studied the impact of price on firm reputation and showed a negative relationship between pricing decisions and reputation, highlighting an important downstream consequence of pricing decisions. Reputation is an important issue also in hotel management, as was analyzed by Mariño-Romero et al. (2017). Researchers have evidenced that a positive reputation can be seen as a sign of trust (Suh & Houston, 2010), and that reputation also acts as an antecedent of confidence (Alam & Yasin, 2010).

Chen et al. (2018) highlighted the effects of capacity constraints on the quality and quantity of the restaurant industry by classifying consumers into price-sensitive and quality-sensitive categories. They considered two restaurants competing in a two-stage dynamic model: both make quality-related decisions at the first stage and then choose their optimal quantity at the second stage. Ferreira et al. (2021) analyzed the same market issue but with price strategies instead of quantities.

In this paper, we also consider a market with just two asymmetric restaurants that compete through their choices of quantity and quality. However, in our model, at the quality stage, firms choose sequentially their decisions; at the quantity stage, firms take their decisions simultaneously and non-cooperatively.

This paper is organized as follows: the model is established in the next section. In Sect. 3, the results are presented and discussed, including a comparative static analysis. Finally, the conclusions of this paper are presented in Sect. 4.

2 Methods

In this paper, we analyze a market composed of two asymmetric restaurants that compete, non-cooperatively, on both quality and quantities. The aim is twofold: the first is to compute the decisions that give higher profits and the second is to study the effects of the difference of restaurants' reputation. The proposed methodology consists in modeling the non-cooperative competition using game theory concepts.

Game theory aims to help us understand situations in which decision-makers interact. Game theory is a formal mathematical discipline that studies situations of competition and cooperation between several involved parties. This theory was initially developed as a tool to understand economic behavior (Gibbons, 1992). Game theory was established as a field in its own right after the publication of the monumental volume Theory of Games and Economic Behavior, in 1944, by the mathematician von Neumann and the economist Oskar Morgenstern. This book provided much of the basic terminology and problem setup that is still in use today. A game consists of: (i) a set of players; (ii) for each player, a set of actions; and (iii) for each player, preferences over the set of actions. An important component in game theory is the rational choice: a decision-maker (player) chooses the best action according to his preferences, among all the actions available to him/her. As to preferences, we assume that the decision-maker, when presented with any pair of actions, knows which of the pair he/she prefers, or knows that he regards both actions as equally desirable (in which case he is "indifferent between the actions"). Usually, we represent the preferences by a payoff function, which associates a number with each action in such a way that actions with higher numbers are preferred.

The game that we will use here is a game of complete information, which means that the players' payoff functions are common knowledge. The usual solution concept in a game of complete information is the Nash equilibrium. A decision combination is a Nash equilibrium when if one player sticks rigidly to his decision in the combination, then the other player cannot increase his reward by selecting other than his/her decision in that combination. That is, each player's strategy must be the best response to the other player's strategies.

Consider a market composed of two restaurants—a small restaurant R_1 and a large restaurant R_2—that compete through their choices of quality and quantity.

We follow the market structure of Chen et al. (2018), but by considering that at the quality stage, the restaurants choose sequentially their decisions, instead of simultaneous decisions. The representative consumer maximizes $U(q_i, x_i) - p_1 q_1 - p_2 q_2$, where q_i is the quantity offered by restaurant R_i, x_i is the quality associated with restaurant R_i, and p_i is its price, with $i = 1, 2$. The function U, which depends on both quantity and quality, is defined by

$$U(q_i, x_i) = (\alpha + \beta x_1)q_1 + (\alpha + (\beta + \tau)x_2)q_2 - \frac{1}{2}\left(q_1^2 + q_2^2\right) - \gamma q_1 q_2.$$

In the function U above, α is a positive constant, β represents the basic reputation, τ is the reputation difference between the two restaurants, and γ measures the degree of products substitutability of the two restaurants.

For simplicity, we fix the reputation parameter of the small restaurant equal to $5/2$, and we assume $\gamma = 1/2$. We focus our attention on the difference in reputations. The function U can now be rewritten as

$$U(q_i, x_i) = \left(\alpha + \frac{5}{2}x_1\right)q_1 + \left(\alpha + \left(\frac{5}{2} + \tau\right)x_2\right)q_2 - \frac{1}{2}\left(q_1^2 + q_2^2\right) - \frac{1}{2}q_1 q_2.$$

Thus, the inverse demand functions of the two restaurants are given by

$$p_1 = \alpha + \frac{5}{2}x_1 - q_1 - \frac{1}{2}q_2,$$

$$p_2 = \alpha + \left(\frac{5}{2} + \tau\right)x_2 - \frac{1}{2}q_1 - q_2.$$

Total costs of both small and large restaurants are a function of quantity and quality, defined by

$$C_i = \frac{1}{2}q_i^2 + \frac{1}{2}x_i^2 + q_i x_i,$$

$i = 1, 2$. The first and second terms represent the investment costs in quantity and quality, respectively; and the last term represents the interaction of quantity and quality investment. Consequently, the profit π_1 of the small restaurant R_1 is given by

$$\pi_1 = \left(\alpha + \frac{5}{2}x_1 - q_1 - \frac{1}{2}q_2\right)q_1 - \frac{1}{2}q_1^2 - \frac{1}{2}x_1^2 - q_1 x_1 \qquad (1)$$

and the profit π_2 of the large restaurant R_2 is given by

$$\pi_2 = \left(\alpha + \left(\frac{5}{2} + \tau\right)x_2 - \frac{1}{2}q_1 - q_2\right)q_2 - \frac{1}{2}q_2^2 - \frac{1}{2}x_2^2 - q_2x_2. \tag{2}$$

Social welfare W is defined by

$$W = CS + \pi_1 + \pi_2,$$

where

$$CS = \frac{1}{2}\left(q_1^2 + q_2^2\right) + \frac{1}{2}q_1q_2$$

is the consumer surplus.

The model is constructed by the following three-stage game:

- In the first stage, the small restaurant R_1 chooses its quality level x_1.
- In the second stage, the large restaurant R_2 chooses its quality level x_2.
- In the third stage, both restaurants decide, simultaneously, their optimal quantity.

3 Results

In this section, we will analyze the model described above. The game is solved by backward induction. In the third stage, restaurants R_1 and R_2 choose their outputs to maximize (1) and (2), respectively, given the quality levels x_1 and x_2. Using the first-order conditions we get the following output levels of each restaurant and total output:

$$q_1 = \frac{10\alpha + 18x_1 - (3 + 2\tau)x_2}{35}, \tag{3}$$

$$q_2 = \frac{10\alpha - 3x_1 + 6(3 + 2\tau)x_2}{35}, \tag{4}$$

and

$$Q = q_1 + q_2 = \frac{4\alpha + 3x_1 + (3 + 2\tau)x_2}{7}.$$

Note that each restaurant's output increases in the corresponding quality levels. Furthermore, if the reputation difference between the two restaurants rises, the large restaurant is more aggressive and thus increases its output, while the small restaurant decreases the output. However, the total output increases.

In the second stage, the large restaurant sets its quality level to maximize its profit. Using (3–4) into (2), and solving $\frac{\partial \pi_2}{\partial x_2} = 0$, we get

$$x_2 = \frac{18(10\alpha - 3x_1)(3 + 2\tau)}{253 - 1296\tau - 432\tau^2}. \tag{5}$$

Now, in the first stage, the small restaurant sets its quality level to maximize its profit. Using (3–4) and (5) into (1), and solving $\frac{\partial \pi_1}{\partial x_1} = 0$, we get

$$x_1 = \frac{432\alpha\left(2 - 9\tau - 3\tau^2\right)\left(13 - 216\tau - 72\tau^2\right)}{1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4}. \tag{6}$$

Using expression (6) into (5) yields

$$x_2 = \frac{-36\alpha\left(31 + 648\tau + 216\tau^2\right)(3 + 2\tau)}{1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4}. \tag{7}$$

To ensure $x_i > 0$, we assume

$$\frac{5\sqrt{14}}{12} - \frac{3}{2} < \tau < \sqrt{\frac{35\sqrt{3}}{216} + \frac{70}{27}} - \frac{3}{2},$$

and we represent this interval by T.

Thus, the output levels at equilibrium are given by

$$q_1^* = \frac{2\alpha\left(3289 - 71496\tau + 256104\tau^2 + 186624\tau^3 + 31104\tau^4\right)}{1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4}$$

and

$$q_2^* = \frac{-70\alpha\left(31 + 648\tau + 216\tau^2\right)}{1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4}.$$

In equilibrium, the large restaurant's output is larger than that of the small restaurant.

Finally, we have the resulting profits of the restaurants, consumer surplus, and social welfare:

$$\pi_1^* = \frac{6\alpha^2\left(169 - 5616\tau + 44784\tau^2 + 31104\tau^3 + 5184\tau^4\right)}{1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4},$$

$$\pi_2^* = \frac{6\alpha^2\left(31 + 648\tau + 216\tau^2\right)\left(7843 + 123768\tau - 798552\tau^2 - 559872\tau^3 - 93312\tau^4\right)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

$$CS^* = \frac{6\alpha^2 f(\tau)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

where

$$f(\tau) = 2808727 - 139368816\tau + 2881969776\tau^2 - 13506901632\tau^3 + 1098758304\tau^4 + 29675455488\tau^5 + 16841696256\tau^6 + 3869835264\tau^7 + 322486272\tau^8,$$

and

$$W^* = \frac{18\alpha^2 g(\tau)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

where

$$g(\tau) = 1118743 - 52257312\tau + 1207974816\tau^2 - 6795090432\tau^3 + 7761611520\tau^4 + 17779295232\tau^5 + 9876390912\tau^6 + 2257403904\tau^7 + 188116992\tau^8.$$

In equilibrium, the profit of the small (leader) restaurant can be either larger or smaller than the profit of the large (follower) restaurant, depending upon the difference in the reputation between restaurants. Thus, the leadership of the small restaurant can be an advantage.

Comparative Static Analysis

In this segment, we do a comparative static analysis. From the results presented above, we obtain

$$\frac{\partial x_1^*}{\partial \tau} = \frac{45360\alpha\left(14331 - 131710\tau + 278640\tau^2 + 528480\tau^3 + 233280\tau^4 + 31104\tau^5\right)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

$$\frac{\partial x_2^*}{\partial \tau} = \frac{-72\alpha h(\tau)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

where

$$h(\tau) = 6265939 - 32576904\tau - 520202520\tau^2 - 611660160\tau^3 - 328691520\tau^4 - 90699264\tau^5 - 10077696\tau^6,$$

$$\frac{\partial\left(x_1^* + x_2^*\right)}{\partial \tau} = \frac{72\alpha i(\tau)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

where

$$i(\tau) = 2762591 - 50400396\tau + 695745720\tau^2 + 944602560\tau^3 + 475657920\tau^4 + 110294784\tau^5 + 10077696\tau^6,$$

$$\frac{\partial q_1^*}{\partial \tau} = \frac{5040\alpha\left(74073 - 646570\tau + 563760\tau^2 + 1524960\tau^3 + 699840\tau^4 + 93312\tau^5\right)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

$$\frac{\partial q_2^*}{\partial \tau} = \frac{-15120\alpha\left(19167 - 107750\tau - 1380240\tau^2 - 1706400\tau^3 - 699840\tau^4 - 93312\tau^5\right)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

$$\frac{\partial\left(q_1^* + q_2^*\right)}{\partial \tau} = \frac{20160\alpha\left(4143 - 80830\tau + 1176120\tau^2 + 1661040\tau^3 + 699840\tau^4 + 93312\tau^5\right)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2}$$

$$\frac{\partial \pi_1^*}{\partial \tau} = \frac{30240\alpha^2\left(1209 + 5990\tau - 414720\tau^2 - 558720\tau^3 - 233280\tau^4 - 31104\tau^5\right)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

$$\frac{\partial \pi_2^*}{\partial \tau} = \frac{5184\alpha^2 j(\tau)}{\left(1801 - 95904\tau + 387936\tau^2 + 279936\tau^3 + 46656\tau^4\right)^2},$$

where

$$\begin{aligned} j(\tau) = {} & 72567249 + 791568394\tau - 15663928716\tau^2 - 13956218136\tau^3 \\ & + 268288632864\tau^4 + 535497552576\tau^5 + 413422361856\tau^6 \\ & + 156919804416\tau^7 + 29386561536\tau^8 + 2176782336\tau^9. \end{aligned}$$

It is straightforward to show the results presented in the following proposition.

Proposition 1

$$\frac{\partial x_1^*}{\partial \tau} > 0, \ \forall \tau \in \mathrm{T},$$

$$\frac{\partial x_2^*}{\partial \tau} \begin{cases} < 0, & \frac{5\sqrt{14}}{12} - \frac{3}{2} < \tau < \sqrt{\frac{35\sqrt{303}}{216} - \frac{35}{108}} - \frac{3}{2} \\ > 0, & \sqrt{\frac{35\sqrt{303}}{216} - \frac{35}{108}} - \frac{3}{2} < \tau < \sqrt{\frac{35\sqrt{3}}{216} + \frac{70}{27}} - \frac{3}{2} \end{cases}$$

$$\frac{\partial\left(x_1^* + x_2^*\right)}{\partial \tau} > 0, \ \forall \tau \in \mathrm{T}$$

$$\frac{\partial q_1^*}{\partial \tau} \begin{cases} > 0, & \frac{5\sqrt{14}}{12} - \frac{3}{2} < \tau < \sqrt{\frac{665}{216} - \frac{35\sqrt{6}}{216}} - \frac{3}{2} \\ < 0, & \sqrt{\frac{665}{216} - \frac{35\sqrt{6}}{216}} - \frac{3}{2} < \tau < \sqrt{\frac{35\sqrt{3}}{216} + \frac{70}{27}} - \frac{3}{2} \end{cases}$$

$$\frac{\partial q_2^*}{\partial \tau}\begin{cases} < 0, & \frac{5\sqrt{14}}{12} - \frac{3}{2} < \tau < \sqrt{\frac{35\sqrt{6}}{216} + \frac{455}{216}} - \frac{3}{2} \\ > 0, & \sqrt{\frac{35\sqrt{6}}{216} + \frac{455}{216}} - \frac{3}{2} < \tau < \sqrt{\frac{35\sqrt{3}}{216} + \frac{70}{27}} - \frac{3}{2} \end{cases}$$

$$\frac{\partial\left(q_1^* + q_2^*\right)}{\partial \tau} > 0,\ \forall \tau \in \mathrm{T}$$

$$\frac{\partial \pi_1^*}{\partial \tau} < 0,\ \forall \tau \in \mathrm{T}$$

$$\frac{\partial \pi_2^*}{\partial \tau}\begin{cases} < 0, & \frac{5\sqrt{14}}{12} - \frac{3}{2} < \tau < \frac{\sqrt{210}}{9} - \frac{3}{2} \\ > 0, & \frac{\sqrt{210}}{9} - \frac{3}{2} < \tau < \sqrt{\frac{35\sqrt{3}}{216} + \frac{70}{27}} - \frac{3}{2}. \end{cases}$$

Hence, we have the following conclusions:

(a) Reputation difference of the advantage restaurant stimulates (resp., reduces) its quality, if the reputation is generous (resp., small), and it raises the quality of its competitor, which constitutes leadership advantage.[1] Furthermore, the large the reputation difference, the more the total quality investment of the industry. This means that when the quality of the large restaurant decreases, this decrease is less than the quality increase of its competitor.[2]

(b) The outputs of the leader restaurant increase (resp., decrease) with the reputation difference of the advantage restaurant, if the reputation is small (resp., large), and the outputs of the follower restaurant increase (resp., decrease) with the reputation difference of the advantage restaurant, if the reputation difference is large (resp., small).[3] Furthermore, the aggregate output in the market raises with reputation difference, which means that the output decrease of one restaurant is always compensated by the output increase of its competitor.[4]

(c) The profits of the small (leader) restaurant decrease with the reputation difference; the profits of the large (follower) restaurant decrease (resp., increases) with the reputation difference, for small (resp., large) differences of the reputation.

[1] This result is opposite to the result of Chen et al. (2018), since in their paper the reputation difference deters quality improvement of the small restaurant.

[2] This result is analogous to the result of Chen et al. (2018).

[3] This result is opposite to the result of Chen et al. (2018), since in their paper the output of the small (resp., large) restaurant decreases (resp., increases) with the reputation difference.

[4] This result is analogous to the result of Chen et al. (2018).

By doing some computations, it is also possible to show that consumer surplus and social welfare decrease (resp., increase) with the reputation difference between restaurants, for small (resp., large) differences of the reputation.

4 Conclusion

In this paper, we investigated a food market where two restaurants with different reputations compete with each other in terms of quality first and then quantity. Moreover, at the quality level, the disadvantage restaurant in terms of reputation assumes a leadership position. At the quantity level, both restaurants set their decisions simultaneously. We computed explicitly the main variables at the equilibrium of this duopoly model: the optimal quality levels, the optimal outputs, the profits, the consumer surplus, and the social welfare. We showed that the leadership of the small restaurant can be an advantage, since its profit is higher than its competitor's profit, for small differences of the reputation between the restaurants.

We also concluded that reputation difference raises total quality investments as well as total outputs at equilibrium. The differences in reputation nowadays can be linked to aspects related to health and environmental sustainability. Furthermore, reputation difference decreases the profits of the small (leader) restaurant, while it can either increase or decrease the profits of the large (follower) restaurant. However, less reputation difference decreases consumer surplus and social welfare.

Therefore, reputation is an important feature, to which the food industry should pay particular attention. At the same time, they should be concerned about the welfare of all stakeholders along the food value chain, as changes can create negative or positive impacts on market efficiency.

Acknowledgements This article is a result of the project "GreenHealth – Digital strategies in biological assets to improve well-being and promote green health" (Norte-01-0145-FEDER-000042), supported by North Portugal Regional Operational Programme (NORTE 2020), under the PORTUGAL 2020 Partnership Agreement, through the European Regional Development Fund (ERDF)".

We are also grateful to the Foundation for Science and Technology (FCT, Portugal) for financial support by national funds FCT/MCTES to UNIAG, under the Project no. UIDB/04752/2020.

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Sport Venues Evolving to Tourism and Hospitality Giants? Proof of Dynamic Tendency

Ourania Vrondou

Abstract Sport venues have extended their role of sport competition hosts to multi-faceted social and economic players constantly seeking new ways to increase profitability or at least secure viability of this huge 'concrete' investment. With the increase of sport-related traveling being recorded and widely searched in that last three decades, huge over-engineered venues tend to invest further in hospitality initiatives proving their extended value and infinite potential for significant business stimulation. The present study aims to provide evidence of the extent, nature, and patterns of this tendency recently observed through the examination of venue case studies, international sport organization developments and sport tourism market indicators. The offered proof suggests an unavoidable evolution for sport venues towards spectacularizing their infrastructure to become attractive landmarks, embedding of strategic tourism alliances, investing in sponsorship capabilities such as naming rights and enrolling in new partnership schemes in order to gain visitors' hospitality engagement that go beyond traditional attendance.

Keywords Sport venues · Sport tourism · Venues attendance · Event tourism

JEL Classification Z21 · Z23 · Z32 · Z33

1 Introduction

Despite the undisputed and archaic significance of the venues as hosts of sport competition, it becomes more evident that they are now facing the challenge of securing viability and profitability both in short and long term, especially when mega events are over. This new reality suggests the inclusion of different leisure and hospitality services that can invite new market segments all year round and outside event schedule, while at the same time sustain loyal local fans. Renovation of facilities, quality services and personalized experiences seem to be guiding the

O. Vrondou (✉)
Department of Sport Management, University of Peloponnese, Sparta, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_47

future of sport venues in urgent need for rebranding in order to respond to changing trends. Local distinct image and culture is blended in the offer to create a competitive product. Hospitality brings in specific operating mechanisms, experienced staff, upgraded services, and the overall feel that sport spectating is drastically upgraded to become a holistic leisure experience. The study seeks proof of the tendency and the potential towards the inclusion of hospitality practices in venues operation and sport procedures.

2 Theoretical Considerations

2.1 Framing the Contemporary Sport Venue Role

Powell and Sheard (2005) have early attempted to analyze the contemporary venue development producing the typology of the '*modern sports venue*'. The typology follows an historical–causal path seeking understanding of the future venue development and the role they can play within the socio-economic environment. Focusing on the new 'generation' of venues emphasis is given on the '*commercial venue*' where venues initially had to invest in controlling antisocial fans' behavior and gain spectators trust on security issues. In 1990, the Taylor Report (UK Parliament, 1990) not only directly affected the English football venues but also many more European football localities towards securing football competition. This development signals much more than protecting the fans since the new audience is now interested in engaging in more than spectating a football match. In the same period, sport venues invest on their clubs' history offering fans a more complete venue attendance and a longer visit to the wider venue area and facilities. The '*adjustable'* venue refers to the capability of the new venues to satisfy demanding media, sponsorship, and most evidently TV requirements necessary to reach profitability and a secure position amongst global sport venues. The '*urban landmark*' role of the venue is emphasized here as having the power to lift the image of a city through impressive architecture, advanced technological systems, and structural adjustability. The involvement of local or even central government through direct financing of the construction as well as many international events led venues to be effective promotional vehicles for cities in need for certain image formulation and often national pride uplifting.

Since then, venues received increased attention on operational but most vividly sustainability matters (Mangione, 2009). Borrowing the marketing 'lifecycle model' Darcy and Taylor (2013) suggest that venues tend to fluctuate according to the different key operators, users, or owners. International sport organizations focus mainly on a 2-week sport venue operation, while governments aim at long-term benefits that go beyond the 30-year venues' complete lifecycle that Westerbeek et al. (2005) propose. Sport venues represent 'concrete' superstructures that would be difficult to serve future users if they do not early accept their crucial need for flexibility and adjustability. The contemporary venue design and construction faces the constant development of sports and most significantly spectators' demanding expectations for a complete experience. The venue clientele has been expanded to other leisure segments similarly attracted by the appealing sport venue image and impressive structure. These superstructures either constructed to accommodate local sports clubs or host large international events are now challenged by an unpredicted future. The realization that sport venues have to adopt a more flexible structure and a multi-faceted infrastructure in order to face changing sport and leisure trends is evident (Zhang et al., 2007). Actually, the distance between the construction completion and the first venue readjustments is closer than anticipated since users, leisure trends and sports change rapidly (Flowers, 2017).

Increase in multi-use sport venues regarding the dimensions and features of the field of play, flexible arrangement of the supporting facilities, and a non-permanent overall construction strategy have been recorded in order to face future changes (Kiuri & Reiter, 2013; Nixdorf, 2008). Similarly, the concept of temporary (or 'overlay') venue construction has been widely exercised for sports competitions, especially in Olympic Games where specific Olympic requirements must be met for just two weeks. Well-known venues with significant sport history will have to adjust to achieve sustainable operations (Kiuri & Reiter, 2013). Significantly, the fact that future venue operation costs is impossible to estimate leads to constant innovation adjustments to safeguard returns and increase profitability.

Additional great sport-related partners surround this venue development such as technology providers constantly seeking to enhance the sport experience thus contribute to the creation of a passionate audience (Wainwright, 2017). Media and TV, sport technology providers, venue technology contractors and sponsorship partners now directly affect the main event hosted in the competition area but can also promote the total of the venue activity and accommodated supplementary services (Geraint et al., 2013). Lately, these supplementary services seem to be gaining more attention by the business sector that appreciates the attractive event and venue image. Targeted clientele not only includes venue visitors but also remote potential spectators through TV and internet applications promoting a wider venue profile for leisure and entertainment.

It becomes increasingly more evident that this need for redirection creates a dual role for sport venues internationally. There seems to be a distinctive turn into exploiting venues' capabilities and amenities to satisfy not only leisure-related activity but also corporate and other business functions (Herstein & Jaffe, 2008). Conferences invest on the greatly attractive venue environment, shops, gyms, and museums as well as pre-school playgroups and public gardens they all considered to be supplementary and compatible services that can benefit from the coexistence (Green Sports Alliance, 2015).

2.2 *Marketing Contemporary Sport Venues*

Authors note a global city competition in an effort to gain the attention of the clientele since both corporate action and leisure trends initiate from urban environments. Similarly, significant sport action and events need the city's support, image and facilitation to be developed. The urge for 'high end', 'global scale', and 'international audience' has driven the whole of the leisure industry into an 'increased global inter-urban competition' seeking ways to differentiate from competitors (Bélanger, 2000). Brands' constant search for the most effective environment finds an unmatched environment in venues' spectacular feel and sport thrilling experience. In addition, sport venues realizing that they participate in this urban competition for a share in the wider leisure industry are now shifting towards a more flexible profiling and inviting mode that goes beyond sport accommodation.

Critics argue on the "monopolistic structure of major sport leagues" that guide venue subsidies based on the evident appeal of teams to cities (Jakar et al., 2021). However, even conservative sport federations and egocentric sport clubs have come to terms with the need for an exocentric sport venue. The increase in venue super-structures indicates that sport is entering an era of 'spectacularisaton' not only for reasons of promoting clubs, leagues, and mega events but also for a wider economic and political reasoning. Great architects are employed to create venue landmarks with unique characteristics to stand out in the international competition. Democratic as well as authoritative regimes despite their different motives both invest in sport venues to emphasize their market power or their political might (Giannakopoulou, 2019). Corporate partners find an attractive and exciting setting to match their profile and a core product that has the ability to simultaneously attract the international customers packaged within the limits of a competition schedule and a wide range of supplementary activities gathered around the power of sport.

Corporations, governments, events, and clubs are sharing the same need for an appropriate environment to operate and sport venues have been largely appreciated for offering an effective setting. 'One of a kind' experience includes a plethora of tangible and intangible features leading sport venues in a new wide role of delivering holistic new services and products. Sport events, as the focal point, gather a variety of leisure industries in order to achieve this promise, functioning as a unique social, corporate, entertainment, and business planet. This transformation from a single sport venue to a wider corporate leisure giant suggests that professionals and processes have to adapt to a new role in order to achieve a complete and effective operational manner. Operational adaptations would prove complex with different players included in the managing team (Lee et al., 2015). Sport venues might be witnessing a new role for their superstructure where sport is the most significant but not the sole element in the overall operation and development.

The use of hospitality inside sport venues has been exercised for some time initially as a contractual service to the constituent groups that are directly associated with mainly professional and mega events. Upgraded services, dedicated seating, set of privileges, and specifically allocated facilities within the venue formed the agreed offer to the 'official partners' of the event as part of the sponsorship or partnership agreement with the hosts. Since then, the 'use' of hospitality is reinforced towards building new relationships, inviting new clients, and produce extra market channels. The development of this hospitality offer has been prioritized by many clubs and leagues based on the notion that it can directly affect venue customers' satisfaction levels. Despite the massive increase in digital marketing and promotional techniques that obviously dominate the strategy of the corporations, doubts start to build around the observed distance between the brands and the physical environment of the venue. Mainly sport-related customers, through the use of digital advertising are alienated from the brands that clearly have a much more vivid impact inside the atmosphere and real feel of a venue accommodating live sport competition (Voon et al., 2014). Is now the time to face the digital alienation through personal in-venue warm welcoming and services?

3 Methodology

In the course of seeking understanding in the evolution process of sport venues turning into hospitality structures, qualitative research is considered the appropriate approach. Examining the reasons behind the initiation of corporate strategies and sport venues' mechanisms needs focused attention (Stavros & Westberg, 2009). Multi-cases study approach was used in the present examination due its capacity to parallel analyze factors influencing this venue evolution producing therefore concrete assumptions (Fletcher & Plakoyiannaki, 2008). Harling's (2012) suggestion of 'case by case analysis' or 'within case analysis' is followed here to gain detailed insight into the specific features of each venue or organization related to hospitality development, therefore facilitating assumptions. This approach offers in-depth understanding and produces reliable, transferable conclusions (Grandy, 2010) through the 'content analysis' of published corporate reports, organizations' policy statements, venue-related business profiles, and official internet sources, academic studies and research that aim at highlighting similar patterns of development and increased tendency.

4 Evidencing the Competition Venues' Transformation to Hospitality Platforms

4.1 Olympic Recognition of Sport and Venue Hospitality Potential

Accommodation of all related key 'customers' has always been one of the most critical and risky functional areas of an Organising Committee for Olympic Games following a challenging protocol of quality hotel and room allocation often puzzling local organizers. Huge numbers of participants, differently accredited groups, specific accommodation IOC guidelines and limited local hospitality resources caused headache to Olympic organizers and often turned accommodation into a political issue. Complex agreements between the OCOG and the tourism and hospitality partners had to be reached early in order to secure availability while the government has to step in to support the upgrading of the hospitality infrastructure in order to meet Olympic hospitality protocol.

The development of sport venues into hospitality spots has been already evident at the Tokyo 2020 Games despite the dramatic COVID-19 pandemic. Tokyo 2020 Olympic Official Hospitality Programme refers to eight types of packages, all of which include tickets for top category seats, while private VIP suites were designed to be offered at a certain number of venues. Considering it as an "ultimate space" for visitors and guests, organizers utilize the venue to produce an "unforgettable hospitality experience". Tokyo had already set the basis of developing the venue attendance into a complete hospitality experience incorporating services at all levels of venue features, such as first hosting and viewing areas in the competition arena, private or semi-private space for use during the event, VIP access pass and lanyard, personal attentive staff dedicated exclusively to each suite, exclusive door way for hospitality guest and more (TOCOG, 2020).

The Tokyo organizers admittedly stated that "sports hospitality is a major business development tool in the US and Europe but remains an unexploited opportunity in Japan" but the realization is evident. Their notion that "the unique shared memories and unrivalled closeness of a well-managed VIP experience are an unbeatable opportunity to build a deep and profitable long-term relationship" was translated into providing hospitality services in more than 15 sports plus the opening and closing ceremonies (https://officialhospitality.tokyo2020.org/packages/). However, the pandemic curse has initially narrowed bookings to only local residents and later to no spectators. Despite this development, Tokyo signaled a new reality for mega events' hospitality boosting the potential of uplifting the venue attendance during Olympic Games.

The International Olympic Committee realizing this promising trend suggested new revenue sources produced by more efficient hospitality management while the same time simplifying accommodation procedures and "lift this burden from local organizers" as expressed in Olympic Agenda 2020+5 (IOC, 2021). More specifically, under recommendation 15, "innovated revenue generation models" require a "Centralised Olympic hospitality programme for the benefit of all Olympic stakeholders". Consequently, the dynamic potential related with the hospitality involved with large events moved a step further. In June 2, 2021, a new global hospitality model was introduced for the 2024, 2026, and 2028 summer, winter, Olympic, and Paralympic Games (IOC, 2021). It is a solid expression of a new shift of services towards all constituent groups as well as visitors that goes beyond accommodation facilitation. A holistic traveling experience will be offered to all attending the Games through one exclusive hospitality provider appointed by the IOC through the official "multi-staged selection" program. A unified system will offer a complete hospitality experience including traveling, competition tickets, opening and closing ceremony tickets accommodation, venue hospitality, and host city visiting services. Dedicated ticket inventory for athletes, families and friends, access to accommodation and overall hospitality facilitation signals a new era of sport-related hospitality, resulting to venues' conversion to hospitality giants.

The first provider to deliver this complete hospitality offer is “On Location” a subsidiary of “Endeavor” experienced in hospitality, ticketing, and traveling and is an official partner and provider of many sport organizations such as NFL, NCAA, UFC, PGA, and many cultural and artistic events. On Location will be the first exclusive service provider for the Paris 2024, Milan-Cortina 2026, and Los Angeles 2028 Olympic and Paralympic Games hospitality programs (www.onlocationexp.com/olympics).

The benefits seem to be expanded at all sides of the Games management. Organizers would not have to face the huge challenging task of accommodation allocation and control, while new revenue sources for the IOC and all related partners are created. More importantly, investing in quality venue features and services seem to be the right measure towards securing the legacy and the viability of the venue post-event. If this notion of “hospitality enhanced venue” is incorporated in the venue design and structure it seems to be the most significant development towards sustainable large venues in Olympic localities.

Similarly, the World Cup would embrace the same notion towards uplifting the venue attendance offering a “superior spectator environment, interactive displays and pre-match appearances at select matches” (https://hospitality.fifa.com/2022/en/by-hospitality-products/). Using the motto “enjoy a FIFA World Cup 2022 experience carefully tailored to you” becomes the epitome of the new hospitality offer. An Official Hospitality Team will welcome sport guests to a new holistic sport experience with ‘MATCH Hospitality’ being the official provider of “sports experiences,” and the worldwide exclusive rights holder of the FIFA World Cup Qatar 2022 Official Hospitality Programme. FIFA hospitality specific feature is the mix of tourism services, accommodation offer, venue hospitality, and sport attendance in an appealing host city, all combined to make it a new distinct sport tourism product.

The investment on this new quality sport-related hospitality offer signals the new direction venues will have to undergo in order to satisfy an increasingly demanding sport clientele while increasing profitability and thus, securing viability of the venue structure. Questions are now raised whether small-scale sport venues in smaller localities could follow these developments since quality requires resources and international partnerships in order to be materialized. Similarly, with outsourcing increase rapidly, i.e. hospitality, ticketing, and results, how is sport management, clubs, and leagues going to be affected?

4.2 Venue Case Studies Proving Tourism and Hospitality Potential

The distance between sport events and hospitality seems to be narrower than ever. In Europe, the power and tradition of football dominates venue attendance and overall engagement in clubs activities. It is expected that football venues would be the first setting for hospitality services to flourish, realizing the passion and power of sport tradition (https://www.sportstravelmagazine.com/future-of-sports-venues-where-hospitality-meets-the-fan-experience/). The business sector increasingly and repetitively supports the notion that strong relationships and new clients can be built in the exciting venue environment lifting corporate experiences further (https://insights.bcdme.com/blog/insights/why-sports). Keith Prowse report (2019) puts it right: 'People buy experiences' underlining that "hospitality that was once considered VIP is now more accessible."

Premier League football club **Tottenham Hotspur** seeking a "massive regeneration of their new stadium" aims to "transform the way that Premium guests experience matchdays." The new management stately admits that is directed towards winning new clients, treating loyal fans, offering facilities for different celebrations, education, and leisure within a quality infrastructure. Looking carefully at relevant publications, a few terms were noticed that mark the new strategy direction. 'Upmarket the venue', 'transform matchdays', 'unrivalled fan experience', promise a differentiated venue visit (https://www.tottenhamhotspur.com/tickets/accommodation/). As recorded, construction, IT, hospitality, retail, and sports industries have been united to achieve this strategy while all will be "singlehandedly spearheading the regeneration of Tottenham" (https://bdaily.co.uk/articles/2017/06/05/revealed-the-iconic-upmarket-hotel-that-will-sit-next-to-tottenham-hotspurs-new-stadium).

Hilton has not been accidently associated with **Wembley Stadium**. The stadium has hosted major and home football matches built on the same area that the old stadium existed before being demolished to offer England a new state of the art venue that national football deserves. Hilton became more than a near-by hotel since is the heart of many offered programs related to venue attendance and hospitality services. With 30% discount at the Hilton London Wembley offered to fans and visitors Hilton becomes directly linked with the experience along with a series of hospitality services which have become the core ingredient of the new Wembley stadium operation. Sport football history and quality contemporary competition seem to base the expansion of the Wembley 'product' to further aspects of the leisure and culture market. "Connections is a series of money-can't-buy experiences and exclusive access to memorable events across the world of entertainment, sport, business and culture… that happen also on sport event days through the year" (https://www.clubwembley.com/the-experience).

Booking.com, the Official Accommodation Booking Partner of the Union of European Football Associations (UEFA) Euro 2020, organized a European competition to all those fans entering a survey and the results prove the main question of the present study. Seventy-two percent out of the 7,500 fans stated "that staying as close to the stadium as possible is a top priority when organizing their football-inspired travels." Their wish became the prize for winners of the research who were offered accommodation inside the venue at the executive suites premises: "For football fans this is truly an overnight football experience to rival all others!" (https://www.coliseum-online.com/nailbiting-euro-2020-moments-in-lap-of-luxe/).

The product is enriched by innovative supplementary sport activities that often become main motives, such as meeting football legends, golf at a top course, or access to an England training session, stadium tours, and more. The programme termed 'club Wembley' runs in parallel with the competition management group as an autonomous venue operation. Some might question the balance between the two since the promotion of the latter seems to dominate the official site and overall venue profiling. An analysis of the official sources could assume that the venue hospitality character is predominant at every part of the promotion becoming a great piece of evidence that the sport venues are becoming a much wider leisure arena to accommodate evolving leisure, sport, and culture but also business and marketing initiatives (https://www.campaignlive.co.uk/article/conferences-exhibitions-sports-venues-add-hospitality-offer-sporting-arenas-investing-events-facilities-increase-appeal-beyond-hospitality-conference/77384).

Similarly, **Brighton and Hove Albion Football Club** is the professional Premier League football club based in the City of Brighton and Hove in England. The club's football stadium strategically decided that hospitality upgrading is the way to move forward and protect the viability of the club and the stadium itself. In 2015, the quality seeking goals led to four nominations in the 'Stadiums and Hospitality Awards' proving that the strategic decisions move in the right direction. Ten lounges, 21 executive boxes, open doors prior to match, traditional 'pub' style food, facilities to accommodate meetings, parties, and weddings suggest a wide spectrum of hospitality amenities that prove that the stadium's new sport entertaining character is here to stay. The "1901 Club" with six Gold Lounges and an industrial brewery-themed lounge sponsored by Heineken, indicates that sport and hospitality linkage can attract other businesses obviously realizing the potential for further development. This potential is reinforced by the fact that major hospitality partners such as 'KSS' undertake the latest stadium's refurbishment with the inclusion of additional premium spaces.

The increased number of hospitality partnerships on sport venues and events prove the great potential arising for both sides. Sport venues operational plans shift towards building the capability to accommodate hospitality requirements for a wider and more global audience who is enjoying a differentiated attendance experience. International key sport bodies seem to be gradually accepting this new reality and the promising benefits (https://hospitalityinsights.ehl.edu/).

5 Concluding Remarks

Evidently, the sport venue managers are constantly seeking new profitable ways of operating venues and similarly, international sport organizations have to provide a sustainable future to their sport, proving the common positive ground for involved partners. However, the impact on the host clubs and local venues has to be further examined to see if this increased level of commercialization can harm or benefit clubs and events' intrinsic sport value and character. Is sport competition still the protagonist and core ingredient of participating or is this character covered by luxurious facilities and hospitality services impressing the world audience but not really 'loved'? Will sports benefit from high-end hospitality infrastructure and what does the added value refer to? What is the new role of the sport bodies in controlling the quality and offered services when sport spectating is operated by new global partners? How is this new development going to influence the very nature of the sport? Adversely, how will the luxurious and global feel of the hospitality setting offer contribute to the marketing and further development of the sport? But, is this a game of the wealthy and rich? Or can it also be adjusted to local venues to increase revenue and long-term viability?

The sport venue seems to be expanding its operational boarders to the wider industry of leisure, tourism, and hospitality engaging in more than sport competition and funs' attendance. The infinite infrastructural capabilities, the appealing sports nature, the passionate audience, the accumulation of powerful sport and corporate leisure partners creates a setting of effective marketing practices, tourism new segment formulation, further sport development, and host city image enhancement proving an infinite potential.

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Photographs in Tourism Destination Management Research in the Post-COVID-19 Era

Argyri Moustaka and Mary Constantoglou

Abstract Main purpose of this paper is to explore how tourist photography in the post-COVID-19 era can contribute by creating experience value in coastal tourism and in destination management. An important reference is made on how the tourist photography contributes to the upgrading of the tourist product of the area and more precisely on a mass tourism destination in Greece, Halkidiki. Further, the occurrence of the COVID-19 pandemic is studied together with the consequences it generates in the destinations. More specifically, the study undertaken had to answer the following questions: What is the photographic image that tourists form in their minds when visiting Halkidiki? How does a photographic image contribute to a sustainable tourist development? Is there an increase in the display of photos from tourist destinations, in the COVID-19 and in the post-COVID-19 era, due to the greater use of the internet? How influential are photographs for traveling in the post-COVID-19 era? The study took place from March to May 2021 and was undertaken with the use of quantitative methodology. The results of the conducted research show that the creation of photographic images is related to clean and sandy beaches along with natural beauty. In addition, the photographic images can consolidate the tourism of the destination to a satisfactory level. This happens especially nowadays when virtual travel, through images, is boosted due to the pandemic COVID-19. As a general conclusion, photographic images influence the decision for a trip in the post-COVID-19 era.

Keywords Branding · Destination management · Photography · COVID-19 · Decision-making

JEL Classification L83 · Z31 · Z30 · Z32 · Z33 · Z38

A. Moustaka (✉)
Hellenic Open University, Parodos Aristotelous 18, 26335 Patra, Greece

M. Constantoglou
University of the Aegean, Michalon 8, 82132 Chios, Greece
e-mail: mkon@aegean.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_48

1 Introduction

An important aspect that contributes to tourism is the visual component. Tourists collecting pictures and photography is the mean that leads them to recognize touristic places of interest. Photographing the unusual or unexpected in tourism has been used as a setting to show the conventional character of daily life. Lately, the attention has moved from attempting to capture the unexpected in order to create social bonds between guests and hosts, to travelers at the destination and between travelers and those who haven't visited the destination. An influential factor is social media which link travelers and those who have not traveled and thus the model of networked travel has created (Dinholp & Gretzel, 2016).

The image is separated in cognitive and affective. Personal opinions and perceptions regarding a destination such as landscape, weather, residents, diet, and infrastructure create cognitive images. The feelings of a traveler apropos the advantages and disadvantages of a destination indicate the affective image (Deng & Li, 2018). Emotions like sympathy or antipathy can be generated by photographs (Balomenou & Garrod, 2019). Moreover, photography can be used as a mean to convey ideas and methods which would not have been normally expressed in an oral interview (Balomenou & Garrod, 2016). Taking pictures or observing them can produce feelings of delight, allure or sadness (Deng & Li, 2018).

What is observed is that in developing countries, social and financial prejudices have broken out due to the COVID-19 pandemic (Jamal & Higham, 2021). The COVID-19 virus is extremely contagious and has created chaos on the global economy including the sectors of travel and tourism which have been tremendously damaged. As COVID-19 has influenced the economy and tourism of the world it is mandatory for officials to keep track on recovery among several destinations (Yang et al., accepted).

Along with the arrival of the pandemic COVID-19 feelings such distress and concern are common among tourists but also in the hotel sector. Tourists feel worry and fright regarding the risks on health as a consequence of COVID-19, while the hotel sector experiences the same feelings about the unpredictability the future brings. The fact that both tourists and the tourist sector share the same feelings throughout this existing pandemic is extremely significant as these feelings can create emotional connection between them. As a result, this is vital for the recovery of tourism as this emotional connection can lead tourists to travel when the breakout is over (Hang et al., 2020).

The role of photographs is vital in the link between image destinations (Deng & Li, 2018) and is similarly the mean of changing the unique features of a place to reformations having as target to support a travel destination (Hunter, 2008).

1.1 The Importance of Photography for Tourist Destinations

The significant role of photography as a communicational tool is characterized by its aptitude to impact without seeming to do so. Photographs that seem to shape not only the information but also the vision are travel photographs that are created in an excessive volume. What is understandable is that these photographs regardless their ability to framing and establishing what and how the tourists see, they also shape the tourists' understanding and knowledge of what they say. Common sayings like "the camera does not lie" or "pretty as a postcard" indicate the significance of photography as a norm of worth and judgment in optical attentiveness (Albers & James, 1988).

Photographing is a necessary touristic habit and an exceptional contemporary medium by which individuals create life stories and long-term remembrances. Notably photographs, as a method of graphic descriptions, recommend that people link messages with these objects in connection to their memories through traveling (FeifanXie & Garner, 2009).

The reason why photos are appreciated is that a huge volume of facts is depicted in a picture. Diverse brain procedures are stimulated while using pictures compared to the use only of oral communication. Therefore, it produces diverse types of knowledge that offer contact to contributors' information about common events. Similarly, photographs can help participants to explain their experiences and feelings differently, and offer the potential to overcome the limitations of research methods that rely on oral or written data (Winter & Adu-Ampong, 2021). Consequently, photo-elicitation is regularly accepted as a technique that delivers bigger accuracy and authenticity (Glaw et al., 2017).

Taking a photo of an item that characterizes a specific part of life, contributors pay attention on that part attributing mental and sentimental tones in that procedure (Hatten et al., 2013). As a result, it would be wise to reflect on photograph as an outcome of a naturally personal procedure, expressing the contributor's own perception of truth of the world (Winter & Adu-Ampong, 2021). The experience is defined as fun and engaging by members of photo-elicitation studies (Glaw et al., 2017; Meo, 2010). Diverse explanations can be transferred by a photographic demonstration (Hodgetts et al., 2007a, 2007b). The meaning is produced in a dialectical relationship between the photo and the photographer, and between the photographer and the viewer (Hodgetts et al., 2007a, 2007b).

During the process of photo-making the contributors are urged to think of matters, arguing on "what could not be photographed is as important as what is photographed." This part is important for developing a full perception of an individual's social world (Winter & Adu-Ampong, 2021).

Some places are "made" through photography and act inspirational to the tourists' curiosity. Secondly, taking photos is an indispensable part of the traveler's experience and performance to capture the image of what is worthwhile seeing and to bring the image home as memory trace and evidence (Scarles, 2010; Schänzel & Smith, 2011). Destination Management/Marketing Organizations need to focus on the experiences gathered and the competitive dimension analysis to achieve the fulfillment of visitors' needs and gain a high level of satisfaction (Constantoglou, 2020). Specifically, DMOs must know travelers' opinions to build their strategy based on actual tourists' recommendations and views (Molinillo et al., 2018) rather than relying on assumed responses.

Therefore, photography has affected the form of the field of tourism which remains an ongoing process mostly in this digital time. Tourism research has narrowed the use of photographs although the relation between photography and tourism is tight (Balomenou & Garrod, 2019).

Park and Kim (2018) detected two main study framings in which tourism photography is frequently used:

Visual demonstration in the creation of destination pictures.

The importance of tourist photography as an amount of the touristic experience.

What is reminded is that besides these two frameworks there is space for further advanced approaches in the usage of photographs in tourism. Furthermore, Balomenou and Garrod (2019) based on these two main frameworks outline three sub-categories related to the active approaches:

(1) Researcher-based content analysis of researcher-found photographs, (2) photo-elicitation based on researcher-found photographs, and (3) photo-elicitation based on participant-generated photographs. Whereas sub-categories (1) and (2) cover researcher-found photographs, e.g., from websites, flyers to travel either a destination image or tourist experiences, the second sub-category uses these already found pictures to draw perceptions from contributors (e.g., tourists, tourism investors).

Nowadays, online pictures are significant players. Online platforms like Flickr, Tumblr, etc., are able to rapidly copy lens and post-processing results to raise a feeling of melancholy, realism (Chopra-Gant, 2016), competence (Prideaux et al., 2018) or self-based ideal and imaginary methods of "being there" (Conti & Heldt Cassel, 2019; Fast et al., 2019), thus performing as a vehicle of utopianism (Maclaran & Brown, 2005).

Likewise, the pictures can contain hashtags, descriptions, and geographical location in order to narrate settings, feelings, and views that may not be obvious from a first look (Abbott et al., 2013) and to relate the pictures to categorized group of posts (Cuomo et al., 2016).

Existing apps focused on photography facilitate the tourist in terms of interpreting, capturing, and articulating relevant details while being in a specific location (Conti & Heldt Cassel, 2019; Lo & McKercher, 2015).

Moreover, the behaviors tourists take and share pictures create a unique, individual way of place making, place estimation, and identity building (Conti & Lexhagen, 2020).

Buhalis (2000), as it refers to Souiden et al. (2017), supports that the image a tourist has of a particular destination before visiting is a determinant factor in his decision-making process. Confirming this view, states that the establishment of a positive destination image determines a place's ability to attract and retain tourists. Thus, the previously held image influences the choice of tourism destinations and destinations with stronger positive images have a higher likelihood of being selected and revisited (Souiden et al., 2017).

Tourism destination image (TDI), or the overall impression of one place, is one of the most studied areas in tourism literature. To date, empirical examination of TDI has generally employed either structured or unstructured approaches. When analyzing and reporting results of TDI measurements, researchers generally focus on image items with the highest ratings in structured approaches, or the most frequently used words in unstructured approaches, as these represent the widespread and salient image held by tourists. Nevertheless, Destination Marketing Organizations (DMOs) often find such image results merely common sense (Pan & Li, 2011).

Summing-up, it can be said that photographs have been extensively distributed in the tourism economy firstly by the tourists but also as a way to support vacation industry destinations. As Urry recommends, tourism industry would not be in the same shape as it is today without the involvement of photography: both parts are inextricably linked (Balomenou & Garrod, 2019). Consequently, photographs are seen as stimuli to the outcomes of tourism regarding the promotion. The word promotion is explained as convincing customers to buy by triggering their interest while the features of goods are extensively explained (Moustaka & Constantoglou, 2021).

1.2 Creating Emotions by Capturing or Seeing Travel and Tourist Photos

An important distinction of the images refers to cognitive and affective images. Cognitive images are indicated as personal beliefs and awareness about the characteristics of a destination like its scenery, climate, locals, nutrition, transport, buildings, etc. Contrastingly, affective image discusses the person's emotional estimations about the assets and weaknesses of a place and the way it makes them feel (e.g., pleased, fascinated, unhappy, etc.) (Deng & Li, 2018).

Photographs by conveying complex notions and picturing opinions can attain a multi appealing outcome; as a result tourists are photograph consumers not only in an active but also passive way. Photographs and tourists are reciprocally formed by each other. Photography in tourism industry can be categorized into travel and tourist photography. Tourist photography regularly portrays the lifeless characteristics of an image, is introduced in an uninteresting way, the imagination is kept flat and serves in presenting a location. Nonetheless, travel photography is highly interesting. Travel photography illustrates the doubt, the subtle impression, the excellence description, and the delicate uncertainty of a sole instant of a location. The tourist generates an apparent picture of the destination from the photographs taken throughout the expedition and conveys them. Thus, the observation and communication cycle, also known as the interpretive reproduction cycle, is formed (Moustaka & Constantoglou, 2021).

The power of photographs is undeniable. Through the photographs the viewer loses track of thinking: this procedure lasts an instant, the viewer can freeze blurred by the emotional burden of the photograph. The power of some photographs is that they cannot be forgotten: as, for instance, the winner of Pulitzer prize photojournalist Kevin Carter's "Vulture and the Little Girl," taken in 1993 in South Sudan, became symbolic of the fight against hunger and malnourishment, whereas a photograph of a child, drowned during the effort to leave Syria to Greece, lying dead on a Turkish beach in 2015, attained Turkish photographer Nilufer Demir's intention to "express the scream of his silent body" and turned out to be one of the most essential pictures of the existing refugee crisis (Balomenou & Garrod, 2019).

Balomenou and Garrod (2019) specify that Ferdous (2014) claims that problems describing human faces give the impression of nonconcrete and distant as photographs cast an inflexible light on them: they can awaken sentiments that are difficult to overlook. People are responsible of themselves and their actions—or regularly of their ability to ignore—which could have effect on lives around in the world. Photographs are a mean to provoke feelings such as compassion or hostility (Balomenou & Garrod, 2019).

Photographs' function is to capture unique instants (Rakić & Chambers, 2012), interfering in the structure of three-dimensional acts**,** stopping time, and ensuing in stable images. Balomenou and Garrod (2019) refer to Goldstein claiming that these abnormal incentives have the influence to contact and provoke profound emotional responses. Furthermore, the photography permits contributors to express notions and approaches that would not typically be likely using oral interview practices (Balomenou & Garrod, 2016).

Nowadays, the receivers of photographs experience emotions by the usage of online photography. Online photography apps can rapidly imitate lens and post-processing results to adopt a sense of nostalgia, authenticity (Conti & Lexhagen, 2020), competence (Prideaux et al., 2018), or self-based flawless and imaginary techniques of "being there" (Conti & Heldt Cassel, 2019), thus performing as a mean of fantasy. Therefore, tourists are facilitated by the use of online photography apps in interpreting, apprehending, and communicating something rather significant while being present in a particular location compared to themselves and the world in which they exist in by sharing it digitally (Conti & Lexhagen, 2020).

1.3 Appearance of COVID-19. Consequences for Tourist Destinations—Change of Emotions

It is noticed that in developing countries the COVID-19 pandemic has created social and economic discriminations (Jamal & Higham, 2021). Millions of employees in tourism, hospitality, and live shows have been unable to work due to the lockdown and have to endure financial deprivation and debit obligations. Especially tourism workers in countries where the effects of the pandemic have been harsh are the most exposed. Tourism and its associated industries are key players in the economies of many developing countries. This fact is the main reason to which these industries have been on the center of attention throughout the crisis and moreover these communities that tourism determines them "have now become communities in crisis" (Nepal, 2020). The social well-being and the financial stability of the tourism workers are currently unstable.

As well, the COVID-19 pandemic has negatively impacted different sectors of tourism (Gossling et al., 2020; Hall et al., 2020), ultimately causing the industry to shut down for months. Despite the fact that various efforts have been made since June 2020 to reopen the industry, most sectors continue to struggle and the UNWTO (2020) as indicated in Collins-Kreiner and Ram (2020), has acknowledged tourism as one of the hardest hit industries (Dolnicar & Zare, 2020; Gossling et al., 2020). Crises are regular occurrences in tourism (Dolnicar & Zare, 2020; Gossling et al., 2020). Many destinations are affected by natural and human-made crises and, over the years, have developed tactics and strategies of resilience and mitigation (Ritchie & Jiang, 2019). The crisis stemming from the COVID-19 pandemic, however, has been different and unique in many ways. Firstly, the decline in travel, hospitality, and tourism has been worldwide (Collins- Kreiner & Ram, 2020). Secondly, the economic collapse has been more dramatic. Thirdly, the ongoing crisis has the potential to cause fundamental modifications in many tourism segments (Dolnicar & Zare, 2020).

The model's application to COVID-19 reflects a decline in tourism demand in response to rising health risk. People who feel more threatened by the coronavirus are more likely to avoid or postpone traveling (Karl et al., 2021).

Moreover, Chien et al. (2017), as referred in Hang et al. (2020), make evident that tourist's feelings such as concern, distress, and nervousness can affect their insights of threats as well. Specifically, is being considered whether and how affective forecasting can lower tourists' perceived travel coronavirus infection risk and influence future travel decision-making. Individuals feeling more exposed to the coronavirus are more probable to delay or stay away from traveling. According to this fact, tendencies associated to COVID-19 have a significant influence on tourist's reactions related to their behavior (Hang et al., 2020).

1.4 Expectations of Tourist Destinations Through the Promotion of Photos After the Pandemic COVID-19

The COVID-19 pandemic can deeply affect the tourist's emotions and thoughts as well as altering the traveling mode. These intuitions are helpful to comprehend how the tourist's action is formed due to coronavirus. First of all, a study demonstrates that individuals tend to develop a more collective approach rather than individual when they have to face a dangerous virus. Following, a study proved that pathogen menaces lead individuals to avoid gatherings and crowded spaces. Also, a threatening disease stimulates people to reject unfamiliar situations (Zenker & Kock, 2020). Therefore, individuals might be discouraged to travel throughout a pandemic, so as to achieve a decrease on the risk of contracting the virus or forced to look for technologically non-dangerous alternatives (Zenker et al., 2021).

What is known so far is that the COVID-19 pandemic offered to potential tourists the chance to follow virtual tours and to observe various pictures of travel places (as it is unfeasible for tourists to travel and as a consequence to visit museums or any other places) (Nanni & Ulqinaku, 2020). Virtual reality tools turn out to be a vital platform for tourism companies to sustain their incomes. For instance, several attractions as The Louvre, Guggenheim Museum, Vatican City, Yosemite National Park, and several others give the opportunity to be visited virtually to locked-down worldwide viewers (Itani & Hollebeek, 2021).

The role of photographs was supreme as tourism is considered as an outstandingly optical experience and because photographs narrate anticipated stories regarding a place (Sheungting Lo et al., 2011). Photographs are as well the procedure of collecting, giving form and shaping features of the physical components to reproduce the photographer's personal spiritual images (Pan et al., 2014). Consequently, photography is the proof of showing that a tourist visited a place. Tourists create their travel remembrances and tell their stories by travel photographs (Nikjoo & Bahkshi, 2019).

Photographs are key players in the communication of image destination (Deng & Li, 2018) and are likewise the means of altering the original features of a destination to recreations having as a goal the promotion of a travel destination. They present the natural and cultural assets of a place in the finest light and even recommend the most suitable interactions between tourists and hosts via their representations (Hunter, 2008).

The different ways that tourists taking photos and adding their personal touch and viewpoint is one of the most promising sides of photography. For example, solo travelers take fewer photos compared to people who travel with company or backpackers who gaze upon conservative and shallow comportments of others as for instance older tourists. A propos nationality, Asian travelers together with tourists coming from South and North America have the tendency to take more photos contrary to European citizens (Nikjoo & Bakhshi, 2019).

Despite the fact that travel activities are severely decreased during the pandemic, an increase in visiting selected destinations was noticed when travel limitations were alleviated. Some characteristic travel forms have occurred throughout the pandemic. Destinations centered on the nature, drive-to and local trips are favored by travelers. Moreover, it has been noticed that individuals prefer less trips that include many stops and choose to travel around a single area and discover the surroundings based on this area. This traveling mode is mentioned by Buckley and Westaway (2020), as specified in Miao et al. (2021), whose research designates that open-air regional tourism product is an ongoing process in the post-COVID time (Miao et al., 2021).

As a final point, it is significant to highlight the permanent existence of photos, not only in local travels but also in drive-to places and in nature-focused destinations (Miao et al., 2021). Written texts lose the ability of capturing a landscape, the process of feeling it through smell and hearing; nevertheless, photographs have the ability of expressing simultaneously multidimensional messages. Through photographs individuals can communicate things effortlessly, bearing in mind that many people lack the ability of expressing themselves orally (Balomenou & Garrod, 2019).

2 Case Study Area

Halkidiki is situated in the Northern part of Greece and has a total population of 110,593 inhabitants according to the National Census data of 2019.

Halkidiki is one of the oldest tourist destinations of the country. The area of Halkidiki offers a variety of images to the visitors. The peninsula is famous for its long and sandy beaches, but also its mountain, the Holomondos. The green forests in combination with the blue sea, lead to a color combination that the visitor hardly forgets.

Source Google Earth (2021)

The table below shows the capacity of hotels in the area for the year 2020. As shown, most hotels have **1***, while the number of hotels decreases as the star rating increases. The opposite happens with the case of hotel rooms. The larger the hotel is, the more rooms it has. Thus, hotels **5*** have the most rooms and those with **1***, the fewest. The same goes for hotel beds. Hotels with **5*** have the most beds. The number of beds in hotels is decreasing, descending star category.

Hotel capacity 2020						
	5*	4*	3*	2*	1*	Total
Hotels	38	62	98	147	168	513
Rooms	6734	6349	4229	3694	3634	24,640
Beds	14,552	12,881	8515	7229	7011	50,188

Source Hellenic Champer of Hotels (2021)

In terms of international arrivals, one observes a gradual increase between the years 2014 and 2019. The largest increase in visitors is observed between the years 2014 and 2015, as well as the years 2017 and 2018. Regarding national arrivals, there is clearly an increase between the years 2014 and 2016, followed by a decline in the period 2016 and 2017. After the decline, there is a large increase in the period 2017–2018 and finally a smaller decrease in the years 2018–2019.

Finally, with the international overnight stays, there is a decrease in the periods 2014–2015 and 2015–2016. This is followed by an increase in overnight stays in the periods 2016–2017 and 2017–2018. In the last period 2018–2019, there is a slight decrease in overnight stays. The largest increase is noted in the years 2016–2017 and the smallest decrease in the period 2018–2019.

In the national overnight stays, there is an increase in the periods 2014–2015 and 2015–2016. This is followed by a decrease in overnight stays in the periods 2016–2017. In the period 2017–2018, there is a large increase in overnight stays and in the period 2018–2019 a small decrease in overnight stays.

Arrivals and overnight stays in hotels 2014–2019								
		2014	2015	2016	2017	2018	2019	Change (%)
Arrivals	International	566.869	622.691	623.731	675.648	893.327	897.195	58
	National	113.433	127.670	130.846	125.645	185.771	180.519	59
Overnight stays	International	3.952966	3.920566	3.838574	4.247573	5.052166	5.048484	28
	National	431.312	473.306	486.052	464.301	609.149	598.522	39

Source Hellenic Statistical Authority (2021)

2.1 Research Methodology

The central purpose of a research study is to assemble and evaluate data having as a view the examination of a specific issue (Mills et al., 2017). Therefore, the main aim of this paper is to examine whether tourists have a photographic image while visiting Halkidiki after the pandemic COVID-19 and what they think this image is. More specifically the study undertaken had to answer the following questions:

What is the photographic image that tourists form in their minds when visiting Halkidiki?

How does a photographic image contribute to a sustainable tourist development?

Is there an increase in the display of photos from tourist destinations, in the COVID-19 and in the post COVID-19 era, due to the greater use of the internet?

How influential are photographs for traveling in the post-COVID-19 era?

In order to achieve information on the above research questions, a quantitative survey was undertaken with the use of questionnaires to the visitors. The questionnaire was precisely planned, semi-organized, and opened to confirm its efficiency and to guarantee that the participants are able to express their point of view. The quantitative research contained 30 questions. The data collected were statistically examined with the use of the Statistical Package for the Social Sciences (SPSS) version 22.0. During designing the questionnaire, the concerns of the local society, those of the authorities and the stakeholders along with similar other studies published in journals were taken into account. The socioeconomic status, travel information, photographic image management, analysis of the crisis that emerged from pandemic COVID-19, and the effectiveness of photographic image in the post COVID-19 era were covered in the questionnaire.

The survey was conducted online between February and March 2021.118 questionnaires were collected of the total of 560. The sample could have been admittedly larger, but many people refused to participate in the (rather lengthy) survey due to lack of time. Despite the random selection of participants, the sample includes representatives from a wide range of socio-demographic groups thus, selection bias has been avoided.

The central object of the present research is concentrated on visitors' attitudes, behaviors, and impressions of Halkidiki's photographic image. The quantitative research is characterized as primary, since these were the first data which were collected. It is also characterized as descriptive and cross-cutting as it aims to describe the perceptions of visitors according to the photographic image of Halkidiki.

2.2 Results

Findings of the quantitative research.

A main finding from the questionnaire was that most of the people visiting Halkidiki are aged between 36 and 55 compared to younger people who visit Halkidiki less. More specifically, 48% were aged between 36 and 45, while the age group 46–55 corresponds to 26% of the total visitors.

Moreover, Halkidiki is a family and recurring destination since a significant percentage of respondents (78%) had visited Halkidiki more than three times and 77% had visited Halkidiki mainly for entertainment after the encouragement from friends at a rate of 82%.

In addition, 96% of the visitors believe that the contributing factor for choosing Halkidiki is the sun and the sea and 78% the natural environment. However, 61% of the visitors have been affected while choosing a destination by the pictures of the sightseeing.

What is important to mention is that 74% of the respondents consider that Halkidiki has clear touristic photography, whereas 56% identify Halkidiki by standard touristic photographs rather than artistic traveling ones.

Thirty-one percent of the respondents are satisfied by Halkidiki's pictures, 15% highly satisfied, and 35% are moderately satisfied. Twenty-five percent of the travelers believe that there is a plethora of online photographic pictures of Halkidiki and 35% consider that there are many photographic pictures featuring Halkidiki. Still, 28% of the visitors replicate moderately these pictures online and 27% do not replicate any pictures.

An aspect which should be underlined is that travelers' percentages are shared in relation to the response of the real picture compared to the one having in mind before visiting Halkidiki. In particular, 28% of the travelers believe that photographic pictures correspond in a great extent to reality, while 29% reflect that they correspond in a big extent and 29% believe that they correspond to a moderate extent.

An interesting factor that travelers consider regarding the photographic image of Halkidiki is the clean and sandy beaches (61%), the mountain and sea combination (48%), and the natural beauty (56%). Traditional villages are considered enough interesting about the creation of a photographic image for 35% of the travelers as well gastronomy and cultural and archeological sites accordingly in 32 and 26%.

Finally, the dominating elements in the photographic image of Halkidiki are the sea as it was chosen by 93% of the travelers and natural environment in 53%.

Twenty-six percent of the travelers have been mentally and financially affected by the COVID-19 pandemic and 35% of the travelers have been moderately affected which led them to stop traveling in 65%. A quite big percentage of 39% feels impatient observing pictures of a destination after the COVID-19 pandemic and 36% feels concerned. Seven percent of the travelers who did not stop traveling choose destinations close to nature (62%) which offer beautiful photographic images and lack of overcrowding. Following the end of the pandemic, 82% of the respondents desire to return to the destination mainly accompanied by family (64%) and friends (39%) and stop traveling virtually.

The photographic image in the post-COVID-19 era affects 39% of the respondents on the decision-making on traveling and 51% are thinking that they might be affected.

Below there is a depiction of the mean prices and the standard deviation of the travelers' opinion regarding the photographic image of Halkidiki (Table 1).

According to Table 2 and Chart 1, mean price 2,63 and standard deviation 1,05 is apparent that Halkidiki's travelers are moderately and highly satisfied by the projection of photographic picture of the area. In other words, tourists claim that they are moderately and highly satisfied with the promotion of Halkidiki, through the photographic images on the internet.

Moreover, according to the mean and the standard deviation of Table 3 and Chart 2 is highlighted by the visitors that there is an abundance of online pictures of Halkidiki. There are many photographic images of Halkidiki on the internet, through which travelers can observe the beauty of the place.

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Table 1 Respondents' Profile—socio-demographic information

Demographics		Percentage (%)
Gender	Male	47
	Female	53
Age	18–25	3
	26–30	3
	31–35	9
	36–45	48
	46–55	26
	56–65	6
	>65	5
Country of Residence	Greece	91
	Europe	7
	Outside Europe	2
Education	Primary–Junior high School	2
	Senior High school	12
	College University	40
	Postgraduate studies MSc	42
	Ph.D. Doctorate degree	4
Total income	Up to 20.000€	48
	20.001–30.000€	25
	30.001–40.000€	13
	More than 40.001€	14
Employment status	Unemployed	8
	Employed	79
	Retired	8
	University Student	5

Source Survey data

Table 2 Mean and standard deviation on the traveler's satisfaction from the projection of the photographic image

	How satisfied are you with the projection of photographic images of Halkidiki?
Mean	2,63
Standard deviation	1,05

Source Survey data

Chart 1 Mean and standard deviation on the traveler's satisfaction from the projection of the photographic image. *Source* Survey data

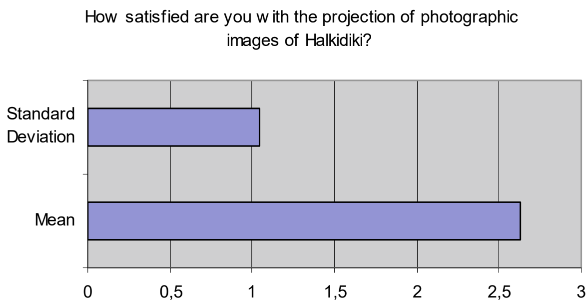


Table 3 Mean and standard deviation regarding the plethora of online photographic images about the destination of Halkidiki

	Is there a plethora of photographic images on the internet about the destination of Halkidiki?
Mean	2,31
Standard deviation	1,06

Source Survey data

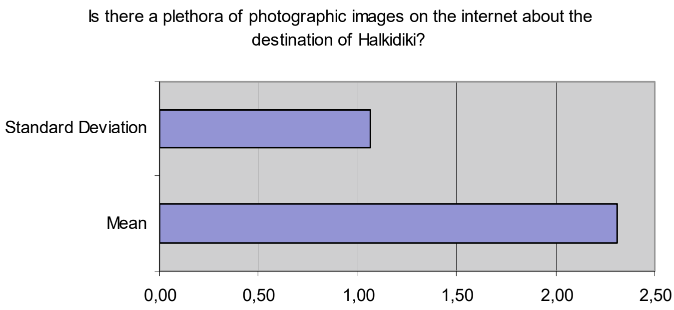


Chart 2 Mean and standard deviation concerning the plethora of photographic images on the internet about the destination of Halkidiki. *Source* Survey data

Simultaneously, existing pictures about the destination of Halkidiki correspond highly to reality compared to the pictures visitors were imagining before traveling to Halkidiki. That is, the photos of Halkidiki as presented on the internet are related to reality. This is ascertained by the tourists after their visit to the place. This is depicted in Table 4 and Chart 3 according to the mean and the standard deviation.

A propos the pictures' reproduction on social media the visitors tend to reproduce them from «enough» to «not at all». It is fact that there is not much interest from visitors to reproduce the photos they take on social media. I think this is related to the character of each person and not to the area one visits. This is shown in Table 5 and Chart 4 according to the mean and the standard deviation.

Table 4 Mean and standard deviation concerning the travel images correspond to reality after the visit

	Do the travel images correspond to reality after your visit?
Mean	2,35
Standard deviation	1,14

Source Survey data

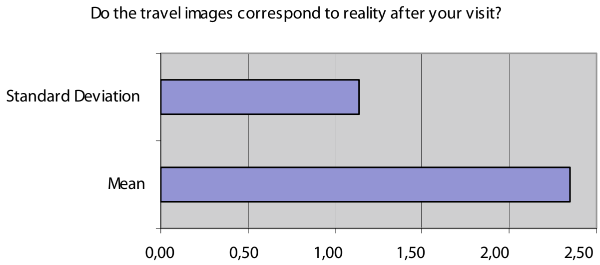


Chart 3 Mean and standard deviation concerning the travel images correspond to reality after the visit. *Source* Survey data

Table 5 Mean and standard deviation for the reproducing of photos on social media

	Are you reproducing the photos you have collected on social media?
Mean	3,25
Standard deviation	1,37

Source Survey data

Chart 4 Mean and standard deviation for reproducing photos on social media. *Source* Survey data

Continuing, as regards the evaluation of the factors about the creation of the photographic picture of Halkidiki the information are listed on Tables 6, 7, 8, 9, 10, and 11 and in Charts 5, 6, 7, 8, 9, and 10 and concern the mean and standard deviation of the factors.

Table 6 Mean and standard deviation for the creation of photographic image by clean and sandy beaches

	Rate the following sights that create the photographic image of Halkidiki on a scale of 1 (indifferent)–5 (very interesting). [Clean and sandy beaches]
Mean	4,19
Standard deviation	1,26

Source Survey data

Table 7 Mean and standard deviation for the creation of photographic image by the traditional villages

	Rate the following sights that create the photographic image of Halkidiki on a scale of 1 (indifferent)–5 (very interesting). [The traditional villages]
Mean	3,77
Standard deviation	1,17

Source Survey data

Table 8 Mean and standard deviation for the creation of photographic image by the combination of mountain and sea

	Rate the following sights that create the photographic image of Halkidiki on a scale of 1 (indifferent)–5 (very interesting). [The combination of mountain and sea]
Mean	3,93
Standard deviation	1,30

Source Survey data

Table 9 Mean and standard deviation for the creation of photographic image by the natural beauty

	Rate the following sights that create the photographic image of Halkidiki on a scale of 1 (indifferent)–5 (very interesting). [Natural beauty]
Mean	4,19
Standard deviation	1,16

Source Survey data

Table 10 Mean and standard deviation for the creation of photographic image by cultural and archeological attractions

	Rate the following sights that create the photographic image of Halkidiki on a scale of 1 (indifferent)–5 (very interesting). [Cultural and archeological attractions]
Mean	3,53
Standard deviation	1,22

Source Survey data

Table 11 Mean and standard deviation for the creation of photographic image by gastronomy

	Rate the following sights that create the photographic image of Halkidiki on a scale of 1 (indifferent)–5 (very interesting). [Gastronomy]
Mean	3,58
Standard deviation	1,29

Source Survey data

Chart 5 Mean and standard deviation for the creation of photographic image by clean and sandy beaches. *Source* Survey data

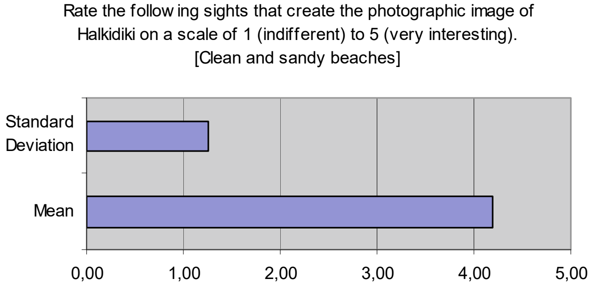


Chart 6 Mean and standard deviation for the creation of photographic image by the traditional villages. *Source* Survey data

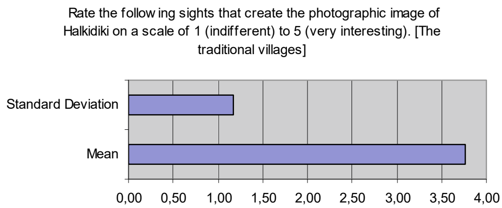


Chart 7 Mean and standard deviation for the creation of photographic image by the combination of mountain and sea. *Source* Survey data

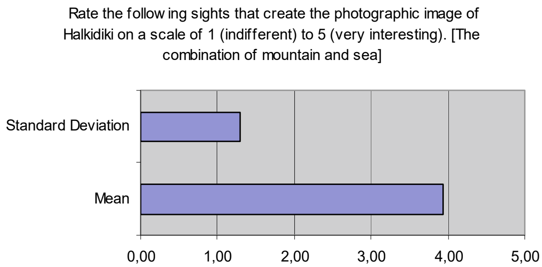
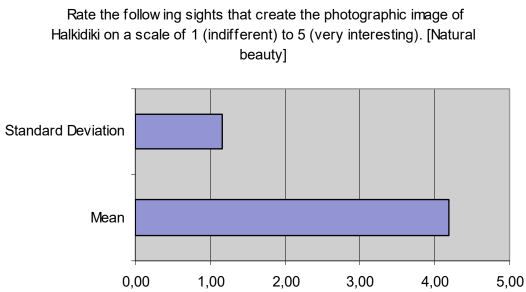


Chart 8 Mean and standard deviation for the creation of photographic image by the natural beauty. *Source* Survey data



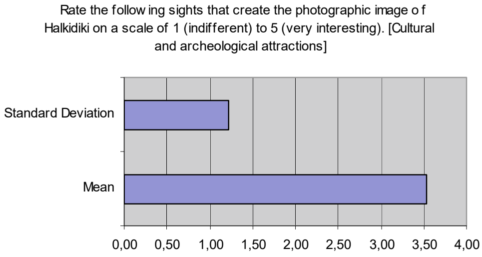


Chart 9 Mean and standard deviation for the creation of photographic image by cultural and archeological attractions. *Source* Survey data

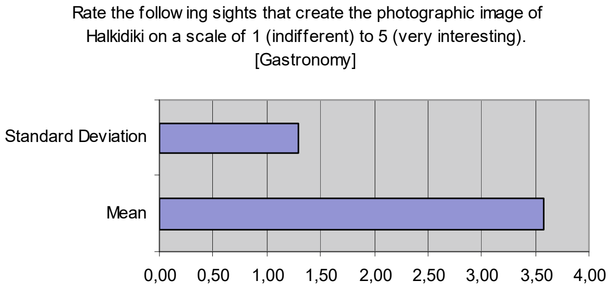


Chart 10 Mean and standard deviation for the creation of photographic image by gastronomy. *Source* Survey data

More specifically, travelers believe that the photographic image of Halkidiki is very much related to clean and sandy beaches. In other words, there is a great interest from tourists to photograph the beaches of the area, as it seems in Table 6 and Chart 5

Moreover, the traditional villages have also rated quite highly in the list. This means that the traditional villages of the Halkidiki Peninsula, create a high degree of images in the minds of tourists, according to Table 7 and Chart 6.

This combination of mountain and sea is of a moderate interest to visitors for the creation of photographic image. This can be deduced from the results in Table 8 and Chart 7.

An important photographic image for tourists is created by the natural environment, which follows the clean and sandy beaches. Therefore, the natural environment is high in the preferences of the visitors for the capture of the photographic images, as it seems in Table 9 and in Chart 8

According to Table 10 and Chart 9, the cultural and archeological sights are rated moderate in the list. There is a normal interest of visitors to get to know the history and culture of the place and to capture them in photographic images, as memories.

Latest element that inspire travelers to portray photographically is the gastronomy. There are several traditional foods of the area which can inspire visitors to photograph them against the backdrop of the sea or the mountain. This is shown in Table 10 and Chart 9 according to the mean and the standard deviation.

On the tables and charts above it is clearly depicted that travelers consider the sea and the natural beauty of a place as very interesting elements to the creation of a photographic image.

Continuing below, it is clear that visitors have been greatly affected financially and psychologically by the pandemic COVID-19 according to Table 12 and Chart 11. Humanity has been experiencing this difficult situation for a long time and this affects people in various fields.

One area affected by the pandemic COVID-19 is travel. Many travelers stopped traveling largely due to the prevalence of the pandemic COVID-19 and this can be deduced from the results in Table 13 and Chart 12.

Table 12 Mean and standard deviation showing the financial and psychological impacts of COVID-19 to visitors

	I have been significantly affected, financially and psychologically, by the COVID-19 pandemic
Mean	2,64
Standard deviation	1,17

Source Survey data

Chart 11 Mean and standard deviation showing the financial and psychological impacts of COVID-19 to visitors. *Source* Survey data

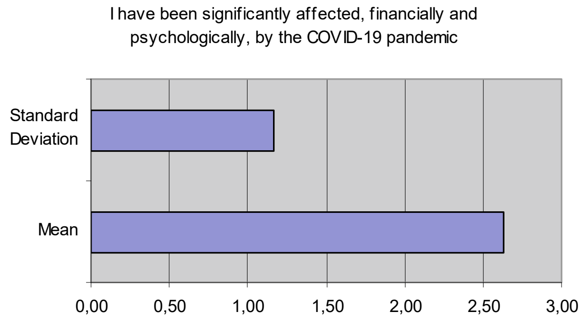
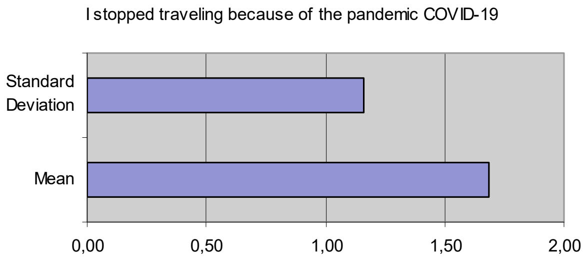


Table 13 Mean and standard deviation regarding the avoidance of travel due to the COVID-19 pandemic

	I stopped traveling because of the pandemic COVID-19
Mean	1,69
Standard deviation	1,16

Source Survey data

Chart 12 Mean and standard deviation regarding the avoidance of travel due to the COVID-19 pandemic. *Source* Survey data



2.3 Discussion

In this research, it is significant to mention that tourists visiting Halkidiki belong to the age group 36–45 coming from Greece. At the rate of 42% are MSc postgraduates. Their total income varies up to 20.000€ as all of them are employed. These demographics highlight the need of finding ways and methods to serve young and educated tourists who are having holidays on a budget.

In this research, tourists claim that there is a clear photographic image of Halkidiki which is based not only on clean and sandy beaches but also on the natural beauty.

Consequently, the photographic images tourists consider when visiting Halkidiki are related to natural beauty (56%) and clean and sandy beaches.

Moreover, photographic images can contribute to a destination's sustainable touristic development as long as they adopt a holistic approach. Also, tourists have the tendency to revisit destinations which have offered them sightseeing satisfaction as well as sufficient services. Specifically, the characteristics mentioned above are the ones that are mainly promoted on social media but also generally as online images. Thus, all the involved parties in the marketing industry of a destination should have the ability to provide photographic images that reinforce a person's wish to visit this destination and as a result to produce a holistic encouraging photographic image of it. Also, an agency for the Management of Tourist Destinations, which will be exclusively responsible for finding new ways and methods to promote the photographic image of a city, should be immediately established. Above all, destinations should aim to the formation of positive images which in turn influence tourists through the features they describe. To achieve a unique destination photographic image that occupies tourists' mind and influences their decision to visit, destination managers need to communicate and cooperate with each other.

A way to achieve larger projection would be a greater existence of online pictures not only on internet but also on social media as just 36% of the visitors believe that there are just many of them.

The projection of photographic pictures should be emphasized in order to the destination of Halkidiki to attract more visitors as most of them are affected by the photographic image regarding traveling in the post-COVID-19 era. Thirty-nine percent of the participants claim that they are affected, while 51% argue that they might be affected.

There are several ways to improve the image of Halkidiki in order to maintain and expand the market as the stable and reliable cooperation of all the members of the local community—which is a great priority in response to the existing problems—and the awareness among the locals and the visitors through internet and photographs. Moreover, what is taken as a necessity is a clear definition that separates the area from other existing competitive touristic regions as to achieve an increase on the tourists and simultaneously to be seen as an alluring destination. As a result, the region will expect a financial enhancement and growth.

In conclusion, tourists:

Form photographic images related to the natural beauty and clean and sandy beaches.

Believe that there is a clear photographic image and this image reflects a touristic city.

Consider that the projection of Halkidiki through Internet and through photographs contribute and affect their decision to visit the place.

Were significantly affected financially and psychologically by the pandemic COVID-19 and stopped traveling. But they hope to continue traveling after the pandemic with real visits and not virtual visits.

Nevertheless, some limitations are observed on this research, which are worth mentioning. Firstly, the categories of individuals should all be taken into consideration as to have a coherent understanding of the city such as members of the public sectors and of all ages, of professional background and of several socioeconomic statuses. The second limitation is the collected sample especially when there is diversion on the level of knowledge and education. Finally, the random choice of respondents and their limited time should also be taken into account.

In the future, visitors' key features are required to be entirely explored, particularly these who are related to the environmental characteristics of a journey. An effort to continue the present study by leading additional research could be proved beneficial for the decision-makers in the tourism sector. In order to appeal customers and increase their contentment, the produced information as well as the understanding of the requested indicators are important requirements for the inspection and enhancement of the tourism offer of a place. Also, research should be undertaken systematically in order to collect statistical data on a yearly basis; data relevant to the photographic image of a destination to study its progress.

2.4 Conclusions and Recommendations

The aim of this research is to create and offer information on management and preserve and attain a growth in tourist visits in Halkidiki. The literature review revealed that photographic image is wide, vague, and challenging to outline as notions, opinions and tourists' feelings, market players and the public need to be taken into consideration. The results of this research confirm that the most important image of Halkidiki consists of its clean and sandy beaches along with natural beauty.

Both features are of major importance in view of the local market. An increase in advertising these two images by creating an agency for the Management of Tourist Destinations would create chances for management to achieve a growth in tourists.

Respecting the statements above it is recommended that:

– In order to support detailed qualities of the city, such as the natural beauty and the clean environment severe efforts should be completed. It is also significant to mention the traditional villages, cultural and archeological attractions and the gastronomy with an effort to create interest into diverse groups (visitors, tourism specialists, investors, citizens, and others).
– Attempts that can be adapted to tourist products should be created in order to facilitate the needs and desires of the sea and nature-loving tourists (use of the multiple clean and sandy beaches of unusual beauty which provide a large quantity of visual pictures, creating natural trails in the green landscape, arranging tours in traditional villages as, for example, the village of Aristoteli at Stagira and likewise tasting local gastronomy in traditional restaurants such as mount Athos eggplant salad, fresh mussels and fish, traditional pies either savory or sweet without filo, chicken with trahana, kid in the oven, kritamo, mount Athos cod, and other regional specialities).
– Opportunities should arise to inspire inventiveness and entrepreneurship among young citizens of the area that are involved and educated in Tourism.

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COVID-19 Pandemic and High Health Risk as a New Controlling Force of Travel Motivation and Tourism Chain Value

Mohamed Boukherouk, Hicham Ouakil, and Adil El Filali

Abstract The COVID-19 pandemic has shaken tourism system, production process, service delivery, and tourist's motivation. The interruption of tourist activities is correlated with the climate of health risk and the atmosphere that has reigned, which will probably impact the minds of tourists and the sector suppliers. This disruptive situation will break with the traditional behavior of different stakeholders. Such situation necessitates a re-consideration of the motivations and the drivers of tourist's consumption. The rise of a new era of health-friendly tourism pushes the tourism chain to adapt and offer new designed products enriched with health and sanitary protocols. This study sheds light on the importance of health risk in the context of COVID-19 in the international tourist market. It also examines tourists' perceptions of the changes and elements introduced to service delivery by operators to respond to the new health risk challenges. The study showed that despite the protocols aiming at reassuring tourists, the virus and the difficulty to make a decision are two main causes of a high degree of risk.

Keywords Tourism · COVID-19 · Health · Risk · Perception · Service delivery · Value chain

JEL Codes L8 · L83 · Z3 · Z33

1 Introduction

With the COVID-19 pandemic, risk perception appears as a major discouraging factor of travel. Many research studies acknowledged the influence of health risk

M. Boukherouk (✉) · A. E. Filali
Laboratoire de Recherches des Sciences Appliquées à l'Environnement et au Développement Durable (SAEDD), Higher School of Technology of Essaouira, Cadi Ayyad University Marrakech, Marrakech, Morocco
e-mail: m.boukherouk@uca.ma

H. Ouakil
Faculty of Law, Economics and Social Sciences, Ibn Tofail University Kenitra, Kenitra, Morocco

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_49

perception on travel decision. They also made the difference between the individual risk perception and the social risk perception, two key elements that interact in travel decision. In normal situation, travelers avoid health risk destinations. Those who seek more adventure are often prepared for risk through vaccination or medical disposition before and during their travel.

However, the vacation dreams of millions of tourists have been vanished due to the COVID-19 pandemic. The shock wave created by the spread of the virus has affected the most hedonic motivations. Despite its continuous nature, the tourist machine is paradoxically driven by fear and social phobia. Fear of and anxiety about traveling and contracting the virus create major barriers to travel. They are fed by these fears and also an undermined morale caused by a long period of lockdown, contradictory injunctions from the authorities and the fragile economic situation of households. It is essential to note that the psychological stigma of the quarantines and the period that follows will also have a strong impact on the desire for escape and recreation.

In order to face the virulent virus, lockdown was the sought-after solution. Specifically, travels are strictly prohibited and borders are closed. The interruption of trips has emerged as a disruptive event in the entire tourism value chain. After a catalytic shock, the lifting of travel restrictions must be accompanied by the compliance of new sanitary measures and very restrictive protocols for travelers and providers alike. The absence of zero risk during the trip does not facilitate the decision of tourists and pushes them to be more vigilant. Thus, travel decision requires a considerable effort in terms of documentation (Which destinations are open? And to what extent and under what conditions do they accept travelers? Which means of transport to choose? And does it meet the distancing conditions? Which activities to practice? What risk for me, or for my family? What if I am infected abroad? The risk is concomitant and imminent and its perception appears to be determinant in making a travel decision.

This study is based on a comprehensive literature review on the motivations for tourism and the perception of risk in travel decision. It is commonly accepted that several factors are behind this decision. As such, these factors are basically linked both to the tourist (push factors) and to the destination and to the operators (pull factors). This study emphasizes the elements that control the perception of health risk and their significance in motivations for travel, mainly during the time of COVID-19. By analyzing the results of a field study on a sample of 350 participants, the study shows that COVID-19 and the difficulty of making a decision have attributed to a high degree of risk, despite the protocols aiming at reassuring tourists.

2 Literature Review, Capitalize the First Letter of Every Word in the Title

The COVID-19 pandemic is the biggest challenge that tourism has faced for over two centuries. For the first time in history, the sector is shut down. The tourist has never felt more in danger, and has never been forced to give in to his desire to go on a trip. It seems obvious to review important elements of the travel decision largely linked to this context: the risk, the perception of the risk, and the reasons for the trip.

2.1 Travel and Risks

Tourism industry is impacted by a growing feeling of insecurity and instability that has appeared in recent years: A high rate of crime, terrorism (especially after September 11, 2001), food security, natural disasters, and health problems (Table 1) (Dallen (2008), cited in Zélia Breda and Carlos Costa (2006)).

A distinction should be made between crises and disasters. In most cases, crises are unexpected, but potentially predictable, but their effects can be mitigated through effective management. This is not the case with disasters which are unpredictable. Both are major destructive events for tourism (Faulkner, 2001; Prideaux et al., 2003; Breitsohl & Garrod, 2016) and tourists. Indeed,

In times of crisis, for any tourist destination the first concern must be for visitors. Away from home, in unfamiliar surroundings, they are quickly disorientated and very reliant on their hosts and the host communities in general. Adequate planning for what has in the past been seen as the 'unexpected' can be the difference between a well-managed problem and a human and economic disaster (Wilks & Moore, 2004).

Tourism is inevitably influenced by society, economy, politics, and nature (Paraskevas et al., 2013; Ritchie et al., 2010) and in particular, by crisis events (Ghaderi et al., 2012). In fact, whatever the origin of the crisis, the decrease in tourism demand has a considerable social and economic impact. Relatedly, this is a key factor in the security of tourism demand and a major concern of all tourism stakeholders (tourists and investors). Concerns about tourism security, whether real or perceived, have been clearly identified as negatively affecting tourism demand

Table 1 Major threats to tourist's safety and security

Threats	Examples
Accidents	Car accidents, airplane crashes, skydiving
Crime	Pickpocketing, robberies, murders, rapes
Ethnic unrest	Fighting between ethnic groups, conflict between religious groups, ethnic rebellions
Health concerns	Unrefrigerated dairy products and meats, uncooked fruits and vegetables, foodborne illnesses, insanitary water, diseases
Natural disasters	Earthquakes, floods, hurricanes, volcanic eruptions
Political unrest	Coups, border closures, corrupt administrations, political scandals, riots
Terrorism	Bombings, shootings, mass destruction, kidnappings
War	Military altercations, cross-border armed conflicts, multi-national Wars

(Cavlek, 2002; Zélia Breda & Carlos Costa, 2006), not only in times of crisis but also during the post-crisis period.

During epidemics, World Health Organization (WHO) along with World Tourism Organization (WTO) intervene to advise tourists not to travel to the regions that are affected by the pandemic. The two aforementioned organizations show their worries about the social, economic, and psychological impacts on tourists and local communities. They also work together to bring and share information about the pandemic (Breda, 2004). As a matter of fact, information about the number of cases and deaths as well as the lack of understanding of the virus, how it spreads and its origins, all this aroused serious doubts and imposed severe constraints among the population, leading to an exaggerated perception of the danger (Zélia Breda & Carlos Costa, 2006).

The pandemic was first reported in Wuhan, China on December 31, 2019. The first case of the Coronavirus, similar to SARS and MERS, was reported to WHO on January 30, 2020. WHO, which declared a "public health emergency of international concern," gave the name of COVID-19 to this new disease. On February 26, 2020, the disease was detected in all the continents of the world. On February 27, the WHO reported, for the first time since its inception, that the number of confirmed cases outside of China exceeded the number of new cases in China (McAleer, 2020). COVID-19 has rapidly become a center of interest and a critical factor in public health management and decision-making as well as a threat to free movement and to tourism in particular. The fear of transmission of the disease has a dramatic impact on tourism activity. In this, traveler's motivation has become more and more mediated by geopolitical threats, with significant effects on the overall sector of tourism.

During the 1960s and 1970s, consumption was more oriented towards the need for recognition and self-esteem (cf. Maslow's (1943) pyramid). Air travel was reserved for a privileged class. After the 1970s, the plane became the primary mode of international transport for tourists, making trips to long-haul destinations in demand and popularity thus encouraging mass tourism (Dehoorne, 2013). At the beginning of the twenty-first century, precisely after September 11, 2001, tourism became strongly associated with aliases and unstable events influencing decisions to travel or not, such as October 2002 Bali bombings (club di Kuta), which left 202 people dead; the February Egyptian (Luxor) hot air balloon explosion, which left 19 people dead; kidnappings and rapes of tourists, terrorism, and pandemics. Such events had impacted tourist areas negatively as the latter have been weakened and reduced.

According to Dehoorne (2013), the tourist, in difficult periods full of uncertainties (economic, political, environmental, health …), has developed a rational behavior and has sought safe places, away from the complexities of host countries, in the form of a secure bubble. He gives priority to his safety and security which become basic to Maslow's (1943) Pyramid. The tourist demand is principally realized for the benefit of the regions and territories that guarantee more safety and security for their host.

In tourism, travelers' safety has become a priority, although it has been neglected for a long time (Wilks & Oldenburg, 1995). It is defined as the absence of danger, risk, or doubt. The tourist who could imagine that one day he is not concerned because of his tourism temporality, on the contrary, is sometimes the potential target (Dehoorne, 2013). He can be a victim of delinquency (robberies, harassment, etc.), perceived as bargaining chips (kidnapping for ransom), an ideological victim or victim of the spread of a pandemic.

2.2 Travel and Motivation

Motivations are some of the human beings' needs and wants that they seek to satisfy. Indeed, even if it is a hidden part of the tourist conception of travel, many works within the framework of motivation theory explored this internal, psychological, and dynamic process in human beings, especially tourist's behavior (Fodness, 1994) which pushes to satisfaction by action in order to restore a certain psychological balance (Crompton, 1979; Dann, 1981; Iso-Ahola, 1982). The concept of motivation was explored by many researchers (Bansal & Eiselt, 2004; Beard & Ragheb, 1982; Fodness, 1994; Fodness & Murray, 1999; and Woodside & Martin, 2008) who tried to explain the relationship between different variables in building travel motivations and intentions by offering complementary reading grids of the personality/personalities of tourists and their motivations, which are as different as they are heterogeneous.

Beard and Ragheb (1983) were the first to suggest a leisure motivation theory based on Maslow's (1954) theory. They summarized 48 items included in four subscales that they named: intellectual (learning, exploring, creating, or imagining), social (need for interaction, meeting people, friendship, relations, others esteem), competence mastery (achieve, challenge, and compete), and stimulus avoidance (rest and unwind far from the others, avoid contacts, seek calm and solitude, avoid stress and tension of the daily life). Beard and Ragheb (1983) identified as push factors the fact that people do travel and go away from the mundane of their immediate environment for anomie or ego-enhancement factors (Dann, 1977) or for socio-psychological and cultural motives (Crompton, 1979; Fodness, 1994).

Travel motivations depend on several internal and external factors (Chon, 1989; Dann, 1981; Uysal & Hagan, 1993). Travel decision and choice are the result of a calculation of different motivational, psychological, and social factors. Dann (1977) proposed the push and pull factors in travel decisions classified later by Crompton (1979) as internal and external travel motivation forces. Dann (1977) suggested nine factors that Crompton (1979) reduced to seven for push motives (escape from mundane environment, self-evaluation, realization, exploration, prestige, family relations, and social interaction) and pull factors (novelty and education) as the factors to allure the visitors to places of tourism interest. Simply put, both forces explain the significance of the interaction between personal and social conditions to elucidate motivation and travel behavior. Mannell and Iso-Ahola's (1987) view is relevant in the sense that they showed the gain and reward that tourists seek. In the same vein, Krippendorf (1987a, b) suggested eight travel motivations (recuperation and regeneration, compensation and social integration, escape, communication, freedom and self-determination, self-realization, happiness, and travel broadening the mind).

Therefore, the push and pull motivation theory was largely adopted to explain tourist motivation process (Crompton, 1979; Dann, 1977; Pearce, 1993; Uysal & Jurowski, 1994). On the basis of such theory, those factors interfere to determine fitness for travel (Hudson, 1999). They all contribute to the tourist's motivations and behavior in his eternal aspiration in order to satisfy different needs as shown by Maslow (1943) and adapted afterwards to tourism by Mill and Morisson (1985).

For Crompton (1979), travel is a kind of escape from the immediate environment and its doom and gloom. Travelers' escape, according to Iso-Ahola (1982), is engendered by physiological and psychological variables. In this, they are in perpetual process of seeking satisfaction and many psychological rewards by leaving their daily life environment (Iso-Ahola, 1982; Mannell & Iso-Ahola, 1987) and exploring other places and experiences. Pearce's (1988, 2005, 2011) theory of travel career patterns supports the other authors' views concerned with travel motivation. The importance of the tourist's career is not denied of interest since it highlights the importance of his cumulative experience in his quest for recreation. The tourist' career builds his knowledge and choice capacity to avoid destinations that will not give him satisfaction.

Fodness (1994) travel motivation scale, related to the functional models of Katz (1960); Smith et al. (1956), serves as a functional approach in studying tourist motivation. In his approach, Fodness (1994) asserts that travel, as an attitude, is the result of a research process of releasing tension resulting from inner needs. In this, he suggested five functions: the knowledge function, the utilitarian minimization of punishment function, the value-expressive function, the self-esteem function, and the ego-enhancement function. In fact, this conception seems to answer different functions. Basically, tourist's travel is not only driven by the search for knowledge but also driven by the desire for escape from the stress and painful routine of their environment by looking for fun and joy in recreation. Fodness (1994) tourism motivation theory helps deduct that the choice of a holiday destination is first of all linked to the ability to meet various functions; otherwise, it will be a repulsive destination. That is, the pleasure of travel relates to the conditions of its entire progress from departure to return. It will be unthinkable, except for a few tourists (for example, spiritual explorers), to venture into regions where someone can expose himself to any kind of risk.

The tourist's personality characteristics determine his travel patterns (Plog, 1987, 2001) meaning that the psychocentric-allocentric model helps segmenting markets and showing different tourist's scales. However, we cannot ignore the importance of the tourist's global environment, either. By itself, it cats on everyone's conception of risk because of the great influence of culture, beliefs, demographic characteristics (Swarbrooke & Horner, 2007) as well as the mass and social media.

While push factors are internal, pull factors (Crompton, 1979; Dann, 1977, 1981) bring together external elements and destination-related attributes which interact with the push factors to stimulate the departure on vacation. Pull factors include exogenous factors (Klenosky, 2002) like security; while safety can be listed in the internal factors as tourists seek this very element in all the listed factors. That is, tourists seek protection from any physical or mental danger by choosing safe destinations, transportation, and activities.

Witt and Mountinho (1989) divided attractiveness into static (climate, distance, natural, cultural, and historical features…) and dynamic factors (political situation, facilities, hospitality and personal attention, activities…). They introduced a key element in travel motivations: the current decision factors that they summarized in marketing strategies and prices. Similarly, Chritie and Crompton (2001) suggested that price is determinant as a pull factor in travel decision, like security in the destination (Dwyer & Kim, 2003) and the destination image (Shih, 1986).

Richie, Chien and Watoon (2017) focused on the impact of risk perception on travelers' health and safety. They showed that motivational antecedents play a pivotal role in estimating risk perception. The latter embodies a set of elements such as information and destination image (Riera et. al., 2015), destination trust and online word to mouth (Abubakar & Ilkan, 2016), weather and value-attitude-intention (Jeuring & Peters, 2013), and weather and country image (Zhang et al., 2018).

3 Conceptual Model and Research Methodology

While researchers insist on push and pull factors in travel motivation, safety is less discussed as a factor that limits travel in terms of motivations. As such, safety is an important element in the travel decision-making process. This is often noted for the security situation, whether linked to violence or to sanitary conditions. Tourists choose safer and more risk-free travel options. In this, in the current health situation, both security and safety (physical and sanitary) impact travel motivation to a larger degree.

The tourist's behavior during the pandemic crisis, like other disease cases, helps conclude that health insecurity and knowledge uncertainty constitute a fundamental cause of travel restrictions. The opposite is also true. Obviously, this is valid for individuals and destinations as well. The significance of safety, especially when compared to other push and pull motivational factors, lies in that it is a condition as well as a limiting force of travel. In this context, health insecurity acts negatively on the tourist's desire to travel.

Health security has a deep impact on health motivation. This impact in turn is motivated by two major elements. The first is that it decreases the effects of the pandemic on tourists themselves and the second is that health security acts on the tourists' morale and on the great work deployed by both to regain customer confidence. Put simply, the proposed safety procedures and protocols can be considered as an effective solution to regain the tourists' confidence, communicating on these measures is even more so.

Therefore, the proposed conceptual model focuses on risk perception and the variables that interact between one another to define it. However, a distinction should be made between the two kinds of variables. First, psychological and cognitive variables include age, gender, family situation, level of education, experience, and the like. Second, social variables are linked to tourist's environment (state, culture, religion, family, friends, and media) and, in our case, health professionals. As such, these variables determine risk and perception of travel, for example, limiting travel motivation, especially during periods of risk.

Focusing on the perception of risk in general as a factor limiting travel, the current work does not claim to check the variables mentioned above. In order to measure the importance of health risk and its perception among tourists, this study was carried out from 1 April to 30 August with a reasoned sample of 350 participants from a list of three destination management companies based in Morocco. The data was collected through Google Form and then analyzed using the Statistical Package for Social Sciences (SPSS) V27. Three hundred and fifty questionnaires were used for data analysis, while 5 of them were discarded as they were incomplete.

The study concentrated on tourists' motivations and the controlling variables of their travel during the COVID-19 period (2020 summer–autumn and 2021 winter seasons). On the basis of a list of 10 variables linked to the traveler's environment, tourists were questioned about their perceptions of the new travel conditions. The goal was to estimate equally the importance of the health security variables and the anti-COVID-19 measures as a barrier to travel during the pandemic. The answers measured on 5-point Likert scale aimed to (1) evaluate the perception of the travel experience and service delivery and (2) show that health risk acts as a controlling variable in travel motivation. A Relative Importance Index (RII) was calculated to show the importance of every item.

4 Results

The analysis of the demographic characteristics of the sample highlights the importance of women in the sample (52.86%) compared to men (47.14%). A large propensity of this sample is between 27 and 49 years old (56.29%) compared to other categories. This is due to the choice of the reasoned sample of people who travel a lot and who are generally from Western Europe (27.71% French, 10.29% German and 13.14% Spanish). The analysis also demonstrates that American tourists constitute a significant share (27.14%). Moreover, families form the majority of tourists 55.43%, while 22.86% of the latter involve people who occupy positions of responsibility (22.86%) or work in liberal professions (21.43%) or intermediaries (11.43%). A great majority of them have a minimum level of bachelor's degree which indicates a fairly high level of education. In general, the travelers surveyed made at least one international trip abroad. 41.43% of the participants make two trips per year, while 27.14% of them make three international trips per year. This indicator was crucial in the choice of the sample as it helped clarify travel behavior as well as the perception of international travel.

When asked about their international travel intentions, tourists are dubious. 70% of them did not plan to travel during the summer of 2020, nor in the fall of 2020 (63.14%). They seem unconvinced of the idea of traveling abroad for the next

6 months. The propensity is reversed from winter 2021. 45.71% think of planning a trip in winter 2021 and 80% during spring 2021. This demonstrates that the current situation is not conducive to travel because of the risk of contamination. Improving sanitary conditions is a sine qua non for returning to travel abroad. Indeed, 98% of tourists think they can return to international travel if the virus disappears or if a vaccine is discovered, 42% if the borders are open. The improvement in sanitary conditions seems decisive for the entire sample. The perceived risk is thus higher in the short term, but it is minimized in the medium one.

Moreover, in response to the measures adopted by destinations and the operators, on a list of 10 elements, 82.5% of respondents do not feel reassured, while 10% of them are neutral. The risk perception is higher even with regard to these conditions (Fig. 1).

In addition, the perception of the travel experience and the delivery of tourist service also seems negative on the basis of the survey results. The overall mean is M = 4.03. The conditions offered by the destinations and the providers do not raise doubts about the danger, although tourists consider these measures important. Therefore, the proposed experience is altered by very severe conditions and does not seem to favor the massive return to travel. Wearing masks, social distancing, limited activities with groups (visits, recreational activities…), hotel protocols; seem

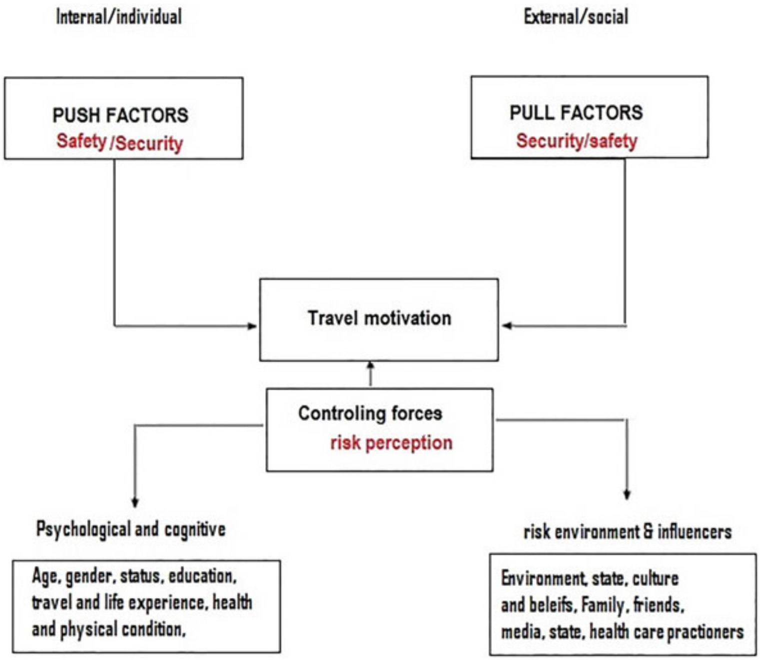

Fig. 1 Conceptual model

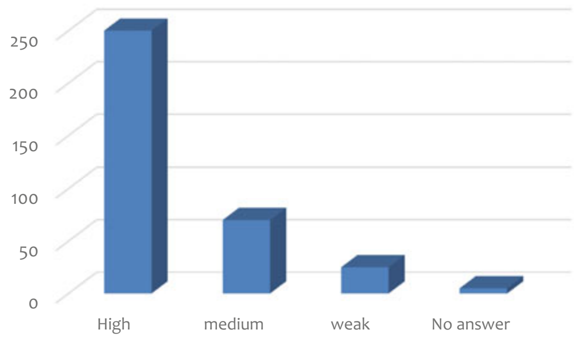

Fig. 2 Perception of travel experience and service delivery during COVID-19

insufficient to change health risk perception during travel. Indeed, for the majority of our sample the risk remains higher (Fig. 2).

The coronavirus pandemic is the first health challenge that tourism must face in an era of globalization more than ever before. The sector is facing a most serious issue because of the interruption of tourism activity. The health issue comes back to the surface and therefore deserves to be taken into consideration by tourism stakeholders.

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Start each new paragraph with indent like this. Make sure not to change the type of letters/fonts or the formatting of the paper (Table 3).

5 Conclusion

This paper focused on the effects of the pandemic on the tourist's behavior and concludes to the importance of health considerations for tourism offer and demand. It presented the perception of risk in the international market and demonstrated how tourist motivation was affected by the pandemic. In this, the measures undertaken to revive the activity appear to be ineffective as to dispel tourists' fears and worries. Facing infection and death, tourists do not seem to be psychologically ready to risk their life. The collective fear and phobia came thus to abort the projects and dreams of travel. Further, a refocusing on the values of safety and health has been witnessed. In the tourism system, the measures designed and taken by governments and stakeholders are essentially meant to prioritize health over other aspects, especially in planning and organizing trips and stays. Interestingly, the tourism value chain along with the tourist service delivery process, are radically transformed to reassure, secure, and carry out any tourist service.

Relatedly, future research may continue to provide more insight into the relationship between health risk perceptions, travel motivations, and service production processes. It may also explore more and more the contexts in which these aspects

Table 2 Sample characteristics

Characteristics	Variables	Frequency (n = 350)	%
Gender	Female	185	52.86
	Male	165	47.14
Age	18–26 y–o	93	26.57
	27–36 y–o	77	22.00
	37–49 y–o	120	34.29
	50–63 y–o	35	10.00
	>64 y–o	25	7.14
Geographical origins	USA	95	27.14
	France	97	27.71
	Germany	36	10.29
	Spain	46	13.14
	United Kingdom	28	8.00
	Italy	12	3.43
	Morocco	33	9.43
	No answer	3	0.86
Status	Single	98	28.00
	Married	194	55.43
	Divorced	31	8.86
	Widow	12	3.43
	No answer	15	4.29
Study level	Ph.D.	17	4.86
	Masters	141	40.29
	Bachelors	122	34.86
	High school	45	12.86
	middle school	25	7.14
Profession	Student	92	26.29
	Farmer	10	2.86
	Senior executive	80	22.86
	liberal profession	75	21.43
	intermediate profession	40	11.43
	Employee	35	10.00
	Retired	16	4.57
	No answer	2	0.57
Frequency of international travel	1 trip	84	24.00
	2 trips	145	41.43
	3 trips	95	27.14
	4 trips	26	7.43

Table 3 Perception of travel experience and service delivery during COVID-19

Perception of travel experience and service delivery	Mean 4.03	SD	RI Index	α
COVID test before departure or arrival	3.21	1.79	0.64	0.96
Quarantine at the arrival and return if positive	4.23	2.06	0.85	
Frequent temperature check	3.90	1.97	0.78	
Wearing masks during your trip	4.07	2.02	0.81	
Sanitizers permanent use	3.63	1.90	0.73	
Social distancing and avoiding travel in groups	4.09	2.02	0.82	
Restrictions in restaurants, bars, and discothècs	4.40	2.10	0.88	
Restrictions in spas, pools, and activities	4.17	2.04	0.83	
Restrictions in museums and cultural sites	4.49	2.12	0.90	
Restrictions in meeting local people	4.13	2.03	0.83	

interact by examining the effects of COVID-19 on the tourism industry and its transformations and innovations induced by the current situation. In this, other aspects deserve special attention regarding how socio-psychological variables act on risk perception tourism as proposed in the conceptual framework.

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Porto: Literary Tourism in Pandemic Times

Ana Ferreira, Elisa Alén, Dália Liberato, and Pedro Liberato

Abstract In 2020, the world faced an unimaginable pandemic that has caused devastation and suffering all over the world, affecting the global economy and imposing the suspension of almost all economic activities including tourism. Many studies evaluating the effects of the pandemic on tourism have emerged since then, but with this work we want to analyze the possibilities that became clear for a destination like Porto, in which the tourist flow had been experiencing a growing trend in a destination consecutively considered the best European destination. Literary itineraries serve as a starting point for the discussion about the possibility of inviting to Porto through literature. To invite, means to attract and, for such, we will show the importance of a literary tourism offer in the Porto destination brand. To evaluate the impact of the itineraries as proposals of literary tourism, we surveyed a sample of national and foreign tourists/visitors, who allowed us to ascertain the importance of tourist itineraries as an enhancing offer of the tourist activity in the city of Porto.

Keywords Literary tourism · Tourism destination · Itinerary · Porto

JEL Classification Z32

1 Introduction

The year 2020 will go into history as the year of COVID-19. In fact, in the early days of the year, the world began to face the risk of a pandemic that would be confirmed in the first quarter of the year and has changed the entire global socio-economic dynamics.

A. Ferreira · D. Liberato (✉) · P. Liberato
School of Hospitality and Tourism, Polytechnic Institute of Porto and CiTUR Researcher (Center for Tourism Research, Development, and Innovation, Portugal), Vila do Conde, Portugal
e-mail: dalialib@esht.ipp.pt

E. Alén
Faculty of Business Sciences and Tourism, University of Vigo, Ourense, Spain

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_50

As well as other European countries, Portugal was quickly affected, having to close its borders between March 16 and June 15, 2020, and internal travel was also forbidden and later limited, i.e. regions remained isolated without any possibility of displacement between them, except those strictly necessary. Thus, tourism activity in essence, is travel, so it was completely suspended during that period. Moreover, uncertainties regarding the evolution of the disease and its high transmission rate have deeply affected travel, reinforced by the second lockdown in the beginning of 2021.

Many studies have emerged to evaluate the effects of the first wave of the pandemic on tourism, but with this work we want to analyze the possibilities/scenarios of tourist offer that can be implemented to mitigate the effects of the pandemic on the decrease in tourist flows, particularly in the city of Porto, where, since 2012 tourism has grown exponentially thanks to the consecutive award of "best European destination."

This work is structured in two parts. We start from the literature review as a theoretical basis of this study, oriented around tourism and its vicissitudes, next, there's the characterization of literary tourism where we intend to present a critical analysis of the potentialities of literary tourism in times of crisis, such as the current one, in which the COVID-19 outbreak strongly reduced tourist flows.

The new look at tourism has been allowing to broaden the reflection on tourist practices questioning tourism according to its spatial and temporal implications, giving priority to the perception of the subjects in/about their trip. In this perspective, the design of routes and itineraries can be considered as a structuring activity of the routes offered in a tourist destination, characterizing the tourism product, and triggering the inherent dissemination of a specific culture to the market, from local to international.

Considering the innovative nature of literary itineraries, it became fundamental for this study to validate literary itineraries as tourism proposals in the city of Porto. This new/appealing tourist product with potential attraction to new markets, will increase the competitiveness of Porto as a tourism destination.

It was then used, as a methodology, a survey, involving tourists and visitors, and whose results we present in the fourth chapter of this study.

2 Literature Review

2.1 Tourism and its Vulnerabilities

Tourism, an activity with an emphasis on economic return, has grown thanks to the emergence of new spatial and temporal relationships, generating new connections that have pushed the boundaries for flows, making today a global space, whose flexible borders extend to the planet. In this scenario, mobility has been increased as well as vulnerabilities.

In fact, if we consider, as Kasperson et al. (2001) defines, that vulnerability is "the degree to which an exposure unit [human groups, ecosystems, and communities] is susceptible to harm due to exposure to a perturbation or stress, and the ability (or lack thereof) of the exposure unit to cope, recover, or fundamentally adapt" (Kasperson et al., 2001, p. 7), it becomes extraordinarily important to understand not only what reasons/conditions constitute factors of vulnerability in tourism but also to assess its impacts and resilience of different locations.

For tourism management, assessing and planning resilience has an increasing importance, because changes and their interrelations have become much more complex in a globalized and accelerated world, which puts tourism under pressure to respond and adapt to various factors. Adaptation and transformation processes to changes in environmental, social, and economic conditions require initiatives of various tourism actors with different functions in the tourism business and at different scales of governance. Indeed, some regions of the globe are known to be more vulnerable to natural risks, therefore posing substantial risks to global tourism activity, but not only natural risks constitute factors of vulnerability in the territories.

2.1.1 The COVID-19 Pandemic

Since the beginning of 2020, the planet has experienced the pandemic situation caused by the coronavirus. This virus has dramatically affected all sectors of economic activity and tourism in particular.

According to the John Hopkins University World Observatory, at the end of December 2020, COVID-19 had infected more than 80 million people in a total of 193 countries and territories and killed more than one million and eight hundred thousand people, and its effects will last in time. It is probably the longest existential challenge that humanity will have to face.

The expansion of the pandemic has triggered, all over the world, the introduction of limiting measures on international travel, which has had a strong impact on the dynamics of international tourism demand, naturally having a significant impact on global tourism activity and Portugal was no exception.

According to the Bank of Portugal report, the pandemic caused "a shock that disproportionately affects international flows of goods and services (in the latter, tourism and transport stand out)" (BdP, 2020, p. 15).

The same source adds that in this way "the surplus of the balance of services is reduced, reflecting the particularly negative impact of the shock on tourism flows" (BdP, 2020, p. 15), hence a sharp contraction in tourism due to the impact of coronavirus slowed the country's economic growth.

Tourism, which has been deeply affected and has suffered irreparable losses, will have to recover itself and create structures of resilience like never before because this too was a new situation, for which, we venture to say, no one was prepared.

Recovering, strengthening bonds, creating trust surely involves the affirmation of identities that, as never before, have proved necessary to give encouragement and confidence to all communities strongly affected by an invisible enemy whose great means of dissemination may have been the tourist activity itself. Analyzing the adequacy of post-disaster recovery measures in a tourism destination, trying to understand which model of response to the crisis, can be a good way to consolidate this activity that initially will have more strength internally than on a global scale.

Managing epidemics is also realizing the great orientations of tourists in the future times and it will probably decrease the distances traveled, growing domestic and short-distance tourism. This could significantly contribute to a tourism segment that involves small contingents of tourists and not large masses and which also feeds the tourist's connection to the local community.

2.2 The Importance of Internal Tourism

A perspective of approach to tourism is the role that domestic tourism can play as a factor in mitigating imbalances arising from receiving tourism in Portugal. In fact, when it is a market on which it is possible to act directly, it is essential to assess the extent to which it can function as a broker of the reduction of external demand.

Knowing that external tourism presents a demand pattern based mainly on a question of excessive concentration from three perspectives—temporal, spatial, and provenance, it is important to observe the contribution that domestic demand already provides, or may make to mitigate this dependence, as a way of being able to compensate for any declines in the prevailing issuing markets in the most unfavorable circumstances. This effect has already been observed in the history of tourism in Portugal, particularly in the period following the attacks of September 11, 2001, and has since the end of 2008, as a reflection of the global economic and financial crisis. According to the Survey on The Displacement of Residents, in 2018, 48.0% of the population living in Portugal, about 4.9 million people, made at least one tourist trip, 7.6% more than in 2017. In that year, 22.1 million tourist trips were made, showing a growth of 4.2% and tourist travel in the national territory reached 19.6 million (88.7% of the total), an increase of 3.2%.

It should be noted that this occurrence is not merely a statistical curiosity and should be recognized as a virtuality of internal tourism, since this form of tourism takes on a truly strategic character outside the major tourism production centers. In this sense, the dynamic effect that is recognized to tourism in the sense of it being a vehicle of economic and social growth for the later regions, in Portuguese case, is strongly associated with internal demand, which has the particularity of contributing to the redistribution of wealth within the country. The third characteristic of receiving tourism is associated with seasonality, which leads to a strong agglomeration of demand in the summer months. In this context, internal tourism can also help to minimize this effect and obtain more balanced monthly values, since it entails a demand for medium and long-term trips not necessarily located in the summer months. In most regions of the country, domestic tourism is also a factor of attenuation of seasonal indices attributable to the foreign market.

However, we cannot only point to investment in domestic tourism as one of the measures to be implemented to balance tourism flows in times of crisis for international tourism. We will have to consider which modalities best can respond to the changing tourism demand and the emergence of new needs.

2.3 Internal Tourism Versus Literary Tourism

Until 2020, although domestic tourism, presented a positive evolution, it was not the subject of special attention by tourism agents because international tourism, also a majority, offered greater economic revenue. Domestic tourism was seen as the "poor relative"—the black sheep of the sector, lacking approaches that evidence its systemic character and allow its proper planning.

Currently, because of the Coronavirus pandemic, numerous campaigns have emerged to encourage domestic tourism, in particular the campaign promoted by Turismo de Portugal, through the "Internal Demand Incentive Program" with the specific objectives of: "stimulating domestic demand, providing an incentive to demand in low season and creating tourism consumption habits in Portugal" (http://www.turismodeportugal.pt).

Thus, it is stressed the need to question the existing tourism offer and enhance the cultural and landscape heritage of the regions, promoting the territories by affirming their cultural identity. It is our belief that literary tourism is a good bet for the diversification of tourist flows and for the formatting of a more segmented and sustainable offer of tourism, with enormous potential to take advantage of, particularly in a country that concentrates important heritage resources that reflect the genius and experiences of several internationally known authors.

Believing, like McCullock (2007), that "(…) Reading is ubiquitous, endless in its demands, limitless in its ability to change individual lives and whole societies" (McCullock, 2007, p. ix), because it evokes emotions, meanings and memories, besides being one of the main activities to disseminate culture in society, literature can be an excellent "engine" for tourism because it connects author and reader who share the same linguistic and semantic code, the same interest in telling stories, and the use of words to express emotions, that is, as Cunha says "is the act of reading that makes us real "travelers" (Cunha, 2001, p. 17; Sardo, 2008, p. 79) looking, not only, for the scenarios described in the book, of the real landscapes or that we imagined, but also in search of the emotions aroused by the words of the author, or of the characters, which led the reader to imaginary worlds. Reading inspires, creating a willingness to make the reading experience a real discovery experience.

In this process, the tourist's expectations are confirmed or, on the contrary, modified by new associations created by the relationship that, however, establishes with the places visited and that awaken in the tourist feelings of nostalgia, emotion, affection, which make the tourist visit an intense personal experience, which transforms it, awakening common values and symbolisms (Herbert, 2001, p. 315).

In fact, in literary tourism, "the experiences of the tourist are not based on space as it is, but as it was seen and recreated by a certain author or character" (Henriques & Quinteiro, 2011, p. 606), given that this type of tourism invites tourists to discover and experience the places of the fictional texts of the works or life of the authors, by the territorial experience of the so-called "literary sites", which are understood as "both those places associated with writers in their real lives and those who provide the setting for their novels" (Herbert, 2001, p. 33; Tetley & Bramwell, 2002, p. 156).

These "literary sites" become tourist attractions because they contain "exceptional qualities", that is, they hold a special and unique meaning as Herbert (2001, p. 314) says "There is a merging of the real and the imagined that give such special meanings. For example, being integrated into a wider tourist itinerary, having good access and good geographical location, accessibility, attractive facilities, restaurants, souvenir shops, among others" (Herbert, 2001, p. 315).

The reader always reveals the desire to "map the imaginary into the actual" (Watson, 2006, p. 201), which is why literary texts can provoke action in the reader and to "add tourist value to a place, [made literary place] which, in turn, originates any tourist practice" (Baleiro & Quinteiro, 2014, p. 12).

The tourist travels to literary places, convinced that these places only exist because it was/is real the author of the books that stimulated his imagination and the desire to travel. In this sense, narrative fiction is the driving force of the tourist/reader, contributing to shape not only the places, but also the way the tourist will feel and live them, which allows us to speak in tourist experience and that Walter Hugo so well characterizes, when he refers to his "intention to use the book as a machine to make them feel" (Mãe, 2015, p. 11).

The literary tourist has, as main motivation, the desire to revive emotions, emotions that he experienced during a literary experience. This will be related to the fact that the individual feels the need to make this same experience real by associating it with a physical space, in a way that literature is not only interconnected to something fictitious, adding credibility to it, alluding to a certain space, which is closely linked to literary work (Sardo, 2009; Coutinho et. al., 2016).

At the same time, as Fernandes points out, "literary heritage is an important means of preserving singularities and local identity, that differentiates it from the other territories, preventing the tourism destination from going into the growing trend of homogenization and globalization" (Fernandes, 2017, p. 584), and is today one of the main tourist factors in the several localities because tourists are increasingly looking for unique experiences—understood as personal, non-transferable, and intangible—and differentiating, which leads tourism to move in a new direction other than massification.

Thus, Fernandes (2017) adds that "literary tourism becomes able to promote "new scenarios" and attract new audiences, configuring itself as an alternative (or complement, contributing to the extension of the stay) to other forms of tourism and essential in attracting tourism flows during the low season and to more peripheral places, essentially with lower density and demand" (Fernandes, 2017, p. 584) given that the current tourist wants to participate behind the scenes of the places he visits, he wants a tourist experience, which according to Trigo only happens if "[…] travel…

overcome banality, trivial, stereotyped and conventional aspects, and structure itself as an experience that is born from the personal wealth of the traveler, in search of moments and places that enrich its history" (Trigo, 2010, p. 35).

Therefore, the creation of "memories", references that connect—affectively—the tourist to the destination should be encouraged so that the memories last longer.

Literary tourism, when designing itself as a local-based activity, will therefore be an alternative strategy of harmonization between globalization (external) and local (internal) development that allows maintaining local identity as a factor of attractiveness, building a strengthening of community participation, and fostering public and private investments, for the conservation and recovery of the sociocultural and physical environment of the city.

Another characteristic that makes literary tourism a strategic segment is the fact that it is characterized by establishing seasonal harmony, that is, not being practiced specifically at a given time of year, which is a key factor in combating the seasonality of several cloistered destinations, for example, in the offer of sun and sea, during the summer months. Stays of this tourist modality are usually shorter and therefore less dependent on time (they can often be done on weekends) or weather conditions (visits can be made at any time of the year).

3 Literary Tourism in Porto

The city of Porto has been an important tourism destination capturing a significantly growing number of tourists until February 2020. In 2018, Porto had 281 hotel establishments representing 4,091,975 overnight stays. According to the available data of the Regional Tourism Authority of Porto and North of Portugal (ERTPNP) and the National Institute of Statistics, in 2018 the accommodation capacity per 100 inhabitants was 92.6, with a ratio of 9.3 guests per inhabitant, a value much higher than the national average of 41.1 and 2.5, respectively, and which also had an impact on the ratio of income/accommodation that at national level was 7.1 thousand Euros and in Porto the value amounted to 10.5 thousand Euros (INE, 2018, 2019).

Porto has undergone a modernization process that has led to substantial improvement of tourist infrastructure, supply, and the national and international image of the city. These changes, together with the creation of public–private partnerships to promote the city, provided the development of the leisure segment. Porto saw its identity reborn by being valued and recovered much of its cultural heritage (material and immaterial) and became the great gateway and/or starting point for a travel through the natural and cultural diversity of the region with a heritage that knows how to combine the antiquity of monuments with the contemporaneity of striking buildings and living spaces.

Now, at a time when the city is projecting internationally to host increasingly significant tourist flows, the COVID-19 pandemic has a very strong impact on the city's economic life, notably because foreign tourism is virtually null.

Thus, the city of Porto, like all tourism destinations, will have to re-invent itself to overcome the difficulties resulting from the pandemic. It will have to invest in strategies to win back its visitors/tourists at an early stage from internal flows. Known for presenting extensive historical, cultural, and natural tourist attractions, it will be opportune and pertinent to invest in experiences of a cultural-creative-literary tourist segment to which we easily associate literary tourism as a tourism of experiences that is based on a diverse range of proposals: writing workshops, literature workshops for national and foreign tourists, street entertainment, public readings, cycles, conferences and debates, visits with current authors such as guides, theatrical visits, thematic gastronomic experiences, musical experiences adapted from literature or even literary scripts. Believing, like Sophia de Mello Breyner Andresen that "poems are born from places," we dare to affirm that one of the ways of knowing places is through literary works and, more than that, we can make them reborn through literature, that is, we can make them gain new life, make them known through these literary works. This way, we are able to connect the visitor to the local identity itself and, in turn, the local inhabitant (also a reader), feeling a little owner of the "brand", seeks to explore what the work produces. Literary tourism makes the city re-read the works, establishes bridges between the imagined and the real. The city is transformed into text, re-read. Thus, there is a relationship between visitors and locals, a relationship that, having as an intersection the literature, contributes to the construction of local cultural citizenship. Literature provokes life through the revisited city, now alive, suggesting another visit to literary works.

4 Destination Porto: The Tourist Itineraries as Proposals of Literary Tourism

This new look at tourism has allowed to broaden the reflection on tourist practices by equating tourism according to its spatial and temporal implications, giving priority to the perception of the subjects in and about their trip. In this perspective, as Figueira (2013) says "the design of routes and itineraries can be considered as a structuring activity of the offer in a tourism destination, characterizing the tourism product and activate the dissemination, of a specific culture to the market, from the local to the international" (Figueira, 2013, p. 25).

To evaluate the interest of tourists/visitors of the city of Porto in literary tourism proposals, in particular literary itineraries, we designed a questionnaire that was presented to a sample of 272 individuals, 200 were national tourists/visitors, and 72 foreign visitors. In conducting this survey during the summer of 2020, we believe that this distribution was strongly influenced by the constraints imposed by the COVID-19 pandemic, already revealing the importance of internal flows.

In a first approach, we can see from the table below (which combines some variables divided between nationals and foreigners in the city of Porto) that the literary interest between these two types of tourists/visitors are similar because

Table 1 Literary interests of Portuguese and foreign tourists/visitors

	Reading level		Number of books real, on average per year		Would participate in literary itineraries
Portuguese tourists/visitors	Null Weak (2.3) Medium (4.5) High (6.7)	5% 30.5% 40.5% 14%	Less than 5 Between 5 e 10 More than 10	59.5% 29.5% 11%	Yes 65.9% No 3.7%
Foreign tourists/visitors	Null Weak (2.3) Medium (4.5) High (6.7)	0.0% 22.0% 33.0% 15.0%	Less than 5 Between 5 e 10 More than 10	27.8% 48.6% 23.6%	Yes 95.2% No 4.8%

Source Own elaboration

there are no great differences between both in the aspects contemplated. One of the variables presented in the table is the reading level of the group, according to its self-consideration, referred to on a scale from 1 to 7 (being 1, Null and 7, Avid). As expected, predominated average readers in both groups (40.3 and 33%, respectively, for Portuguese and foreigners); however, when the indicator analyzed is the number of books read, on average, per year, the differences are abyssal. Portuguese tourists/visitors who during the year do not even read 5 books are about 60%, while among foreigners this percentage is reduced to only 27.8% (Table 1). It should also be noted that the interest in literary routes is significant in both audiences, although it is superior in the case of foreign tourists/visitors in which, more than 95%, it expresses interest in participating.

Convinced that there is interest in literary routes, we present below an analysis of the motivations of tourists who currently travel to the city of Porto. We have used the analysis of variance (ANOVA) based on which we could cross the information and understand which variables most impact the results and understand which characteristics of the sociodemographic profile of the sample interfere in their personal interests for literary tourism proposals, their motivations for participating in literary routes and under what circumstances.

As it is an exhaustive analysis of the variants under study, crossing all the indicators to evaluate their relationships, in this work we will only refer to the statistically more significant connections, in relation to the motivations of tourists/visitors to participate in literary itineraries, presenting the profile of tourists/visitors who may constitute a target of new tourist proposals in the city of Porto.

Thus, we begin by highlighting the relationship between the academic degree and the type of interest expressed by the respondents in participating in a literary route (Table 2).

As shown in the table above, the respondents with master's degrees are those who most highlight the importance of literary routes, considering them essentially as opportunities to learn new things, the possibility of cultural enrichment and of experiencing places associated with literary works. As it would be expected this is

Table 2 Reasons for interest in participating in a literary route, according to the literary qualifications

Academic degree	Learning new things	Seek cultural enrichment	Experience places associated with literary works
Secondary education	3.77	3.70	3.27
Degree	4.10	4.24	4.00
Masters	4.35	4.35	4.11
Doctorate	4.17	4.08	3.92

Source Own elaboration

Table 3 Reasons for interest in participating in a literary script, according to the employment situation

Employment situation	Learn new things	Seek cultural enrichment	Experience places associated with literary works	Participate in tourism programs to improve tourist experience
Unemployed	2.43	2.43	2.43	2.43
Student	4.25	4.18	3.86	3.86
Retired/Pensioner	4.26	4.53	4.42	4.05
Full-time worker	4.19	4.26	3.96	3.70
Part-time worker	4.36	4.00	3.93	3.07

Source Own elaboration

a closely shared opinion by individuals with PhD and decreases as the academic degree decreases.

Considering the employment situation at the same time (Table 3), we can detect that the range of interests is wider and that pensioners are the group that most seeks literary itineraries as the opportunity for cultural enrichment and to experience places associated with literary works. In addition, it is mentioned the fact that they improve their tourist experience. It is the part-time workers who most highlight the literary itineraries as a means of learning new things.

Comparing this employment situation with the net income of respondents, we verified, by analyzing Table 4, people who have a monthly income between 2001 and 3000€ are the ones who most value tourist itineraries as opportunities to learn new things and experience places associated with literary works. They believe a literary route will combine literary characteristics, environment, and history and provide cultural enrichment, positioning Porto as a major tourism destination.

It should also be noted that the tourists/visitors that least value literary itineraries as a tourist proposal are those whose monthly income is below 3000€.

The following table shows us the reasons why foreign tourists see Porto as an interesting literary itinerary. Their motivations are essentially limited to the search for cultural enrichment and the opportunity to understand a literary work visiting the

Table 4 Reasons for interest in participating in a literary route, according to the level of income

Income	Learn new things	Seek cultural enrichment	Experience places associated with literary works	Participate in tourism programs to improve tourist experience	Combine characters, environment, and history	Confirm my expectation in relation to Porto as a tourism destination
DK/DA	4.07	4.10	3.60	3.73	3.63	3.47
(−) de 1000€	3.97	3.83	3.90	3.24	3.66	3.17
1001–2000€	4.25	4.32	3.88	3.57	3.67	3.76
2001–3000€	4.32	4.42	4.28	4.05	4.11	4.00
(+) de 3000€	3.57	3.57	3.57	3.43	3.29	3.71

Source Own elaboration

associated places. Italians are the people who value literary itineraries the most it should be highlighted that national tourists also value literary itineraries as a means of cultural enrichment (Table 5).

The reasons for the interest in participating in literary itineraries presented by the tourists/visitors travel group (Table 6), are cultural enrichment, see things that otherwise wouldn't be seen (who enjoy traveling in family group), and the opportunity to experience places associated with literary works (who enjoy traveling alone).

Tourists who stay in the city more than 10 days show that their interest in participating in literary routes is more influenced by the fact that they can know new things and improve their cultural knowledge (Table 7).

Evaluating the correlation between the reasons for traveling and the interest in participating in a literary route, tourists visiting relatives are the ones who are most interested in participating in a literary route. They believe a literary route will offer an opportunity to learn new things, experience places associated with literary works, see things that otherwise wouldn't be seen, understand literary works better. Moreover, it also broadens one's horizons and improves tourist experience (Table 8).

Table 5 Analysis of the reasons for interest in participating in a literary itinerary, by country of origin

Origin	Seek cultural enrichment	Better understand the literary work visiting places
Portugal	4.22	3.67
Spain	3.40	3.90
France	4.46	4.62
Other	4.40	4.20
Italy	4.50	4.50
Germany	3.50	4.00

Source Own elaboration

Table 6 Analysis of the reasons for interest in participating in a literary route, by travel group

Travel group	Seek cultural enrichment	Experience places associated with literary works	See things I don't normally see
Alone	4.13	4.63	3.75
W/ husband/wife	4.29	4.12	3.97
W/ family members	4.37	3.88	4.25
W/ friends	3.99	3.71	3.99
W/ daughter/son	3.00	4.00	2.00

Source Own elaboration

Table 7 Reasons for interest in participating in a literary route, depending on the length of stay

Stay	Learning new things	Seek cultural enrichment
No overnight;	4.08	3.92
1–2 nights	3.83	3.74
3–5 nights	4.27	4.40
6–10 nights	4.32	4.37
(+) de 10 nights	4.60	4.60

Source Own elaboration

Table 8 Reasons for interest in participating in a literary route, depending on the reason for travelling

reason(s) for travelling	Learn new things	Seek cultural enrichment	Experience places associated with literary works	Participate in tourism programs to improve tourist experience	See things that normally are not seen	Better understand the literary work visiting places
Holidays/Leisure	4.15	4.23	3.86	3.62	3.99	3.75
Visit family members	4.55	4.65	4.60	4.30	4.75	4.25
Business	4.00	4.00	4.00	4.00	4.00	4.00
W. and gastronomic T	4.38	3.88	4.25	3.25	4.13	4.25
Shopping	3.38	3.00	3.25	3.25	3.25	2.75
Literary T	4.00	4.00	4.00	3.75	3.75	4.00

Source Own elaboration

This information is particularly interesting when we realize that, regardless the average daily expenditure, the reasons for interest in the itineraries are similar in our visitors but, those who spend more than 200 € daily, consider literary itineraries a way to learn new things, see things that otherwise wouldn't be seen and thus value Porto as a tourism destination. People who spend between 151 and 200€ daily value this way of being able to understand a literary work for the opportunity to visit the places referred therein (Table 9).

Finally, we present the main reasons for the interest in literary itineraries that the respondents highlight the most (Table 10).

When asked about hypothetical opportunities for literary tourism, our respondents say that their priority option would be to know places related to an author's life because they learn new things, know literary works better and improve their culture and knowledge.

Table 9 Reasons for interest in participating in a literary route, depending on the daily expenditure estimation

Daily expenditure	Learn new things	See things I don't' normally see	Better understand the literary work by visiting places	Confirm my expectation of Porto as a tourism destination
DK/DA	3.79	3.68	3.42	3.11
0–50€	4.19	4.15	3.88	3.6
101–150€	3.89	4.31	3.54	3.74
151–200€	4.13	4.07	4.4	3.93
(+) de 200€	4.69	4.46	4.15	4.23
0–50€	4.19	4.15	3.88	3.6

Source Own elaboration

Table 10 Reasons for interest in participating in a literary route, in line with their literary tourism preferences

If I could I prefer	Learning new things	Seek cultural enrichment	To better understand the literary work by visiting places
Know places related to the life of an author	4,31	4,35	3,93
Carry out the itineraries of the characters of literary works	3,72	3,74	3,56
Get to know the different places mentioned in literary works	4,17	4,17	3,57
Any of the above	3,50	4,00	3,00

Source Own elaboration

5 Conclusions

As main conclusions of the analysis presented, this research points out that the level of educational qualifications influences, directly, both the reasons for participating in a literary route and the appreciation that is attributed to it as a travel experience. In fact, tourists/visitors with a master's degree are the ones who most value participating in a literary route as an opportunity for cultural enrichment and those who have a PhD consider literary itineraries as decisive in their tourist experience. These tourists/visitors not only consider participating in one or more itineraries but would also repeat the same destination to participate in a new itinerary.

The same happens when we analyze the tourists'/visitors' income. The respondents who have an income between 2001 and 3000€ are the ones that most value tourist itineraries, underlining its importance in the tourist experience when traveling. This information is in line with the daily expenses during the stay because it is the people who spend more than 200 € per day who show more interest in participating in tourist itineraries and even in repeating the destination to carry out new itineraries. In fact, if we cross-reference the income data of respondents with daily spending during their stay, we can say that there is a direct relationship between these indicators because tourists/visitors with incomes below 1000€ spend between 0 and 50€ when visitors with higher incomes (1001–2000€, 2001–3000€, and more than 3000€) spend, on average, 51–100€ per day. Note, however, that for visitors who have a value of more than 3000€ per month the daily spending forecast is very heterogeneous in the group, distributed very similarly between 0 and 50€ and more than 200€ daily.

Tourists who stay more than 10 nights are the ones who show the most interest in participating in literary itineraries and those who do not stay overnight or stay 1–2 nights or 3–5 nights are those who are most available to extend their stay to carry out an itinerary or even repeat the destination to participate in new itineraries, what seems plausible to us since a longer stay, especially when the destination is repeated there is an opportunity to carry out one or more literary itineraries and, these are reasons for increasing satisfaction with the tourist experience.

Of all visitors/tourists surveyed, pensioners reveal not only a wider range of literary motivations but also those who are most available to carry out the literary itineraries even if they need to extend the trip or repeat the destination.

This first approach allows us to reinforce the idea that literary tourism is today a form of tourism to nudge and reinforce because even national tourists/visitors with fewer reading habits, when moving in the national territory, feel motivated by proposals that include the knowledge of the life and work of an author, i.e., there is interest in these tourist proposals. The literary itineraries will be an added value in terms of differentiated and competitive offer for Porto as an increasing tourism destination in national and international terms, which will constitute a more sustainable business opportunity based on a local identity that can be strengthened as a way of valuing the tourist activity itself. In addition, the image of the tourism destination is increasingly an important tool to be worked on in the process of tourism development of a locality because a positive image of the destination acts as a competitive differential in the market and can provide the basis to the economy and sustainable development of this locality, which will allow to expand its power in the tourism markets. By also associating to Porto this brand of literary tourism, we will be building and positioning in the market a differentiating product that can attract new consumers, renewing the image of the destination which retains and attracts new visitors.

Acknowledgements The authors acknowledge the financial support of CiTUR, R&D unit funded by the FCT—Portuguese Foundation for the Development of Science and Technology, Ministry of Science, Technology and Higher Education, under the scope of the project UID/BP/04470/2020.

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Emoji Use in Research about Tourism and Recreational Activities Preferences for Children with Disabilities

Georgia Yfantidou, Dimitrios Balidis, Charikleia Patsi, Panagiota Balaska, Eleni Spyridopoulou, and Despoina Antoniadou

Abstract Tourism for people with disabilities offers entertainment, improves both mental and physical health, as well as socialization and contributes significantly to improving their quality of life. The purpose of this study was to reveal, with the use of emoji, the preferences of children with disabilities regarding their participation in recreational activities during the holidays. For this purpose, an electronic questionnaire was developed, which included questions with emoji. The research sample consisted of 72 children with motor and intellectual disabilities and sensory disorders. The results of the research showed that the majority stated that they like to socialize with other children and that they would like to participate in various games and activities during their vacation. Finding new friends and avoiding the feeling of loneliness was the most important reason for their participation in recreational activities during their holidays. Their participation contributed significantly to the cultivation and maintenance of their autonomy, the prevention of depression and the development of sociability. The results of the present research can significantly contribute to the design of services provided in the field of tourism.

Keywords Emoji · Information and communication technologies · Disability · Tourism · Recreational activities

G. Yfantidou (✉) · E. Spyridopoulou
Department of Physical Education and Sport Science, Democritus University of Thrace, Komotini, Greece
e-mail: gifantid@phyed.duth.gr

D. Balidis
School of Social Sciences, Hellenic Open University, Patra, Greece

P. Balaska
Department of Physical Education and Sport Science, Aristotle University of Thessaloniki, Thessaloniki, Greece

C. Patsi
Department of Physical Education and Sport Science (Serres Dep.), Aristotle University of Thessaloniki, Serres, Greece

D. Antoniadou
Thessaloniki, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_51

JEL Classification L83 · Sports · Gambling · Restaurants · Recreation · Tourism

1 Introduction

The World Health Organization (WHO, 2001) states that disability is defined as a restriction on the performance of an activity and is not just a medical condition or a different appearance or any damage (Sherrill, 2015). Disability is a factor that affects a person's life in many ways. People with disabilities have fewer opportunities for medical care, less access to education and opportunities in the workplace and are more likely to have a low standard of living compared to people without disabilities. All the aforementioned can be caused by many factors, including the lack of physical access to buildings, public transportation, social stigma and lack of services (WHO, 2020).

About 15% of the world's population, over one billion people have some form of disability and 2–4% have significant functional difficulties. Many people need digital devices, vision devices, wheelchairs or hearing aids. In recent years, there has been an effort to understand disability and the interest has shifted from the medical model to the ecological one that takes into account the physical, social and political context of the individual. Today, disability is considered to arise from the interaction between a person's state of health and the multiple environmental factors that affect him or her. For this reason, many measures have been taken so that the world should be more accessible to people with disabilities (WHO, 2020).

Tourism is an important socio-economic phenomenon as it develops dynamically and evolves by the existing economic and social standards. Recreational activities and vacations are an important part of people's lives as they result in the promotion of health, the cultivation of self-confidence and independence and are an escape from the routine of everyday life (Zioumbiloudi, 2014). Participation in tourism is a basic social right and the tourism industry can be a positive contribution to the satisfaction of this right. People during a trip have high expectations and seek to experience positive knowledge from their visit to a destination (Sigala, 2014).

Sports tourism is a form of tourism that is growing worldwide for people with disabilities (Yfantidou et al., 2018). Sports tourism includes (a) active and passive involvement with sports activities, (b) participation in random or organized activities, (c) the personal experience not related to commercial or professional reasons, and (d) leisure trips to destinations far from the area of home or work (Standeven & De Knop, 1999). The participation of people with and without disabilities in leisure travel can improve their quality of life (Shi et al., 2012). People with disabilities participate in physical activities, exercises, and leisure programs so as to gain benefits in terms of their physical and mental health (Theodorakis, 2010). They seek access to such recreational and entertainment services, and they constitute a large and growing tourist market. Although they face more obstacles and challenges, it is a fact that they travel for long periods of low traffic, are devoted and loyal customers and are willing to repeat the journey at the same destination (Yfantidou et al., 2018). Darcy

(1997) states that 74% of people with disabilities who travel express a desire to travel more if there is an improvement in their overall travel experience.

Sports and recreational activities offer an added competitive value to tourism as the person who travels becomes aware and connects emotionally with the destination. If the experience has a high percentage of satisfaction for the individual, then this will result in the strengthening of the devotion but also the cultivation of the desire to experience and to repeat the journey again (Paitsinis, Kostas & Yfantidou, 2015).

The participation at recreational activities and vacations helps people with disabilities to escape from everyday life, to strengthen family ties, to promote health, self-confidence, and independence. People with disabilities face many obstacles when participating in leisure and exercise activities due to the difficulty in accessing destinations, facilities, means of transport, appropriate information but also, they meet barriers at communication, behavior, finding accommodation that is accessible and has value for money. Zioumbiloudi (2014) revealed the dimensions of accessibility of sports tourists with disabilities in relation to tourist accommodation and sports facilities, the dimensions of their human needs, their preferences regarding the type of accommodation and their travel habits. It is important to understand various parameters and to respond to these needs by designing products and services, especially for sports and recreational services for children with disabilities.

2 Literature Review

2.1 Emoji

The evolution of information and communication technologies has led to the improvement of written messages and the reshaping of the form of written speech. During the exchange of information, digital skills based on graphics and images limit the time of writing a message without losing the importance of content and in addition add meaning to a written message (Thompson & Filik, 2016). In everyday communication, emojis (emoticons and ideograms) are widely popular. Their combination with the text enables the reader to understand the type of emotional nature of the message and thus, the emotional state of the individual during the process of coding and decoding the message (Danesi, 2016).

Emojis are small digital images or icons, which are used to express an idea or emotion through electronic communication. They have significantly changed the way people communicate, adding a different stigma to a written text. They are an optional, universal language and tend to reflect, or in some cases replace, algorithms and words exchanged by individuals in the digital virtual environment (Sternbergh, 2014). This phenomenon has already spread and more than 90% of online users embed emoji in their texts and emails (Kaye et al., 2017). However, the absence of audio or body language can result in misunderstandings and misinterpretations from online communication between users.

The etymology of the word emoji is the English version of two Japanese word letters: (a) the letter "e" which means image and (b) the word "moji", which means character. They represent colorful, contemporary illustrated forms and facial expressions, objects and symbols, ideas from celebrations, weather and buildings, food and plants, emotions and activities (Bliss-Carroll, 2016; Evans, 2017; Novak et al., 2015; Tandyonomanu & Tsurovya, 2018). Emoji appeared in Japan in the late twentieth century to facilitate digital communication (Novak et al., 2015), they were embedded in Android operating systems in 2013, Apple devices in 2015, and operating systems in all browsers of Windows 10 in 2015 (Evans, 2017). They appear as an evolution of emoticons, which were used as collections and as formations of various keyboard characters, to express emotions or complement tone in online communications (Bliss-Carroll, 2016). Emoticons are the illustrated representation of a facial expression using characters that usually consist of punctuation, numbers and letters. They are used to express the feelings or mood of the person, but also as a way to save time on the text message.

The recent emoticons were the forerunners of modern emojis, which are constantly evolving on iOS and Android devices. They were created by Scott Fahlman in 1982 but essentially came from the PLATO IV computer system in 1972 (PLATO Emoticons). Emoticons, such as smile expression:-), are often used especially on many laptops that do not have emoji symbols or shortcuts. However, as smartphones became more prevalent with the widespread of emoji use options, their use has become predominant (Kaye et al., 2017).

The international release of emoji took place in 2011 on Apple iOS5 devices (Skiba, 2016). They were proposed in the 1990s by Shegetaka Kurita, who created them while working for a mobile phone company in Japan, to facilitate communication between users on mobile phones (Negishi, 2014). According to Kurita, the Japanese traditionally wrote large letters to communicate, and the shortening of simple messages sometimes created misinterpretations. He also pointed out that either live communication or mobile phone communication provided data to assess their mood or emotions (Blagdon, 2013; Skiba, 2016).

New emojis are constantly being added with each software update and as a result, in June 2018, more than 2,823 new emojis have been added to the standard Unicode system (international coding system for digital platforms and programs) (Emojipedia, 2018; Novak et al., 2015). This number continues to grow exponentially worldwide, crossing borders, representing nationalities, gender identities, and more. The constant preference and interest in the use of non-verbal cues in live communication focused the interest and attention on how to use these elements in the written text. Emojis gave color and intention to words, which would otherwise be absent from non-verbal communication (Crombie, 2020).

Nowadays, mobile phone technology allows people to maintain communication and contact with each other constantly. In the Netherlands, 98.2% of young people between 12 and 24 years old have a mobile phone and internet access (Central Bureau voor Statistiek, 2017). By this important means, even the gradual replacement of face-to-face contact with technology (Rafla et al., 2014) can contribute positively to mental health and therapy of young people (Gipson et al., 2017; Powell et al., 2017; Rafla et al., 2014). Weisz and colleagues (2017) conducted a meta-analysis study regarding the therapies that implement in the mental state of young people over the last five decades. Significant positive therapy outcomes had been reported regarding anxiety and depression but not for the multiple problems that young people had to confront (Weisz et al., 2017). To enhance the therapeutic effects, the researchers suggested additional therapy in daily life for individuals and individualization through additional support applications such as alternative drug therapy, wireless devices and traditional interventions (Ng & Weisz, 2016; Weisz et al., 2017). In this study, the development of a G-Moji, a health-related intervention, was studied and the purpose was to use technology to enhance therapy, to increase the diffusion of interventions and enable specialists to have access to a greater variety of alternative therapies (Clough & Casey, 2015). The advantages of technologically advanced therapies are the reduced cost as well as the possibility for the users to play an active role in the therapy process and to have better results and positive effects.

2.2 Emoji and People with Disabilities

About 90% of people with intellectual disabilities face communication problems and about half of them have significant communication deficits. Those problems can affect their expression, comprehension, functional and social skills (Bradshaw, 2011). The use of questionnaires with complex sentence structure such as the use of passive voice and also difficult, long and unfamiliar words can be a challenge. Difficulties may arise with questions that require judgment, frequency, grade or quantity and immediate comparison. Questions with social content, abstraction, generalized decisions as well as unknown content could also be a problem (Finlay & Lyons, 2001). Placing answers in a predetermined answer choice requires abstract thinking and that is probably difficult for some individuals with intellectual disabilities. Questionnaires in which individuals with intellectual disabilities have to record their point of view could be a challenge, some of them have limited or not at all reading and writing skills (Katims, 2001). Reading is a complex skill that requires coding words, knowing the rules of grammar as well as understanding the content (Fajardo et al., 2014). People with intellectual disabilities face difficulty regarding reading skills (Conners, 2003).

Various strategies have been proposed in order to improve the validity of the responses of individuals with intellectual disabilities. The difficulty of a subject can be diminished by using visual representation (images), by simple questions and phrases and by the use of clarifying questions (Finlay & Lyons, 2001; Hartley & MacLean, 2006). There are multiple ways to make information accessible such as video and audio use and face-to-face communication (Walmsley, 2009; Oldreive & Waight, 2013).

Today's society, regarding mental health issues, faces multiple challenges especially for adolescents and pre-adolescents (Central Bureau of Statistic, 2017). Emoji, from the Japanese e (image) and moji (character), are graphic symbols. They offer a new way of communication regarding the expression of emotions and individuals' mood state and they are already incorporated in daily life through the use of digital devices and social media. Users should carefully use emoticons and emojis, especially as concerns about cultural differences can lead to different interpretations similar to emoji and misunderstandings (Takahashi et al., 2017). There are also gender differences as girls prefer to use emojis more than boys (Prada et al., 2018). Despite the differences, however, emoji can have positive effects on the communication skills of young individuals, allowing them to express their emotional state and better comprehend the challenges (Skiba, 2016). Nevertheless, there are not enough studies regarding the emoji use for young individuals with and without mental disorders (Van Dam et al., 2019).

New technology smart phones contribute to collecting multiple data, where behaviors are repeatedly evaluated in an individual natural environment. With this type of data, health hazard issues could be predicted, apprehended and opportunities could be arisen for interventions in order for individuals to self-monitor their activity. Emoji can have positive effects on communication skills with the externalization of the emotional state of young individuals.

Most studies support good practices regarding health and social care and tend to foster social groups that can have access to applications which are relevant to health as well as to comprehend information more easily (individuals can reciprocate in typically interviews and to communicate) (Beadle-Brown et al., 2012). Even though research on inclusion has been growing rapidly since the early 2000s, the recording of the views of individuals with intellectual disabilities is not happening very often in studies (Williams et al., 2015). It requires, among other things, forceful but also adapted techniques for data collection.

Timpenny and colleagues (2018) studied and evaluated the development of a new version of the ASCOT questionnaire (Adult Social Care Outcomes Toolkit) regarding easier reading, based on the original version. In particular, the purpose of the study was to create a tool that would be easily comprehended by individuals with intellectual disabilities and would minimize the difficulty of apprehension the content. Another purpose of the study was to decrease the need for help as much as possible. The sample of the study consisted of 32 individuals with intellectual disabilities and autism spectrum disorders (ASD) (13 women, 19 men), aged from 20 to 60 years old. A group of people with disabilities was the one that worked and evaluated the questions in order to encompass both with the most appropriate, the images and the words that would be used. There were 8 control groups from the 32 individuals with intellectual disability and ASD so as to evaluate various factors of the tool and to provide feedback. Significant changes were carried out to the questionnaire such as in pictures, on words and in possible answers. The procedure highlighted the benefits from the participation of people with disabilities in the design and control of the tools that contribute to data collection. Adapted questionnaires could be useful tools for gathering information from people with disabilities as far as concerned of the results of the study it was found that most of the participants could use the questionnaire and answer the questions to some extent.

2.3 Purpose of the Study

The purpose of the present study was to transcript the preferences of children with a disability regarding their participation in games and recreational activities during holidays. In addition, to study whether there is an effect from the nature of disability in accessibility and in the perception of the importance of activities. Finally, to study the effect of education on the evaluation of the characteristics of the provided services in sports and recreational activities.

3 Methodology

3.1 Sample

The research's sample is made up of 72 children with disabilities (n = 72) from the prefecture of Attica, Greece. Thanks to the rehabilitation centers for children with neurological, intellectual, sensory, motor, developmental and learning disabilities, a connection was established with the parents of the participants.

3.2 Questionnaire

The research's questionnaire is based on a previous questionnaire of Yfantidou et al. (2018) customized into a more children's friendly version with disabilities. With the addition of children-oriented questions focused on their leisure and accessibility, the questionnaire includes 32 closed-ended questions of which 5 are expressed with digital emoji icons:

- 4 Dichotomous (Yes–No)
- 11 Multiple Choices
- 8 questions with a total of 32 Calibration sub-questions (Likert scale 1 = Min to 5 = Max)
- 9 Demographic Questions.

The choice of this form of a questionnaire with digital emoji icons was made because advantages in the emotional measurement of an experience are shown (Jaeger et al., 2018). Their use facilitates the respondent to express oneself while capturing moods and emotions (Alismail & Zhang, 2018). The fact that they are now used by 92% of the internet-connected population makes them as popular and reliable as traditional text-based questionnaires (Marengo et al., 2017).

3.3 Process

For the distribution of the questionnaires, families with children with disabilities were selected through the rehabilitation and treatment centers visited by children with neurological, intellectual, mental, motor, developmental and learning disorders. These families are in demand for tourism and show interest in children's recreational and sports activities during the holidays. Due to the restrictive measures to prevent the transmission of Covid-19, a digital questionnaire was chosen to be given to the parents of the children and for their completion parents' or escorts' help was requested, where this was deemed necessary.

3.4 Data Analysis

For the data analysis, the statistical program SPSS was used and descriptive statistics were applied for the extraction of the averages in the demographic characteristics and the participation rates and preferences.

4 Results

4.1 Demographics

The results from descriptive statistics showed that 72.2% of the survey's participants were boys and 27.8% girls. 40.3% were above 12 years old, 30.6% were 9–11 years old, 23.6% were 6–8 years old and 5.6% were 3–5 years old (Fig. 1).

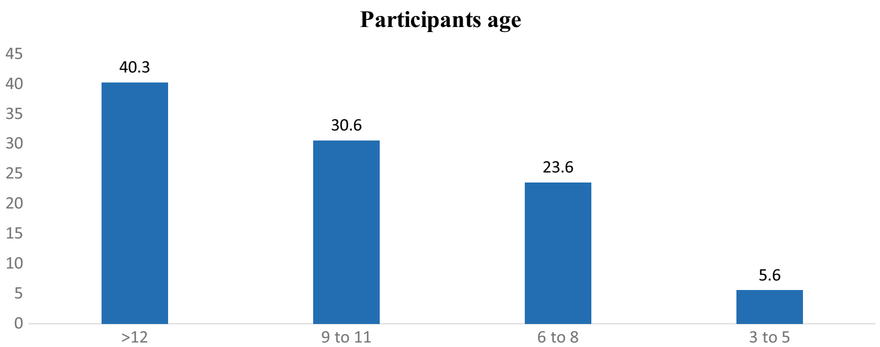


Fig. 1 Participants' age

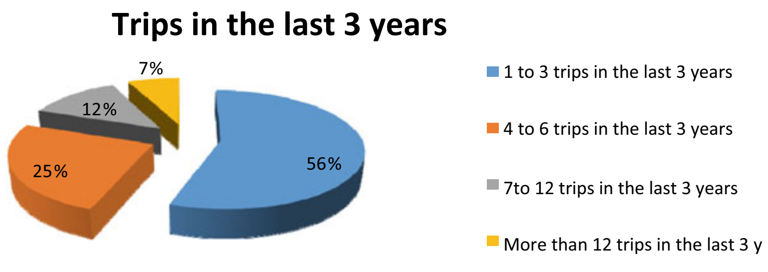
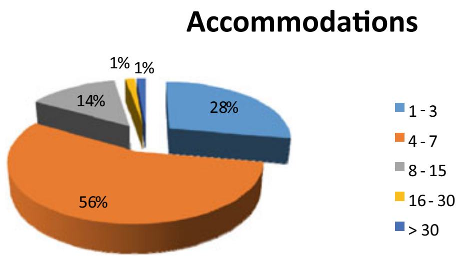


Fig. 2 Trips in the last 3 years

Fig. 3 Accommodations in leisure travel



4.2 *Leisure Tourism in the Last Three years*

According to the results, the largest percentage of the sample (56%) traveled for tourism (with family or with an escort) from 1 to 3 times in the last three years. A percentage of 25% made 4 to 6 trips, a percentage of 12% made 7 to 12 trips while more than 12 trips were made by 7% of the sample (Fig. 2).

Regarding the number of accommodations in leisure travel, the results showed that the largest percentage (56%) stayed from 4 to 7 nights, while 28% stayed from 1 to 3 nights. 14% stayed from 8 to 15 nights, while 2% stayed over 16 nights (Fig. 3).

4.3 *Type of Disability*

47.2% of the participants were children with motor disabilities, 41.7% children are with intellectual disabilities, while 11.1% children have sensory disabilities (Fig. 4).

4.4 *Frequency of Participation*

Regarding the frequency of children participating in recreational and sports activities in their daily life, the results showed that 31.9% participated in a limited way, 37.5%

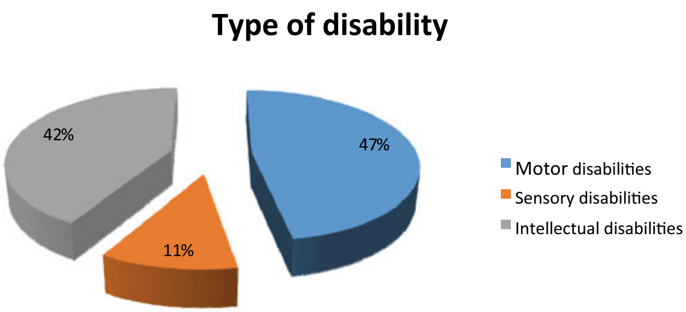


Fig. 4 Type of disability

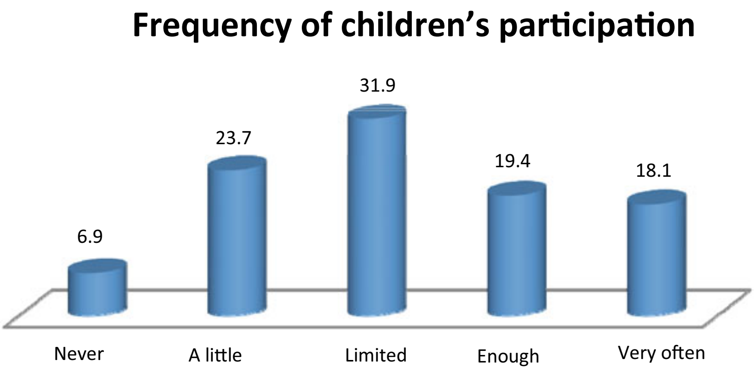


Fig. 5 Frequency of participation

(cumulatively) participated quite often or very often, while 30.6% participated a little or did not participate at all (Fig. 5).

4.5 Reasons to Participate in the Game

According to the samples' answers, which were given personally or with the parents' or guardians' help, 83.3% stated that they like to play with other children and 84.7% that they would like to participate in various games and activities during their vacations.

The results of the reasons for participating in games and activities showed the highest percentage of 37.5% "To make friends" followed by 30.6% "Not to feel lonely" and 24% "To have fun". The lowest percentage with 1% was noted in "To rest from reading" (Fig. 6).

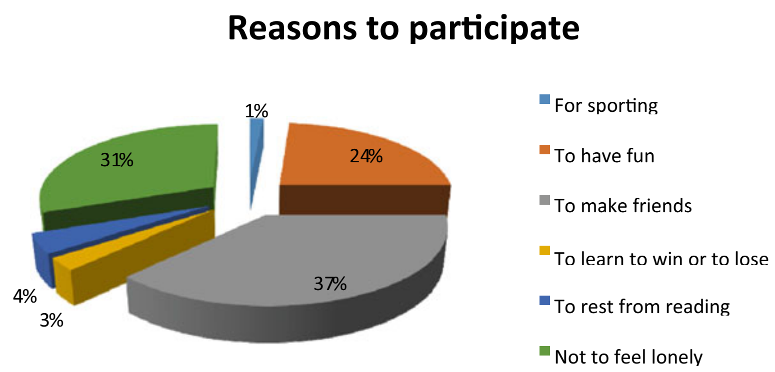


Fig. 6 Reasons to participate in the game

4.6 *Type of Activity According to Children*

Regarding the type of activity chosen by the sample, the largest percentage was recorded in “Games in the pool” and “Games at the Sea” which gathered 50.7%. The lowest percentage was recorded in “Cycling” and in “Ball Games” (Fig. 7).

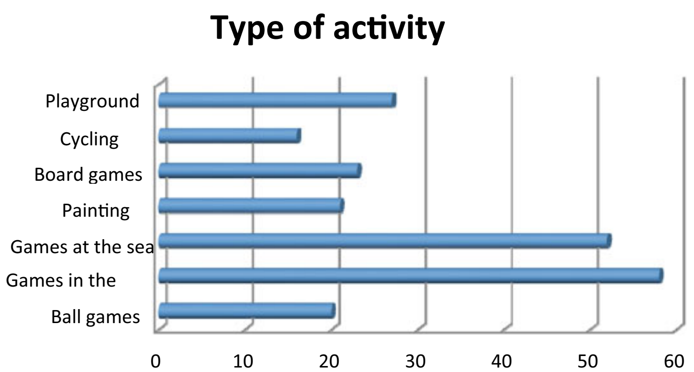


Fig. 7 Type of activity

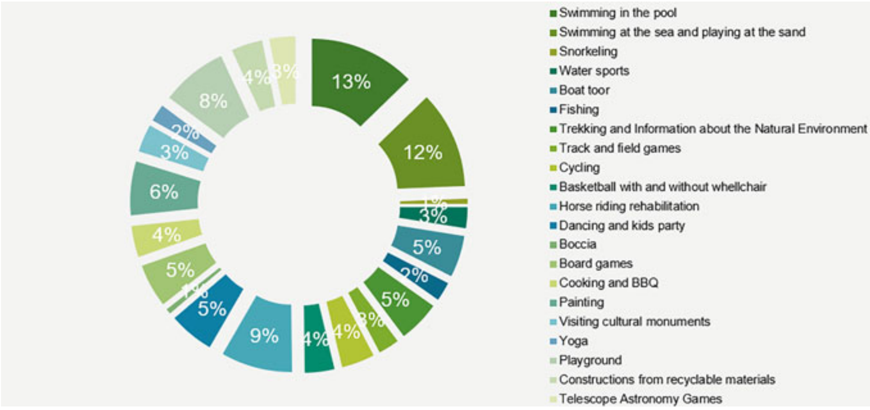


Fig. 8 Type of activity *according to their parents*

4.7 Type of Activity According to Their Parents

4.7.1 Impact of Disability Type on Infrastructure Accessibility

In the study on the effect of the type of disability, in terms of the accessibility of tourist infrastructure, the ANOVA analysis was performed and no statistically significant effect of the independent factor on the dependent was found ($p > 0.05$) (Fig. 8).

More specifically:

- In accessible rooms: $F_{(2.71)} = 2.696$, $p > 0.05$
- In the accessible public areas: $F_{(2.71)} = 1.854$, $p > 0.05$
- In the accessible exterior layout: $F_{(2.71)} = 1,.70$, $p > 0.05$
- In accessible means of transport: $F_{(2.71)} = 0.528$, $p > 0.05$
- In the accessible archeological and cultural sites: $F_{(2.71)} = 1,.61$, $p > 0.05$
- In accessible leisure activities: $F_{(2.71)} = 0.174$, $p > 0.05$.

4.7.2 Impact of Disability Type on the Importance of the Activities

The ANOVA test for the impact of disability type on the importance of participating in sports and leisure activities during the vacations did not show a statistically significant difference. The independent variable was the "type of disability" (motor, sensory and intellectual) and the dependent variable was the "importance of participation" in recreational and sports activities, where $F_{(2.72)} = 1.130$ and $p > 0.05$ (Means: Motor = 4.67, Sensory = 4.62, Intellectual = 4.40).

4.8 Influence of Education on the Evaluation of the Characteristics of Services Provided in Sports and Leisure Activities

In the third study, the ANOVA variance analysis was used, in terms of the effect of education, on the evaluation of the characteristics of the offered sports and leisure activities. No statistically significant difference was recorded, and the following are reported:

- The variety of activities: $F_{(3.72)} = 1.110, p > 0.05$
- The quality/originality of activities: $F_{(3.72)} = 0.911, p > 0.05$
- The physical abilities of the trainers: $F_{(3.72)} = 0.564, p > 0.05$
- The auxiliary equipment: $F_{(3.72)} = 1.790, p > 0.05$
- The music investment: $F_{(3.72)} = 1.594, p > 0.05$
- The investment in building relationships with other children: $F_{(3.72)} = 2.336, p > 0.05$
- The image of the organism: $F_{(3.72)} = 1.795, p > 0.05$
- The consistency of services and image offered: $F_{(3.72)} = 1.296, p > 0.05$
- The size of the installations: $F_{(3.72)} = 1.093, p > 0.05$
- Rewards to repeat customers: $F_{(3.72)} = 2.281, p > 0.05$
- The provision of counseling services to parents: $F_{(3.72)} = 1.225, p > 0.05$

  Its variability was marginal:

- Accessibility to activities: $F_{(3.72)} = 2.736, p = 0.05$

But, the education factor recorded statistically significant differences in the evaluation of the below characteristics of the offered sports and leisure activities. In cases where ANOVA detected differences in population values, the Sidak multiple comparison test was performed. More specifically:

- The number of therapists-trainers: $F_{(3.72)} = 3.705, p < 0.05$

  Mean IEK/College= 3.42 and Mean University/Technological Ed. Inst.= 4.37

- The behavior and service of therapists: $F_{(3.72)} = 3.086, p < 0.05$

  Mean IEK/College= 4.00 and Mean University/Technological Ed. Inst.= 4.74

- The response of therapists to possible problems: $F_{(3.72)} = 5.378, p < 0.05$

  Mean IEK/College= 3.75 and Mean University/Technological Ed. Inst.= 4.81

- Value for money: $F_{(3.72)} = 6.545, p < 0.05$

  Mean IEK/College= 3.50 and Mean University/Technological Ed. Inst.= 4.67

- Free time of parents: $F_{(3.72)} = 2.975, p < 0.05$

  Mean IEK/College= 3.42 and Mean University/Technological Ed. Inst.= 4.41.

5 Conclusion

The purpose of the study was to examine the preferences of children with disabilities regarding play and leisure activities during holidays. For this purpose, an electronic questionnaire with the use of emoji icons was used that made it easier to record children's with disabilities preferences. The evolution of information and communication technologies brought the improvement of written messages and the modification of the nature of written speech. Their combination with the text provides the opportunity for the reader to comprehend the category of the emotional nature and thus the emotional state of the individual during coding and decoding the message process (Danesi, 2016).

According to the results, children had the experience of holidays and traveling as they had made at least one trip in the last three years with an average of three nights. Thus, they expressed their preferences and desires regarding games and activities that found interesting and entertaining. From the whole tourism experience, people with disabilities desired their participation in recreational and physical activities as they derive maximum benefits for their physical and mental health (Theodorakis, 2010).

From the results of the study, it was found that despite their limited participation in daily activities, children with disabilities had positive responses regarding their participation in sports activities during holidays, as the majority declared that they like to play with other children and they desire to participate in various games and activities during holidays. Children declared that the most important reason that they wanted to participate in the activities was to make friends and not feel lonely. The limitations that children with disability experience often prevent them from building new acquaintances and friendships, and as a result, they experience intensely the feeling of loneliness. Participation in sports and recreational activities during the holiday season encourages individuals and reduces prejudice and marginalization through the interaction of children with and without disabilities (UNICEF, 2013). The contribution of therapeutic leisure and sports recreation through tourism services redound to the development of self-esteem and equality.

Regarding the type of activity, another result of the study was that children prefer a liquid environment for recreation, like the swimming pool or the sea. Activation in liquid elements enables children to develop respiratory and motor skills. Movement in the water contributes to the reduction of muscle convulsion and spasticity and improves neuromuscular coordination in a relaxed and well-being environment (ARGO-Special Pedagogical Center, 1985). The contact with the sea and the serenity of the environment reduce stress and blood pressure and constitutes a type of psychotherapy (Andreou, 2017). Playing in the playground which is the third preference of children reveals the need for socialization and recreation through a safe and adapted environment that will make them feel joy and decompression by playing and communicating with peers. The participation of people with disabilities in recreation activities and the achievement of vacations constitutes a mean of escape from every day life, reinforce family bonds, promotes health, increases self-confidence and independence. The participation in leisure activities and vacations comprises an important part of people's lives as there are positive effects in health promotion, boosts self-confidence and independence and constitutes an escape from everyday life routine (Yfantidou et al., 2018). Similarly, Wipfli and colleagues (2008) reported that individuals who participated in exercise, recreation and leisure activities experienced a significant decrease in stress and depression levels where these emotions, children with disabilities strongly experience due to their exclusion or abstinence from these activities. Additionally, through their participation in these organized exercise and recreation programs, people with disabilities are capable of: (1) developing and improving their skills, (2) reducing the consequences of their disability, (3) improving their fitness, (4) promoting their mental and physical health and finally, (5) achieving their orderly integration in society (Sulimani & Rimmerman, 2015).

In conclusion, the participation of the children with disabilities in recreation activities during their holidays constitutes significantly the cultivation and maintenance of their autonomy, the prevention of depression and the development of sociability. Additionally, they constitute a mean of escape from everyday life, strengthen family bonds, promote physical and mental health and develop self-confidence and independence (Yfantidou et al., 2018).

The results of the present study can contribute significantly to the design of services provided in the field of tourism as well as in organizing the recreational and sports activities that fulfill customers' needs and desires who in this case are children with disabilities. Families with an adult member or a child with disability desire to travel and to experience new practices as long as requirements are fulfilled for their comfortable access and accommodation. The main motivations for the accomplishment of a trip, from a family with children with disabilities, are to spend time together, to get away from every daily routine, to meet new places but also to feel for a while like a normal family without difficulties (Nyman, 2016). The managers for tourism services should take into consideration the expectations and peculiarity of those clients (children with disabilities, but also the rest family members), and should organize and provide adapted services that satisfy their needs and desires.

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Development and Impact of Social Media in Tourism

Instagram: The Travelogue for Generation Z's Travellers. The Impact that Influencers and Content Creators Leave Through Their Generated Content

Simon Caruana and Jordan Caruana

Abstract This study's main aim was to investigate the impact that influencers have on travelling patterns, specifically when choosing a destination. Instagram was chosen as it is one of the most popular social networks with Generation Z, which was the target group of this study. While Generation Z travellers do actively follow influencers on Instagram (and other networks), it appears that the destination choice was not made exclusively only on the influencers' content, suggesting that their trust in influencers is not as high as initially imagined. Prospective travellers were not only considering the influencer's posts or reviews regarding a particular destination but they were also using the content of other followers/travellers of the influencer in question. The significance of influencers seems to lie in the fact that the platforms they use, such as Instagram, allow them and also their followers to share experiences, which in turn result in more content being generated. All the contents (text, pictures, audio and video) provide a much richer picture that the traveller can utilise to take his/her decision as to whether to visit a particular destination or not. Nevertheless, Instagram remains a highly popular social environment for this generation and that many use it to share their own travel experiences and look up other followers' experiences in order to take decisions for future places to visit. Thus, Instagram like other platforms earlier is contributing to changing the way we organise our travel.

Keywords Influencers · Instagram · Content Creation · Destination Choice

JEL Classification Z310 · Z320 · Z330 · Z390

S. Caruana (✉) · J. Caruana
University of Malta, Msida, Malta
e-mail: simon.caruana@um.edu.mt

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_52

1 Introduction

In recent times people have witnessed the increase of popularity in the social media application Instagram. The combination of social media influencer/content creators with travelling has initiated a new niche of interest otherwise known as travel influencers/content creators. Most social media users are aware of the existence of influencers, with people having divided opinions of them. This growing trend has been picked up by businesses and some influencers endorse services and/or products offered by businesses within the tourism industry. In itself, this created a new segment of marketing, now known as influencer marketing.

The aim of this study was to understand the impact that influencer marketing is having on Instagram users who follow influencers (or as some other individuals prefer being referred to as "content creators") when people are choosing the next destination to visit. To do so, the following objectives were set:

- To confirm whether there is a change in people's travel behaviour through the influence content creators generate;
- To confirm whether influencer marketing affects an individual's perceptions of a destination;
- To learn if social media applications such as Instagram are changing the way we travel.

2 Literature Review

2.1 Introduction to Social Media and the Rise of Instagram

Social media has become one of the most important sources of information. At the tip of one's fingers, one can share a message with the whole world. This is in contrast to television and radio, where one had to wait for the designated time slots to follow the news bulletin.

The power that social media has is that it gives a voice to people who don't have one and share their thoughts with people of common interest (Lipscomb, 2010). People are constantly seeking to share their opinions and experiences and social media gives the space for them to do so. Additionally, it allows people to engage in conversations and discussions regarding different topics. "Social media is a new form of interacting that allows any individual to become a source of information via new technologies that do not require any prior experience" (Elmore, 2019).

Social media applications differ from types to use and there are a lot of different media. Some of these include but are not limited to Facebook, YouTube, Twitter, Pinterest, Tumblr, Snapchat, TikTok and Instagram. All of the aforementioned platforms have a commonality of sharing experiences; however, the use of the application differs from one to another. This is a time when Facebook is losing its attractiveness and Instagram appears to be the new medium for digital brands (Foucher, 2020). This study will therefore look at Instagram.

2.2 Introducing Instagram

The first version of Instagram launched back in 2010 and the name was derived after its scope, as users were sending a sort of instant telegram. Today, the application has more than 1 + billion monthly active users (Instagram, 2019). The purpose of the application is to share photos instantly with your audience. The terms used are "follower" and "following" meaning that users or otherwise known, followers, are people who choose to follow a particular account (Dewi Hanifah 2019a, b). Most times users use a lot of hashtags to describe what is in the picture and these hashtags generate viewers and likes on one's post. To make it easier for users, Instagram uses the hashtag to categorise the posts of its users (Dewi Hanifah 2019a, b). Therefore, for someone who has an interest in a particular field such as travelling, a user can easily find what they would like to look for by, for instance, writing #travel.

People started to notice the success and impact left by the application and its users. Businesses, entrepreneurs and celebrities picked it up to promote their services, products and themselves. Some individuals were gaining a lot of followers compared to the average user. As these individuals reached a peak and had a substantial following, businesses were asking for the help of these now-called "influencers" to collaborate and promote a service in order to reach a new market and more people. A new segment in marketing rose and this is called influencer marketing.

Influencer Marketing with close detail to Instagram Influencers

Influencer marketing knows its origins from celebrity endorsements. Endorsers nowadays range from celebrities to influencers, however, some high-end brands still work with celebrities to endorse their products. Another profile is that of industry experts and thought leaders; these gain respect as they have achieved qualifications, position or experience about their respective topic of expertise. Often, this respect is gained through their reputation coming from their respective industry. Bloggers and vloggers have been directly connected to influencer marketing for a substantial amount of time (Influencer Marketing Hub, 2020). If a well-known blogger/vlogger mentions a product/destination in a post, it entices the blogger's supporters to try the product or initiate interest in visiting the mentioned destination.

Influencers use multiple social media applications such as Snapchat, Facebook, Twitter and recently TikTok. Instagram is seen as very effective and therefore widely used by influencers. This is due to multiple factors with its use of hashtags being a primary reason. Adding just one hashtag to a post increases reach by an estimated 12.6% (Osman, 2018). This shows the effectiveness and impact of this feature of the medium.

Instagram is a visual-centric social network that offers the possibility to share photos where they can be reached by anyone. As of 2015, Instagram made it possible to advertise due to its ownership being sold to Facebook (Isosuo, 2016). Influencers and the general public might prefer the use of Instagram, as brands and people can bring out their own profiles in their own interpretative way on the application. With over one billion monthly users, it comes naturally to influencers to make use of such a medium as their primary platform, notwithstanding that the platform is most popular with the age group in a discussion of this study. According to a source published in 2019 (Clement, 2019), the age group of 25–34 years olds make use of Instagram the most, followed by 18–24 years olds. Therefore, two-thirds of the users of Instagram are aged 34 or younger which makes the platform attractive for most marketers (Clement, 2019), hence its popular use.

2.3 The Hidden Life of a Travel Influencer

- The perfect vacation doesn't exist

A lot of influencers commented online that their travels aren't as perfect as they seem to be. The following are some themes that have been found which sustain the aforementioned statement (Blumberg, 2018).

- Most pictures are edited

Travel influencers are known to use filters on their photos and edit them heavily in order to please the eye. This reduces the authenticity of the photo and one is led to doubt the realness of the picture (Blumberg, 2018).

- The trips they pursue are not leisure holidays

Staying in high-end and lavish accommodation, whilst consuming expensive food and drinks, comes at its own price. Some influencers have addressed that all of this is achieved after having bargained and negotiated deals over a long time. In addition, influencers need to advertise these places and take photos during their stay, promoting the services offered by the accommodation chosen and F&B outlets visited. Some influencers have expressed that photoshoots alone fill up an itinerary and continue working during their entire stay (Blumberg, 2018).

- Life happens!—Incidents

In an online article published by Cosmopolitan, the influencer Nicole Isaacs (Blumberg, 2018) insisted that her travels are far more glamorous than what she actually portrays. A child once got sick of her, she was robbed on a beach, missed countless trains and flights, got lost in towns and lost her luggage multiple times (Blumberg, 2018).

2.4 *Instagram Versus Reality*

Any person who has access to Instagram or even another social media platform has come across a picture of a popular tourist attraction. People might have viewed pictures of stunning locations such as the Gates of Heaven in Lempuyang, Bali, which is famous for the reflective water; a site that has been visited by numerous people to take pictures. Countless people have travelled there for the sole purpose of seeing it and taking pictures. What people find upon their arrival is beyond shocking and unexpected.

If one searches #GatesofHeaven on Instagram, by the time this research was conducted, one would find approximately 22,900 photos of the location. What was shared mostly by influencers was all unreal and people were utterly disappointed with their findings after having travelled for the sole purpose to visit this place. According to multiple sources, the truth behind this false reality is that a photographer sits under an umbrella and holds a mirror underneath an iPhone in order to create this famous reflection (Scott, 2019). This Instagram versus Reality syndrome with regards to travelling and destinations is becoming increasingly popular, and unfortunately, it is being shared and cascaded by the content creators to the general public.

2.5 *Changing Individuals' Travel Behaviour through the Exposure of Travel Influencers' Generated Content*

Social media influences the purchasing decision process for a holiday trip. Parsons (2017) found that social media and Instagram can influence an individual's decision to visit a tourist destination. However, there are other elements that impact the potential tourist's decision-making process (Minazzi, 2015). Research has predominantly been consistent with that of literature reviewed and sustained this argument. Various aspects of social media influence various individuals to different extents, both intrinsically and extrinsically (Dewi Hanifah 2019a, b).

A study published in Finland looked at the importance for individuals to view pictures and videos of a destination when planning a holiday. On a scale of 1 to 5, where 1 represented "not important" and 5 "very important", 45% of all the respondents answered scale 5 and no one chose scale 1. In addition, Instagram resulted as the most important platform for picture and video viewing of a destination with 71% of the votes (Terttunen, 2017).

This study also took into consideration the importance of user-generated content in the public eye's viewing (Table 1). 79% considered photos taken by real travellers "Important" and another 71% considered travel reviews "Important". Travel blogs and Instagram were considered as "Rather important". In fact, within this survey, a question asked respondents what type of photos people consider as important in relation to their travel planning (Terttunen, 2017). The results were as follows:

Table 1 People's interest in photo content (adapted from Terttunen (2017))

Content type	Metric: Percentage (%)
Photos of places taken by professionals	29
Videos from destination posted by real travellers	30
Travel blogs	55
Information on tourism websites	35
Travel interviews written by professional travel writers	19
Photos of places posted by real travellers	79
Independent travellers' reviews on travel websites	71
Social networking sites (Instagram)	45
Information provided by tourism operators	15

Duong explored the impact of Instagram with regard to inbound tourism in Asian countries. Duong claims that all respondents agreed that the main social media platform for their travel inspirations came from Instagram (Duong, 2019). Some respondents added another platform such as TripAdvisor for recommendations as well as people's reviews. Instagram can be a good inspiration to an extent as it can be a good tool when planning a trip, especially if one is unsure of what to do in a certain place, therefore checking other people's posts and then drawing a conclusion (Duong, 2019).

However, other respondents while arguing that Instagram is a good source for inspiration, it was also clear that some pictures posted include filters and were done with a lot of investment and effort to make an incredible, Instagrammable (a newly used term meaning appropriate and attractive for Instagram) photo. As a result, it would be wise to resort to other channels as well before proceeding to come to a decision (Duong, 2019).

3 Methodology

The study is non-directional due to its specificity. Non-directional studies often lead to a hypothesis and are later studied in a confirmatory analysis. The study is directed to analyse and learn about the topic of discussion and therefore the themes are not known. The research was carried out by using a quantitative method in questionnaire form to better understand the opinion of Instagram users regarding the subject which is becoming increasingly popular.

3.1 Data Gathering

Questionnaires will be used in order to understand the point of view of people who make use of Instagram as in this case they are the most important stakeholders of the study. The researcher believes that the best way to assess the impact of influencer marketing is to gather the opinions of whom the content is aimed at. Covid-related restrictions resulted in the questionnaire being distributed online. It was shared on Facebook and Instagram. Facebook is a very convenient medium to disseminate a questionnaire as opposed to Instagram and the reach with regards to gathering data is more efficient. The questionnaire was shared on multiple Facebook groups that are associated with travelling. Lastly, Google Forms was chosen as a medium to formulate.

3.2 Age Bracket in Discussion

As the title implies, the age bracket of main interest is 20–25 years old. The results will mainly focus on that age bracket but within the questionnaire as one will notice that people who fall within a different age category were encouraged to fill in the questionnaire. This was done as most probably some individuals would have participated in the questionnaire and not fallen within the age bracket, resulting in the skewing of results drawn. In this manner, the researcher tried to mitigate this impact whilst gathering information on multiple age brackets. As a result, the researcher will also be discussing results drawn from the lesser significant (with regards to this study) age categorisations. Since this information will be available, it is worth understanding how influencer marketing impacts other people from different age groups. Primarily, the age bracket of 20–25 was chosen as this has a catchment of different individuals, some are students, some who work full-time, some who carry both lifestyles, as well as married couples with and without children, individuals who live alone and others who are unemployed. Furthermore, these individuals who fall within the chosen age bracket are more likely to use Instagram and are aware of influencer marketing and content creators.

4 Analysis and Results

The questionnaire entailed 28 questions and it obtained a total of 191 responses. The first set of questions was rather introductory, concerning demographics. With respect to gender representation, 71.2% of all respondents were females, 28.3% were men and 0.5% preferred not saying. This result is similar to Terttunen (2017) who had 74% of her respondents being females (Table 2).

Table 2 Age distribution of the respondents

Age	Total number of respondents	Percentage (%)
19	2	1
20	32	16.8
21	39	20.4
22	47	24.6
23	21	11
24	12	6.3
25	13	6.8
26	5	2.6
27	3	1.6
28	1	0.5
29	2	1
30	1	0.5
31	1	0.5
32	1	0.5
33	1	0.5
35	1	0.5
37	1	0.5
42	1	0.5
45	1	0.5
48	1	0.5
52	1	0.5
53	1	0.5
59	1	0.5
61	1	0.5

Respondents were also asked to give an indication of the number of times they travel annually and the results were summarised in the subsequent chart (Fig. 1).

The next set of questions attempted to provide a picture of the respondents' interactivity with social media, in particular when using Instagram.

Participants were also asked to indicate the average time they spend using Instagram on a daily basis. The most common answer was 1–2 h a day, which was answered by 32.5% of the participants or 62 people. Following this, 50 participants answered 2–3 h a day at 26.2%. Consecutively, the remaining answers are as follows: 0–1 h a day—22.5% (43 participants), 3–4 h a day—13.1% (25) and 11 people answered "More" which is equivalent to 5.8%.

Participants were then asked about the use they do of Instagram (they were allowed to give multiple answers if they wished). The results were summarised in Table 3.

Interestingly, 13 individuals claimed that they are content creators themselves. This would help the researcher and the research itself by gathering insight on the

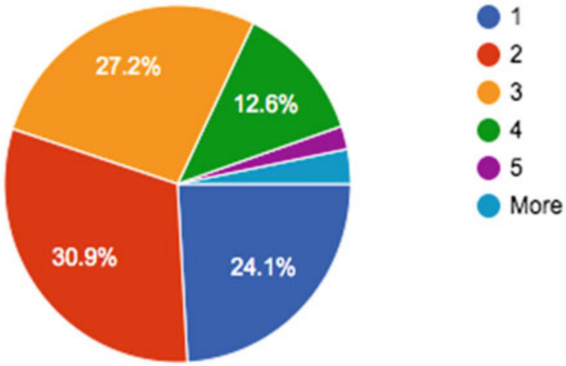


Fig. 1 Travels pursued each year

Table 3 Type of usage

Types of usage	Responses	In percentage (%)
Recreational	169	89.4
Networking	71	37.6
Business and/or business marketing	23	12.2
Blog posting	17	9
Content creator	13	6.9

subject itself through their experiences and work. Additionally, these numbers show that 53 individuals use Instagram for promotional material of some sort. Isosuo (2016) highlights the strength brands find in this application without any means of paid advertisements only by using the account in a regular way and building their own profile.

4.1 *What Do People Think?*

The following section illustrates the respondents' thoughts with respect to content and its use in relation to travel. The first response attempted to identify the most popular content categories of the Maltese generation Z. This can be summarised in the following bar chart (Fig. 2).

The opinions vary but the values are rather close. "Fashion Influencers" take the biggest share with 64.7% votes, closely followed by "Lifestyle Influencers" who have obtained 60.1% votes and thirdly "Travel Influencers" with 56.9% share of the public's opinion. Akin to Terttunen's (2017) study, 55.81% chose travel-related content which is an equivalent number when noting that in this study 153 responses were gathered and in Terttunen's 150 responses were collected.

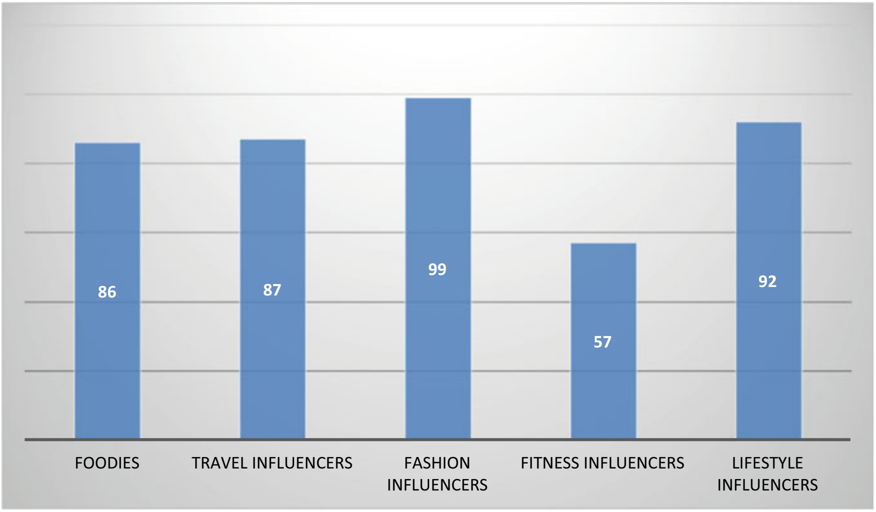


Fig. 2 Malta's Generation Z preferred content

4.2 Using Instagram as a Travelogue

Another query was to determine whether respondents ever made use of Instagram for selecting a future travel destination. The underlying rationale was to try and understand whether images of places posted by influencers, as well as ordinary users, were actually creating this sense of a virtual travelogue of destinations and if so, whether people were making use of this relatively easily accessible destination finder. Out of the 191 responses, 59.2% answered "Yes" and 40.8% chose "No". This result was found to be mirror that of similar studies. For instance, Terttunen (2017) revealed that out of 152 respondents, 45% use Instagram as an information search for a travel destination.

As to whether Instagram is a good or a bad tool, most of the responses were positive and highlighted greatly the good qualities and use Instagram offers with regards to destination scouting and content credibility. Moreover, some added that it is easy to find unpopular destinations and a sense of relation as not all photos are posted by influencers, but people of the same age bracket and financial income. These results do mirror some of Isosuo's (2016) where her participants expressed that Instagram is "easy to use and pictures and videos are liked more than texts". However, other answers showed that some individuals think that pictures only portray a picture-perfect reality and not what one would truly find and experience in a destination. In addition, some people mentioned the use of editing and how this would alter and mess with the real place portrayed in the picture. This reduces the reliability of the application for choosing a destination from it.

A follow-up question of whether users have actually visited a destination that was originally viewed on Instagram. This question had 117 responses and of which

Table 4 How users come across user-generated content

How users view content	In percentage (%)	Number of responses
Intentionally visiting their profile	33	63
Explore search	40.8	78
Home feed	46.6	89
Suggestions	41.9	80
Promotions	33.5	64
Word of mouth	0.5	1
Facebook	0.5	1

78.6% have indeed visited the destination whilst 21.4% have not. This result helps to indicate the impact Instagram is leaving on its users as a vast majority do pursue travels to a destination seen from other people's posts on the application.

This is similar to other studies. Parsons (2017) concluded that from 94.39% of people who viewed a tourist destination on social media, over 56% of the respondents actually visited the destination. This result can also be linked with the findings of Khlat, 2014, which suggested that people visited a destination after having seen content on Instagram.

Regarding how they viewed the content and how they got to know about influencers/content creators, the responses are summarised in Table 4.

"Home feed" suggests that users already follow influencers, meaning that this answer is addressed to the content of influencers they already follow; meanwhile, "Suggestions", "Promotions" and "Explore search" all point to the content of influencers or content creators whom they don't necessarily follow. Surprisingly, "Word of Mouth" (W.o.M) was not such a popular choice. This could mean that influencers/content creators make such great use of social media marketing that W.o.M gives them extra exposure and is not a necessity.

However, in another response, 87.4% said that they do not consult influencers/content creators for recommendations. The remaining 12.6% said that they asked for recommendations for the following: accommodation, food and beverage outlets and sightseeing. It seems that Maltese youths do not ask for recommendations as much as one would believe.

4.3 Destination Choice

In this part, the following themes will be discussed: impact on destination choice and one's opinion of a destination. The responses were not as expected. Taking into consideration the previous results, it seems that people do have a mixed opinion and despite the fact that they enjoy following influencers and/or content creators they are not entirely dependent and impacted by their travels. Only 20.4% (39 respondents) said they would choose a destination solely because an influencer had done so. This mirrors Kanchan (2020) findings whereby out of 57 respondents, only 23 said that they embarked on a holiday at a destination solely because the respondents saw it on a travel account on Instagram (Kanchan, 2020). Meanwhile, responses gave a staggering 79.6% (152) of the respondents that were less likely to visit a destination because an influencer/content creator had done so.

All 39 respondents who chose "Yes" were asked to answer question 22; however, 35 did. Here a similarity can also be found with Parsons research of 2017. The majority of the respondents answered "No" (45.95%) and the other half was split into 2 "Yes" and "Sometimes". However, this still shows confidence that Instagram and content do motivate a travel incentive and affects the decision-making process.

Individuals indicated that if the content is credible, interest and curiosity about the place is initiated as well as inspiration to travel. Content also sheds awareness about a place that one might not have ever heard about before and since influencers and/or content creators are sharing a first-hand experience of the place this would entice them to search about it and maybe visit. Additionally, some respondents wrote that content shares the beauty of the place and makes it look appealing to the eye and again, initiates interest to visit. Others have stated that if influencers and/or content creators pursue travels similar to theirs they would be influenced and inclined to seek similar travels. Another individual notes that they would identify the dos and don'ts of a destination and help them identify which places to visit next. One individual referred to content on Instagram as a "virtual catalogue" and in reality, it is. Complementing this statement is another comment, saying that it is the "new word of mouth". In fact, it is commonly known as electronic word of mouth. Another individual stated that this could lead to a rise of a "chain reaction"; if an influencer and/or content creator had a bad/good experience people would/wouldn't visit the said place, hence the "chain reaction".

4.4 The Reliability and Power of the Source

One of the many purposes that influencers and content creators have is to influence a purchasing decision; and with regards to travelling, they help choose a person's next destination. Therefore, it is very important to understand the reliability and power these people have.

More than half of the respondents, 65.9% agreed that it is effective; however, it makes one wonder when comparing this question to others. A lesser number of individuals in the previous questions agreed that they are influenced; however, here numbers have increased significantly. This may be due to two reasons. Firstly, maybe they have answered this question on behalf of other people (in general) and not themselves or secondly, the content uploaded by the influencers and/or content creators must be appealing and ultimately it does leave an impact on them.

The results can be viewed in the pie chart below. As one might note, opinions regarding this question are quite divided (Fig. 3).

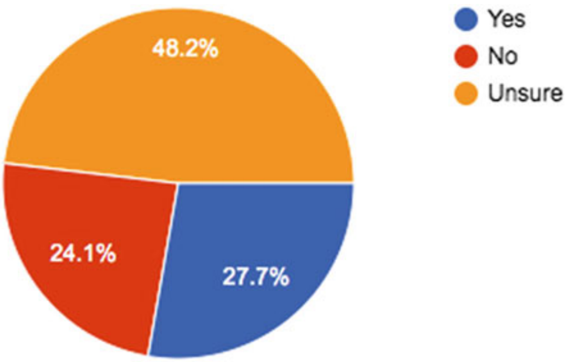


Fig. 3 Reliability (of content)

A total of 53 individuals believe that influencers/content creators are reliable whilst a contrasting 46 don't. Interestingly, 92 individuals do not have a concrete belief and don't know whether influencers/content creators are reliable or not. This could also mean that these individuals leave an open mind and choose what to believe depending on the content seen. They are open to deciding whether something is real or not depending on their liking.

4.5 Do it for the 'Gram

The last two questions are about Instagram in general. In fact, the phrase "Do it for the 'gram" is a relatively new term aimed at people or for people who upload pictures and content just for the "buzz" of it. The below analysis will show the relation of this phrase with the topic in question.

A further question was asked to address the growing trend suggesting that people are travelling to beautiful, unpopular places (boosting tourism numbers and affecting the local economy). Photos of these spots are later shared on Instagram, with other people seemingly taking on this trend. This can also be considered as part of the travelling experience. 67% answered "Yes" and 15.2% chose "No". The remaining 17.8% chose to express an opinion on the matter (Fig. 4).

The term "Instagrammable" was coined recently by users of the application. It is usually used to ask oneself or a friend whether a picture is worth being uploaded on Instagram, hence "Instagrammable" (Fig. 5).

As clearly shown above, 69.6% of the responses, or alternatively 133 people, stated that "Instagrammability" is not important when choosing a destination, meaning that it is not a necessity and not something that doesn't cross their minds. However, 30.4%, or 58, people think otherwise. "Instagrammability" is a key aspect in their travel planning as well as actual travels and something the participants seek in place.

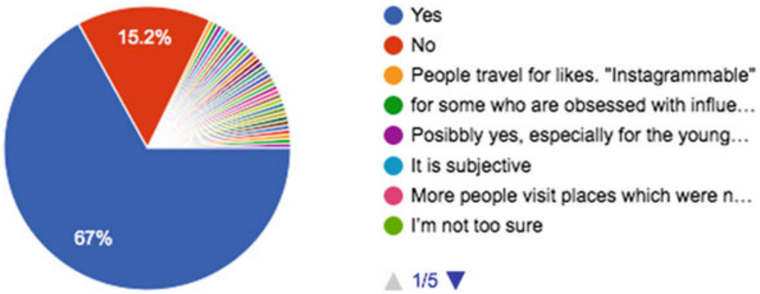
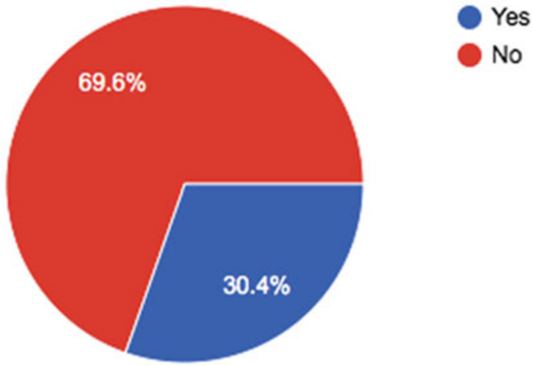


Fig. 4 Is Instagram changing the way we travel?

Fig. 5 "Instragrammable" or "instrgammability" are important?



4.6 Final Commentary by the Participants

It was said that people in general are making too much effort in taking photos with the ultimate and sole goal being to post these pictures on Instagram and no ulterior purpose. In addition to this, people and influencers especially only portray interesting places in a country and not the whole experience which people want to see. This can be linked with another comment, saying that pictures shared on Instagram are leaving an impact and force a change in travel behaviour. Furthermore, Instagram is playing an important role in our choice of destination, but one should not forget to visit places that aren't popular and shown on Instagram or any other social media platform. One person mentioned that in order for most young people to visit a destination or a place, it needs to be "Instagrammable". A participant added that Instagram is indeed changing travel dynamics; however, other important factors such as one's disposable income might change and alter the adventures pursued in a destination as not everyone has the same travel budgeting as that of influencers.

This leads to an important point which is sponsorship and was mentioned by a few respondents. As these respondents noted, some influencers and/or content creators receive sponsorship or request a "free stay in a hotel/food" for a feature on their blog making these posts unreliable and biased. Therefore, as other respondents have said, such posts need to be taken with a pinch of salt and not entirely believe what is shared and delivered to us. This reduces their credibility and reliability.

Others have added that multiple sources should be consulted such as TripAdvisor and the official tourism website of the country of interest as Instagram influencers and/or content creators have a lack of knowledge with regards to a destination and require further research. Moreover, respondents added that travelling should be pursued for the heart and not because one is influenced by others. In light of this, one participant expressed that influencers manage to influence only a cluster of people and this point was mentioned more than once. In fact, one respondent said that they were content creators themselves and this was their reply, "I feel that influencers have a strong hold on a specific target demographic. This demographic is made up of people who are easily susceptible to 'buying into' the images given to them by content creators on Instagram. As a content creator myself I understand that when creating anything, you choose and decide on the narrative. Therefore, influencers should be responsible by choosing a realistic narrative, since they are aware that their portrayal of things actually has a net effect on people's decision making." The demographic aspect was mentioned more, and other replies stated that Instagram impacts a specific age range; meanwhile, Facebook influencing affects people over the age of 50.

4.7 Concluding Remarks

The findings revealed the public's understanding of the topic and the impact of Instagram and influencers/content creators through their eyes. As presented, the data provides a mixture of opinions; for instance, individuals acknowledging the effectiveness of influencer marketing with 65.9% trusting in effectiveness and yet, from the same individuals only 20.4% would choose a destination solely because an influencer/content creator had done so. Additionally, over 67% have agreed that this social media application is changing the way we travel and "Instagrammability" becoming increasingly popular despite not being as of yet an important driving force for choosing a destination. It is important to distinguish between the use of the medium itself and the material published by the influencers/content creators. In fact, as the previously mentioned result showed, it is changing the way we travel. That is because generated content is uploaded by various sources such as ordinary users, organisations, companies, amateurs and influencers/content creators. In fact, trust in influencers/content creators is relatively unclear. 24.1% of respondents do not think they are a reliable source of information with regards to travelling and this is opposed to 27.7% who think they are. The remaining 48.2% are unsure and this leaves room for ambiguity and further questions, such as the contrast from the results of question 24 and the results of question 25, as respondents think influencer marketing with regards to travelling is effective yet not reliable. This will be referred to in further detail in the final chapter. Despite the majority of respondents chose not to rely on what is shared by influencers/content creators, they still follow their Instagram accounts and don't necessarily opt to copy their travels but do get ideas of where to go and how to pursue their travels. An important aspect drawn from this study is that this sense of online community and the sharing of experiences through image and video are indeed leaving an impact on the tourism industry in Malta and travellers aged 20–25 as well as others.

5 Conclusions and Recommendations

This study's main aim was to understand the extent of the impact that influencers/content creators have on travelling patterns, specifically when choosing a destination. As the study shows, Generation Z is affected by the travels of influencers/content creators; however, most participants do not adhere to this trend. It was a known fact that influencers/content creators were having an impact on the travel industry but not to what extent. This study concluded that they are having a noticeable impact with people asking for recommendations about a destination influencers/content creators had visited, as well as a small percentage from the participants being influenced into visiting a country because an influencer's generated content initiated interest.

Additionally, a change in people's travel behaviour can be identified as discussed prior, sustaining the previous set aim. Through comments received, content shared can be an inspiration for others and of interest. It was highlighted that others might have heard of a destination for the first time and it can also be linked to a sense of education and learning about places never heard of before and people do look up these destinations and pursue travels in such destinations. Another point which sustains this argument is that photos and videos, despite being edited, still share the beauty of a place and emit a sense of reality with regards to a destination. Furthermore, the effort behind influencer's/content creator's content was appreciated by saying that it requires a lot of time and effort, while they are also sharing a first-hand experience of their travels which help people pursue similar travels. However, these were the opinions of 39 individuals, who said that they would visit destinations because an influencer/content creator did. The remaining 152 people would not, meaning that there is a slight change in behaviour.

The second objective, besides answering the question asked, would also shed an understanding of people's reliability towards influencers/content creators. It seems that most people do not rely on or find the generated content trustworthy. The vast majority who participated in this questionnaire doesn't feel like their perception of a destination has changed through other travellers' postings. In addition, reliability seems to be an issue with users of the application, as only 27.7% of the participants confirmed that they find influencers/content creators as reliable sources.

Finally, it can be concluded that Instagram is becoming a very popular medium for people to find destinations to visit. Additionally, this can be linked to a reference found in the literature review where the application is highly popular with people aged between 18 and 34 (Clement, 2019), and this study confirms that it is also being used for travelling inspiration. Instagram is also providing people with other globetrotters' experiences of travelling, shedding light on new destinations and niches. Moreover, a large number of the respondents have also visited destinations viewed primarily on Instagram and also using the medium as a tool for information. Finally, besides coming to a conclusion through these questions, a direct question was asked and over 67% seem to agree with this phenomenon that Instagram, a simple social media application, is changing our way of travelling.

Through this thorough research, one could say that the impact left by influencers/content creators on destination choice is significant; however, the biggest impact can be witnessed by the application itself which is made up of different individuals being influencers/content creators or not as the application gives everyone the opportunity to share their experiences with others. It is clear that social media influences the purchasing decision process for a holiday trip, and this comment can also be applied to the conclusion of this study. With all that being discussed, these conclusions are being derived and based on the sample population of the participants.

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Predictive SEO for Tourism Websites Through Transformer Keyword Identification

Agisilaos Konidaris, Ourania Stellatou, Spyros E. Polykalas, and Chrysopigi Vardikou

Abstract The selection of appropriate keywords is a basic task to any search engine optimization (SEO) and search engine marketing (SEM) effort. Keyword selection can be influenced by several factors and is always a dynamic process that needs to be reiterated frequently. In this paper we present an innovative keyword selection technique by defining a novel category of long tail keywords that we call "transformer keywords". We introduce the concept of transformer keywords as a way to enable travel websites to get the chance to appear in top search engine results through SEO or SEM quite fast. Our concept is especially beneficial to new websites or websites that experience low domain authority. We show that these keywords are of great importance especially to the travel industry and businesses that operate in seasonal destinations. After presenting the theoretical framework of transformer keywords, we analyze a six-step algorithm/procedure for identifying them with the use of Google Trends. Finally, we use Google Keyword Planner to measure and quantify the benefits of using transformer keywords. Our research case study is based on real data from the well-known tourist destination of Kefalonia in the Ionian Islands, Greece. We conclude that the use of transformer keywords can be especially beneficial if targeted correctly during the appropriate timeframes that we propose. All our key findings are formulated into a straightforward transformer keyword usage best practice guide for the travel industry.

Keywords Search engine optimization · Keyword targeting · Search engines · Tourism websites · Travel industry · Transformer keywords

JEL Classification Z33

A. Konidaris (✉) · O. Stellatou · S. E. Polykalas · C. Vardikou
Digital Media and Communication Department, Ionian University, Kefalonia, Greece
e-mail: konidaris@ionio.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_53

1 Introduction

The selection of appropriate keywords is the basic task of any search engine optimization and search engine marketing effort. Keyword selection can be influenced by several factors and is always a dynamic process that needs to be reiterated frequently. Of course, the SEO process compared to SEM differs significantly in terms of keyword selection criteria. Nevertheless, they are both fundamentally reliant on appropriate keyword selection. In SEO we need to define keywords that should be optimized on our site's pages in order to get the pages listed within the top search engine results pages (SERP) for those selected keywords. In SEM we need to select keywords in order to get our advertisements to appear when the selected keywords are used as search queries by users. Identifying keywords for both SEO and SEM is a complicated task that needs a lot of knowledge, experience, and continuous effort in order to be successful. Especially in some industries that are very competitive, the most searched keywords are heavily targeted and it is very difficult to get a new website in the top results for them.

In this paper, we present a new keyword selection technique after defining a new category of keywords that we call "transformer keywords". We introduce the idea of transformer keywords to enable websites (even if new to a specific domain/industry and experience low domain authority) to appear in top search results by selecting to target these keywords in SEO or SEM. We also show that these keywords are of great importance to the travel industry and especially businesses that operate in seasonal destinations.

2 Literature Review

As mentioned by (Beldona, 2005; Buhalis & Law, 2008; Weber & Roehl, 1999; Werthner & Klein, 1999), information technology development, especially Internet penetration to most life aspects, has changed the way travel-related information is distributed and the way people search for and consume travel.

Search engine marketing (SEM) has become one of the most important strategic tools for tourism destinations and businesses to compete for consumers' attention on the Internet and engage in direct conversations with their potential guests (Sherman, 2007; TIA, 2008).

Apparently, SEM has emerged as one of the most important strategic tools within the overall Internet marketing effort for tourism destinations. A constant struggle exists between tourism businesses and organizations as they compete among themselves and many other information sources for the attention of online consumers (Lawrence & Giles, 1998). Furthermore, travelers are conducting searches by using various queries in order to find the most relevant information, based on their background knowledge about travel, the destination, and the search engines themselves (Pan & Fesenmaier, 2006). Therefore, the interactions and relationships between these “players” in online travel information search are extremely dynamic, making SEM a moving target.

Search engine optimization (SEO) is an integral part of digital marketing today. The online ranking of a business on various search engines determines its online popularity and helps increase website visits. There is a lot of misconception that SEO efforts can lead to immediate results. It is important to understand that SEO is an ongoing process and takes time to show results (Kaur, 2017).

Back in 2010, Sciera, Ekhert, and Hinz showed that “the success of search engine marketing is driven by relatively few keywords”. At that time, the widespread opinion was that to succeed in SEM you needed a thousand keyword phrases. Although they doubted the whole construct of “long tail keywords”, on which our own concept is based, we tend to agree with their third proposition: “The use of the most popular keywords at one point in time is sufficient to capture most searches, clicks and conversions in future periods”. SEO aims to facilitate a website to appear in top result lists (especially the first 10) of a search engine for certain keywords (Szymanski & Lipinski, 2018; Xiang et al., 2008, 2009).

While the rules of SEO/SEM constantly change, as it is a highly dynamic field affected by numerous factors, especially in SEO, recent research has consistently reported on the most important factors playing a role in the appearance of web pages in top results (Ziakis et al., 2019). Some important factors are: (a) quality and quantity of backlinks from other websites, (b) social media signals, keywords used in title tag-meta description and headings, (c) the URL length, (d) the website structure, (e) original and high-quality content. Other criteria include keyword use in the URL, keyword density, and more (Pan et al., 2011). As keywords still play an important role in SEO, keyword targeting is the most used SEO technique, used by professionals and non-experts to improve the “organic” (unpaid) ranking of their websites (Roopashree, 2021).

The essence of keyword targeting is to predict the appropriate keywords for your business or product that users will use when searching. With billions of searches every day, it is obvious that finding the right keywords for one’s industry is a difficult task.

Due to the way user-interface interaction has been designed, search queries are short strings of words or terms that reflect the user’s search intent, information needs or goals as well as his/her search strategies (Jansen & Spink, 2005).

Search queries are perhaps the most important behavioral aspect inherent in search engine use (Xiaoxuan et al., 2016). Studies of search engine user behaviors have a long history in various computer science fields. They mostly focus on the characteristics of search queries, such as the length and depth of search, types of search intent, search strategies, and changes of search characteristics over time (Jansen & Molina, 2006).

It is argued that travel queries hold the key to understanding search engine marketing strategies because they reflect travelers’ information needs, search intent, and search strategies (Xiang & Pan, 2011). Search query data provide valuable information about tourists’ interests, opinions, and intentions (Yang et al., 2014, 2015). Tourists use search engines to obtain weather and traffic information and to plan their routes by searching for hotels, attractions, travel guides, and other tourists' opinions (Fesenmaier et al., 2011). Engaging content used across various online platforms should lead to increased engagement rates. Businesses need to ensure that they post relevant content across various platforms at the right time (Kaur, 2017).

3 Popular Keyword Planning Strategies Today

There are numerous factors that are known to play a role in SEO. Even if an SEO to-do list existed today, we should always keep in mind that the factors affecting search results are constantly changing. As the web evolves, Google introduces hundreds of changes in SERPS every year (Google.com, 2018). Finally, we should bear in mind that the actual rankings are not only elaborated by the search engine and manipulated by search engine professionals but are affected by user behavior as well (Schultheiß & Lewandowski, 2020).

In SEM things are a bit different. The process of keyword selection (targeting) is so much more important than the actual content lying behind an advertisement's link to a landing page. Even though especially Google includes the relevance and the quality of a landing page in its quality score ad ranking algorithm, the overall procedure of SEM relies a lot more on the actual keyword selection process.

When targeting keywords for either SEO or SEM one has a variety of concepts and strategies to select from, depending of course on their budget, time availability, advertising strategy, goals, and personal experience. Some of the basic keyword targeting strategies that are related to our work are:

Targeting generic keywords. In this strategy, the most popular (generic), basic, and short keywords related to a web page are found through one of many available keyword selection tools (e.g., Google Keyword Planner). It is quite straightforward and easy to define generic keywords but there are problems when trying to rank for them. Generic keywords are the most difficult keywords to target since everyone is looking to get clicks from the largest pool of users, those making generic searches. If you have a new website, it is very difficult to get it to rank in the top results through SEO for generic keywords and it is also very difficult to get a good advertisement ranking on the first SERP page through SEM. Usually, there are so many competitors bidding large amounts on PPC for these keywords. Generic keywords are usually short (1 or 2 words). In the travel industry, examples of generic keywords could be "Athens Greece", "hotel Athens" or even just "Athens".

Targeting Long Tail Keywords. The term "long tail" was made popular by Anderson in 2006 (Anderson, 2006). These keywords are usually longer phrases (3 or more keywords), usually much less competitive (in terms of number of competitors) compared to generic keywords with significantly lower volumes of searches (Skiera et al., 2010). The good news here is that there are so many variations from which someone can select keywords. It is obvious that some of these keywords show minimum competition and thus it would be easier to get a website ranked well if you targeted them. Experimenting with long tail keywords is always worthwhile especially for new websites that need quick results through SEO or SEM. Nevertheless, an obvious drawback of selecting long tail keywords is the limited number of users that actually use them as queries. In the travel industry an example log tail keyword could be “luxury suites Santorini Sea view”.

Targeting Intent Keywords. Intent keywords are usually long tail keywords that show intent to purchase. These are obviously important since conversion rates for these keywords are usually a lot higher than those of generic keywords. A user shows intent and sometimes even shows the urgency to convert. These keywords also experience high competition both for SEO and SEM and could be costly and hurt ROI for a small or a new business. They can also be identified as a special category of long tail keywords that holds great value and are usually used by people in the last stages of the customer journey. An example of an intent keyword in the travel industry could be “book hotel Athens online”.

Targeting Peripheral Keywords. Peripheral or informational keywords are also long tail keywords that indicate particular interest in receiving information. These keywords are usually the least competitive and experience the lowest conversion rates. They are usually used during the initial stages of the customer journey. This is because, as their name infers, users are not exactly focused on converting at this point but are just interested to get information. In the travel industry a peripheral keyword could be “ancient Greek antiquities”.

These are only some of the basic keyword selection targeting strategies that can be adopted by someone looking to rank their website or ad on a SERP. In this paper we introduce a new category of long tail keywords for the travel industry that shows significant value when used in a timely manner. We have named this category of long tail keywords the “transformer keywords”.

4 Defining Transformer Keywords

We identified transformer keywords while researching keywords for the seasonal travel industry in Greece. A seasonal destination is one that experiences high volumes of tourists for usually 4–6 months and is dormant as a tourist destination for the rest of the year. All the islands in Greece like Santorini, Mykonos, Corfu, and Kefalonia are seasonal destinations. Hawaii and Barbados, on the other hand, are not seasonal but year-round destinations. Tourist destination seasonality is of course related to weather conditions. As we discovered, the seasonality of a destination leads to differentiated search habits. When searching for holidays at a seasonal destination many users feel the urge to include the season that they are interested in, in terms of year definition at the end of searches. This observation is what led to the definition of transformer keywords for SEO and SEM.

Transformer keywords are defined by the following characteristics:

1. They are made up of a popular generic keyword and a seasonality identifier usually in the form of a year (date).
2. They are yearly transformed by keeping the generic keyword intact and changing the seasonality identifier.
3. They have a specific lifetime after which they cease to exist.
4. In their lifetime, they overlap with at least one of their predecessor or successor transformations.

Their definition as "transformer keywords" lies on three transformations that these long tail keywords endure:

1. They are a transformation/extension of a top destination keyword.
2. They themselves are yearly transformed by the change of the seasonality identifier/extension.
3. In their lifetime they overlap with at least one of their predecessor or successor transformations simulating a transformational process.

The best thing about transformer keywords is that they show significant search volumes during specific timeframes but are not targeted in SEO and SEM until showing a significant search trend. This leaves a large opportunity window for SEO and SEM to efficiently and inexpensively target these keywords.

5 Transformer Keyword Identification Algorithm

In this section we will use Google Trends to identify transformer keywords by implementing specific identification algorithmic steps. We will use the tourist destination of Kefalonia (Ionian islands complex in Western Greece) as our case study. Kefalonia is a seasonal destination experiencing tourism flows that begin in April and end in October every year. We used Google Trends because it shows normalized data that permits us to compare different keyword search trends. It is a tool widely used in recent years (Jun et al., 2018) to observe and predict trends related to health (Mavragani et al., 2018), fashion (Silva et al., 2019), elections (Polykalas et al., 2013), stocks (Shivers, 2017), and other industries.

We also used the Google Keyword Planner tool, to cross check our Google trends findings with actual data volumes.

The straightforward steps that we describe here can be applied to all seasonal destinations, making our proposal important for many destinations around the world. This does not mean that our work cannot be applied to all other year-round destinations.

The procedure that we implement in order to identify transformer keywords consists of the following steps:

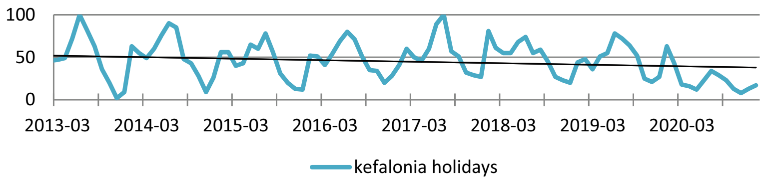

Fig. 1 Google Trends Interest for "kefalonia holidays" (Worldwide, Custom Date Range 2012–2020, Web search)

Step 1: **Initialization**

Initially, we configure Google Trends by setting specific search filters. The country filter should be set to “Worldwide”. We then select the “Travel” category filter in order to select only travel-related searches for the destination. In very popular destinations though, with large search volumes, the country filter can also be applied in order to get even more precise results.

Step 2: **Identify trending generic search terms for destination**

In our case study we started our Google Trends searches by using the generic term “Kefalonia” which is the brand name of the destination. The destination’s name in this step can be used for all seasonal destinations. The first place in the top section of the related queries results section went to the term: “Kefalonia holidays”. Thus, it is obvious that the most popular travel-related generic keyword transformation of the initially used generic/branded term “Kefalonia” is “Kefalonia holidays”.

The graph in Fig. 1 shows the interest in the term “Kefalonia holidays” over time. The interest distribution immediately confirms that Kefalonia is a seasonal destination.

Google Trends—interest for the generic term “Kefalonia Holidays” from 2012 to December 2020 (Filters: Worldwide, Web Search). Overall, a seasonality trend is observed, even in the “distorted” months of the global Covid-19 pandemic.

Step 3: **Identify seasonal transformations**

In this step, we identify the most popular generic keyword transformation that includes a seasonal identifier by looking at the related and rising queries in Google Trends. Immediately we notice that in the related queries, the top 2 positions for rising queries are:

1. Kefalonia holidays 2018 and
2. Kefalonia holidays 2017.

At this point, we must note that when following the same procedure for other destinations (Santorini, Mykonos, Crete, etc.) the results are similar. The only difference that may occur is that for some very popular tourist destinations (Santorini for example) users do not use the seasonal identifier after transforming the generic/branded term (Kefalonia is first transformed to Kefalonia holidays in

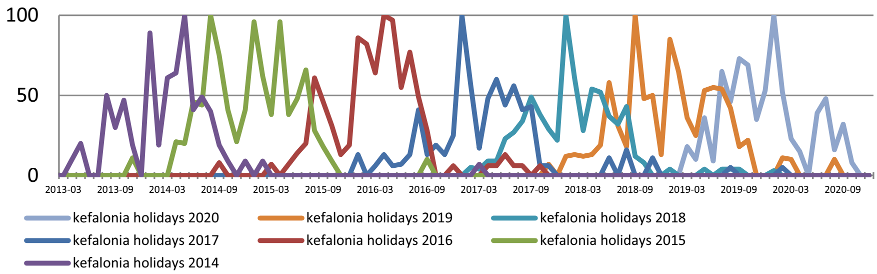

Fig. 2 Google Trends Interest (Worldwide, Custom Date Range 2013–2020, Web search)

our example) but it is added directly after the branded term. For example, the transformer keywords for Santorini are not "Santorini holidays + seasonal identifier" but "Santorini + seasonal identifier" (Santorini, 2018, 2019, etc.).

Step 4: **Prove the existence of trend**

Before we conclude that the keyword "kefalonia holidays" with the addition of a seasonality identifier (year) is a transformer keyword for the Kefalonia destination, we need to check all variations of the seasonality identifier to ensure it showed a significant trend at some point in time. To prove this we use Google Trends once again and research the following terms: Kefalonia holidays 2020, Kefalonia holidays 2019, Kefalonia holidays 2018, Kefalonia holidays 2017, Kefalonia holidays 2016, Kefalonia holidays 2015, and Kefalonia holidays 2014. If "Kefalonia holidays" plus a seasonal identifier is a transformer keyword, then these searches should each show significant interest during a specific time period. We use the same filters as mentioned above and get the interest distributions shown in Fig. 2. All our searches show a significant trend during specific and different time periods from 2013 up to 2020.

Interest for the transformer keyword "Kefalonia Holidays" plus the dates (years) from 2014 to 2016.

Step 5: **Establish the significance**

In this step we establish the significance of the transformer keywords identified. We compare the candidate transformer keywords trend to the most popular travel search for the destination and a very popular commercial search, showing intent. In Fig. 3 we compare the candidate transformer keywords (2013–2020) that we have identified with the most popular trending keyword for the destination which is "kefalonia holidays" and a very popular commercial term "Kefalonia villas". We find that the trend for transformer keywords is comparable to the trends of the two other most popular keywords.

Google Keyword Planner—Direct interest/trend comparison of transformer keyword candidates to the most popular terms "Kefalonia holidays" and "Kefalonia villas".

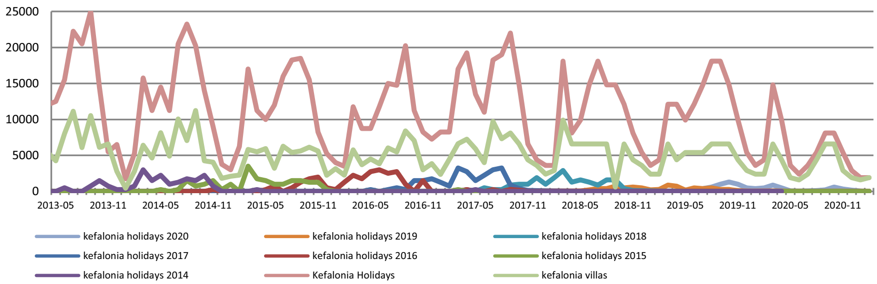

Fig. 3 Google Keyword Planner (Worldwide, English, 2013–2020)

Figure 4 is the same as Fig. 3 without the distribution for "Kefalonia holidays". What it shows more clearly is that transformer keywords are directly comparable to most popular commercial keywords (in our case "Kefalonia villas").

Google Trends—direct interest/trend comparison for the popular commercial term "Kefalonia villas" to identify transformer keywords.

The two graphs show that a significant number of people evidently use transformer keywords, thus making them appropriate and important for commercial and advertising use.

Step 6: **Cross-check results in Google Keyword Planner**

Google Trends only provides comparative search trends and is highly representative of real search volumes. That's why we cross-check our findings with data found in Google's Keyword Planner tools. These tools are forecasting tools provided through the Google Ads platform. In Keyword Planner, we can view accurate data for monthly searches starting approximately 4 years ago. At the time we used the tool (July 2021),

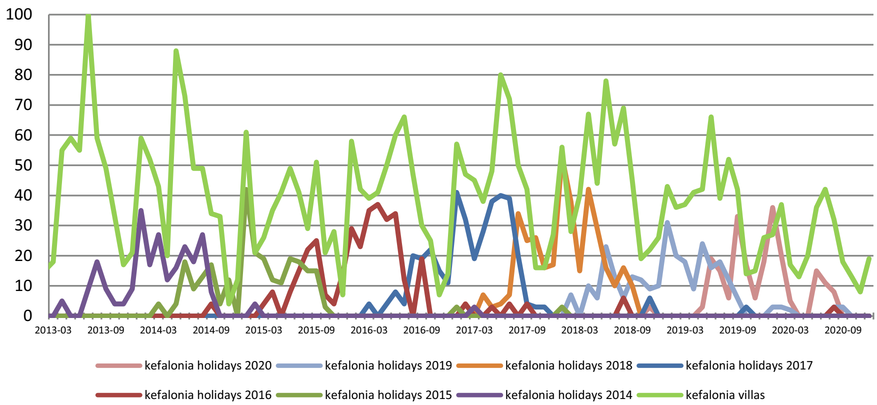

Fig. 4 Google Trends Interest (Worldwide, Custom Date Range 2012–2020, Web search)

data were available from July 2017. We confirmed the trend relationships observed in Google Trends, using simple calculations in an Excel spreadsheet.

After the six steps described above are completed, we conclude that all keywords with the following structure can be considered as transformer keywords for the Kefalonia destination:

$$\textbf{Destination Travel} - \textbf{Related Generic Keyword} + \textbf{Year Reference}$$

Such keywords are Kefalonia holidays 2020, Kefalonia holidays 2019, Kefalonia holidays 2018, Kefalonia holidays 2017, Kefalonia villas 2019, Kefalonia villas 2018, Kefalonia hotels 2019, Kefalonia hotels 2018, etc.

6 Transformer Keyword Lifespan

When we looked carefully at our data, we realized that searches for each transformer keyword followed a similar pattern. As an example, searches for "Kefalonia holidays 2020" started in November 2018, then disappeared for some months, and started again in March 2019 continuing to trend up to October 2020.

We constructed Table 1 to show the periods during which all the identified transformer keywords trended. In Table 1 we introduce the terms "Heartbeat start" and "Heartbeat end" to identify the months where a continuous, long and uninterrupted search trend began and ended, respectively.

After identifying the activity for every keyword, we were able to calculate the exact lifespan of each one every year. This is shown in the column "total lifespan". Finally, we calculated every keyword's lifespan after the end of the season (October each year). It is obvious that the keyword "lifespan" seems to continue even after the end of the season that it was created for. The travel industry business implications of these findings will be presented in the following paragraphs.

7 Putting the Transformer Keyword Concept to Work

The following diagram depicts the searches for each holiday season and the respective summer months (April to October each year) for Kefalonia island. For every year we use a different color. Large horizontal-colored lines depict the "lifespan" of a specific transformer keyword. The adjacent, smaller lines of the same color depict the whole summer season every year.

Holiday website owners obviously want to rank high in SEO and/or SEM results before the summer season begins. That's when most bookings are made. But when exactly can they start focusing and advertising for the next season? Looking at Table 1 and Fig. 5, we immediately realize that the time to begin these efforts can be over a year before the start of the summer season. For example, if a website wanted to rank

Table 1 Search lifespan for transformer keywords

Keyword phrase	Searches start	Heartbeat start	Heartbeat end	Searches end	Total lifespan in months (months between heartbeat start and heartbeat end)	After bookings lifespan in months (searches from October on)
Kefalonia holidays 2014	APR ‘13	APR ‘13	OCT ‘14	FEB ‘15	18	2
Kefalonia holidays 2015	NOV ‘13	APR ‘14	OCT ‘15	SEP ‘16	18	2
Kefalonia holidays 2016	MAR ‘15	MAY ‘15	SEP ‘16	OCT ‘17	16	1
Kefalonia holidays 2017	JAN ‘16	APR ‘16	NOV ‘17	NOV ‘18	19	3
Kefalonia holidays 2018	FEB ‘17	FEB ‘17	OCT ‘18	DEC ‘19	20	2
Kefalonia holidays 2019	NOV ‘17	JAN ‘18	MAR ‘20	AUG ‘20	26	7
Kefalonia holidays 2020	NOV ‘18	MAR ‘19	OCT ‘20	OCT ‘20	19	2

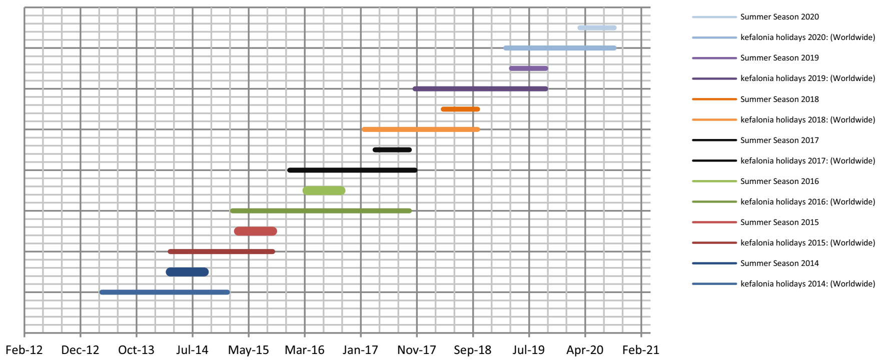

Fig. 5 Transformer keyword trending time range compared to the respective summer season

for the search term "Kefalonia holidays 2018" in order to attract bookings for the summer of 2018, the owners could begin SEO/SEM efforts in February 2017. That is because searches for the specific transformer keyword began in February 2017 and steadily increased month over month.

This would obviously provide an advantage to the specific website since in February 2017 most competitors would be focusing on bookings for 2017, not 2018. This means that the specific website would probably rank content for "Kefalonia holidays 2018" before anyone else would think of doing it, easily and inexpensively.

8 Targeting "after Season" Transformer Keyword Searches

In Table 1 it is obvious that in most cases the search trend for a seasonal transformer keyword extends well after the summer season. In most cases, searches for transformer keywords end two months or so after the end of the summer season. This seemed a bit strange, and so we researched what it could mean for holiday websites. We found two possible explanations for this "after-season" trend. First, users that visited the destination in their post-travel reflection/sharing stage (Think With Google, The 2013 Traveler) may have searched for experiences they had or events they attended during their vacation that year. A second explanation could be that potential next year travelers searched for what happened during the last summer, to obtain the latest information about a destination while they are in the early stages of their customer journey (dreaming or planning).

Even though data for this case of "after season" searches is not conclusive and cannot be easily interpreted, website owners nevertheless can take advantage of this trend. They are advised to target trending transformer keyword searches even after the season, by creating content related to experiences of the summer season that just ended. This way, they can easily target potential customers in ways competitors are not doing at the specific time period.

9 Quality Score Implications

Quality score is a metric used by Google to diagnose how well an advertisement's quality is related to the overall user experience when compared to other advertisers. Google uses three known components to establish a quality score for each advertisement: (a) Expected clickthrough rate, (b) Ad relevance, which estimates if the advertisement matches the user intent, and (c) Landing page experience, which is "how relevant and useful the landing page is" (Google Ads Help, 2021).

Using transformer keywords can help website owners develop a super-specific content strategy with ads and landing pages that will include the exact keyword (e.g., "Kefalonia holidays 2021", instead of "kefalonia holidays") and relevant information which in turn is expected to result in a better quality score in their paid advertising efforts.

10 Limitations and Future Research Agenda

Transformer keywords, as a new concept, need more research in order to further validate the proposed methodology. It must be applied to more travel destinations and more keywords must be explored.

Our research was focused only on Google searches and English queries. The same methodology should be tested in other search engines and other languages, and even more importantly in Baidu and Yandex, to confirm that the specific search trends are not country or culture-specific but depict a general user behavior.

To advance the concept of transformer keywords, our next step would be to study the suggested algorithm in real-world settings of the travel industry and beyond. For example, this methodology would also make sense in the e-commerce sphere, and specifically in "Black Friday deals" or other similar trends. We would welcome empirical research on different settings and across industries in order to expand and reinforce the concept.

We are also very interested in defining new transformer keywords based on other transformational words and not only the year reference. This would be very interesting for SEO and SEM. At the same time, we need to expand our concept based on the transformational power of the year reference because it has become a trend in many industries. For example, if a person wants to search for "SEO techniques" they tend to add the year at the end of their query (e.g., "SEO techniques 2021") in order to get the latest techniques. We feel that the power of the year reference at the end of search queries needs to be further explored.

Finally, we must acknowledge that our methodology is based on historical data. In times of turbulence, such as in the case of the recent pandemic, historical data may not be highly predictive any longer. Website owners may use these data as a guide and combine them with real-time tools, such as the real-time data table covering searches of the last 7 days, found inside Google Trends (Trends Help, 2021).

11 Conclusions

In this paper, we introduced the concept of "transformer keywords" as a keyword targeting strategy for SEO and SEM, especially in the travel industry. Our model agrees with the famous idea of Anderson that "less popular keywords drive success" (Anderson, 2006 as cited in Skiera et al., 2010). Transformer keywords show a substantial search volume worth building a strategy around. Ironically, our model also partially fits with the (opposite to Anderson) findings of Skiera et al. (2010) who stated "the success of search engine marketing is driven by relatively few keywords" when they doubted the whole construct of long tail search engine marketing.

Given the above, the concept of transformer keywords is useful for several reasons. First, they are used for early SEO and SEM planning based on predictable upcoming keyword trends and costs. Second, they usually apply to users that are more advanced in their customer journey. Third, they are cheaper in SEM because of their lower volume, while the average cost per click would be the same as that of a generic term. In SEO efforts, it will also be cheaper to rank for these keywords because much less optimization or content creation is needed. Fourth, it is easier to rank in the first results, organic or paid, than for a generic term. Finally, they enable a website owner to build higher quality score in their paid advertisements, by creating more relevant ads and landing pages (or optimizing the existing ones) using the exact terms.

In seasonal destinations, the concept of transformer keywords is easier to be applied because they directly imply seasonality, and their usability window can be easily predicted. The proposed concept should be combined with a deep knowledge of how the travel industry operated, such as when bookings are made.

We also draw managerial implications, which is the main contribution of transformer keywords. They lie within its application to new websites, which haven't established a high domain authority yet. For these websites, transformer keywords are a rare opportunity to rank. As a result, small travel organizations can apply our proposed methodology to their SEO and SEM efforts in order to compete with stronger competitors. Of course, an established business can also use this concept to bring even more traffic to their websites.

Website owners should consider the dynamics of their business, their competitors, and what drives users to show a particular search behavior before, during, and after the travel season. A deep knowledge of the travel industry combined with the concept of transformer keywords for online advertising presented in this paper can surely prove to be very beneficial to all travel websites.

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Lock Me Again: The Influence of Escape Room Experiences on Visitors' Loyalty Intentions

Olga V. Anton and Alexander M. Pakhalov

Abstract Real-life escape rooms are relatively new entertainment facilities that quickly turned into popular tourist attractions. However, the escape room market has slowed down due to the overflow of the market with standard escape rooms that fail to create unique visitors' experiences. Thus, new experience design strategies with a focus both on stimulating return visits and on attracting new visitors are becoming a critical challenge for escape room providers. Our study aims to assess the impact of escape room experiences on visitors' satisfaction and loyalty intentions. We base our study on the escape room visitors' online survey followed by structural equation modeling (SEM) including confirmatory factor analysis (CFA) of the collected data. We measure visitors' experiences using a set of metrics combined into two dimensions: immersion and participation. We also include in the survey questions aimed to measure the novelty of the experience, visitors' satisfaction, and two loyalty intentions: intention to revisit and intention to recommend. Our findings reveal that the level of immersion directly affects intentions to revisit and to recommend. The perceived novelty of the experience significantly positively affects both loyalty intentions with the mediation role of satisfaction. These results show the importance of creating immersive and novel experiences that bring escape rooms closer to immersive theater.

Keywords Escape rooms · Visitor experiences · Loyalty intentions · Immersion · Participation · Novelty perception

JEL Classification M31 · L83 · Z33

O. V. Anton · A. M. Pakhalov (✉)
Lomonosov Moscow State University, Moscow, Russia

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_54

1 Introduction

Real-life escape rooms are relatively new entertainment locations, which recent studies consider as promising attractions for urban tourism (Kolar, 2017; Pakhalov & Rozhkova, 2020; Villar Lama & Martin, 2021). According to expert estimates, there are more than 5000 escape room facilities in 75 countries (Ouariachi & Wim, 2020). Many escape rooms are located in tourist destinations and attract significant attention from tourists, especially millennials (Bakhsheshi, 2019; Villar Lama, 2018). Local authorities and institutions in various countries also recognize escape rooms as elements of tourist infrastructure. In particular, Thessaloniki Tourism Organization (a non-profit organization that constitutes the official tourism board of Thessaloniki, Greece) includes escape rooms in the official tourist guide (Thessaloniki travel, 2021), while Promoting Private Sector Employment (development institution in Pristina, Kosovo) supported the opening of the first escape room in the country (PPSE, 2019).

The escape room market in Europe and America showed the most dynamic development in 2015–2017 (Villar Lama & Martin, 2021). The most recent data show that market dynamics have become significantly less positive. For example, in the USA, from August 2020 to February 2021, the number of escape room facilities decreased by 7.5% (Spira, 2021) excluding temporary closings of locations due to national or local lockdowns. Despite the negative impact of COVID-19 on all segments of the tourism and hospitality industry, we cannot explain the stagnation of the escape room market only by the pandemic since the market growth noticeably slowed down even before the COVID-19 (Spira, 2019; Stasiak, 2019).

Negative market trends can be explained by the overflow of the market with standard escape rooms that do not create a unique visitor experience (Gündüz, 2018; Pakhalov & Rozhkova, 2020). The low variety of game designs reduces the attractiveness of the escape rooms for tourists who seek new and memorable experiences (Jang & Feng, 2007; Lee & Crompton, 1992). Thus, new experience design strategies are becoming a critical challenge for escape room providers (Pink et al., 2019). These strategies should focus both on attracting new visitors and on stimulating return visits by building visitors' loyalty.

Our study aims to assess the impact of escape room experiences on visitors' satisfaction and loyalty intentions. Despite the extensive literature on the relationship between experiences and loyalty for other tourist attractions, there is still no similar study for escape rooms. Such research can provide practical insights both for escape room providers and for other tourist attractions (museums, heritage sites, etc.), which are increasingly using the mechanics of escape rooms in interactions with their visitors (Back et al., 2019; Tzima et al., 2021).

2 Literature Review

The first real-life escape room was opened in Japan in 2007, and the first research paper on this topic appeared only eight years later (Nicholson, 2015). This pioneering research was based on a global survey of escape rooms' owners and managers. Nicholson's survey results allowed obtaining unique data about the audience of escape rooms, providers' marketing strategies, and even game design features. In the same year, another paper on escape rooms was published (Wiemker et al., 2015), which theoretically discussed the players' experience and motivation.

Surprisingly, the intense growth of the escape room market in the following years (since 2016) did not lead to a sufficient amount of empirical research on the topic. Even more surprisingly, educational escape rooms, which were inspired by recreational escape rooms (Veldkamp et al., 2020), have become an object of intense academic interest. Hundreds of published studies on educational escape rooms have allowed authors to conduct systematic reviews on this topic (Taraldsen et al., 2020; Veldkamp et al., 2020). However, both the research questions and the results obtained from studies based on educational escape rooms are usually not relevant to recreational escape rooms. Research papers with a focus on educational escape rooms never discuss customer experience management, advertising, loyalty, and other marketing issues. Given the aim and the scope of our research, the further literature review will cover research papers related to recreational escape rooms only.

There are two directions of research on recreational escape rooms: (1) the "supply-side" studies, which discusses specifics of business and marketing in the industry, (2) the "demand-side" studies, which focuses on experiences and emotions of escape room players. As a rule, the first research approach uses feedback from escape room owners or managers, while the second approach focuses on visitors' opinions, collected through a direct survey or a netnographic analysis. Very few researchers have combined the two outlined approaches. Among such researchers were Stasiak, who examined both demand and supply on the Polish escape rooms market (Stasiak, 2016, 2019), and Pakhalov & Rozhkova, who analyze the case of the leading Russian escape room provider "Claustrophobia" (Pakhalov & Rozhkova, 2020).

"Supply-side" studies usually follow Nicholson's research approach (Nicholson, 2015) by using a survey of escape rooms' representatives or by collecting secondary data about these businesses from online sources. As a result, various authors have obtained empirical evidence on escape room business in Poland (Stasiak, 2016), Spain (Villar Lama, 2018), Turkey (Gündüz, 2018), Iran (Bakhsheshi, 2019), and Russia (Pakhalov & Rozhkova, 2020). In 2021, Villar Lama and Martin also published a new study based on a cross-national survey of locations from 50 countries (Villar Lama & Martin, 2021). Most of these studies have concluded that a key success factor for escape room business is the experience design strategy, as well as some other factors such as the location of the facility. Several studies highlighted a weak differentiation of offerings on the escape room market (Gündüz, 2018; Pakhalov & Rozhkova, 2020) when the rooms' stories and tasks do not differ even between facilities in different countries (Villar Lama & Martin, 2021). The escape room

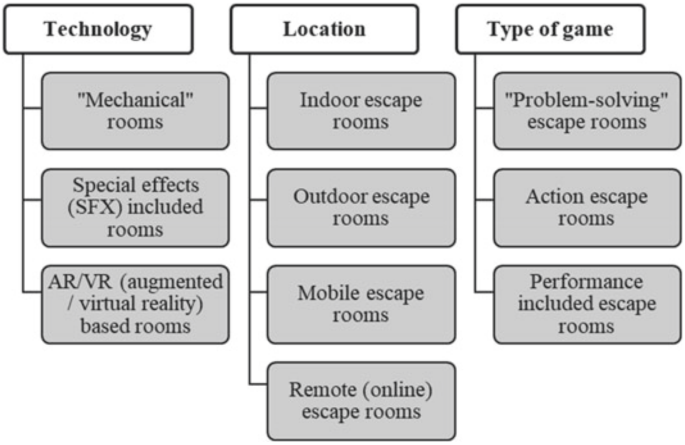

Fig. 1 Formats of escape rooms

providers try to solve this problem using the "blue ocean" strategy, changing their offerings by introducing new technologies, changing the location, or redesigning the game itself. Figure 1 summarizes alternative escape game designs that have appeared on the market in recent years.

"Demand-side" studies tend to focus on visitors' motivations, emotions, and experiences. The motivation to visit escape rooms is associated with the search for an unusual place to spend free time, novelty-seeking as well as curiosity the desire to escape from everyday problems (Stasiak, 2019). Visiting escape rooms is associated with a unique, fun experience (Kolar, 2017) that assumes involvement in the gameplay itself (Dilek & Dilek, 2018) and the group interactions with other players (Kolar & Čater, 2018). The use of new technologies can turn the room's atmosphere into a more meaningful aspect of the experience for visitors (Pakhalov & Rozhkova, 2020).

There are still no studies examining the loyalty intentions of escape rooms' visitors and its relationship with their experiences. On the one hand, visitors expect unique experiences from escape rooms and may perceive a particular escape room as a "one-off" experience, and therefore they may have no revisit intention even if they are satisfied. At the same time, exploratory qualitative research based on interviews with escape room visitors in Malaysia has shown that intention to revisit the escape room is often stimulated by the desire to improve a result (Pink et al., 2019). Moreover, many providers manage not one but several rooms with different themes and scenarios. Thus, the intention to revisit may be associated not with the same room, but with the same provider's room. In addition, it is reasonable to focus not only on revisit intention but also on intention to recommend, since other people's references and reviews can motivate new visitors, which is also important for escape room business (Bakhsheshi, 2019; Villar Lama, 2018).

Escape rooms are urban tourism attractions, and papers that study loyalty in tourism can be useful for our research. The object of earlier work in this direction was loyalty to tourist destinations (Oppermann, 1999; Petrick et al., 2001), while in the last decade more and more works have examined loyalty to specific tourist attractions: museums (Radder & Han, 2015), casinos (Baloglu et al., 2017), theme parks (Lee et al., 2020), etc. Most of these studies confirm the influence of experiences and satisfaction on loyalty intentions. However, the specifics of escape rooms as gamified tourist attractions require a separate empirical study, which we present in the following sections of this paper.

3 Research Hypothesis

Despite the lack of empirical studies on the relationship between the loyalty of escape room visitors and their experiences, we can put forward several hypotheses based on the analysis of evidence from other tourist attractions and previously identified insights and patterns of escape rooms visitors' behavior.

Some scholars suggest that satisfaction is the mediator through which experiences influence loyalty (Hosany & Witham, 2010; Quadri-Felitti & Fiore, 2013). Since escape rooms provide an escapist type of experience that involves distraction from reality through immersion in the story and active player participation, we assess experiences using two dimensions: level of participation and level of immersion (Pine & Gilmore, 1998). Pine & Gilmore's concept was previously applied in various empirical studies examining loyalty to hotels (Ali et al., 2014), museums (Radder & Han, 2015), and other tourist attractions. Thus, we propose the following hypotheses about the relationship of the two experience dimensions with the satisfaction of the escape room visitors.

Hypothesis H1a: The level of participation in the escape room positively influences visitor satisfaction.

Hypothesis H1b: The level of immersion in the escape room positively influences visitor satisfaction.

Novelty-seeking is a quite popular concept in tourist behavior studies, where this phenomenon is considered as one of the basic tourist motivations (Bello & Etzel, 1985). Novelty as part of the tourist experience influences positive emotions because it satisfies one of the key tourists' motivations (Mitas & Bastiaansen, 2018). Since the search for a new and unique kind of entertainment is a popular motivation for visiting escape rooms (Bakhsheshi, 2019; Kolar, 2017; Stasiak, 2019), we can assume that the perceived novelty of the experience has an impact on visitors' satisfaction.

Hypothesis H2: The perceived novelty of the escape room experience has a significant positive effect on satisfaction.

Despite the lack of quantitative assessments of the relationship between satisfaction and loyalty of escape room visitors in previous studies, we can expect that loyalty formation in the case of escape rooms can be similar to other urban tourist attractions. Many papers point in one way or another to a significant positive impact

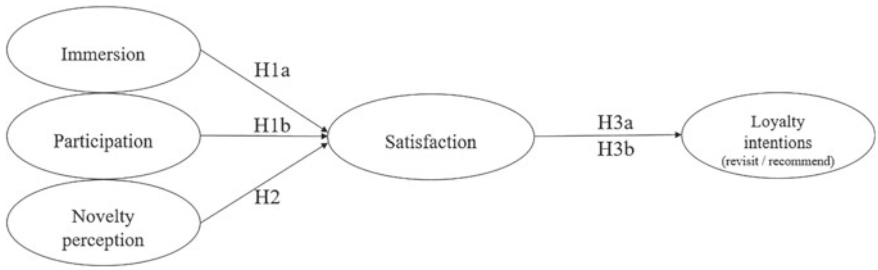

Fig. 2 Conceptual research model

of satisfaction on visitor loyalty for restaurants (Han & Ryu, 2009), theme parks (Ali et al., 2018), and heritage sites (Rasoolimanesh et al., 2021). We use two common separate intentions of visitor loyalty: revisit intention and recommendation intention (Ali et al., 2018; Yoon & Uysal, 2005).

Hypothesis H3a: The level of satisfaction positively influences the intention to revisit the escape room.

Hypothesis H3b: The level of satisfaction positively influences the intention to recommend the escape room.

Figure 2 shows our conceptual research model. We expect a positive influence of experiences on both loyalty intentions, and we expect satisfaction to play a mediation role in this influence.

4 Research Design and Sample

Empirical data to test hypotheses were collected using an online survey. The online survey questionnaire included questions to assess two dimensions of experience (participation and immersion), perceived novelty, satisfaction, and two loyalty intentions (to revisit and to recommend). The questionnaire also included several questions to analyze the sample structure.

We measure two experience dimensions using the statements presented in (Kao et al., 2008) but modified for the escape rooms. For perceived novelty, we use the adapted scale (Lee & Crompton, 1992), which includes four components of novelty: distraction from routine, relief from boredom, surprise (unpredictability), and excitement, to assess the sense of novelty experienced by visitors. Satisfaction is measured using the statement, "I'm really satisfied with this escape room". Revisit intention is measured based on two constructs: intention to revisit the same room, and intention to visit another room of the same provider. Intention to recommend is measured based on two parameters: intention to recommend to friends and intention to promote the escape room to other people (word-of-mouth intention). All the constructs (experiences, novelty, satisfaction, loyalty intentions) are measured using a classic five-point Likert scale, where 1 is for "strongly disagree" and 5 is for "strongly agree". We asked

Table 1 Sample structure (n = 195)

Sample characteristics		Frequency	(%)
Gender	Female	155	79.5
	Male	40	20.5
Male	18 or less	25	12.8
	18–24	100	51.3
	25–40	66	33.8
	41–55	4	2.1
Region	Moscow	174	89.2
	Saint Petersburg	6	3.1
	Other Russia’s regions	11	5.6
	Other country	4	2.1
Number of escape rooms visited	1–3	24	12.3
	4–10	35	17.9
	More than 10	136	69.7

respondents to rate the last escape room they visited at the time of their participation in the study.

The survey of escape room visitors was conducted in February and March 2021 using Testograf.ru online survey platform. The link to the questionnaire was available in the thematic escape room communities in the VK (also known as VKontakte), the most popular social media platform in Russia. We received filled questionnaires from 216 respondents. Out of all the respondents, 195 had an experience of visiting real-life escape rooms. These respondents form our final sample (Table 1).

The observed sample imbalances have several explanations. A large share of the young audience matches the profile of a visitor to escape rooms, which are considered as attractions for generations Y and Z (Villar Lama, 2018). The prevalence of female respondents is consistent with both the results of previous studies (Kolar & Čater, 2018; Stasiak, 2019) and the demographic structure of the social media groups through which we distribute the survey link. Finally, the large number of respondents who regularly visit escape rooms can be explained by the existence of “escape rooms fans” (Bakhsheshi, 2019), who are deeply passionate about these attractions.

5 Results

We conduct the two-step data analysis for structural equation modeling using confirmatory factor analysis (CFA) to confirm the proposed model and a structural model (SEM) to test the hypothesized relationships between variables using IBM SPSS Amos 25.

Table 2 Item loadings (CFA)

Constructs and variables		Factor loadings
Novelty perception	During the game, I forgot about my everyday problems (NOVEL1)	0.682
	During the game, I was curious, I did not feel bored (NOVEL2)	0.666
	Unexpected events occurred during the game (NOVEL3)	0.725
	During the game, I emotionally reacted to the events and felt excitement (NOVEL4)	0.642
Participation	I actively participated in solving the escape room puzzles (PART1)	0.418
	I interacted with other team members in the escape room (PART2)	0.676
	I wanted to try all the possibilities of the escape room (PART3)	0.734
Immersion	My mood changed depending on the events of the escape room (IMMERS1)	0.688
	I didn't keep track of time while I was playing (IMMERS2)	0.601

The CFA and SEM models' fit was evaluated with common goodness-of-fit statistics (Byrne, 2001; Parry, 2017) including Chi-Square, Goodness of Fit (GFI), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and SRMR (Standardized Root Mean Square Residual). Based on recommended cut-off values (Parry, 2017), the CFA model's fit indices show a rather adequate fit: χ^2/df = 2.10 < 3, GFI = 0.94 > 0.90, CFI = 0.93 > 0.90, RMSEA = 0.07 < 0.08, SRMR = 0.05 < 0.08.

Table 2 shows the factor loadings resulting from the application of CFA at the first step. All item loadings are above 0.60 on one factor and below 0.30 on the other factors. Since the quality indices of the model meet the criteria, we conclude that the CFA allows us to confirm the proposed three-factor structure.

The structural equation model was tested at the second step. Results indicated that the model was a good fit for the data. According to the conceptual research model and hypothesized paths, we estimate two separate structure models: the "revisit model" to explain the motivation for a return visit, and the "recommend model" to explain the word-of-mouth motivation.

Goodness-of-fit statistics indicates that both "revisit" and "recommend" models are good fit to the data. For "revisit" model we have the following results: χ^2/df = 1.54 < 3, GFI = 0.94 > 0.90, CFI = 0.96 > 0.90, RMSEA = 0.05 < 0.08, SRMR = 0.05 < 0.08. For "recommend" model: χ^2/df = 1.91 < 3, GFI = 0.93 > 0.90, CFI = 0.95 > 0.90, RMSEA = 0.07 < 0.08, SRMR = 0.05 < 0.08.

Figure 3 presents the tested structural model for revisit intentions. The key dependent variable here ("Revisit intention") is a latent variable based on variables that

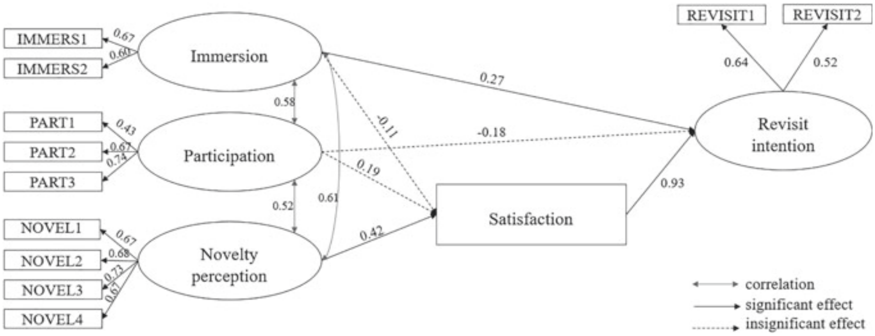

Fig. 3 The tested model for revisit intention with beta coefficients (p < 0.05; broken paths indicate insignificant relationships)

were used to evaluate intentions to revisit the same room (REVISIT1) and visit other rooms from the same provider (REVISIT2).

Test results of the "revisit model" do not support hypotheses 1a and 1b, which suggest a significant positive effect of participation and immersion on satisfaction. At the same time, the model allows us to accept hypothesis 2 on the positive effect of perceived novelty on satisfaction, as well as hypothesis 3a on the significant influence of satisfaction on the revisit intention. The observed positive correlation between participation and immersion may be because typical escapist experiences (Pine & Gilmore, 1999) assume high participation and high immersion. Experience dimensions correlate with perceived novelty because they reflect different aspects of the same gaming experience that can be both immersive and new for visitors. The model also shows that the level of immersion is directly related to the revisit intention. Thus, a high level of immersion in the room's atmosphere can directly stimulate visitors to return and relive the experience.

Figure 4 presents the tested structural model for revisit intentions. The key dependent variable here ("recommend intention") is a latent variable based on variables

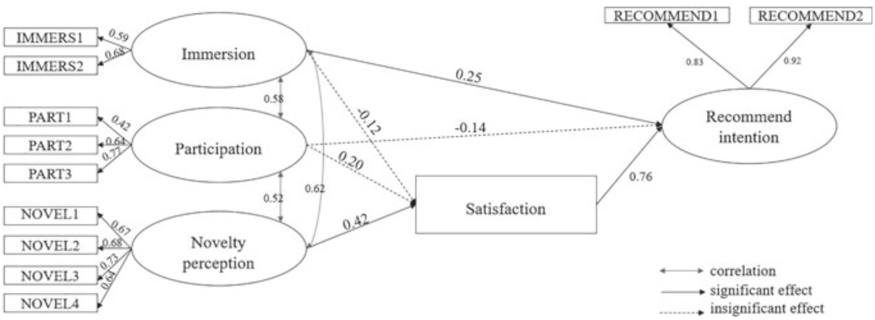

Fig. 4 The tested model for recommending intention with beta coefficients (p < 0.05; broken paths indicate insignificant relationships)

Table 3 Hypotheses testing

Hypotheses and proposed relations		Results
H1a	Participation -> Satisfaction	Rejected
H1b	Immersion -> Satisfaction	Rejected
H2	Novelty perception -> Satisfaction	Accepted
H3a	Satisfaction -> Revisit	Accepted
H3b	Satisfaction -> Recommend	Accepted

that were used to evaluate intentions to recommend to friends (RECOMMEND1) and to promote the escape room to other people (RECOMMEND2).

The "Recommend model" gives results similar to the first model. Hypotheses 1a and 1b, which suggested the effects of participation and immersion on satisfaction, were rejected. Hypothesis 2 in this model was confirmed: perceived novelty has a significant positive effect on satisfaction. Hypothesis 3b was also confirmed: satisfaction has a significant positive effect on the intention to recommend. This model showed a direct effect of the level of immersion on the intention to recommend.

Table 3 summarizes the test results for all the research hypotheses.

The level of immersion in escape rooms has a significant and direct positive effect on both loyalty intentions. However, we did not find a significant effect of participation on loyalty intentions. Structural models show two other significant relationships: perceived novelty with satisfaction and satisfaction with loyalty intentions, which supports the role of satisfaction as a mediator between novelty and loyalty.

6 Implications

The obtained empirical results allow us to propose the following applications for escape room providers.

1. Escape room's physical space and game design itself should include positive cues that allow visitors to distract from reality (escapist experiences). The room's design should create the atmosphere that is necessary to immerse the player in the story (legend) of the room. It is also important to eliminate negative cues that can distract the participant from the story of the room.

2. Development of new escape rooms (and redesign of existing ones) should focus on creating non-standard offerings. New and unexpected game experiences not only encourage players to visit this room again but also push a recommendation, which can attract new visitors through word-of-mouth channels. Marketing campaigns should also focus on the uniqueness and novelty of the experience.

3. Considering the perception of the particular escape room as a "one-time" experience, the creation of joint products and co-branding loyalty programs with the participation of several escape room providers seems to be a promising direction for market development.

4. Since revisits of the same escape room will inevitably lead to a drop in perceived novelty for visitors, providers need to periodically update an existing product (e.g., changing room scenarios or adding new puzzles) or open brand new thematic rooms in the same facilities.

5. To build visitors' loyalty intentions it is necessary to develop immersive formats, where experiences involve a high level of immersion. Providers can create these immersive experiences, for example, through the participation of actors (performance-included escape rooms).

7 Limitations and Further Research

Our study has some limitations that provide some suggestions for future research in the field. First, we cannot generalize the results to the entire population of escape room visitors, since we use a non-probability sampling. Our sample, as in previous studies, has a gender imbalance and geographically belongs mainly to the one largest Russian region (Moscow). Second, biases in experiences measurement are possible, since respondents did not report their experiences immediately after visiting the rooms. The remote format of escape rooms, which became widespread during the period of lockdowns associated with COVID-19, opens up opportunities for future experience-focused "onsite" research based on neuromarketing methods. For example, it is possible to conduct an eye-tracking study of visitors' responses to puzzles, decorations, and other elements of the game.

Acknowledgements We are grateful to Ilya Gurov (Lomonosov MSU, Joyment Ltd.) and Natalia Rozhkova for their support and helpful comments.

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Food Sharing in COVID-19 Era: Demand for Hospitality Services Provided via EatWith

Ivana Šimočková, Kristína Pompurová, Radka Marčeková, L'ubica Šebová, and Anita Kolarčíková

Abstract The paper deals with hospitality services provided on the principles of sharing economy. One of the advantages of food sharing via online platforms is the authenticity and face-to-face contact with domestic providers and thus a real and deep gastronomic experience of visitors. Following, the visitors as consumers of these services, are more likely to recommend the tourism destination to their friends and relatives and to visit it repeatedly. However, the period of restrictions and lockdowns connected with the COVID-19 pandemic hindered most of these opportunities. The paper focuses on services provided via the biggest online platform EatWith and the existing and potential demand for these services in Slovakia. The aim of this paper is to analyze the demand for hospitality services provided on the principles of sharing economy on the platform EatWith and to reveal factors influencing demand during the COVID-19 pandemic. The results emerging from primary research based on a questionnaire survey conducted in the first quarter of 2021 characterize typical consumers foodies. Positive and negative motivation factors are defined by 415 respondents.

Keywords Sharing Economy · Platform Economy · Food Sharing · EatWith · Hospitality Services

JEL Classification L83 D51 Z32

1 Introduction

The COVID-19 crisis revealed the fragility of the tourism sector and introduced an unprecedented fall in international arrivals dropping by 74%. According to UNWTO (2020) consequences of this crisis are much wider than expected with the loss of USD 1.3 trillion in export revenues—more than 11 times the loss recorded during the 2009

I. Šimočková (✉) · K. Pompurová · R. Marčeková · L. Šebová · A. Kolarčíková
Department of Tourism, Faculty of Economics Matej Bel, University Banská Bystrica, Bystrica, Slovakia
e-mail: ivana.simockova@umb.sk

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_55

global economic crisis and 100 and 120 million direct tourism jobs at risk. Bearing in mind, the well-being and health of their citizens, each and every country undertook various steps of restrictions and limitations when setting up the rules of travel and entry permissions. Even after the introduction of the EU Digital Covid Certificate (www.europa.eu, 2021), the trust of visitors and the international arrivals started to augment only thoughtfully in Europe. The new situation required adaptation of tourism services providers and introduced the need for better recognition of tourism needs and their preferences. These have shifted since the outbreak of the pandemic, and while before the crisis the sharing economy as an alternative way offered endless opportunities for their fulfillment, its use and visitors' interest during the crisis have changed.

2 Literature Review

The sharing economy or collaborative economy as an emerging phenomenon captured the increased interest of various authors for the last decade (Choi, 2021; Pawlicz, 2020; Mei Pung et al., 2019; Ketter, 2017; Hamari et al., 2016; Botsman, 2015; Allen & Berg, 2014; Dervojeda et al., 2013; Botsman & Rogers, 2011; and others). Whether talking about the sharing economy (Cheng, 2016; Heo, 2016), demand economy (Cockayne, 2016), collaborative consumption (Benoit et al., 2017), collaborative economy (www.ec.europa.eu, 2018), peer-to-peer economy (Christensen, 2020), or platform economy (You, 2020), the existence of peer-to-peer networks is necessary. Makovník et al. (2021) propose to use solely the term platform economy and for the purposes of this paper we understand this term as equivalent to a widely used sharing economy. Although lacking a consensus of researchers when defining its designation, the essence of emerging relationships is agreed upon as unprecedented access to goods or services obviating the traditional supply chain. We agree with Hall and Pennington (2016) and Tussyadiah and Pesonen (2015) and understand the sharing economy as a system in which the equity or services are shared by private persons, respectively, as a business model that is applied based on sharing existing resources free of charge or for consideration and usually via the Internet (Marčeková et al., 2021). Wirtz et al. (2019, p. 457) define sharing economy as online-enabled sharing economy platforms offering short-term access to goods, services, and other resources that are provided by peers or platform owners. As proved by Schaefers et al. (2016) the temporary access of multiple consumers to goods and services does not grant them possession as legal ownership remains at the service or good provider.

The phenomenon of sharing is not a new concept (Sutherland & Jarrahi, 2018) and was eased, thanks to the increasing number of interactions between providers and consumers of services. These resulted from increased digital literacy (especially among Generation Y), the spread of WI-FI connection in tourism destinations, and the number of online platforms providing sharing economy services (Ketter, 2017). It is important to note that without the existence of these online platforms, none of the concrete exchanges, rents, and cooperations would be carried out (Chovanculiak, 2017). In many cases, these platforms match supply and demand and are created and managed by private companies, also referred to as peer-to-peer companies or sharing economy companies (European Parliament, 2017, p. 3).

According to Görög (2018), the financial aspect should not represent primary interest of the peer-to-peer companies as the sharing economy represents a collaborative consumption not conditioned by financial or another compensation. Otherwise, the ecological aspect such as waste reduction (Richards & Hamilton, 2018) and eagerness to sustainably use the assets are the key driving forces of sharing economy (Guttentag, 2018; Tussyadiah & Pesonen, 2018).

The online platforms act as intermediaries and make a wide range of services accessible to a wide audience. When looking at the tourism sector, various positive impacts may be observed. These services and thus traveling is becoming cheaper, the resources are being used in a more effective way (Ketter, 2017), and the visitors are becoming more familiar with and up-to-date informed about the actual situation in tourism destinations (which was proved useful at the beginning of and through the COVID-19 pandemic). However, on the other hand, some researchers (Quattrone et al., 2016) warn that the platform economy cannot stay underregulated, underorganized, or exploitative.

In tourism-related literature, the platform economy (sharing economy) has been defined by UNWTO (2017, p. 15) through fields of activity of new platform tourism services (Fig. 1).

While accommodation and transportation platforms such as Uber, Airbnb (Guttentag, 2018; Kirkos, 2021) and also user-generated content via TripAdvisor have been of prevailing concern, the meal sharing and other hospitality services provided via online platforms stayed slightly forgotten at the end of the queue. The central idea of these platforms lies in access to unique and unrepeated culinary experiences. It has never been easier to become a guest, host, traveler, user, or provider of home dining, thanks to EatWith, Traveling Spoon, Uber Eats, BonAppetour, and others. This paper focuses on EatWith where consumers can select from among 25,000 providers in more than 130 countries on the EatWith website or in a mobile application (www.eatwith.org, 2021).

3 Methodology

The research object of this paper is the online platform EatWith. Two reasons lead us to the selection of the EatWith platform. First of all, its reach is incomparable to other platforms being the most numerous in a number of users (Kazim, 2020). Second, it is the only platform offering hospitality services in Slovakia. The research subject is represented by the demand of Slovak visitors for hospitality services provided on the principles of sharing economy. The aim of this paper is to analyze the demand for hospitality services provided on the principles of sharing economy on the platform

Fig. 1 Fields of activity of new platform tourism services. *Source* UNWTO, 2017, p. 15

Field of activity	Description	Examples of digital platforms
Information	User-generated reviews, ratings and content for tourism(-related) services	TripAdvisor, Yelp, etc.
Accommodation	Short-term rentals of beds, rooms, apartments, homes, etc.	Airbnb, HomeAway, Couchsurfing, etc.
Transport	Short-distance ride-hailing, long-distance ride-sharing, and car-sharing services	Uber, Lyft, BlaBlaCar, etc.
Food	Communal dining or 'meal sharing' in a private environment	EatWith, Feastly, VizEat, etc.
Tourism activities	Guided tours and excursions, attractions and other activities	BeMyGuest, ToursByLocals, Vayable, etc.

EatWith and to reveal factors influencing demand during the COVID-19 pandemic. Following the main aim of the research, two hypotheses were formulated:

H1: We assume that the most important demotivating factor is security.

H2: We assume that the interest to participate in food sharing at the provider's (host) place during the COVID-19 pandemic is higher among men than among women.

We set up two research questions:

RQ1: What motivates and demotivates the users of EatWith platform to consume hospitality services despite the COVID-19 pandemic?

RQ2: How can a typical Slovak consumer of hospitality services provided via Eatwith be characterized?

We used primary and secondary sources of information. The secondary data evolved from scientific books, scientific papers, journals, and relevant websites of the World Tourism Organization, European Union, and EatWith. The primary data were obtained using the method of sociological questioning with the questionnaire survey conducted in the Slovak language from January to March 2021. Due to the pandemic situation and ongoing lockdown, the questionnaires were created in Survio and distributed electronically via direct e-mails and social network Facebook among Slovak inhabitants. The questionnaire consisted of 13 questions divided into three

Table 1 Age structure of respondents

Age group	Number of respondents	Share in total number (in %)
Under 18 years	7	1.7%
18–25 years	127	30.6%
26–35 years	70	16.9%
36–45 years	84	20.2%
46–55 years	77	18.6%
56–65 years	43	10.4%
Over 65 years	7	1.7%

Source Own elaboration, 2021

sections. As the issue of food sharing represents still a new phenomenon in Slovakia, a short explanation of the term opened the questionnaire. The general overview, respondents' perception of food sharing, and their personal experience with the online platform EatWith were investigated in the first part. In the following, the motivating and demotivating factors influencing consumption of hospitality services provided on principles of sharing economy were identified. Finally, the expectations and requirements on food sharing during the COVID-19 pandemic were defined by respondents. The population consisted of all potential consumers of food sharing services provided via EatWith. The available research sample was created by a random selection of these consumers willing to participate in the questionnaire survey. The research sample included 415 individuals of different age groups (Table 1) from whom 59% were women and 41% were men.

In terms of age structure, the age group of 18–25 years predominated (30%). This was followed by age group 26–35 years (16.9%), 36–45 years (20.2%), 46–55 years (18.6%), and 56–65 years (10.2%). The majority (42.9%) of respondents were graduates of Master's degree of university studies (178 respondents) followed by 38.1% graduates of secondary education with GCSE (158 respondents) and bachelor's degree (10.6%). In terms of economic activity, the employed persons (58.8%) and students (27.7%) prevailed in the research sample.

For the data processing obtained from the questionnaire survey, we used MS Excel software and SPSS statistics. When elaborating the paper, we used the selected mathematical–statistical methods and theoretical methods of research. The theoretical methods of research were methods of abstraction, analysis and synthesis, and induction and deduction. We also used the method of comparison when comparing the requirements of the demand-side and the actual offer on the EatWith website.

4 Results and Discussion

We focused on the respondents' awareness of sharing economy and their previous personal experiences. From the surveyed group (415 respondents), 47.2% not only understood the term sharing economy but had also previously consumed services and participated in sharing activities by renting, lending, trading, or bartering goods and services. Furthermore, these experienced respondents evaluated their participation in sharing economy activities and 89.9% (176 respondents) proved a positive attitude. There was only one respondent who expressed a negative perception of his/her previous experience. So, even if other respondents faced a negative incident, their perception of sharing economy remained positive.

Afterward, all respondents were asked to identify up to three expectations and requirements of online platforms concerning hospitality services from among (Table 2). We defined characteristics of different platforms such as EatWith, Traveling Spoon, Uber Eats, and BonAppetour: user-friendly website design, possibility to use a mobile application, organizing private events (birthday parties, teambuildings, farewell parties, etc.), a wide range of online cooking classes and hosts offering dining at own place, delivery of ready meals to respondents address, single price of all online cooking lessons (40 euros per person), different prices for online cooking classes depending on the host (from 18 euros per person).

41.4% of respondents await a wide range of online cooking classes available on platforms website followed by 38.3% requiring a useful mobile application, 37.6% looking for user-friendly website design, and 31.8% of respondents would be interested only in the delivery of ready meals to their address.

The competitive advantage of EatWith in comparison to other platforms is the quantity and quality of hospitality services, own mobile application, and organization of private events (private online cooking classes and others). EatWith has no

Table 2 Respondents' expectations on platforms providing food sharing and food-related services

Expectations	Number of respondents	Share in total number (in %)
Wide range of online cooking classes	172	41.4%
Useful mobile application	159	38.3%
User-friendly website design	156	37.6%
Delivery of ready meals	130	31.8%
Organizing private events	123	29.6%
Wide range of hosts offering dining at own place	120	28.9%
Different prices for online cooking classes	83	20%
Single price for online cooking classes	15	3.6%

Source Own elaboration, 2021
Note Total is more than 100, as respondents selected from 1 to 3 possibilities

competitor in this regard, with more than 25,000 hosts worldwide, compared to less than 1,000 hosts on the Traveling Spoon platform.

4.1 Age and Its Impact on Willingness to Consume Hospitality Services Based on Sharing Economy

When examining respondents' willingness to consume hospitality services via online platforms such as EatWith, Traveling Spoon, UberEats, and others, differences were observed according to individual age groups. Responses varied when evaluating the interest to undertake online cooking classes and workshops or personal attendance at the event at the host's place such as host dining experiences, special events, cooking classes, and food tours (Table 3).

The interest in online cooking classes and workshops exceeds the interest in personal participation in events at the host's place in all age groups except for respondents aged less than 18. We assume that the results are marked by the pandemic situation, uncertainty about future development, and ongoing lockdown in Slovakia. The willingness to undertake both types of experiences is highest in the two youngest age groups (under 18 and 18–25 years), and it is decreasing with the age. However, the differences may result from the unproportionable age structure of respondents within the age groups, decreasing the ability of respondents to smoothly use digital technologies with advanced age and different levels of apprehension of and identification with the platform economy.

Table 3 The interest of respondents in food sharing according to age

Age groups	Online cooking classes and workshops		In-person participation in host dining experiences	
	Absolute number	Relative number (in %)	Absolute number	Relative number (in %)
Under 18 years	3	42.6%	6	85.7%
18–25 years	80	62.9%	63	49.6%
26–35 years	36	51.4%	29	41.4%
36–45 years	41	48.8%	18	21.4%
46–55 years	27	35.1%	18	23.4%
56–65 years	15	34.9%	6	14%
Over 65 years	3	42.9%	1	14.3%

Source Own elaboration, 2021

4.2 Motivating and Demotivating Factors of Demand for Hospitality Services Provided on Sharing Economy Principles

Respondents were asked to evaluate the significance of factors positively motivating them to participate in food sharing activities. Factors such as personal contact with the host, opportunity to savor authentic local cuisine, the need for socialization, low price of services, positive reviews on the platform's website, curiosity, and the opportunity to reveal modern or foreign cuisine were identified as decisive based on previous literature review. The respondents were asked to evaluate these factors on a five-point Likert scale (where 1 = not at all important and 5 = highly important factor). We evaluated the significance of the factors based on the central values calculated in the IBM SPSS Statistics program listed in Table 4. The evaluation of the factor's significance included central values: mode, median, and mean. The values of the mode indicated to us which evaluation was the most frequent among respondents for the given factor. The median values indicate that half of the respondents determined the significance at a level lower than or at most equal to 4 for all factors except the need for socialization, which is the factor with the lowest significance based on the median values and the mean. When considering the entire statistical set, the mean also helped us to include the answers of respondents who did not answer like the majority. Based on the analysis of respondents' 'answers, the most important factor was the positive reviews on the platform's website, followed by the opportunity to savor authentic local cuisine, the respondents' curiosity, and the opportunity to taste modern or foreign cuisine. Respondents found a slightly less important low price of services, personal contact with the host, and the need for socialization.

Personal contact with the host and the need for socialization are the factors with the highest degree of response variability among all motivational factors. Differences in

Table 4 Significance of motivational factors' influence on the respondents' interest in food sharing

Factor	Mode $\hat{x}$	Median $\tilde{x}$	Mean $\bar{x}$	Coefficient of variation (%)
Personal contact with the host	4	4	3.4	36.47
Opportunity to savor authentic local cuisine	4	4	4	25.25
Need of socialization	4	3	3.3	36.36
Low price	4	4	3.5	32.29
Positive reviews on the platform's website	5	4	4.1	22.93
Curiosity—new experience	4	4	3.9	26.41
Opportunity to taste modern or foreign cuisine	4	4	3.8	29.47

Source Own elaboration, 2021
Note 5 = highly important, 4 = important, 3 = neutral, 2 = less important, 1 = not at all important

Table 5 Significance of demotivational factors' influence on the respondents' interest in food sharing

Factor	Mode $\hat{x}$	Median $\tilde{x}$	Mean $\overline{x}$	Coefficient of variation (%)
Distrust toward the host (or concerns about safety)	5	4	3.9	29.23
High price	4	4	3.7	28.92
Negative reviews on the platform website	5	4	4.3	21.40
Insufficient guarantee of customer satisfaction	4	4	3.9	24.87
Required payment in advance	3	3	3.4	35.88
Long distance from the place of residence	4	4	3.5	34.86
Ability to use information technologies smoothly	1	3	2.5	52.40
Knowledge of foreign languages	3	3	2.8	47.50

Source Own elaboration, 2021
Note 5 = highly important factor, 4 = important factor, 3 = neutral, 2 = less important factor, 1 = not at all important

significance may be explained by different personality types of respondents or differences in lifestyle. The importance of these two factors for the individual may depend, for example, on the degree of extroversion or the nature of employment (respondent works in a team, is in regular contact with customers at work, or conversely, works independently or remotely from home). This statement is supported by a Kökény and Kiss survey (2018) focusing on the relationship between personality types and consumer behavior in tourism. It proves the correlation between extroversion and the high frequency of visits to hospitality facilities. Additionally, we examined the significance of factors demotivating demand for food sharing (Table 5).

As with motivational factors, we asked respondents to evaluate the significance of factors on a scale of 1 to 5. Respondents considered negative reviews on the platform website, distrust toward the host (or concerns about safety), insufficient guarantee of customer satisfaction, and the potentially high price of provided services to be the most important factors. Required payment in advance and the long distance of the place of the service provision from the place of residence showed a serious significance. Respondents considered their ability to use information technology and their knowledge of foreign languages to be the least important of examined factors. We rejected hypothesis H1, in which we assumed that the most important demotivating factor is security. As proved by research results, respondents identified negative reviews to be the most demotivational factor when considering consumption of food-related services. Respondents are careful when contacting strangers and using platforms they have no personal experience with. The prevailing part of respondents are fluent and master the work with information technology.

The ability to use information technology and knowledge of foreign languages show the highest variability among all demotivating factors. The different significance attributed to individual factors underlines respondents' language skills and computer literacy. The significance of these factors depending on gender and age may be observed. The factor of distrust toward the host resp. concerns about own safety was identified as important or very important by 61.8% of men and 73.9% of women. Although greater importance of the safety factor was referred by women, the difference between genders was equivalent only to 12.1% strengthen by the significant importance of positive reviews generated by other users on the platform website. 25.3% of the total number of respondents admitted that their ability to use information technology would negatively affect their interest in the consumption of hospitality services provided via EatWith. We examined the use of information technology for individual age groups. According to the results of a questionnaire survey, this factor would have the greatest impact on respondents from the age group 46 to 55 years, where it would affect 36.4% and slightly lower significance was marked by 56–65 age group with 30.2% respondents. Surprisingly, in the age group over 65 years this factor would affect only 14.3% of respondents. We assume that participants of the electronic questionnaire survey, able to fill up the form, had at least the basic knowledge needed to work with information technologies regardless of their age. By having defined motivational and demotivational factors of demand for hospitality services provided on principles of sharing economy, we responded to the first research question RQ1.

Next, based on declared computer literacy, the interest of respondents in online cooking classes and workshops on the EatWith platform was examined. 12.5% of respondents would certainly attend an online cooking lesson, 36.9% would be interested in such an offer, 41.7% would rather not attend any online cooking class, and 8.9% of respondents would not be interested in it at all. A total of 205 respondents, who reacted positively and were interested in online events, were further asked to define their requirements on the offered cooking lessons and conditions under which they would attend them. The following requirements were formulated: Only if it is a private cooking class (for respondent and his/her friends or family) without the presence of strangers, only if there is no need to prepare hard-to-find ingredients or kitchen equipment, only if it is possible to communicate in Slovak, only if the lecturer is a professional chef, only if the price of is acceptable and other. 132 (64.4%) respondents would take a cooking lesson, only if they would not need hard-to-find ingredients or kitchen equipment. The price of an online cooking class represents a decisive factor for 131 (63.9%) respondents, and therefore these respondents would participate only if they would find the price appropriate. 57 (27.8%) respondents would participate only if they could communicate with the lecturer in the Slovak language, which means that knowledge of a foreign language is a decisive factor influencing their consumer behavior. No relationship was found between the need for communication in a foreign language, age, level of education, and gender. 53 (25.9%) respondents would prefer a private cooking lesson without the presence of strangers, which is one of the alternatives offered on the EatWith platform. 25 (12.2%) respondents would be interested only in cooking lessons with a professional chef. One respondent would be interested in this service only if it was free of charge.

4.3 Impact of COVID-19 Pandemic on Demand for Services Provided on EatWith Platform

We investigated the tendency of respondents to consume hospitality services as a part of a platform-based economy during the COVID-19 pandemic at the host place. Even conditioned by required country regulations and strict hygiene measures, the meal sharing activities with personal attendance are less attractive to respondents than the online cooking classes and workshops. Since the beginning of the COVID-19 pandemic, several steps and guidelines were adopted by the platform. Obligatory hygiene measures are determined by EatWith in Health and Safety Guidelines and Protection Guidelines (www.eatwith.org, 2021). These include appropriate facial covering and other necessary precautions when preparing and serving food and the obligation to follow local guidelines on event size limitation and facial covering during their EatWith events for hosts. Besides, physical menus provided to guests at events should not be shared must be single-use and discarded after events, so are the individual plates for guests. The principal idea of sharing and assurance of contact between hosts and guests has to be neglected. Communal or shared dishes and serving cutlery should be avoided. On the other hand, guests pledge themselves to waive any right to claim for any infection contracted whilst attending an event (except to the extent that the infection is contracted as a result of the gross negligence of the host). Therefore, service providers respond to the demand of platform users instead of indoor dining and meal sharing they offer food outdoors—in gardens, on terraces, and on rooftops overlooking the city or as picnics at hiking, coffee tasting with fortunetelling experiences, or local market promenades.

Due to the current pandemic situation, 23.9% of respondents would not attend the events of platform economy under any circumstances and 41.2% would prefer the option not to participate in these events. On the other hand, up to 34.9% (145) of respondents expressed interest in this type of hospitality services despite the unfavorable pandemic situation. We accepted Hypothesis 2, although the differences between genders were minimal as 35.3% of male and 34.7% of female respondents are either highly or moderately attracted to consume food-related services at the host's place. 81 respondents would be interested in hospitality services offered directly at the host place with awarded high rating from other users. 64 respondents would consider the recommendations of their acquaintances when making decisions, which implies the importance of word-of-mouth marketing and the importance of sharing positive customer experiences via social media. 58 respondents would be interested in hospitality services provided exclusively by Slovak hosts and would prefer services provided in relative proximity to their place of residence, or without the need to travel outside the Slovak Republic. 14 respondents expressed their interest in services offered by a professional chef. One of the respondents also said that he would be convinced by the interesting menu offered by a particular host.

The main stimuli to use the EatWith platform for 70% of respondents were the food and the menu itself. In addition, if they were offered the opportunity to take part in other activities, 58% of respondents said they would like to take part in a food workshop. These results may indicate that a significant proportion of EatWith users can be identified as so-called foodies—urban and educated consumers who love food and are interested in learning more about food. Thus, we have answered the second research question RQ2.

5 Conclusion

The range of food-related services on the EatWith platform as a response to users' demand has changed since the beginning of the pandemic (Diep, 2021), following the rules and regulations introduced in each and every country and global safety guidelines. EatWith has no competition in this regard, with more than 25,000 hosts, 265,000 guests, and 5000 experiences being offered worldwide. The biggest advantages of the EatWith platform compared to the competition are the quantity and quality of hospitality service providers, its own mobile application, and the organization of private events. Cooking classes and workshops have been moved to the online environment and the platform hosts offer food at home only if the local authority and country's internal regulations allow it. The results of the questionnaire survey showed that the offer of hospitality services provided via the EatWith platform reflects the demand, with the exception of the possibility of ordering ready-made meals The preference for online cooking classes and workshops brings virtual experiences via Zoom, new cooking skills, knife skills, and useful techniques taught by professional chefs, and the possibility to choose between joint events with other guests online or a private cooking masterclass with own family and friends. Based on the research results, the EatWith platform's competitive advantage is the privately organized events. It would be appreciated by 29.6% of respondents to order organization of private events such as birthday parties, teambuildings, farewells with freedom, and others. 28.9% of respondents considered the wide selection of hosts offering food at home to be a desirable characteristic of a platform providing food-related (hospitality) services on the principle of platform-based economy.

Next, we can characterize Slovak users of hospitality services provided via the EatWith platform as consumers of all ages, mostly with a higher level of education, looking for authentic experiences and motivated by the need for socialization. A significant part of Slovak respondents would be motivated by the opportunity to try authentic local cuisine and the opportunity to try modern or foreign cuisine, which indicates that this is the so-called foodies, which corresponds to Ketter's findings (2017). The results of the questionnaire surveys differ in the age group with a prevailing interest in food-related platform-based services. In the case of

Slovakia, the predominant group was 18–25 years in contrast to the Ketter's survey, with the dominant age group 30–39 years of platform users. While in the case of Israeli consumers, these represented real satisfied users of the platform (as the survey questionnaire was distributed via the EatWith website directly), the survey conducted among Slovak consumers focused on the identification of potential demand (as the food-related services of the platform-based economy are still limited). Although consumers aged 18–25 have the highest interest in the services offered on the EatWith platform, their limited financial possibilities do not allow them to realize their interest to the same extent as in the age group 30–39 years old.

Acknowledgements This research was funded by the Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of Slovak Republic VEGA, grant number 1/0368/20 "Sharing economy as an opportunity for sustainable and competitive development of tourist destinations in Slovakia".

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Comparison of Memorable Tourist Experiences Based on Collections of Reviews from Trip Advisor: Acropolis of Athens and Royal Alcazar of Seville

Fernando Toro Sánchez

Abstract The Memorable Tourist Experience (MTE) is a scientific concept within the studies on Tourism that is developed based on several related constructions: Perceived Confidence, Sincerity, Authenticity, and Satisfaction. This work takes this model established by the work of Dr. Babak Taheri in 2018 on Monuments World Heritage of Unesco, adopting an alternative data collection method to the face-to-face survey. Therefore, this work takes as a source of data the reviews collected in the recommendation platform TripAdvisor, working the same constructions of the MTE, with the collection of similar terms and the relationships between them. In order to highlight the terms, a first step is established with the use of Natural Language Processing (NLP), followed by the use of Machine Learning (ML) techniques to generate the relationships between the constructor defined in the models. The study makes a comparison using the same method, between the Acropolis of Athens and the Royal Alcazars of Seville, both declared UNESCO World Heritage Sites, using the same type of data source in the same period of time. The results of the study go in two directions: on the one hand to find similarities in the study of the specific MTE of both monuments with the hypotheses worked in the original model of Taheri. In addition to highlighting possible distinctive elements of each case and furthermore within the value contribution of the visit when it is led by an official tour guide. On the other hand, giving presence to the model of obtaining data by reviews as a complementary data source of any tourist study.

Keywords Machine learning in tourism · UNESCO world heritage · Natural language processing · Memorable tourism experience · TripAdvisor

JEL Classification c89 Data Collection and Data Estimation Methodology · M31 Marketing

F. T. Sánchez (✉)
Faculty of Finance and Tourism, University of Seville, Seville, Spain

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
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1 Introduction

The way in which we value our visits to destinations, whether as travelers or as tourists, is increasingly shaping experiential, experimental, and existential aspects within the different models of tourism (Cohen, 1979). There is the paradox in today's world due to the ease of displacement that increases the possibility of traveling to a quantity of destinations, which further increases the feeling of time shortage. Therefore, in terms of marketing, where scarcity is a fundamental element (Lynn, 1992) and, specifically in the tourism industry where it is determined by a defined time (Hamilton et al. 2019) and scarce within a travel program, the review is configured as a fundamental instrument for the decision of the user and whose efficient communicative action will mean a greater return in the supplier of the tourist experience, the hotel industry or the transport provider (Katsoni & Poulaki, 2021).

In the process of seeking information and decision in the purchase of tourist activities, the recommendation takes on special importance both at the time of planning and the final purchase. Depending on the channel to which the user shows faithful attitude, as well as the search practices assimilated as usual and their level of learning, planning and confidence (Toro Sanchez, 2021), the moment in which you decide the purchase joint with the influence from the visibility of the review at the time of the decision, either before the trip or pre-visit—planning—or in the course of the trip—ongoing—and in the destination—onsite—and post-visit (Frías Rguez.-Castaneda, 2008).

The user of tourist activities seeks the Memorability (Taheri et al., 2018), for their own enjoyment as for the written transmission of the experience (Kommpula and Gartner, 2013) that serves as a basis for the decision of other users, providing prospective information to build tourism products together to establish mechanisms that allow consumers to mature, confirm, and pay for the reservation (Katsoni & Fytas, 2021).

The Memorable Tourist Experience (MTE) is the result of the combination of elements that form in the traveler-tourist user, an idea made up of mental anchors. In a positive assessment, this idea can lead the user to make a recommendation that favors other users to be able to attend such an experience with the guarantee that it is also memorable for them (Taheri et al., 2018), and for its understanding it requires using models rather than independent definitions given their complexity (Horner & Swarbrooke, 2004).

The objective of this study is to make a comparison between two landmark monuments of the Unesco World Heritage Site such as the Acropolis of Athens and the Royal Alcazars of Seville using the terms from Tripadvisor reviews relating them to each other to configure the influential contructos in the Model of MTE of Taheri, Perceived Confidence, Sincerity, Authenticity, and Satisfaction.

More specifically, the objective is to discover differentiating common values in each monument and type of experience, such as a particular visit or guided group, that reinforce the feeling of memorability in the experiencia of the visit to the monument.

2 Literature Review

1. The importance of reviews in tourism decision-making

According to Waing and Gretzel (2009), information on the Internet is provided through the sum of terms equal to each other and different from the rest, forming clusters. Traditionally, the tourism sector has been characterized by the use of a vocabulary rich in its communication (Dann, 1997). However, the use of the Internet has led to this richness making the search experience difficult for users (Pan & Fesenmaier, 2006), although for specific searches more specific terms (Xan et al., 2007) are often used, justifying in this case, to expand the constructs used in the original model.

In Tourism, we must consider that there are social and psychological influences that affect individually the behavior of the traveler (Curry & Moutinho, 1993), at the same time that decisions are made in a group environment "togetherness" (Komppula & Gartner, 2013). However, their behavior can be derived from different ways of acting, planned, unplanned, or imposed purchase (Cohen et al., 2014) if it can be understood that there are elements of planning in much of the behavior (Hyde & Lawson, 2003), at least considering the intention, personal values and motivation (Li & Cai, 2012) towards the achievement of a series of objectives (McIntosh & Thyne, 2005) and the satisfaction of expectations (Sheng & Chen, 2012). The intention in the behavior is presented as an attitude (Kim et al., 2009) that is manifested both by the provider of tourist services through exhibition elements such as the website and by the user, through the drafting of reviews. In the case of tourist attacks, reviews are of important relevance since customer loyalty is based on the intention of revisiting (Kim et al., 2009), it occurs on rare occasions and only in mature and holiday destinations, being transformed under the label of sponsorship (Lee, 2018) there being a manifest intention towards the reservation when the valuation in positive rather than negative (Sparks & Browning, 2011). In addition, reviews are considered as a source of information when planning trips (Yoo & Gretzel, 2011), where the limitation of terms using the Internet platform generates a vocabulary of its own which is essential for communication (Lao et al., 2003), adopting more the characteristic of functionality to the detriment of narrative hedonism (Vogt & Fesenmaier, 1998). Is accepted that social networks where Tripadvisor can be considered within them as consumption of reviews (Gretzel et al., 2008) grant high credibility and acquire significance when members in the community plan a trip (Walden et al., 2011).

The common goal of a service—such a provider of tourist attractions—should be together to be well-known and to be loved; so that creating a brand is not only notoriety. In this sense, Notoriety is defined as the conversations that occur between people who talk about what they offer us and give in relationships to others, about the experiences (Rovira, 2017). Social networks stimulate the motivation by affiliation because of the importance for the individual which, in the face of their vulnerability, seeks to reach large coalitions using collaboration and sponsorship (Rovira, 2017), which is joined by certain ascetic patterns of social media consumption as settled in the Social Media Responsive Theory—SRT (Perez Vega, 2016), where the value of social interaction is highlighted: the positive effect on social networks facilitates purchase intentions and increases trust among former users.

2. The Memorable Tourist Experience Model

Trust is perhaps the simplest and most powerful tool available for generating relationships with consumers (Beng, 1996), considering the sum of reliability plus customer satisfaction (Morgan & Hunt, 1994), being sincere, authentic, and memorable heritage experiences (Taheri et al., 2018). Taheri develops modeling the Tourist Experience in the course of a series of constructors exposed in previous works. The case of Trust is the one that prints a direct relationship with the Memorability of Experience and in relation to the rest of the constructs that positively affect it: Authenticity, Sincerity, and Satisfaction. Trust is a vital grassroots component in communication influencing the relationship between consumer and service provider (Lude & Prügl, 2018): in the case of the tourist review, this confidence is manifested in the term "recommendation" (Toro Sanchez, 2021), being used manifestly in the comments that describe the experience. Trust is a psychological state of commitment in the intention to accept vulnerability based on positive experiences and the intention of the behavior of other users (Rousseau et al., 1988) and Trust, leads to an action that requires risk (Wang et al., 2014) in online shopping, based on unique characteristics and the environment of a virtual world: the higher the level of implicit risk, the higher the level of uncertainty. An effective marketing service depends on the management of trust because the user generally buys the service before using it (Berry & Parasuraman, 1991) and is key in the management of the advance purchase of tourist services (Khodyakov, 2016; Toro Sanchez et al., 2021): beliefs lead the Intentions (Fishbein and Azjen, 1976) and trust is a method to diminish the uncertainty in e-commerce (Gefen, 2002), through honorable intentions and the complete promise in which it has been labeled with benevolence (act in good faith) and integrity (receive the full promise).

Authenticity is the construct that also gives shape to Memorability and in its case is related by Trust itself and by Sincerity, forming a more complex attitude in the user by adding more ingredients in their perception. Authenticity is being trustworthy (MacKenzie & Ganon, 2019) and takes center stage at the time of service by the provider, raising the values of the brand (Spark & Browning, 2011) and conduct. Kolar & Zabkar (2010) model the consumer behavior of tourist experiences based on authenticity by intervening sincere relationships with local people (Prince, 2017) that stimulates memorable consumption (Taheri et al., 2018).

Within the model, Satisfaction is formed as the obvious determinant that the visitor perceives and the one who can trust what a cultural site offers (Taheri et al., 2018), not being able to obtain the information first hand (Rasoolimanesh et al., 2019) goes to the relational component of the review to warn it. Satisfaction comes at the end of the experience in relation to the descriptions of these in a way that tangibilizing the service. An added component and above satisfaction is the emotion that transmits the experience (Almeida, 2010) more intimate in its manifestation and that is conducted with other supports such as image and video.

3. Using Natural Language Processing (NPL) and Machine Learning (ML) in Tourism

Destination Think lean on emotional senses help decide which messages are appropriate and different (Tea Golja, 2021). The NLP is a cognitive process to perform complex linguistics tasks, modeling the processes and ease the communication with the computer tools that make it possible to access them non-specialized users (Vásquez et al., 2009). The advantage of using this technique is that the speaker does not have to strive to learn the means of communication, unlike other means of interaction; on the other hand, the computer has limited understanding of language.

Compared to other methods that foremand written data, based on scraping and word delivery, for sentiment analysis (Sentiment-LDA), which is an expansion of Latent Dirichlet Allocation (LDA) which are then processed in R-language (Li & Zhu, 2017), PNL offers an added advantage by being able to group similar terms within the constructors from accepted model of consumer behavior. It permits reaching data sources from a certain focus of study and obtaining the related terms, and later group them according to the criteria that are pre-established: thus proceed to the acceptance or rejection of hypotheses. In addition, the development of these tools accessible in open source together with the ease of programming in Python language, open the way to its use for web positioning strategies, suggestive newsrooms in social networks both in Marketing and in Tourism Branding.

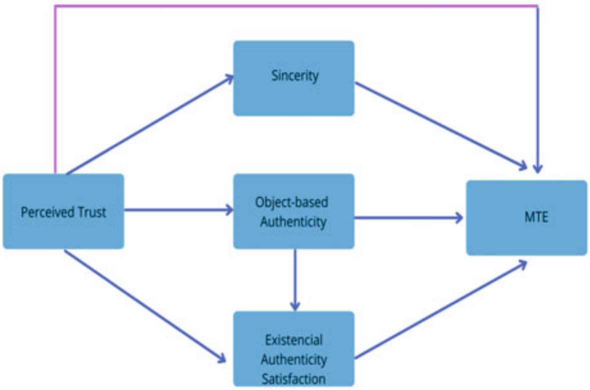
3 Methodology

For the assessment of comments within the influence, they may have on user behavior and the search for a Memorable Tourist Experience model—MTE (Taheri et al., 2018) is used where there are five builders that determine the perception of this experience, adapting them to the fit of the terms that make up each builder:

A. Sincere Social Interaction: Sincerity,
B. Sincere Emotional Response: Memorability (MTE),
C. Object-Based Authenticity: Authenticity,
D. Existential Authenticity: Satisfaction,
E. Perceived Trust: Loyalty (Fig. 1).

The adaptation to our object of study is directed towards Monumental tourist attractions, such as Acropolis and Royal Alcazar, in this case, changing the source of survey data to Tripadvisor reviews. This particularity suggests that we make an adaptation of the original model to the following scheme that includes more builders at each monument, "Views" at the Acropolis and, "Gardens" at the Alcazar, since in the study of reviews it is observed that these terms appear more present in the comments than the vast majority of the rest. According to the conclusions of Xiang and Gretzel work (2009), finding the special words that define a destiny (or attraction) is the central basis of the semantic structure of information. For each of the constructors of the original model, the same terms are taken from the constructors and their

Fig. 1 MTE Taheri's model adapted to reviews



nouns based on their definitions taken from the Real Academia de Español (RAE) and the synonyms are taken for each term of the Word Reference base constructs (see previous work of Toro-Sanchez at TourMan Conference 2021 -University of Thessaloniki-, for more details of methodology).

Taking two Monuments declared like World Heritage Site by UNESCO such as the Acropolis of Athens and the Royal Alcazars of Seville, the data collection ranges from the date of January 2020 to March of 2021, from a sum up from 300 Reviews for each monument of the Tripadvisor Platform have been used and separated into blocks by languages, local (Greek and Spanish in any case) and abroad languages, and type of visit independent or guided tour.

The terms of the reviews were taken using Java Open Source Natural Language Process and the specific technique with the Anaconda open source program and Python programming within three sequential steps:

- Tokenization: Breaking the space between words in a way that identifies the terms,
- Elimination of empty words: articles, prepositions, …
- Steaming: Snowball process is left with only the root of the term.

Each sample obtained by language is processed a serves as the Database used with the Machine Learning tool, BigML, and therefore obtaining correlation tables (Pearson coefficient) between the terms grouped by constructs of three types:

- Relationships between terms located in the Title of the reviews,
- relationships between related terms within the development of the
- commentary,
- relationships between the terms of the Review Title and the comments.

The acceptance coefficients for hypotheses are the same as the original model:

- Total acceptance (Significant): p (pearson) > 0.10,
- Partial Acceptance (Significant Partial): 0.08 < p (pearson) < 0.10,
- No relevance p < 0.08.

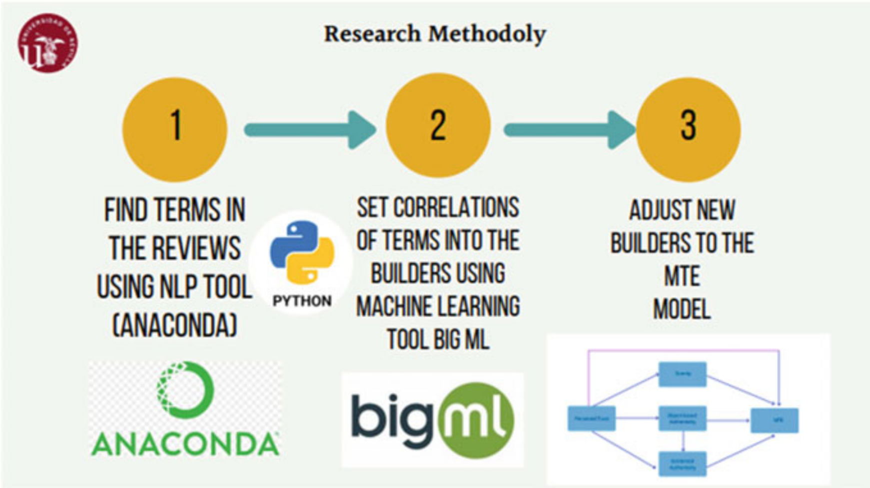


Fig. 2 Methodology of Reviews Model on MTE using NLP and ML Combined Tools. (*)Author's own elaboration

The work scheme can be simplified for compression in the following graph that summarizes the process (Fig. 2):

With the results obtained, and the same database is performed a second process of analysis not supervised with the Tool BigML, wherewith the coefficients of correlation obtained between the different groups of terms appear different cohorts that reinforce the proposal of the model MTE according to the type of enjoyment of the experience, guided tour, or independent visit.

Therefore, the following working hypotheses are proposed:

H1: the traveler-tourist identifies the tourist experience as unique to each monument based on differential factors of each of them with respect to the others.
H2: the traveler-tourist values more the experience in terms of memorability when it brings an added value to visit as it is a guided tour.

4 Results, Findings, and Discussions

Tripadvisor reviews follow a scheme in their writing composed of a title and the development of a comment. It recalls the one used by the Greek General Pausanias in his travel writings in the fifth century BC, so we could identify the title with the "Logoi" and the commentaries with the so-called "theoremata", thus generando a record "autopsy" on each destination as a target of travelers (Katsoni & Fytas, 2021).

Thus, three types of relationships are established between the terms:

- Relations between temenos of the Titles (Logoi),

- Relationships between the terms of Comments (Theoremata),
- Relationships between Title terms and Comments (Logoi/Theoremata).

(I) Extended model on the acropolis of Athens (Tables 1, 2, 3 and 4)

Graphically, the model attached to the study on the Acropolis approaches the base model of MTE with some uniqueness offered in this case by the abundant presence of terms relating to the differential fact of the views offered by the visit to the monument. It is observed that there is a relationship of influence on the construction of authenticity that in turn is related to the Memorability. In turn, the user also offers some importance, less relevant about the trust in terms of loyalty and recommendation, which in general influences the appearance of memorability (Fig. 3).

Table 1 Table correlations between terms in the titles (Logoi) of the reviews in the acropolis

	Loyalty	Sincerity	Authenticity	Satisfaction	Memorable	Views
Loyalty	1	N/A	0,5259	−0,02,162	0,10,473	0,06,346
Sincerity		1	N/A	N/A	N/A	N/A
Authenticity			1	−0,00,737	−0,10,440	−0,02,243
Satisfaction				1	−0,05,190	−0,11,150
Memorable					1	−0,01,580
Views						1

Table 2 Table correlations between terms in the reviewers (theoremata) comments on the acropolis

	Loyalty	Sincerity	Authenticity	Satisfaction	Memorable	Views
Loyalty	1	−0,42,970	**0,16,691**	−0,07,380	*0,07,158*	**−0,11,288**
Sincerity		1	−0,01,044	-0,0247	**0,11,262**	*−0,05,119*
Authenticity			1	−0,03,507	**0,15,986**	*0,06,560*
Satisfaction				1	**0,12,927**	*−0,07,849*
Memorable					1	−0,11,929
Views						1

Table 3 Table correlations between terms in titles and reviews comments on the acropolis (Logoi/Theoremata)

Tit/Com	Loyalty	Sincerity	Authenticity	Satisfaction	Memorable	Views
Loyalty	**0,19,495**	−0,03,063	**0,24,471**	0	−0,04,442	0,04,853
Sincerity	N/A	N/A	N/A	N/A	N/A	N/A
Authenticity	*−0,0610*	0	−0,01,481	−0,03,507	*0,0594*	*0,0656*
Satisfaction	−0,03,033	−0,00,519	*−0,07,370*	−0,01,744	−0,02,042	−0,03,613
Memorable	0,06,407	−0,00,735	-0,01,044	-0,02,470	**0,11,262**	−0,05,119
Views	−0,04,123	−0,01,580	0,14,829	−0,05,309	−0,06,217	**0,12,259**

Table 4 Table of relationship between constructs of the acropolis

	Relations	Confidence	Sincerity	Authenticity	Satisfaction	Memorability	Views
Confidence	Title/Title			*0,52,590*		0,10,473	*0,06,346*
	Comment/Comment			**0,16,691**		*0,07,158*	**−0,11,288**
	Titulo/Comment	**0,19,495**		**0,24,471**			
	Title/Title						
	Comment/Comment					**0,11,262**	*−0,05,119*
	Titulo/Comment						
Sincerity	Title/Title					**−0,10,440**	
	Comment/Comment					**0,15,986**	*0,06,560*
	Titulo/Comment	*−0,0610*			−0,03,507	*0,0594*	*0,0656*
Satisfaction	Title/Title					−0,05,190	**−0,11,150**
	Comment/Comment					**0,12,927**	*−0,07,849*
	Titulo/Comment					−0,02,042	
Memorability	Title/Title					1	
	Comment/Comment					1	**−0,11,929**
	Titulo/Comment	0,06,407				**0,11,262**	*−0,05,119*
Views	Title/Title			**0,14,829**	*−0,05,309*	*−0,06,217*	**0,12,259**
	Comment/Comment						
	Titulo/Comment						

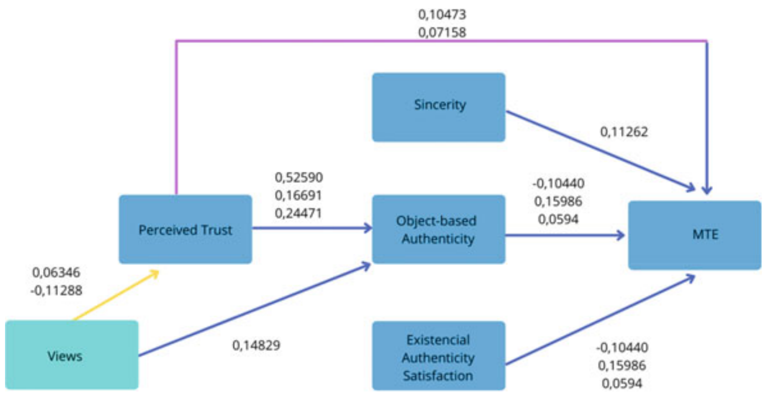


Fig. 3 Acropolis memorable experience model based on reviews

(a) Clustering Acrópolis

The results of cluster analysis in the Acropolis offer three groups with a fairly solid analysis given the population of each group in reference to the total sample and highlighting that it is in the guided visit that favors the appreciation of value and the reinforcement of the constructors of the Model of MTE, if we continue validating with correlations with Pearson coefficient greater than 0.1. It is remarkable in the sample collected that comments derived from TripAdvisor are generated in their great majority when they come from guided tours: Cluster 0 (90%). Also, the model presents high consistency with the model of MTE in all its constructs except Satisfaction and, if we observe the extended model with the differential constructo of the "views", no significance is appreciated, which reinforces the idea that the traveler-tourist acquires a more valued experience as a whole and aligned with the MTE when the tour is driven by a guide (Table 5 and Fig. 4).

(II) Extended model of the alcazar of Seville

From the complete study on the Alcazar of Seville, the initial data do not offer the singularity on the differential element, in this case the walk through the Royal Gardens, and the model according to the relationships obtained moves away from the base model of MTE (Tables 6, 7, 8, 9 and Fig. 5).

(b) Clustering Alcazar

In this case, the sample of the reviews in the Alcazar is more dispersed than in the Acropolis and the global centroid group does not identify the difference between the guided view or not, although it does a general consistency with the MTE model, in all its constructs except in the Authenticity, although close to 0.1, so it is partially accepted and define the model. In the analysis detailed by Cohorts, in detail it is observed that really the differentiating element of the Gardens with respect to the general model of the MTE occurs in the groups of individual views without guides,

Table 5 Cohort analysis of correlations in acropolis

Centroid_name	Sincer_comm	Authen_Title	Authent_comm	Memor_title	Memo_comm	Satisf_title	Satisf_com	Loyal_ title	Loyal_comen	Views_comm	View_titulo	Sex	Age	Score	Instances
Global group	0,0743	**0,1115**	**0,1487**	0,0740	**0,1041**	**0,372**	0,0781	**0,1041**	**0,2045**	0,02,639	0,0335	m	4	0,4858	269
Cluster 0 Group eng	0	**0,0117**	**0,1676**	0,000	**0,3911**	0,000	0,0726	**0,1230**	**0,1508**	0,03,519	0,0503	m	4	0,4821	179
Cluster 1 Group esp	**0,2222**	**0,0111**	**0,1111**	**0,2222**	**0,2333**	**0,1111**	0,0889	0,0667	**0,3111**	0,0889	0,0000	f	4	0,4933	90

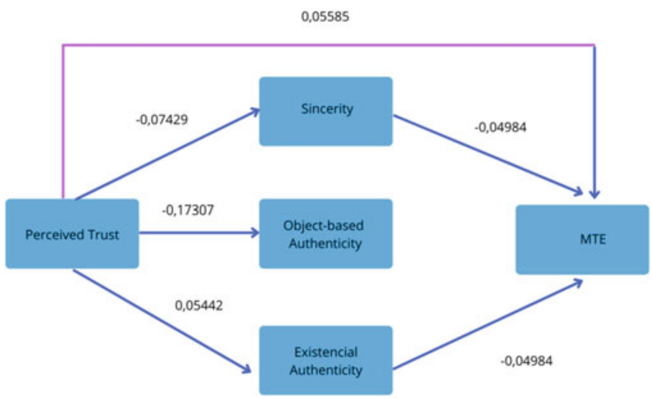


Fig. 4 Simple model of the "Alcázar de Sevilla"

Table 6 Table correlations between terms (Logoi) in the titles of the reviews in the Alcazar

Titles	Pearson/Spearman					
y/x	Loyalty	Sincerity	Authenticity	Satisfaction	MTE	Gardens
Loyalty	1	N/A	0,01,127	0	−0,04,582	**0,19,665**
Sincerity		1	N/A	−0,00,899	N/A	N/A
Authenticity			1	0	−0,01,165	**0,28,016**
Satisfaction				1	−0,01,165	−0,01,278
MTE					1	0
Gardens						1

Table 7 Table correlations between terms in the comments of the reviews in the Alcazar (Theoremata)

Comments	Pearson/Spearman					
y/x	Loyalty	Sincerity	Authenticity	Satisfaction	MTE	Gardens
Loyalty	1		−0,06,520	−0,01,907	−0,01,907	0,07,739
Sincerity		1	−0,03,247	−0,03,811	−0,03,811	0,02,095
Authenticity			1	0,04,851	0,00,833	−0,05,777
Satisfaction				1	0,04,514	−0,01,291
MTE					1	−0,07,656
Gardens						1

while the constructor is valued in the groups to which the reviews belong to guided tours, the model is solid and alienated with the general model of MTE.

We observe in both cases the reference of the reviews when it comes from a traveler-tourist who has made the guided tour to a greater extent than when he makes

Table 8 Table correlations between treminos in the titles and the comments of the reviews in the Alcazar (Logoi/Theoremata)

Titles/Comments						
y/x	Loyalty	Sincerity	Authenticity	Satisfaction	MTE	,Gardens
Loyalty	0,09	−0,03,536	0,06,631	0,06,532	−0,08,468	−0,02,574
Sincerity	N/A	N/A	N/A	N/A	N/A	N/A
Authenticity	0,03,615	−0,08,990	0,12,517	−0,03,106	−0,03,106	**0,14,934**
Satisfaction	0,03,615	**−0,00,899**	−0,02,647	0,10,240	−0,03,106	−0,02,574
MTE	0,02,793	−0,01,429	−0,04,208	−0,04,938	−0,04,938	−0,07,800
Gardens	**0,22,520**	−0,01,568	**0,21,840**	−0,01,568	0,02,343	**0,14,520**

the view individually. The reviews are of greater value to the subject (Memorability), lined in similar terms, they encourage more the recommendation (Perceived Trust) and approach the globality of the constructs of the general model of the MTE.

On the other hand, when the subject values differential elements, such as the impressive views of the Acropolis (especially at sunset) or the exquisite gardens of the Alcazar on their walk at the end of the visit, they belong to the group of reviews of visitors-tourists who enjoyed the experience individually.

Under these circumstances where the model is reinforced towards consistency in memorability when the experience of the visit to both monuments when it is done in a guided way within a group leads us to accept the Second Hypothesis: the traveler-tourist values more the experience in terms of memorability when it brings an added value to visit as it is a guided tour.

In reference to the first hypothesis, the study does not provide conclusive data on the differentiating elements of each monument by identifying them as a unique experience. It should be considered that there are terms used by traveler-tourists in each case that can determine the advisability or not of using differentiating elements when we value the Memorability of the experience and it is important to contemplate them in any analysis.

In this sense, the differentiating element of the views in the case of the Acropolis reinforces the general model of Memorability in the monument integrating as a new construct. While in the case of the Royal Alcazars of Seville, although there is a differential element with respect to the general model in this monument, in its visit to the gardens, we cannot configure it as a construct of the model.

The model in the Acropolis is shown with more consistency than the model of the Alcazares in terms of MTE both in its direct construct of Perceived Trust and in the compound on Authenticity: this leads us to observe that if the differentiating element is also consistent, it can be integrated into the model and value it as a construct in that specific case.

Table 9 Analysis of Cohorts on correlations in the Alcazar

Centroid_nam	Authe_comen	Autenti_tit	Memo_come	Memo_tit	Since_comen	Satisf_comen	Loyal_tit	Loya_comen	Gardens_tit	Gardens_comen	sex	age	Score	Instances
Global	0,0849	0,0738	**0,1144**	**0,1845**	**0,1107**	**0,118**	**0,103**	**0,306**	**0,2214**	**0,251**	f	3	0,048	271
Cluster 1 eng	0,0336	0,0018	**0,5542**	0,0000	0,0000	0,018	0,073	**0,311**	0,0000	0,100			**0,444**	55
Cluster 2 Group esp	**0,1332**	0,0000	**0,1167**	0,0000	0,0000	**1,000**	**0,117**	**0,266**	0,0000	0,067	f	3	0,050	30
Cluster 3 esp	0,0500	0,0167	**0,1667**	0,0000	0,0000	0,000	0,005	**1,000**	**1,0000**	0,067			0,047	6
Cluster 4 esp	0,0285	0,0000	0,0838	0,0000	0,0000	0,000	0,007	**0,19**1	0,0000	0,200			0,005	63
Cluster 5 Group esp	**0,3242**	0,0000	0,0681	**0,1617**	0,0000	0,000	0,097	0,146	0,0000	0,129	m	3	0,005	29
Cluster 6 esp	0,0662	0,0000	**0,1204**	0,0000	0,0576	0,000	**0,156**	0,005	0,0000	**0,202**			0,004	3
Cluster 7 Group esp	**0,2391**	0,0000	**0,1799**	0,0000	0,0000	0,190	0,097	**0,420**	0,0000	0,000	f	3	0,005	83

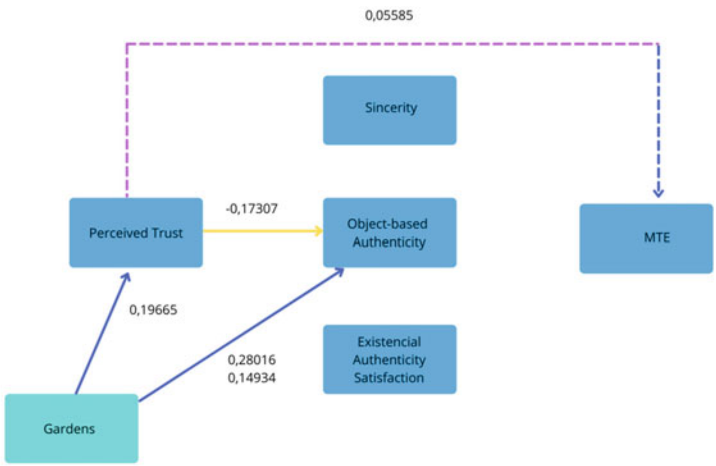


Fig. 5 Expanded model of the "Alcázar de Sevilla"

5 Conclusion, Limitations, and Further Studies

The Memorable Tourist Experience in Tehari's model is presented as a global scheme that is suitable to adapt it to the study of any tourist experience, material, or immaterial since it contemplates the values on which it must be based to consider it memorable. We must consider that these factors and the relationships between them acquire different weights according to each type of experience also according to the source of the data of the studies taken—survey or review—the typology of the user and its demographic characteristics, such as age, language, sex, type of individual or group trip.

The review, like the direct survey after the enjoyment of experience, offers the qualitative plus of the evidential study against the experience. In the case of this study, as in Taheri's study on which it is based, Perceived Trust practices a relationship of direct influence on roteness and also on the rest of the factors. In turn if the model is prone to include differential factors, as is the case of the "Views from the Acropolis" or the "Walk through the Gardens of the Royal Alcazars". On the other hand, the construction of Authenticity remains in its complexity in the model since although it directly influences memorability, it is always determined by other factors, such as trust itself or differential factors.

The analysis of subsequent cluster better defines the model and the relationships between the determination factors increasing the correlation coefficient. Specifically, it is observed that when there is a previous interest in enjoying a better experience, as is the case of hiring a private guide or doing the guided tour inside the monument, the Memorability in the experience is evident in addition to the rest of the factors even the differential ones.

It can be concluir that the Intention within the visit and the way how it is carried out is a determining factor in the Memorability of this whenever the expectations (planning) are exceeded in terms of Satisfaction, valuing the subsequent action of the publication of the review in terms of Perceived Trust.

The limitations of the study to the reduced use to the reviews on a specific platform such as TripAdvisor invite the use of other sources of review data since the user can be influenced by the channel where he usually recommends and above this, ontologically the hypotheses cannot be concluded without the completeness of a survey based on the previous study of Taheri.

Beyond the specific use, this methodology with Natural Language Process can contribute to an improved definition of the specific Value Proposition for each experience analyzed, as well as determine specific marketing actions based on the observed terms. The concrete conclusions about the work in Clusters of the study encourage continued research in proposals of added value on the experience such as guided tours, themed, and with complementary tools such as the use of audio guides or augmented reality tools.

Acknowledgements Ms. Sara González García from Instituto de Biomedicina de Sevilla for unestimated contribution in Data Processing on PNL.

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Online Food Ordering and Delivery Applications: An Empirical Study of the Factors Affecting Intention to Reuse

Evangelia Ganou, George Karavasilis, Vasiliki Vrana, and Evangelos Kehris

Abstract Food ordering and delivery platforms/applications is an emerging technology, widely adopted by customers, especially under COVID-19 pandemic conditions. The study aims at investigating the factors that influence users' intention to reuse platforms/applications. For the purpose of the study, a multiple linear regression model was developed and tested. Data was collected through an online survey and analyzed using SPSS 26. The model for first time integrates variables that access both quality of platform/application and quality of services. The quality of platform/application is the most significant success factor. It seems that consumers have already been convinced about the benefits of using these platforms/applications and the quality of platform/application is their main concern. Platform and application designers should emphasize and enhance the quality of the platform/application in order to gain competitive advantage.

Keywords Online food delivery platforms/applications · Intention to reuse · Quality of application · Quality of services · Greece

JEL Classification M15 · M31

1 Introduction

It's been just over a year since the emergence of pandemic of COVID-19 that disrupted businesses activities and people's lives. However, sectors such as online food services have demonstrated accelerated development (Schaefer, 2021). In 2020, food and beverage became the largest online Consumer Packaged Goods segment. Total online sales of food and beverage jumped by 125% from 2019, to \$106 billion (Lockhart, 2021). Food shopping and consumption changed rapidly and shifted towards convenience and speed of delivery because of COVID-19 and online food

E. Ganou · G. Karavasilis · V. Vrana (✉) · E. Kehris
International Hellenic University, Serres, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_57

delivery services experienced a big increase in search popularity (Pavlou & Georgiou, 2021). Li et al. (2020) and Amin et al. (2021) identified the importance of Food Delivery Applications for many people worldwide during the COVID-19 pandemic.

New advance in technology enables customer to order food through restaurant websites or online food delivery platforms/applications (Suhartanto et al., 2019) such as efood, Wolt, and BOX in Greece. The platforms/applications offer to consumers a wide variety of food choices from a wide range of restaurants, take consumers' orders and relay these to the food producers, accept and monitor the payment, the delivery and the provision of tracking facilities (Li et al., 2020). Consumers have also the chance to compare prices, menus, and user reviews in an easy way (Ribeiro, 2018).

Although the ordering and delivery services of food through online platforms/applications is promising, the literature regarding factors that affect customers' intention to use or reuse the platforms is limited (Suhartanto et al., 2019). Previous studies like those of Alalwan (2020), Suhartanto et al. (2019), Yeo et al. (2017) investigated different factors that impact customers' intention to use or reuse such applications. Alalwan (2020) reported on the role of online rating, online review, online tracking, hedonic motivation, performance expectancy, and price value on e-satisfaction and continued intention to reuse mobile food ordering applications. Suhartanto et al. (2019) found that food quality affects online loyalty of customers of food delivery platforms, but e-services quality does not. Yeo et al. (2017) investigated the role of price-saving orientation, time-saving orientation, usefulness, prior online purchase experience, hedonic motivation, consumer attitude, and behavioral intention towards online food delivery services. The context of these studies applies to certain countries and areas and may vary due to acceptance of technology, cultural differences, and other factors (Yeo et al., 2017).

In Greece online food delivery services is among the three top categories of online shopping (ELTRUN, 2019). This study takes a lead in understanding the factors that affect customers' intention to reuse online food delivery platforms/applications in Greece. The research model investigates the impact of quality of applications and quality of services on users' intention to reuse platforms/applications. Quality of platforms/applications is assessed by using the variables Perceived ease of use, Perceived Usefulness, Trustworthiness, and Time-Saving; and quality of services with the variables Price, Price-saving, and Various food choices.

The paper is organized as follows. The next section discusses the factors that affect intention to use or reuse the online food delivery platforms. This is followed by the methodology used to form the model under investigation. The statistical analysis and the validation of the proposed model are presented next and finally, the conclusions and recommendations for future research are given at the end of the paper.

2 Literature Review

Online food ordering and delivery services have recently gained popularity (Alalwan, 2020; Roh & Park, 2018). Consumers search and order food online, and then consume it in offline venues. A significant percentage of paid workers and working mothers rely on ready meals and delivery of food (Roh & Park, 2018; Costa et al., 2007) while the growth of single-person households has contributed in the diffusion of online food delivery services (Kim & Yoo, 2021; Kim et al., 2018; Roh & Park, 2018). Mobility limitations imposed due to the COVID-19 pandemic strengthen substantially online food ordering and delivery (Kumar & Shah, 2021). As the food application market has become an area of intense competition companies need to focus on maximizing the quality characteristics of the applications to gain competitive advantage (Cho et al., 2019). It is of crucial importance for the companies to establish strong relations with the users, so as to continue using the applications. According to Wang (2008) intention to reuse reflects customer loyalty. Intention to reuse means that the customer uses a service "*more than twice and has an intention to inform other consumers of the use experience through communication with friends and acquaintances, testimonials, or a social network service*" (Song et al., 2017 p. 40). Reddy and Aradhya (2020) claimed that quality of application and quality of service are the "*most important factors contributing to the success of online food delivery business*". Wang et al. (2018) who investigated a success model for catering applications found that service quality generates repeat usage of the catering app.

Thus, for the study the following hypothesis is formulated:

H1: Quality of application is positively associated with user's intention to reuse.
H2: Quality of services is positively associated with user's intention to reuse.

2.1 Quality of Application

2.1.1 Perceived Usefulness and Perceived Ease of Use

Perceived Usefulness and Perceived Ease of Use originated from TAM have been widely used to explain the determinants of conscious behaviors toward the use of technology (Davis, 1980; Davis et al., 1989) in a variety of contexts (Ursavas, 2013) integrated with domain-specific variables when new technologies are introduced (Karavasilis et al., 2016; Theocharidis et al., 2020). Davis (1980) defined Perceived usefulness as "*the degree to which a person believes that using a particular system would enhance his or her job performance*" and Perceived ease of use as "*the degree to which a person believes that using a particular system would be free of physical and mental effort*".

In the context of food delivery platforms/application, the role of Perceived Usefulness and Perceived Ease of Use were investigated in previous studies. Roh & Park (2019) investigated the influence of Perceived Usefulness and Perceived Ease of Use on intention to use food delivery applications. Consistent with the predictions made by TAM higher perceived ease of use leads to more positive perception of the usefulness of the application, which in turn increases the intention to use the application. Despite the fact that TAM is a dominant theory to explain users' acceptance of new technologies, satisfaction with new technologies has been less studied. Based on this background, Choi (2020) examined the relationships between perceived ease of use, perceived usefulness, satisfaction, and intention to reuse mobile food delivery applications. According to the findings, perceived ease of use is positively associated with perceived usefulness, which affects satisfaction and intention to reuse the application. Alaimo et al. (2020) also claimed that Ease of Use and Perceived usefulness of the online food channels plays an important role on user's behavioral intention towards the application.

2.1.2 Trustworthiness

Trust has been recognized as cornerstone in business to build relationships with consumers (Hajli, 2014). Uncertainty, lack of control, anonymity, and potential opportunism characterize electronic transactions (Pavlou et al., 2007; Thaw et al., 2007) along with high speed that criminal acts can be performed (Cheung & Lee, 2006). Toma (2010) claimed that trust is a different context to trustworthiness, as it refers to the characteristics of trustees that are worthy to trust (Winnie, 2014). Babi and Zhao (2015) defined trustworthiness as "*the ability of the system to do what it exactly expected to do despite all type of disruption including: environmental disruption, users, operator errors, and all types of attacks, malicious and non-malicious, by hostile parties*" and Medeiros et al. (2017) as "*the worthiness. of a service and its provider for being trusted*". Trustworthiness influences people's online behavior and in this vein, it is important to investigate trustworthiness of the applications and sources of information that people use (Del Chiappa, 2011). Given the vast different web threats that hinder the trustworthiness of a web service, the judgment of its trustworthiness becomes a continuous problem (Mohammad & AbuMansour, 2017).

However, only a few studies have investigated the role of trustworthiness. Jamaludin et al. (2019) highlighted the positive role of trustworthiness of food delivery applications on customer perceived value and Winnie (2014) in the context of e-commerce, found that trustworthiness plays a paramount role in predicting customer satisfaction. Cho et al. (2019) found that user trustworthiness is the most important quality factor of the food delivery applications, improving the user's perceived value and influencing intention to continually use the online food delivery applications.

2.1.3 Time-Saving

When consumers turn to online shopping, they have an intention to "buy time" (Jensen, 2012). Nowadays busy life and full-time schedule influence the development and use of online food delivery services (Prabowo & Nugroho, 2018). People use online food delivery applications as they save time (Dazmin & Ho, 2019) since they put orders in the shortest time (Srajal et al., 2019). Wu (2003) stated that consumers continue to use online services as long as time-saving incurs. Prabowo and Nugroho (2018) stressed the fact that time-saving has a strong relation with usage, as the more users can save time the more they use the applications. Dazmin and Ho (2019) found that time-saving is a more significant factor compared to price-saving, may be because higher income consumers value time more than cost (Yeo et al., 2017). Devaraj et al. (2002) mentioned also that if a particular channel is perceived to be time-saving they are more satisfied with it. Using online food delivery applications, the time-saving factor increases the value of the application as it reduces the amount of time the consumers put into purchasing their meals (Muhamad et al., 2020).

2.2 Food Delivery Application Quality of Services

2.2.1 Various Food Choices

Food delivery applications offer customers the possibility to make various food choices from different cuisines and an expanding number of restaurants, from the comfort of their home (Cho et al., 2019). Before the appearance of the applications food delivery services were limited only to orders from a specific restaurant, through restaurant's website or telephone. Cho et al. (2019) claimed that the various food choices are very important quality characteristic as it affects the sustainability of the application and according to Bao and Zhu (2021) various choices are a significant antecedent of customer satisfaction and perceived value, which in turn positively influence customers' intention to reuse.

2.2.2 Price and Price-Saving

Price is a significant factor that consumers take into consideration when they evaluate choices (Jamaludin et al., 2019) and determine their buying decisions (Roy et al., 2016). Consumers place a different level of importance on price relative to other purchasing criteria like needs, income levels, products, brand credibility, and time (Erdem et al., 2002; Natarajan et al., 2017). If customers are highly price-sensitive, they seek lower prices compared to other customers who are less price-sensitive (Goldsmith et al., 2005). Using food delivery applications consumers have the ability to compare prices and choose the best deal for them (Dazmin & Ho, 2019). Alalwan (2020) found that price is able to predict customers' intention to continue using online

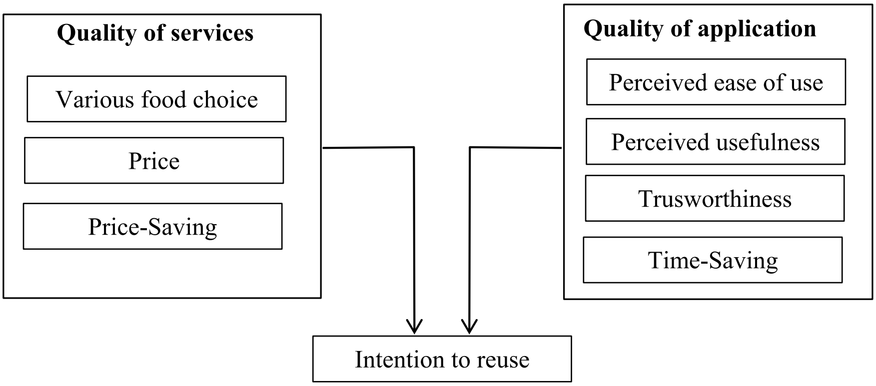

Fig. 1 The research model

food delivery applications. This finding is consistent with the findings of Zhuang et al. (2021) who suggested that the structure of price may have major implications on consumer intention to reuse the technology of food delivery applications. On the other hand, Lee et al. (2019) claimed that price is not a key factor determining the continuous use intention of delivery applications.

Figure 1 represents the model under investigation.

3 Methodology

3.1 Sample and Data Collection

An online survey was conducted to collect data and validate the research model. The questionnaire was created with Google forms and posted on Facebook pages of the researchers from 15 May to 30 June 2021. Users of online food delivery platforms/applications were recruited to participate in the survey. Responders who do not use online food delivery platforms/applications were excluded from the analyses. A total of 128 usable questionnaires were collected. Thus, the study involves a convenience sample. The sample characteristics are presented in Table 1.

Of the 128 responders, 73.4% are female and 26.6% are male. The age group that responded more are those of 51–60 with a percentage of 32%, followed by young responders from 18–30 with a percentage of 29.7%. The age group 31–40 and 41–50 participated in a percentage of 14.8% and 23.4%, respectively, in the sample. More than half of the responders are married 51.6% and a significant percentage of 41.4% are single. Regarding the higher level of education of the responders 51.6% hold a master degree and 28.9% hold a bachelor degree. Finally, 73.5% are employees, civil servants or private employees and 10.9% are university students. Unemployed, housewives, and retired are represented in the sample in small percentages.

Table 1 Sample description

		Frequency	Percentage (%)
Gender	Male	34	26.6
	Female	94	73.4
Age	18–30	39	29.7
	31–40	19	14.8
	41–50	30	23.4
	51–60	41	32.0
	> 60	0	0
Marital Status	Single	53	41.4
	Married	66	51.6
	Divorced	5	3.9
	Widowed	3	2.3
Higher Level of education	Secondary education	18	14.1
	Post-secondary education	4	3.1
	Bachelor	37	28.9
	Master	66	51.6
	Ph.d	3	2.3
Employment	Unemployed	5	3.9
	Civil Servant	55	43.0
	Freelancer	9	7
	Private employee	39	30.5
	Housewife	2	1.6
	Retired	4	3.1
	University student	14	10.9

3.2 Measurement

In order to increase the reliability and validity of the study, the questionnaire was created by adopting variables and items from previous studies. All the items were initially being in English. The questionnaire was developed, revised, back-translated (Brislin, 1970), and administered into Greek. Two experts in the online food delivery applications and two university professors verified the scales before being used in the questionnaire (Ul Haq & Awan, 2020).

Items were assessed using seven-point Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree). The questionnaire consists of eight parts. Each part is related to a specific variable: (1) Perceived ease of use, adopted from Choi (2020), (2) Perceived usefulness, adopted from Roh & Park (2019), (3) Trustworthiness, adopted from Jamaludin et al. (2019), (4) Various food choices, adopted from Cho et al. (2019) and Jamaludin et al. (2019), (5) Price, adopted from Cho, Bonn & Li (2009), (6) Price-saving, adopted from Yeo et al. (2017), (7) Time-saving, adopted from Yeo et al. (2017), (8) Intention to reuse, adopted from Lee et al. (2019).

Demographic characteristics of the responders and usage of online food delivery applications were also recorded. A pilot study was conducted to test the feasibility and the adequacy of the research questionnaire by administering it to 12 online food delivery applications users (Dimitriadis et al., 2013; Julious, 2005). SPSS Statistics 26 was used for the analysis.

4 Results

4.1 Online Food Delivery Application Use

The sample consists of users that use frequently enough the online food delivery applications. More than half of the responders use the applications more than once a month while more than one out of three use applications once a week or more as it is shown in Table 2.

A multiple choice question was used to investigate which online food delivery applications the responders use. The majority of the responders (71.09%) use efood. efood is the leading online food delivery application in Greece founded in 2012. Efood customers can order food between 15.000 stores in 90 cities in the country. Fatepaketo.gr follows at responders' preferences. Fatepaketo.gr is a local website serving four cities, Thessaloniki, Serres, Kavala, and Drama. Wolt comes third in users' preferences. Wolt is an award-winning global online food delivery platform that was founded as a startup in Finland in 2014 and come in Greece in 2019. Today it has partner restaurants in 6 cities. Next in the responses was placed Delivery.gr, the first online platform of its kind that was created in Patras back in 2006, when the Internet was slow and shopkeepers and customers were untrained in online ordering. Today it hosts 3,000 catering companies in 39 cities of the country and sends over 6,000 orders daily. Box own by Cosmote comes next with a percentage of 9.38%. Box

Table 2 Frequency of use of online food delivery applications

	Frequency	Percentage (%)
Once a year	12	9.4
Several times a year	27	21.1
Once a month	25	19.9
Once a fortnight	19	14.8
Once a week	24	18,8
More than once a week	10	7,8
Daily	9	7

Table 3 The online food delivery applications

	Frequency	Percentage (%)
efood	91	71,09
Delivery.gr	17	13.28
BOX	12	9.38
Wolt	20	15.63
Fatepaketo.gr	48	37.50

cooperates with 9000 stores in 60 cities in the country. Box has expanded its activities to online delivery of supermarket products, in collaboration with well-known chains, and customers can order between 15.000 products (Table 3).

4.2 Data Analysis

The questionnaire was tested for reliability. Overall, the measures in this study are reliable (Table 4). The results show that the Cronbach a of the 33 items is 0.965 meaning that the questionnaire is reliable. Cronbach a of all variables (Table 5) is above the threshold level 0.7.

In Table 6, summary statistics for each variable are displayed. The variables' scores were derived by averaging each participant's response values across the items of each variable. The mean of all variables is greater than five with the exception of the variable Price-saving which has a mean value of 4.888. The Perceived ease of use has the highest mean, followed by Perceived usefulness and Various food choices, reflecting the importance of the features for the users.

Table 4 Reliability test

Cronbach a	No of items
0.965	33

Table 5 Reliability test of all variables

	Cronbach a	No of items
Various food choices	0.836	3
Price	0.875	3
Price-saving	0.703	3
Time-saving	0.854	4
Perceived ease of use	0.858	5
Perceived usefulness	0.868	4
Trustworthiness	0.877	3
Intention to reuse	0.903	4

Table 6 Descriptive statistics

	Mean	Std. Deviation
Various food choices	5.70	1.02
Price	5.05	1.06
Price-saving	4.89	1.26
Time-saving	5.64	1.11
Perceived ease of use	5.95	0.93
Perceived usefulness	5.78	1.03
Trustworthiness	5.48	1.20
Intention to reuse	5.26	1.32

In order to examine the effect of the factors on the intention of the user to reuse a delivery application a multiple linear regression model was adopted. All the factors were grouped in the two independent variables of the model: Quality of Services (Various food choices, Price, Price saving) and Quality of Application (Time-saving, Perceived ease of use, Perceived usefulness, and Trustworthiness). The Intention to reuse was the dependent variable of the model. The results of the stepwise regression model are presented in Tables 7 and 8.

It seem's that the Quality of services is not a significant factor affecting consumers' intention to reuse a food ordering and delivery applications. It is likely th56/9at

Table 7 Model summary

Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.696[a]	0.484	0.480	0.94804

[a]Predictors: (constant), quality of application

Table 8 Model statistics

Coefficients[a]						
Model		Unstandardized coefficients		Standardized coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	−0.272	0.519		−0.525	0.601
	Quality of application	0.969	0.090	0.696	10.795	0.000
Excluded variables						
Model	Beta In	t	Sig	Partial Correlation		
1	Quality of services	0.007	0.086	0.932	0.008	

[a]Dependen't variable: intention to reuse

the consumers have already been convinced about the benefits of using these platforms/applications and the quality of platform/application is their main concern. The equation obtained by the above model is:

$$\text{Intention to reuse} = -0.272 + 0.969 \cdot \text{Quality of application}$$

underlying the significance of the quality of application on the intention to reuse the online food ordering and delivery application.

5 Discussion and Conclusion

Online food delivery platforms/applications which have become a trend in recent years turned into a necessity during the mobility limitations of the COVID-19 pandemic. In Greece, online food delivery services are among the three top categories of online shopping. Previous studies tried to investigate the factors that affect consumers' intention to use or reuse online food delivery platforms/applications. However, the context of these studies applies to certain countries and areas and may vary due to various factors such as the acceptance of technology, cultural differences, etc. In this context, this paper aims at investigating the factors that influence intention to reuse online food delivery platforms/applications in Greece. A multiple linear regression model was developed and tested for the purpose of the study. The model for the first time integrates variables that access both quality of platform/application and quality of services.

According to the findings, the most important success factor is quality of platform/application. It seems that consumers have already been convinced about the benefits of using these platforms/applications and the quality of platform/application is their main concern. The result indicates that the platform/application designers should emphasize and enhance the quality of the platform/application in order to gain competitive advantage. Quality of platform/application was assessed by using four variables: Perceived ease of use, Perceived usefulness, time-saving, and trustworthiness. Thus, the platform/application designers should emphasize and enhance these four characteristics of their platforms/applications.

The vital role of perceived ease of use and perceived usefulness was confirmed as the two variables exert an effect in shaping the view about the quality of platform/application and consequently in decision making about the reuse of platform/application. Consumers who perceive that the platform/application is easy to use, have a more positive view about the quality of platform/application and are more likely to reuse it. Companies should adopt strategies that make all the processes of the platform/application from installation (if needed) and registration, to search, order, payment and tracking the food order as user friendly, easy and understandable as possible. Short video tutorials regarding the use of the platform/application should enhance customers' productivity and confidence using the platform/application.

Consumer perceptions about quality of platform/application become more positive when they are able to save time. The time that users save is a significant utility they gain. As customers see that they accomplish orders and make checkout more quickly they are more eager to use the platform/application again.

Users' trustworthiness is a complex process involving both the platform/application and its food vendors (Cho et al., 2019). So the owners of platform/application and their food vendors should cooperate and focus on what determines trust and try together to build users' trust. From one side, the owners of platform/application should take care of the security mechanisms. Security issues are a major concern of platforms/ applications, as platforms/applications carry vital information, like users' credit cards and are prone to various attacks. Users also provide their personal information, which makes them vulnerable to malicious use of the data. Owners of platform/applications should guarantee that personal data will not be lost or stolen by third parties for illegal or unethical purposes and communicate this to the users of the platform/application. On the other side, the information provided by the platform/application should be reliable. Food vendors should focus on maintaining the information provided to the platform/ application fully updated so consumers may place meal orders conveniently.

The sample used in this research is a convenience sample which raises concerns that the results might not be generalizable however model offers a starting point for the investigation of factors affecting customers' intention to reuse online food delivery applications. The study proposes a new theoretical approach that takes into consideration both service quality and application quality. The data collected during the study were coming from Greece offering insights for intentions of Greek consumers and the generalizability of the findings may be limited. More surveys and analyses should be conducted using samples of consumers in other countries in order to establish the validation of the proposed model.

The data provide evidence for users' intention to reuse food delivery platforms/applications taking into consideration service quality and platform/application quality. Future research, entailing a larger sample and use of Structural Equation Modeling may investigate the impact of each of the variables Perceived ease of use, Perceived Usefulness, Trustworthiness, Time-Saving, Price, Price-saving, and Various food choices on users' e-satisfaction and intention to reuse the platforms/applications.

Acknowledgements We would like to thank the M.B.A. in Hospitality and Tourism, International Hellenic University for financial support.

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Exploring Tourists' Food and Beverage Spots in an Urban Destination Using a Spatial–temporal Approach

Ioannis A. Nikas, Athanasios Koutras, Alkiviadis Panagopoulos, and Anastasios Vasileiadis

Abstract An important part of planning a trip involves not only search for accommodation, but for food and beverage spots as well, to enhance the visitor's travel experience, especially when the trip involves visits to major urban centers. The agony and/or joy of tourists to meet the desired destinations can be seen nowadays in the continuous and overwhelming number of posts of their exact geographical position whereabouts together with evaluations of the provided travel services, using social networks and photo-sharing applications. The process of capturing and evaluating the travel experience has now been integrated into the life cycle of a trip, whether it involves visiting a museum, the accommodation, or the meals and drinks during the day. In this work, a temporal-spatial methodology is proposed, based mainly on clustering methods, to analyze geo-tagged data related to potential food and beverage choices of visitors in major urban centers during their holidays. Our aim is to depict spatially and temporally tourists' food and beverage preferences during their stay in a city. The proposed methodology is tested on data acquired from the city of Athens from the Flickr photo-sharing platform and the OpenStreetMap web services.

Keywords Social media analytics · Spatial–temporal analysis · Cluster analysis · Flickr · OpenStreetMap

JEL Classification C23 · C33 · C38 · C55 · L83 · Z32

I. A. Nikas (✉) · A. Panagopoulos · A. Vasileiadis
Department of Tourism Management, University of Patras, Patras, Greece
e-mail: nikas@upatras.gr

A. Koutras
Department of Electrical and Computer Engineering, University of Peloponnese, Peloponnese, Greece

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_58

1 Introduction

Many aspects of our lives, especially those associated with fun and leisure, are posted on the World Wide Web through our personal social networks, forums or online distribution channels, and are available almost to everyone. Nowadays, other travelers' experiences constitute the necessary input for designing unique and personal tourist products that increase significantly the likelihood of future customers' satisfaction in consuming their own products. In addition, being constantly online (with high-speed networks such as 5G and high-end smart devices) enables the interaction with the produced and consumed tourist content, making it dynamic and modifiable (Ciasullo et al., 2021; Marchiori & Cantoni, 2015). The online sharing of travel instances, whether on social media or photo-sharing apps, gives users the opportunity to instantly access the generated content, almost at the moment that this is being experienced. Hence, users are becoming "living" aspects of their future travel choices and at the same time participate in a continuous evaluation on new and existing experiences and products.

Planning a trip is a process, through which a special tourist experience is designed, shaped and possibly consumed without restrictions, under the assumptions that our daily lives are governed by a necessary regularity in the sense of free and unhindered movement (mainly due to the COVID-19 pandemic and the subsequent lockdowns) and there is an immediate access to all available digital and physical infrastructures. One of the most important steps in this process is the search for accommodation. At a second level, taking into account the need to enrich their experience, visitors also include Food and Beverage spots (F&B POIs—Food & Beverage Points of Interest) in their plans, especially when these involve visiting urban areas.

From the stakeholders' side, the importance of Information and Communication Technologies (ICTs) and the applications of World Wide Web in the distribution of tourism product are indisputable and seems to be an inevitable step towards the future of tourism development. Cities, as tourism destinations, should be highly competitive and beyond that should co-create their tourism products along with their potential visitors (Buhalis, 2000; Smith, 2015). Furthermore, the available urban touristic resources, as well local infrastructures should be efficiently managed and routed under the visitors and native citizens demands and needs (Bădiţă, 2013; Smith, 2015). Along with the development of ICTs, a significant increment in the functionality of a city as a tourism destination has initiated the development of the context of smart tourism. Yet, smart tourism is being thoroughly discussed (Buhalis & Amaranggana, 2015; Gretzel et al., 2015a; Li et al., 2017; Yoo et al., 2017; Akdu, 2020) and still forging the shape of modern cities and urban environments. New ideas have been established where "digital ecosystems and smart business networks" are combined to develop Smart Tourism Ecosystems (Gretzel et al., 2015b). These kinds of environments allow tourism stakeholders to elevate and enrich their services using the existing city's digital environment (Gretzel et al.,2015b; Brandt et al., 2017).

The sustainability of these environments remains, also, a crucial issue and all the available spatio-temporal oriented data are showing their importance in understanding the future of various tourist ecosystems. These data are usually revealing the impact of visitors' habits and presence along with available infrastructures, urban landmarks, etc. The official statistics provide accurate and reliable data, but present the drawback that they are published with a significance delay, so there is an inherent difficulty in extracting information about tourist behavior, especially in urban area environments (García-Palomares et al., 2015). In a smart city environment behavioral information is required and ideally, should be accessed immediately. Furthermore, researchers are allowed to "cut" their dependence on official statistics (Shelton et al., 2015). But at the bottom line, the combination of less variable features and behavioral information should be the future key in understanding and developing sustainable tourism areas.

The analysis of large spatio-temporal data is not something new, and even more, the analysis framework as well as its reliability are still being studied. In addition, recent interesting results have been published in the direction of an essential understanding of urban tourism phenomenon. Thus, in this work, volunteered geographic information data are employed to investigate the behavior of tourists in major urban areas. Specifically, a spatial clustering-based methodology is proposed and applied on spatio-temporal data sets collected from photo-sharing social platforms to analyze geo-tagged data that are related to F&B POIs in major city centers. The aim of this work is to show (mostly spatially) F&B locations and how they are related with the visitors' position during their stay in a city. The proposed methodology is applied on the city of Athens using data from the Flickr photo-sharing site and OpenStreetMap web services.

2 Literature Review

Web 2.0 popularization and development change partially its content as it becomes user driven, known as User-Generated Content, (Bruns, 2007; Straumann et al., 2014). At the same time, all the users' devices (smartphones, GPS devices, etc.) generate geolocated information, which, aptly, is named big (geo)data (García-Palomares et al., 2015). Nowadays, the most common source of producing geolocated data are social networks (Batty, 2013), which can be employed in various ways (Kitchin, 2013).

The overall tourism experience includes trip preparation to the end of the trip back at home, which usually involves internet and social networks (Fotis et al., 2012; Leung et al., 2013; Zeng & Gerritsen, 2014; Munar & Jacobsen, 2014). So, geotagged data beyond the extraction of tourists' destination preferences and points of interest in an urban area (Junker et al.,2017; Paldino et al., 2015) can also be used as consulting material for future visitors (Buhalis & Law, 2008; Xiang & Gretzel, 2010).

Several studies have been developed to analyze social media data in connection with tourism activity, using geo-tagged data sourced on web services like Flickr and Panoramio: Wood et al. (2013) used photographs to estimate number of visitors in tourism sites; Girardin et al. (2008) studied the tourists' behavior in Rome analyzing their flows between various points of interest; Popescu et al. (2009) identified places people were visited as well as the duration of their stay; (Gavric et al., 2011) extracted Berlin's preferred locations and tourist dynamics; Kisilevich et al. (2013) identified popular city landmarks and events; Kurashima et al. (2013) used geotagged photos as a sequence of visited locations and then they recommend travel routes between landmarks; De Choudhury et al. (2010) introduced the creation of automated travel itineraries aiming in creating meaningful travel itineraries for individuals and professionals; Mamei et al. (2010) also recommended personalized routes using tourist experiences, behavior, and tastes; (Lu et al., 2010) suggested tourist trips based on photo-sharing geodata; Li (2013) used geotagged photographs to approximate the optimal solution for tourists' multi-day and multi-stay travel planning using the Iterated Local Search heuristic algorithm; Tammet et al. (2013) developed sightmap exploiting photos density; Koerbitz et al. (2013) approximated the overnight stays in Austria and compare their results with the official statistics; Straumann et al. (2014) distinguished and studied foreign and domestic visitors in Zurich; Sun and Fan (2014) identified social events; García-Palomares et al. (2015) identified tourist hot spots in European metropolis using spatial statistical techniques to analyze location patterns.

Recently, for the problem of discovering Tourism Areas of Interest (TAOIs), Koutras et al. (2019) extracted TAOIs using volunteered geographic information, Devkota et al. (2019) investigated the same topic combining in addition nighttime light remotely sensed data with promising results, especially for areas with low social media penetration, while Karayazi et al. (2020, 2021) discussed the issue of extracting information regarding the attractiveness and representation of heritage sites. Lastly, Liu et al. (2021) discussed the performance of methods which detect base locations of individuals, contributing in a second layer on the general context of reliability of the methods discussed in this work.

3 Methodology

3.1 Experimental Setup

For our analysis, data from the Flickr (www.flickr.com) photo-sharing platform was used. Flickr offers publicly geo-tagged photo data to registered users via Flickr's Application Programming Interface (API) (www.flickr.com/services/api/) for non-commercial use. A great number of photos uploaded to the platform is taken by tourists during their trip using GPS enabled on their photo cameras or smartphones. Picture information such as user name, geolocation of the photo, date and time that the photo was taken and uploaded, type of camera that was used, photo metadata, photo

EXIF data, etc., can be queried and retrieved using requests in REST, XML-RPC or SOAP format. The platform's API response formats include REST, XML-RPC, SOAP, JSON, or PHP depending on the developer's request. In this work, we used REST requests to the API, while the responses were returned in JSON format.

In detail, the flickr.photos.search method was employed in collecting photos for our experiments. This method provides various optional arguments that can be used to narrow our search spatially as well as temporally. For the first case, a user has the choice of querying for pictures taken inside a confined geographic area in the form of a rectangle bounding box with user-defined bottom-left and top-right corners of the box.

To extract photos using the Flickr API, we have written a script in PHP language using the following parameters in our query:

1. **Area of interest**: since we want to study visitors of the city of Athens, we define a bounding box with long/lat 23.5923,37.8058 (corner A), and 23.9178,38.1479 (corner B) that includes the city's administrative boundaries.
2. **Temporal period of interest**: we queried photos taken in the above area of interest in a period from 1/1/2009 to 15/10/2017.

The query results were returned in JSON format and they contain important information about photos, including photo ID, owner ID, photo title, photo geolocation (latitude and longitude), date that the picture was taken, date that the picture was uploaded, textual tags, as well as various information, such as the ID of the host server. Among the metadata, photo title, textual tags, and location are optionally provided by users, while the other fields (e.g., photo ID and server ID) are automatically filled by Flickr when the photos are uploaded. Location information is available for each metadata record, since we have only retrieved geotagged photos. In this work, only the owner ID, the date that the photo was taken, the time that the photo was taken, the latitude/longitude, and the place_ID of the photo were retained.

The sample size was 201.100 photos. All data were pre-processed prior to the analysis to initially remove multiple photos taken from the same user in the same location in a very short period of time (multiple pictures taken within a minute). Additionally, to exclude locals from tourists that are our main subject of interest, we searched for users who appear in the database for a period longer than one month (García-Palomares et al., 2015), we categorized them as locals and excluded them. After the preprocessing step, the final number of photos in the database was 193.554.

3.2 Experiments

The purpose of this research is to explore big volunteered geographic information data sets publicly available from the world wide web by extracting information about the tourist concentration in urban areas taking into account the city's F&B POIs. Exploratory data analysis techniques on photograph geolocation data are applied, constrained in a specific urban area, aiming to uncover more points of interest, like

F&B spots, beyond the traditional TAOIs within a city that show big concentration of visitors. In this direction, a number of clustering and spatio-temporal techniques have been applied on the geolocation data of our collected data.

Various spatial clustering algorithms (K-means, fuzzy C-means, Neural Network based, etc.) have been used for the problem of finding points of interest in an urban area. A comprehensive reference to these methods can be found in Devkota et al. (2019). In this work, the choice of the algorithm that has been used for our analysis was based on the following specifications:

1. A clustering technique should be used that doesn't require a pre-determined number of clusters, rather it works in an unsupervised manner as the exact number of clusters (TAOIs) cannot be not known beforehand.
2. The clustering method should result in clusters with a user-defined minimum distance to each other. This is important as it can help us find TAOIs nearer to or further away from each other inside the city boundaries.
3. The user can define the minimum number of members in every cluster and thus define the minimum desired concentration of tourists in every TAOI.
4. The clustering method must be robust to noise and classify only the significant examples, rejecting any noisy data.

Taking the above specifications into consideration, the DBSCAN (Ester et al., 1996), a density-based spatial clustering method, is used. The algorithm's performance depends on two hyper-parameters: (a) parameter Eps, the search radius of the algorithm, and (b) parameter MinPts, the minimum number of points within the search radius. These two parameters define a minimum density threshold, and clusters are identified at locations where the density of points is larger than this threshold.

The values of Eps and MinPts were selected heuristically using a series of tests on the available data. Parameter Eps is attributed to the scale of the regions that are to be clustered. The size of the found AOIs depends on the size of parameter Eps. The second parameter MinPts defines the minimum number of points (cluster members) that is required to form a new cluster. Again, the conducted tests show that using a large value of MinPts, a higher significance is secured for the detection of clusters but in this case some interesting and meaningful small areas are lost since the algorithm tends to unify them in a larger one; using a smaller value leads to larger number of clusters but some of them may also include noisy results.

The DBSCAN algorithm was used as implemented in the Statistics and Machine Learning Toolbox of Matlab (Matlab, 2020). The resulting figures were created using the QGIS software (QGIS Development Team, 2009). QGIS is a free and open-source geographic visualization system that has been used by a large community to create, visualize, analyze, and publish geospatial information in various applications that include but are not limited to tourist data, health data, etc.

4 Results

The application of DBSCAN algorithm on the Flickr data set describing the locations of tourists is shown in Fig. 1. It is clear that the algorithm returns 7 clusters which cover 7 significant TAOIs in the city of Athens (Koutras et al., 2019): Acropolis of Athens, Panepistimiou Street, Lycabettus Monument, Panathenaic Stadium, Syntagma Square, Temple of Olympian Zeus, and finally National Archaeological Museum of Athens. The above landmarks actually describe the city of Athens in its entity involving areas with ancient monuments, as well as downtown important sites and buildings (www.visitgreece.gr).

Next, the set of all F&B spots located in the center of Athens is investigated. This set is retrieved from the OSM project (OpenStreetMap, 2021) and it was initially pre-filtered to keep only those data labeled as 'bar', 'cafe', and 'restaurant'. On this set, the DBSCAN algorithm is applied to reveal potential centers of F&B spots inside the center of Athens. The results are shown in Fig. 2. For the analysis of this data set, the algorithm's parameter Eps was set to 0.0014 and MinPts to 25. The clusters with their different group members are shown in Table 1.

To further analyze visitors' habitat behavior, as well as to provide an interpretation to the way F&B spots were developed in the city of Athens, especially in its historical center, the above two results are illustrated in the same map, as it is shown in Fig. 3. At first glance, it is evident that the most important F&B spots are lying inside the ATOIs, found by the clustering process.

Additionally, the route traces for all visitors are overlayed on the same map, as it is shown in Fig. 4. The visitors' route inside the city of Athens is designed by sorting all data over the time a photo is taken, and then by keeping only one photo per area and

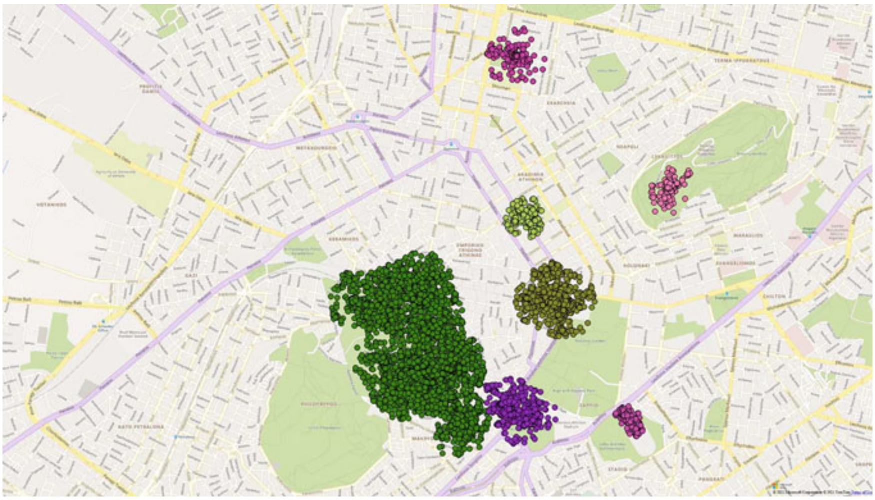

Fig. 1 DBSCAN algorithm applied on photo-sharing data from the city of Athens

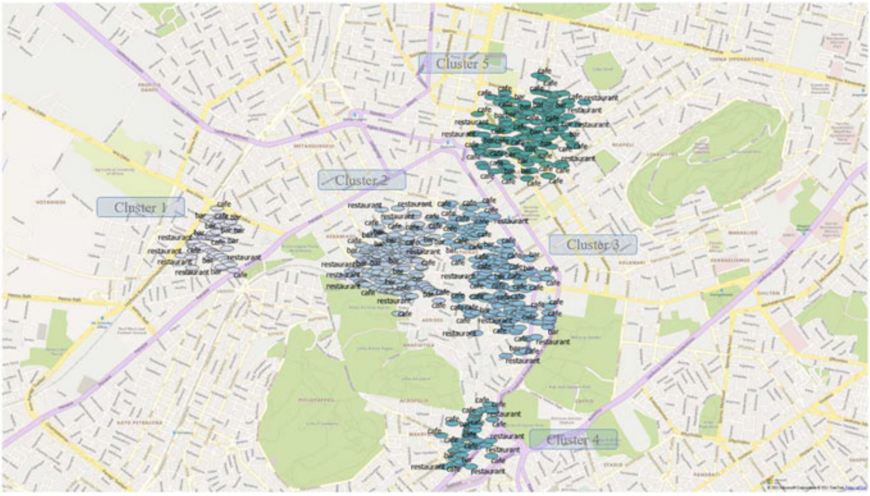

Fig. 2 DBSCAN algorithm applied on F&B data in the city of Athens

Table 1 Results of the DBSCAN algorithm on F&B spots in the city of Athens from lighter (1) to darker (5) color

Cluster	F&B Spot	Members	Total Members
1	Restaurant/Café/Bar	21/24/8	53
2	Restaurant/Café/Bar	98/35/47	180
3	Restaurant/Café/Bar	72/34/100	206
4	Restaurant/Café/Bar	22/7/22	51
5	Restaurant/Café/Bar	50/32/87	169
Noise			524

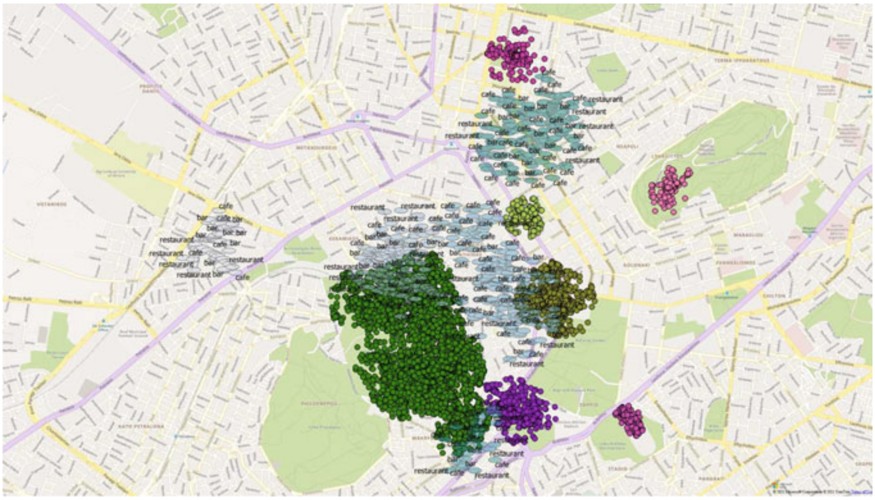

Fig. 3 Clustered photo-sharing data and F&B spots in the city of Athens

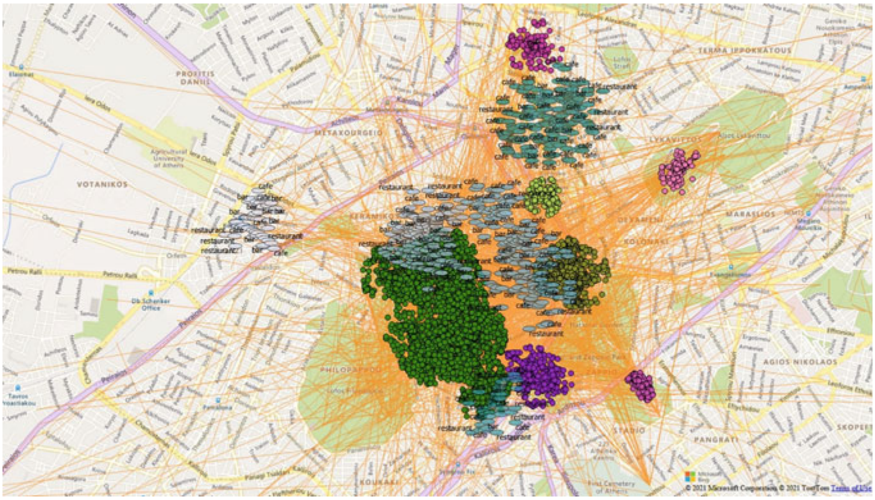

Fig. 4 Visitors' routes in the city of Athens

time instance. The resulting route network shapes an area which eventually contains all the found TAOIs and F&B spots providing an additional evidence of the validity of our proposed approach.

By closer inspection of the above pictures and tables, the following useful remarks can be drawn:

The visitors' route illustration forms a polygon shape which in essence covers the center of the city of Athens as an outer center boundary with lines that are getting more intense in the historical center. The shaped rectangular actually includes important landmarks and museums and a great number of F&B spots.

F&B spots contained in clusters 2, 3, and 5 include a significant number of restaurants, bars, and cafés (Table 1) which are situated near the most significant landmarks of Athens like Acropolis, Lycabettus Monument, Panathenaic Stadium, Syntagma Square, Temple of Olympian Zeus and the National Archaeological Museum of Athens. Cluster 2 covers the area of Monastiraki, while cluster 3 corresponds to the area near to Stadiou street, between the National Garden and the Omonoia Square. The 5th cluster covers the area of Exarcheia to the Omonoia Square. The remaining clusters are covering the area between Acropolis of Athens and Temple of Olympian Zeus (cluster 4) and the area of Keramikos. Keramikos is on the border of the shaped center of Athens, but a place with vivid night life, near to the city center.

Finally, it is evident that almost all routes are running through all TAOIs as well as all the F&B POIs inside the center of city of Athens.

5 Discussion

In this work, a spatial–temporal analysis of geolocation data was presented. The used data were extracted from Flick photo-sharing web service, a volunteered geographic information data set, and concerns the city of Athens downtown, capital of Greece.

The analysis of the proposed methodology was carried out using a density-based spatial clustering algorithm (DBSCAN) in both photo-sharing data and F&B points of interest located in the center of the city. Then a combination of those results was depicted in a common map. The results of the algorithm were seven clusters corresponding to seven lively places and five clusters corresponding to five F&B areas in the city of Athens. Additionally, a route network was designed, describing the movement of tourists based on the trace they leave through the taken photos.

This research is a first step towards studying visitors' tendencies, since more data from other social media platforms should also be considered. Furthermore, the study of the statistical correlation between the found TAOIs and the well-known landmarks and points of interest is in our next research plans towards understanding the existing and future infrastructure spatial planning inside an urban area. This may provide sustainable planning on big historical cities, dealing with the timely problem of overtourism.

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Communication Responses to COVID-19 from Tourism Stakeholders: The Bottom-Up Digital Campaign "Open Sardinia"

Rita Cannas and Daniela Pettinao

Abstract The study investigates local responses to COVID-19 undertaken by tourism operators by collaborative approaches shared with other stakeholders and implemented through social media tools. Specifically, the paper seeks to shed light on non-governmental initiatives generated by private tourism stakeholders aimed at promoting safe tourism during the time of COVID-19 by analysing the advertising campaign "Open Sardinia" implemented in Sardinia (Italy) in 2020. The present qualitative study developed by interviews with tourism operators who implemented the Open Sardinia campaign aims to contribute to the stakeholder collaboration literature with a disaster context in tourism and provide knowledge to the transformative role of reshaping tourism at the age of COVID-19. Basically, the paper focuses on the key factors of the sharing of collaborative practices among private and public stakeholders in facing the disaster crises caused by COVID-19. Such key factors are based on trust, relationship and place attachment, and operatively on the adoption of digital tools such as social media. Findings show that the bottom-up advertising campaign has strongly implemented collaborative networks among different operators, finalised not only to attract tourists, but also to enhance social cohesion and resilience of local communities.

Keywords Disaster management in tourism · Social media communication · Stakeholders engagement · Collaborative networks · Covid-19

JEL Classification M37

1 Introduction

The outbreak of COVID-19 has dramatically impacted on people and economies globally. Consequently, studies on disaster management in tourism are rapidly

R. Cannas (✉) · D. Pettinao
Department of Economic and Business Science, University of Cagliari, Cagliari, Italy
e-mail: rita.cannas@unica.it

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_59

increasing, particularly because of the widespread of COVID-19, which still represents a worldwide pandemic able to deeply affect tourism destinations. Although tourism has experienced many crises before the coming of COVID-19, as shown by literature on disaster management (Ritchie & Jiang, 2019), several scholars (Hall et al., 2020; Higgins-Desbiolles, 2020; Sigala, 2020) agreed that this one overcomes any impact of previous disasters because of its global scale and the extensive shutdown of travel, businesses and life activities.

Moreover, a key aspect largely acknowledged by the mentioned studies regards the convincement that the crises generated by COVID-19 will deeply change not only the "business as usual", but also society, government, and socio-economic activity related to tourism. The transformational role of COVID-19 can be seen as an opportunity to re-think, re-plan and re-practise tourism in any aspect by the large plethora of private and public tourism stakeholders, as well as by scholars who are called to reframe both theoretical and practical approaches. In particular, Gretzel and colleagues (2020) call for transformative e-tourism research focussing on IT tools. E-tourism can shape tourism futures by making value systems, institutional logics, scientific paradigms and technology notions visible and transformable.

The role of IT and social media tools is relevant not only as a source of information to better manage disasters, but also to create higher community engagement (Kankanamge et al., 2020; Palen & Hughes, 2018) and enhance community (Dufty, 2012) and social (Saja et al., 2019) resilience. Although previous literature provides knowledge in the use of social media to build community disaster resilience, as Dufty (2012) stated, further investigation is required to deepen the full potential of the relationship.

The study investigates local responses to COVID-19 undertaken by tourism operators through collaborative (Dredge & Gyimóthy, 2017) approaches shared with other stakeholders and realised through digital communication tools. Specifically, the paper seeks to shed light on non-governmental initiatives generated by private tourism stakeholders aimed at promoting safe tourism during the time of COVID-19. In fact, the shock in the global tourism economy caused by the violent coming of COVID-19 has revealed, all over the world, unpreparedness of policy makers and destination management organisations representatives in addressing clear and effective campaigns of communication to tourists.

It is the case of Sardinia, an island tourism destination of Italy, where, on the one hand, the tourist season 2020 was characterised by fuzzy and contradictory communications to tourists expressed by regional authorities; on the other hand, private tourism operators have created and shared for free communication campaigns, such as "Open Sardinia", to create a positive image of the island to tourists and as a secondary effect, foster the incoming activity among both public and private stakeholders.

Inspired by previous research (Jiang & Ritchie, 2017; Ritchie & Jiang, 2019), the present qualitative study developed by interviews with tourism operators who implemented the Open Sardinia campaign aims to contribute to the stakeholder collaboration literature with a disaster context in tourism. The paper analyses and critically discussed the key factors of the sharing of collaborative practices among private and public stakeholders in facing the disaster crises caused by COVID-19. Such key factors are based on trust, relationship and place attachment, and operatively on the adoption of digital tools such as social media. Findings show that the bottom-up campaign of communication has strongly implemented collaborative networks among different operators, finalised not only to attract tourists, but also to enhance social cohesion and resilience of local communities.

2 Disaster Management Collaboration and Social Media Implementations in Tourism

Management of disaster focuses on the management of resources and responsibilities of both private and public organisations to control risk and impact (Mosteanu, 2020). Although natural, environmental and epidemiological disasters are nothing new (Hall et al, 2020), after the outbreak of COVID-19, scholars have been investigating the impact of this health crisis and the resilience strategy in the tourism and hospitality industry because none of the previous health-related crises has had the same dramatic and widespread impact as this pandemic (Li et al., 2021). Unsurprisingly, organisations and governments appear unprepared to quickly recover their IT systems and key business processes in the event of disaster (Mosteanu, 2020), particularly in the current era where they are facing the COVID-19 crises: the widespread unpreparedness of both public and private tourism stakeholders appears sadly ascertained. In fact, as claimed by some scholars (Aldao et al., 2021; Zenker & Kock, 2020) the management of the COVID-19 pandemic is considered a disaster as the implementation of crisis management strategies during the outbreak were—and nowadays still are—often confusing.

The latest literature on disaster management and the COVID-19 (e.g. Aldao et al., 2021; Liu et al., 2021) stresses the attention on the need to provide road-maps, strategies, tools and useful insights to tourism stakeholders in order to help them in facing the negative effects that the crisis has caused to their businesses and, in a more wide view, to the whole hospitality and tourism industry. As claimed by Liu and colleagues (2021), the crisis management process requires multiple stages where wider and deeper adverse impacts can be exerted to the hospitality and tourism industry. Therefore, research addressed to analysing intricate relationships of key stakeholders is needed to provide guidance on COVID-19 crisis management (Liu et al., 2021).

Ritchie and Jiang (2019) observe that all crises and disaster management models in tourism have in common three stages: prevention and planning, response and recovery, and resolution and reflection. The first stage stresses the importance of implementing a proactive approach but, in practice, this stage appears scarcely applied. As stated by Aldao and colleagues (2021), a planning approach can be seen in countries such as Japan, Singapore, South Korea and New Zealand which successfully handled the COVID-19 by implementing preventive measures; instead, other countries such as USA, Italy, Spain and United Kingdom applied mitigation tools only when the pandemic was already widespread. The majority of studies focus on the second stage (Campiranon & Scott, 2014; Cooper, 2005; Stafford et al., 2002), which highlight the need to re-establish the *status quo* after any crisis. The third and final stage relates to long-term planning and learning from the past to be prepared for future crises. In this regard, joint efforts between researchers and governments to turn theory into practical outcomes are essential. According to Aldao and colleagues (2021), all crisis management tools must be directed towards a decision-making process for successful recovery at local, regional and international levels.

Another key point highlighted by Ritchie and Jiang (2019) regards the fact that tourism is largely affected by physical infrastructure and destination image/reputation impacts; therefore several studies focus on post-crisis/disaster marketing, positioning, messaging and media management (Luo & Zhai, 2017; Möller et al., 2018). Indeed, social media plays an essential role when crisis events break out (Schroeder et al., 2013). According to Luo and Zhai (2017), the multi-way communication channels and high interactions related to social media (Kietzmann et al., 2011; Lotan et al., 2011) are not only an important source of information and dissemination (Starbird et al., 2015), but also a means that provides open and free spaces for the public (Dong et al., 2016). Social media have a strong influence on crises management events by encouraging public online participation in the crisis, prompting the public opinion field to expand from offline and face-to-face to cyberspace (Xie et al., 2016).

Indeed, social media exert a strong power in influencing people's understanding and construction of society (Jackson et al., 2011). In crises management events, social media impact peoples' thoughts, behaviours and reactions (Schroeder et al., 2015) and they are implemented by various tourism stakeholders as a strategic tool aimed to repair the image of tourism destinations (Avraham, 2015). The current era of digital transformation, characterised by the development of Internet and social media, has widely changed the traditional top-down spread of access to information in crisis events, which in turn has challenged and impacted applications of crisis management (Lin et al., 2016).

Social media have also the ability to rapidly engage wide and different types of stakeholders (Kankanamge et al., 2020), and in tourism crises management, such kind of interactions can play a significant role at any stage of the disaster management processes. Although recent literature deals with disaster management implemented by social media at the age of COVID-19, scant research focuses on social media campaigns arisen by non-governmental groups or individuals of the tourism and hospitality industry.

3 Methodology, Methods and Data Collection

The study is positioned within the theoretical context of disaster management collaboration and communication campaigns implemented through social media channels. Considering that scholars claim to foster "more empirical research in the planning and preparedness phase alongside the resolution and feedback stage" (Ritchie & Jiang, 2019, p. 11), the study aims to provide knowledge and empirical insights to tourism stakeholders while facing crisis contexts. Specifically, it explores bottom-up tourism stakeholders' responses to disaster management related to the outbreak of the COVID-19, which is deeply affecting tourism destinations. The research question addresses the need to highlight the success factors of the advertising campaign "Open Sardinia" created in Sardinia (Italy) by some professionals of the tourism sectors, to contribute to forecast and plan for future disruption and crises (Ritchie & Jiang, 2019).

Methods

The study is based on a qualitative approach. The methods implemented were semi-structured interviews with key informants to generate primary data, and web analysis through the Facebook page "SardegnAperta" to gather secondary data. We realised five face-to-face interviews: three of them were conducted with the creators of the advertising campaign, who are Sardinian professionals in the tourism sector. Then, we realised an interview with a tour operator who works in the German market and she also served the campaign as a volunteer to translate texts to German. Finally, we did an interview with a mayor of a tourist municipality who implemented the campaign.

Data Collection and Data Analysis

The interviews were realised in July–August 2021 by skype meetings. Interviews lasted from 40 min to one hour and all were recorded and then transcribed. The three key informants who conducted the campaign were identified by following the Facebook page SardegnAperta. The other two interviewees were suggested by one of the key informants. We adopted an agile protocol of interview addressed to highlight the campaign characteristics dealing with the following five areas of enquiry: content construction; stakeholders' engagement and collaborative networking; impacts and effects; value creation processes; and lessons learned. Data were examined by qualitative content analysis (Groenland & Dana, 2019; Kohlbacher, 2006). Basically, we focussed on the assertions of the five respondents and quoted their pertinent contents into the general frame we outlined in our protocol of interview, which was already mentioned.

Before starting the in-field work, we analysed the secondary data through the campaign's Facebook page (https://www.facebook.com/SardegnAperta). Although the pages of Open Sardinia Twitter (https://twitter.com/sardegnaperta) and Instagram (https://www.instagram.com/sardegnaperta/) were also operating in favour of the campaign, the most popular social media channel was Facebook. This source provides campaign's information on TV interviews, newspaper articles (e.g.Grattagliano, 2020; Marilotti, 2020), YouTube videos, web interviews, etc. While realising our study, we combined primary data with secondary data in order to triangulate different sources of information and strength the study's validity.

Setting

The advertising campaign Open Sardinia dealt with the repositioning of the destination Sardinia after the lockdown prescribed by the Italian government during the first Italian wave of the COVID-19 (9 March-18 May 2020). To understand novelty, innovativeness, and value generated by the campaign, it is important to consider the specific time in which it was created (end of May 2020). In that period, the Italians, as well as the other European authorities, shut down their frontiers to international travels.

In Sardinia, the regional government implemented an unclear and ineffective communication crises strategy. The communication of regional authorities was transmitted by TV and media declarations of the President of the Sardinian Region and the Regional Minister of Tourism. The main message they expressed was the following: "We only welcome tourists holding sanitary passports or negative tests to the Covid-19" (Turin, 2020). This message was widely interpreted by tourists and tourism operators by the meaning "Sardinia is closed to tourists". The Sardinian public authority's initiative to introduce a "sanitary passport" was rejected by the Italian government. Then, the Sardinian regional government showed the impracticability to manage the anti-COVID-19 tests both in the Sardinian ports and airports because of the lack of a disaster management plan and lack of organisational tools. In fact, in August 2020 the Covid-19 started the second wave of infection.

The Open Sardinia Campaign

In May 2020, three professionals (an expert of marketing and communication plans, an expert of graphic communication, and a social media influencer) created and shared for free a communication campaign based on the message: "Sardinia is open" (Fig. 1). The meaning of the opening was twofold: "Sardinia is not in lockdown anymore"; "Sardinia is culturally open to tourists always". The campaign was addressed to various tourism stakeholders such as public authorities, private operators and tourists. The campaign was aimed at engaging people not only for sharing its contents but also to implement it by personalised shapes (Fig. 3). The campaign was perceived and acted as a call for a community collaboration aimed at generating a positive sentiment towards the destination Sardinia and repositioning the tourist image of the island, often associated with negative images such as "closure, control, unwelcoming" (as reported in the Project presentation) after the dramatic shutdown. The campaign was shared internationally through 13 foreign languages (as shown in Fig. 2) due to the voluntary work of linguistic translators, and was implemented by several municipalities, businesses and no-profit organisations (Fig. 3).

4 Results

The study results are discussed by five subsections, following the same areas of enquiry outlined in the protocol of interview: campaign contents; stakeholders'

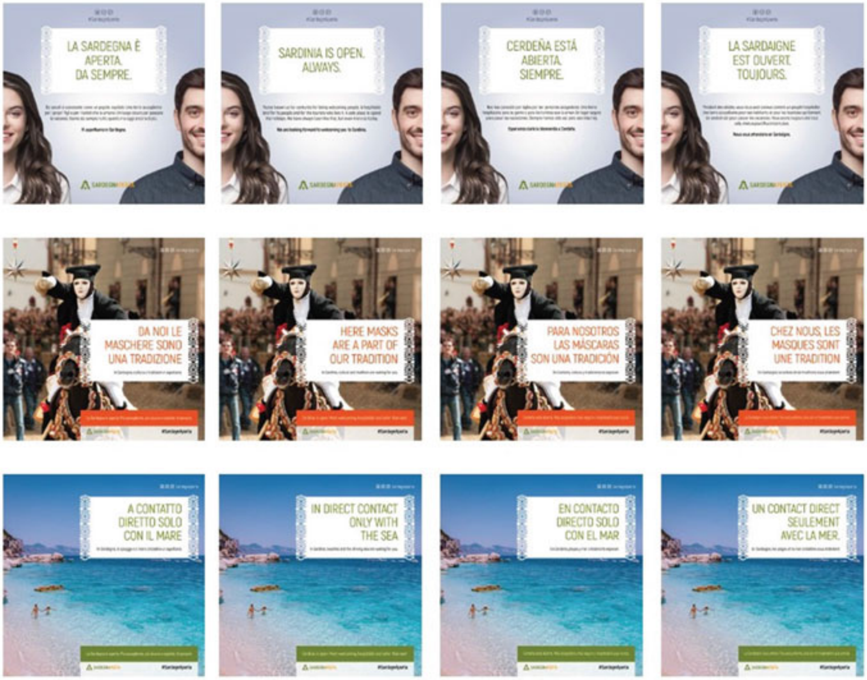

Fig. 1 Images of the Advertising Campaign Open Sardinia. *Source* https://www.facebook.com/SardegnAperta

Fig. 2 The advertising claim "We might have found the vaccine" in different languages. *Source* https://www.facebook.com/SardegnAperta

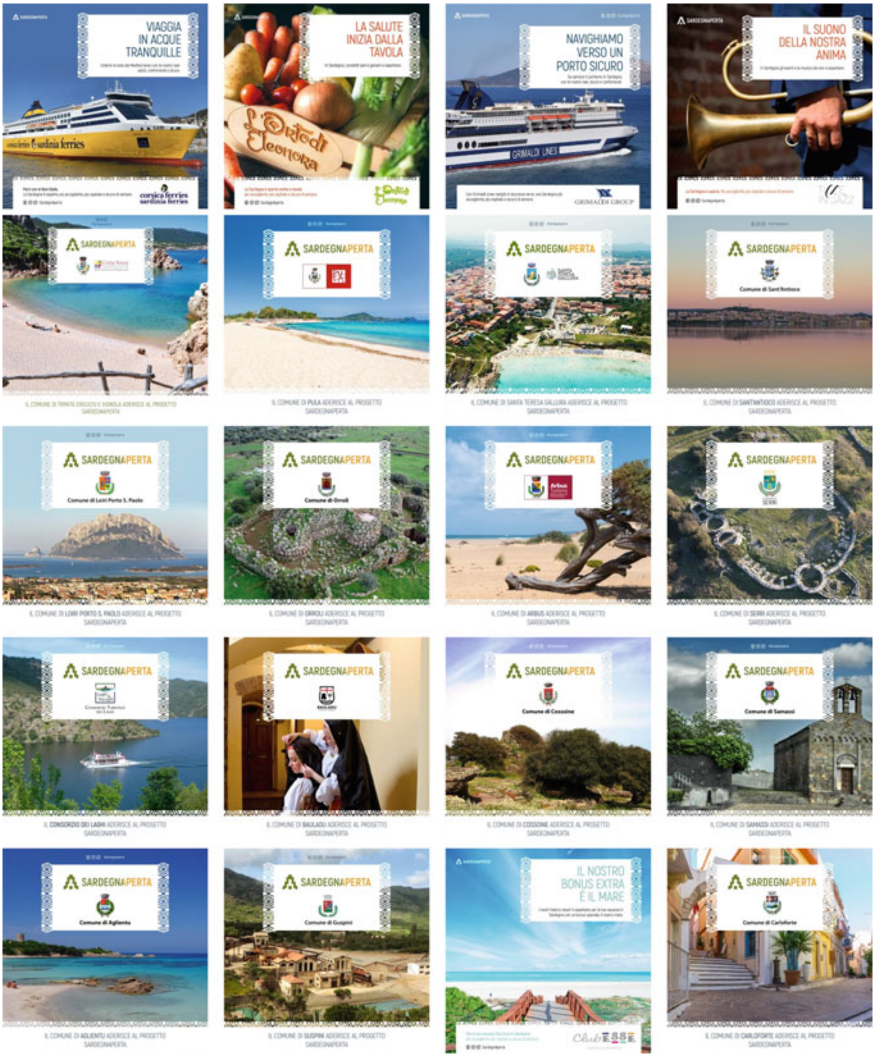

Fig. 3 Examples of campaign's implementation by private and public stakeholders. *Source* https://www.facebook.com/SardegnAperta

engagement and collaborative networking; impacts and effects; value creation processes; and lessons learned. These areas address the research question aimed to identify the key factors of the campaign's success.

Campaign contents

The originality of the Open Sardinia campaign clearly emerges in its contents: the *tone* of the communication is quite ironic and so strongly tailored to the Sardinian culture. This can be seen in the advertising claim: "Here masks are part of traditions" (in Fig. 1), and in the other: "We might have found the vaccine" (in Fig. 2). The claim of Fig. 2 can be understood better if one notices that Sardinia is internationally recognised as a Blue Zone (Buettner, 2005): the local red wine is acknowledged to be an ingredient of the longevity diet.

The campaign contents are unanimously considered by the whole key informants as a key to the success. As said by the interviewee (TO) operating with the German market: *"The campaign was captivating, and it inspired a sense of community which goes beyond a simple communication advertising".*

The style of the communicational campaign is also described by a campaign's founder (F3) who operates as a social media influencer by his words: *"Our goal was not to create the usual self-referential campaign that Italian regions usually do … but to play by words in a way that would make us smile and reflect without losing our goal of describing an open, hospitable and welcoming tourist destination".*

The campaign's founder (F2) who works as a communication and marketing freelance says: *"As for the creative part, we worked in a non-institutional but rather in an informal way, playing on the hot topics of the moment and the peculiarities of Sardinia. In this regard, the image of Sardinia as a tourist destination and the textual games referred to the situation we were experiencing at that time, were embedded together. It is a campaign brought into reality. It was successful because it was built from the ground with the contribution of many people who made the project germinate and bringing it to the attention of the media".*

From the perspective of a mayor of a well-known touristic municipality located in the South Sardinia (M), the key aspect of the contents' campaign and its originality was its direct link with the Sardinian culture. She says: *"We caught the opportunity to promote our territory by linking our promotional goal to the spirit of the campaign based on the valorisation of our own culture and traditions… The campaign's creators found a common basis able to put together different people".*

Stakeholders' engagement and collaborative networking

The campaign founders state that the campaign was created to fill an institutional communication gap in a time of great fear and uncertainty. Quoting their words, the campaign is: "A collective call to promote our land together (…) also aimed at those who want to offer their contribution of ideas, videos, photos, texts, translations free of charge" (Marilotti, 2020).

One of the main campaign goals can be observed in the creators' ability to establish collaborative networks among different stakeholders who usually work with their own individual procedures and practices. For instance, the campaign founders shared materials and ideas with each other by collaborative working practices. During the interviews, all of the campaign founders pointed out that the "community collaboration" was the first ingredient for the campaign's success. In this regard, one of them (F2) states: *The campaign was a model that has had an efficacy, above all, demonstrating a new way of being able to work together*". Moreover, in the view of this interviewee *"The campaign was successful because it was generated by a bottom-up approach, and, in addition to the three of us, it has created an undergrowth of people* *who, in some way, gave life to the project and made it germinating, and bringing it to the attention of national newspapers, websites and other contacts"* (F2).

Another campaign's creator (F3) notices: "*The initial idea has been enriched over time through the involvement of people and has therefore changed, in part, during its creation. This is mainly due to the involvement of economic subjects who have customized it"*. As already stated before, the campaign has been implemented by private and public stakeholders. The choral engagement of people was a natural mechanism arisen from the campaign; engagement was a key factor which brought new nuances to the campaign during its implementation.

A campaign's founder (F1) who works in communication and marketing plans for both public and private clients says: *"After the launch of Open Sardinia, within a week, the campaign was translated in 13 different languages, including the Sardinian one. The translators who collaborated with us by sharing the same no-profit spirit, became the main campaign ambassadors. They promoted the campaign within Facebook groups in their own countries. Thanks to their work we have made a widespread diffusion of all this material"*.

In the view of one founder (F3) *"The success of the campaign, in terms of involvement of the participants, is due to several factors, including the fact that at that time there was a general climate of insecurity which led more to consider the network as an element to be able to survive and the fact that we all had more time available to contribute to its creation"*.

Impacts and effects

One of the main impacts of the campaign was the aforementioned engagement mechanism which was triggered from a bottom-up approach. As the idea of the campaign took shape, recognised professionals joined the three founders, such as a well-known photographer who granted a free use of the old man photo used in the claim "We might have found the vaccine" (Fig. 2). Then the inclusion of translators who then became ambassadors of the campaign to the foreign countries in which they work, contributed to spreading the campaign and its values: the values of Sardinia seen with the ironic but passionate gaze of Sardinian professionals who live and work there, gaze that is very different from the advertisers overseas who usually promote a glossy image of the island.

This aspect has been stressed by an international expert of advertising, Paolo Iabichino. He observed during a web conference (Retrieved from: https://www.facebook.com/108858694149889/videos/293955005074999) that "Open Sardinia is a new and innovative campaign; it is a real zero-kilometre advertising that, thanks to digital tools, wants to tell from the bottom and in a non-profit way, about an island that comes out of the lockdown intact in its uniqueness through those aspects that make it by tradition, vocation and nature a welcoming, safe and hospitable destination since time immemorial".

The campaign generates both positive and negative effects. For instance, as outlined by the interviewee F1: *"The interesting thing is to see how a message and a graphic made from the bottom have managed to spread for free, although some people have even tried to boycott us through posts. At the beginning, some thought* *that ours was the promotional campaign of the Sardinian Region precisely because it was a new idea. For those people it was difficult to imagine that the campaign was born from a social need: feeling like a community to face what was happening".*

A positive effect is also highlighted by the words of another interviewee (TO): "*The project showed a new way of communicating, with bottom-up design and free sharing. It is a way of working that highlights how in small destinations there is a need to collaborate and grow together".*

Value creation processes

The Open Sardinia campaign is strongly based on value co-creation processes. In the view of a campaign's founder (F3) *"What has never been used before our campaign, is the co-creation of information, both in the generation and in the management phase, which instead generates value. (…) There is a lack of political will and the ability to bring people to collaborate".*

Interviewees have already pointed out the clear role of the ambassadors in the campaign co-creation processes. Other key contributions came from mayors, council members and tourism businesses which implemented the campaign. Operatively, stakeholders took part in the Open Sardinia campaign by following a basic rule: *"We have given everyone a regulation for which a participant could not modify the graphics but only insert their logo and their website in order to personalize it. This represented for the first time the fact that the communication was made from the bottom*", as stated by a founder (F1). In the view of a mayor (M): *"We have understood the great value of the campaign in involving Sardinian municipalities by a bottom-up approach. Usually we adhere to institutional campaigns that are created by big advertising companies and in which we play a passive role. In this campaign, we felt an active part of a great community project: promoting the value of Sardinia".*

Regarding the type of value created, an interviewee (F2) states: *"The values created are: telling reality, irony, everyday life, authenticity, transparency and a sense of community".*

Other values such as trust and reputation were essential in involving people. As stated by an interviewee (TO): *"I think that everyone of us have engaged tourism operators through our reputation and by eliciting their trust in us. (…) A campaign value shared among campaign participants is the sense of cultural identity because this campaign has finally represented us as a Sardinian community".*

A similar view is shared by another interviewee (F1) who says: *"There were really many requests to participate in the campaign. It was also a process of cultural inclusion that brought many people into the project".*

Lessons learned

Interviewees have identified lessons learned by the Open Sardinia campaign implementation in terms of community learning, and in terms of personal learning. Regarding the former, an interviewee (F3) states: *"Among the main merits of the campaign, this has made clear that an institutional level campaign can be carried out even without the institution. The local community can be able to make a quality* *product with a minimum investment without the need for a public authority intervention or to join campaigns designed from a top-down approach. It would be desirable for the Sardinian Region to work in this way".*

He also states: *"By leveraging a sense of place attachment both in those who created the campaign and in those who implemented it, the campaign has produced a new and different internal look on the territory using self-irony combined with identity without being excessively on the "pedestal". (…) We have tried to create the conditions for a more receptive community ecosystem to develop, without selling anything now but creating the conditions for a future return".*

Another interviewee (F1) states: *"It is difficult to say whether the campaign had structural effects on the way organisations work. Perhaps it helped municipalities understand how to use digital communication tools".*

Regarding the latter term, the whole interviewees agreed that the campaign fostered their own personal growth. For instance, an interviewee (F2) says that *"Knowledge has grown in terms of relationships with people I might not have gotten to. On a professional level, I learned the value of teamwork, this also taught me to be more flexible and collaborative"*. A similar view was expressed by other interviewee (TO) who states: *"Usually, I am very inflexible in my work, I run like a train and I don't know how to slow down to keep up with the times of others. I learned to compromise, to adapt to very different professions from mine and to be flexible. This was possible thanks to the fact that we worked horizontally without anyone prevailing over the other".*

5 Conclusion

The Open Sardinia campaign' creators really imagined "radical and emancipatory solutions" (Higgins-Desbiolles, 2020, 613) within crises management advertising by proposing new narratives but, more than anything else, they shared a collective vision of the tourism destination that goes beyond the time they operated. In other words, the campaign creators have made the previous pre-COVID-19 communication old and set a milestone on the communication for the future that can never be the same again. As stated by Iabichino, the campaign founders created an innovative case of "zero-kilometre advertising" that responds to the need to overcome barriers and project Sardinia into a new era of communication.

According to Higgins-Desbiolles (2020, 617) "After COVID-19, we could take up an agenda to properly socialise tourism. The word 'socialise' could hold multiple meanings including: following the principles of socialism; to act socially well in interactions with others; or to guide on proper ways of behaving with regards to society". Open Sardinia seems to shape the concept of socialisation of tourism in advertising: it is a social and not-for-profit campaign, open to everybody, realised by professional and implemented by several stakeholders who worked on volunteering basis aimed to repositioning the image of the Sardinian community, rather than the destination Sardinia. According to Higgins-Desbiolles (2020, 618) "Key lessons of the COVID-19 crisis have been the vital importance of community, social connections and society; privatisation and marketisation have been shown to be damaging to public health and well-being".

Open Sardinia campaign represents a positive case on disaster management in tourism and the adoption of social media advertising, by providing, within the COVID-19 context, new knowledge about new things and ways to see them differently, as suggested by Sigala (2020) who also stated: "tourism research should go beyond replicating and reconfirming existing knowledge; instead tourism COVID-19 research should see new things and see them differently to inform and guide tourism futures" (2020, 313).

The social media campaign key success is mainly in the co-creation mechanisms, such as virtuous circles, that the campaign founders promoted by a bottom-up engagement of various stakeholders. The main contributions and original traits of the Open Sardinia campaign reside in the community engagement practice and in demonstrating that it is possible to share a community and not-for-profit advertising among local and international stakeholders' campaign without governmental funds.

The main limit of the campaign regards its temporary feature: the coming of the second lockdown due to the recrudescence of the COVID-19 impacted on the effectiveness of the campaign which was based on the message Open Sardinia. The main limit of the present research lies in being a single case study. For this reason, we call for more empirical research to show and critically discuss the role of advertising campaigns as a means of transformative tourism and social resilience practices.

Acknowledgements We are very grateful to the founders of the Open Sardinia campaign Tiziana Tirelli, Giovanni Murgia and Gianluigi Tiddia. We really thank them for the time and passion they have devoted to our research

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Digital Tourist Marketing: The Latest Developments and Recommendations on How Mykonos Can Take Advantage of Digital and Influencer Marketing

Konstantinos Skagias, Dimitrios Belias, Labros Vasiliadis, and Papademetriou Christos

Abstract Tourism is a wealth-producing sector, the exploitation of which has a significant impact on the economic and overall development, especially in the islands of the Aegean. In order to achieve the desired results, it is necessary the controlled exploitation of a destination, the acquisition of knowledge about the market, the analysis of competition, but also the correct promotion of the tourist product. The purpose of this work is to highlight the island of Mykonos as a tourist destination and to make proposals on how it can take advantage of the latest developments on the Internet and social media. For this reason, the proposals made are indicating that the island shall focus on improvements on its internet presence. For this reason, it is strongly recommended to focus not only on making a better digital marketing strategy but also on utilizing the tens of well-known personalities that are visiting the island. Hence, influencers can have an important role on the promotion of the island.

Keywords Mykonos · Digital marketing · Social media · Influencers

JEL Classification L1 · M1 · M16

K. Skagias
Ambassador HACC.NY Mykonos Based for Aegean Islands, Mykonos, Greece

D. Belias (✉)
Department of Business Administration, University of Thessaly, 41500 Larissa, Geopolis, Greece
e-mail: dbelias@pe.uth.gr

L. Vasiliadis
Core Department, National and Kapodistrian University of Athens, Athens, Greece
e-mail: labvas@uoa.gr

P. Christos
Lecturer in Management, Neapolis University, 8042 Paphos, Cyprus
e-mail: c.papademetriou@nup.ac.cy

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_60

1 Introduction

It is obvious that the island of Mykonos presents advantages and important tourist resources, such as its strong brand name, its beaches, its nightlife, and a global coverage on the events which occur on the island. The professionals of the island rely mainly on classic and only marketing and promotion techniques, without following the modern trends. It is obvious that it is necessary to modernize the means of promotion and promotion of the island, achieving the maximum possible attraction of visitors (Skagias et al., 2021).

The purpose of this paper is to make recommendations for a tourist destination and to promote it, using the internet and social media with modern ideas and techniques. The current literature focuses on the fact that tourists are mostly influenced by digital marketing activities rather than the traditional ones (Chatzigeorgiou, 2017; Tham et al., 2020). Hence, the island of Mykonos should invest in modern marketing techniques, so that it can reach potential visitors more effectively and positively influence their market decisions. The identity of the island, its proper promotion, as well as the search for ways to attract visitors most months of the year, will certainly bring results in the economic and social development of the island, especially to attract younger tourists (Setiawan et al., 2018). For this reason, this paper will investigate the related literature while it will end up with recommendations for the case of Mykonos. It is important to stress that this is a literature review and thereby it will rely on recent publications but also on the author's personal view on how Mykonos can take advantage of digital marketing.

2 Methodology

The methodology used in the present paper is the thorough literature review, followed by its critical analysis. The sources of literature review are derived from high-quality scientific journals, books, conference proceedings, business reports, etc. The authors have used a variety of sources based on their accessibility provided by the affiliated institutions. The selection criteria of these literature sources were based on the relevance to the topic of the paper, the date of the publishing (focusing on the most recent research), and the validity of the bibliographic sources.

Therefore, this paper aims on producing a research into the existing literature review. For this reason, it will make a thorough examination on the papers that have been produced on this issue and to examine their outcome so as to make recommendations for future research. The criteria used for the selection of the papers are based on the topic and the year that were published (after 2016).

3 Literature Review

3.1 The Evolution and Popularity of Digital Media

We are undoubtedly living in the age of the digital world, where social media has over 1 billion users. The impact they have on our lives is great. This is an area that now plays a key role in the social interactions of recent years.

Social networks have become very popular in recent years—there are over 200 social networking sites—but they appeared many years ago. It all started in 1971 when the first e-mail was created. In 1985, TheWell, the first online chat room community, appeared. Other similar communities were Theglobe.com and Geocities (1994) and Tripod (1995). Immediately after the same date, Yahoo and Classmates were founded, where their primary goal was to communicate with old classmates. Then, in 1997, Six degrees was created, the first social network that combined everything, i.e., creating profiles, sending messages, and searching for people. In the same year, AOL was founded, the first social network to enable its users to communicate via real-time messaging, as well as Asian Avenue, an Asian social networking site. Entering 2000, blogs make their appearance, as does Black Planet (2001), an African-American social networking site (Hanson & Kalyanam, 2020)

Shortly afterwards, in 2003, LinkedIn, a professional social networking site, Myspace, and the well-known Facebook (2004) appeared. In 2005, YouTube appeared and in 2006 Twitter focused mainly on information with over 500 million users. Finally, in 2010 comes the huge wave that shaped the world of social networks, Pinterest and Instagram, which has now been acquired by Facebook. So we see that social networks are constantly evolving to meet the needs of users (Hanson & Kalyanam, 2020).

Social media is now an integral part of our lives. We use them to stay connected with friends, to meet people, to be informed and so on.

If we had to guess what is one of the most popular social media, surely many of us would choose Facebook, as it is the one with the most users worldwide. But the world is very big and everyone uses social media a little differently (Chen & Lin, 2019; Kyriakou et al., 2015) The most popular social networking page is undoubtedly Facebook. Founded in 2004 by Mark Zuckerberg, it started as a website for Harvard students. It now has more than 2 billion users. Facebook provides users with features such as

- Be able to communicate with friends through messages
- Participate in groups and exchange information about their interests
- To update their status
- Upload photos, videos, music
- Receive and send invitations to events
- To be informed and to publish ads through the Marketplace service, etc.

YouTube is a platform where a user can search, save, and play videos. It was founded in February 2005 by Chad Hurley, Steve Chen, and Jawed Karim. In 2006, Google acquired YouTube for $1.65 billion. Registered users can watch and save as many videos as they want, comment, and like, unlike ordinary users (Kannan, 2020).

In 2006, Jack Dorsey founded Twitter. It is considered a microblog, as its posts are limited to 140 characters. Registered users can post, like, and repost tweets. Unregistered users, however, can simply read posts. What sets Twitter apart from other social networks is that it is used primarily for the exchange of views and news and not for community building. LinkedIn was founded in 2002 by Reid Garrett Hoffman. It is a social network that is oriented towards entrepreneurship and employment. It has over 600 million users in 200 countries and is available in many languages. Members can create profiles, upload their CVs, present their work experience in detail, seek career opportunities, and share knowledge (Kannan, 2020).

Instagram is a social network that focuses on the image. Founded in 2010 by Kevin Systrom and Mike Krieger, it has been owned by Facebook since 2012. It is a social networking application where it works exclusively on mobiles and tablets. This application allows users to upload photos and videos, which can be edited with filters, and organized with tags and location information. Finally, WhatsApp is a free messaging software that also belongs to Facebook. Founded in 2009 by Brian Acton and Jan Koum, it allows users to exchange text and voice messages, etc. Those are just some of the social media that have dominated our lives and they changed the way that businesses are interacting with their customers (Kannan, 2020).

3.2 Social Media Marketing

Internet marketing is now one of its key areas marketing of products, services, and businesses.

A business or organization through internet marketing can achieve key goals such as

- Increasing revenue through exploring new markets.
- The reduction of marketing costs, through the creation of online stores without intermediaries.
- The upgrade of the services offered and the improvement of the customer satisfaction, through the constant communication with the customers.

Before starting an internet marketing program, the goal of the business through this activity should be determined. Objectives should be set through the SMART model. This model says that goals should be specific, measurable, realistic, and timely (De Pelsmacker et al., 2018).

It is now well known that if a business or organization does not integrate social media into the marketing strategy it uses, it is back in time but also in competition. In general, marketing is one of the most important costs for a business—but using social media, this cost is significantly minimized. Social networks provide the ability for businesses to stay informed about business matters, to build friendships and partnerships, and to identify people and other businesses with related interests (Saura et al., 2017).

Social networks have now created great economic growth, offering openings to new markets and plenty of free advertising opportunities to a global audience.

It is obvious that they are an excellent tool for promoting a business, which in addition to promotion, also offers the opportunity to learn from others.

Social Media Marketing is aimed at all types of businesses, small and large, organizations, as well as destinations. Well-known brands through social networks attract new customers and increase their reputation by targeting a global audience. In the context of an integrated Social Media strategy, it is necessary to set the appropriate goals, plan, develop, and implement the necessary actions in order to obtain the optimal benefits. The most appropriate social networks should be selected for each case and then the presence of the company in each one should be strategically established. Some services are Facebook campaigns, Facebook applications, Facebook Ads, etc. (Kaur, 2017; Belias et al., 2017a, b).

With the increase in marketing budgets on social networks, it seems that companies are interested in their online presence, building relationships with customers, and promoting their brand. The factors that contribute to the transition to social networks are presented as follows (Alves et al., 2020):

First, the existence of a constantly growing population, which due to the development of technology, manages to use online platforms very easily. Second, the majority of this population is young and middle-aged, which means that they prefer the internet for their information. Third, consumers seem to trust more the opinion of friends and other users about a product or service, more than one advertisement. Finally, the key element that social media has reached the top of the media is cost. It is known that the cost of an advertising campaign on social networks is much lower than the cost of a TV ad (Alvers et al., 2020).

Furthermore, one of the most effective ways to share information is through Word of Mouth. Traditional WOM has now been eliminated from eWOM online offering a new way of effective communication. According to research by Suryaningsih et al. (2020), consumers tend to copy each other as well as talk to each other. They also claim that consumers through WOM share opinions that guide consumers to buy specific products. Regarding the above claim, Bu et al. 2021 support him and suggest that WOM is the communication between consumers about a product or service.

The advent of Web 2.0 has had a significant impact, as more and more travelers have started using the internet to search for information about a destination. Thus, a channel of exchange of views and information has been created, from business to consumer and vice versa.

Social networking platforms enable users to interact with each other. Businesses therefore become users of these platforms, making it easy to interact with consumers. EWOM is essential for tourism businesses, as the consumer can have an opinion about the product or service after trying it (Bu et al., 2021).

4 The Use of Social Media by a Tourist Destination

The evolution and dominance of social media has enabled internet users to communicate and share content. Social media users need the information to help them make decisions about choosing a tourist destination. They make sure to read relevant reviews about the destination, because now every traveler is looking for the best for him with the best value for money.

Most of the time the tourist packages, products, or services bought by the travelers are far from their place of permanent residence. That's why travelers rely on descriptions and information provided by the destination. Word of mouth advertising is very important for choosing a tourist destination. Therefore, all travelers are very confident in the views of their family and friends and are wary of mass advertising. Potential travelers to a destination choose a destination among other competitors, and are often willing to pay more for a better service easily accessible (Kiráľová & Pavlíčeka, 2015).

Social media is now a key tool that can significantly increase the reputation of a tourist destination. They allow visitors to communicate with other guests who have already experienced the experience and to exchange views about the destination. Sites that specialize in collecting and sharing information about tourism and visitor experiences are shown in Table 1 and are as follows (Canovi & Pucciarelli, 2019):

The content of these sites is one of the most important sources of information in the tourism sector.

According to a study by Ge and Gretzel (2018), social media offers higher levels of performance than traditional advertising and communication tools. If a tourist destination wants to dominate the tourism market, it has a moral obligation to distinguish itself from the competition. To do this, he must develop his communication strategy, focusing on social media. The primary purpose of promoting a tourist destination through social media is to increase its competitiveness. The increased use of social networks, the development of technology, and the low budget required in marketing make tourist destinations a pioneer in their strategies. The ever-increasing number of tourist destinations has shifted from traditional radio and television-based strategies to other media such as the Internet and social media.

Communication through social networks is designed to promote the destination globally, to strengthen its image, to perceive its strengths, and to change the perceptions of visitors if necessary, in order to support its brand name.

From the above it is understood that the internet and social media have revolutionized the tourism industry, providing a new way to "gain" the destination experience by watching pictures and videos, as well as user comments, who tend to share their impressions with the public. duration of their vacation. The internet and social media make it easy for potential travelers to plan their trips and search for the best travel

Table 1 Most popular tourist websites

Gogobot.com	Trippy.com	Wanderfly.com
Tripit.com	Tripwolf.com	TripAdvisor.com

products for them, based on their wishes. This is one of the main reasons why businesses are now working on the promotion of tourist destinations (Destination Management Organizations-DMO), to make tourist tour easier before, during and after the trip to a destination (Katsikari et al, 2020).

Social networking sites such as Facebook, Instagram, and YouTube offer great tourism opportunities, providing a way for an image or video to reach millions of people instantly and at no cost. Social media enables people to talk to other users about a destination, travel agent, hotel, etc., allowing them to be informed based on real experiences and not on the elements of an advertisement. When the tourist is preparing to choose his destination, the most important information is obtained from the online influence of the brand, eWOM, which was mentioned in a previous chapter. In the age of Web 2.0 and Social media, people are easily influenced by constantly changing their decisions—50% of them download travel apps before their vacation even starts (Siregar et al., 2020)

According to a survey by Booking.com, citing the online newspaper Tornos News (2019), 54% of the Generation Z generation choose to be inspired by posts and images on social media before choosing their final destination. In fact, 40% of them, according to social media, are their main source of inspiration. The same survey also states that 40% of respondents are influenced by influencers on social media, such as Instagram, and trust the destinations they suggest.

An example is the social media campaign launched by the digital marketing company Overron in 2015. In the midst of capital controls where Greece was in a suffocating climate, the company tried to reverse this situation. Started posting posts and images specifically for the islands of Mykonos and Santorini with great success. Thousands of likes and comments accompanied each image, declaring their support for Greece. The interaction of the users was so great that in a very short time the page of Santorini on Facebook reached 385,000 likes, while the page of Mykonos was 205,000, respectively (Tornosnews, 2019).

It seems, therefore, that social media plays a very important role by directly affecting the psychology of users. They therefore increase the brand awareness of a destination, enhancing its reputation. The presence of Greek Tourism on social media is vital, continuing to offer a quality product, Greek tourism can reach the top.

5 The Latest Development on Social Media and Tourism; The Role of Instagram and Influencers

After 79 years of presence, with more than 500 million users who share 80 million photos daily, Instagram is proving its power to redefine travel, revolutionizing the tourism industry. A typical example is that, Wanaka, a small town in New Zealand, in 2015 decided to include Instagram in the destination promotion strategy, hosting people with many followers on Instagram, seeing significant results and in particular a 14% increase in arrivals throughout the country (Kourelou, 2018).

The power of Instagram is sweeping, as people spend 10 times more time on it than on Facebook. The reason is that on Instagram the image is the message! Users' photos evoke desires. That is why some users, by sharing beautiful images, have gained a very large number of followers, exerting a significant influence on their followers.

According to Booking.com, 80% of millennial bookings are made online. Similarly, a survey by TechRadar magazine showed that 70% of millennials use their smartphone extensively during their travels to search for information about attractions, restaurants, etc.

Millennials are the generation that holds the reins. Employees, familiar with technology, well-traveled, seeking authenticity. They chase the experience of those they admire. They search for information and places on Instagram using hashtags. Hashtags show the way for new experiences. Somehow, in the last two years, 842 million posts have been made using the hashtag #hiddengem (hidden diamonds) related to travel. At the same time, according to Instagram statistics, almost 1 million users search for hashtags related to travel every day.

Instagram holds an important place in the planning stage of a trip, when the traveler is in the dream phase. It causes the user the desire to live the experience captured in the photo he sees. Especially when the photo shows idyllic landscapes of exotic destinations, places, and beaches of unique beauty, then the user wants to be a part of it (Barbe et al., 2020).

Apart from the travel experience that one wants to live through Instagram, there is also the hunt for likes. Users are constantly looking for more and more likes for the content they share. Many times the photos of the users are of a very high level, thus not allowing the travel experience to be degraded (Kourelou, 2018).

Of course, this phenomenon also has its criticism. A study by the Razak and Mansor (2021) that the way we now view tourist destinations and attractions has changed. Before the advent of social media we used to travel to admire the place and its sights, now we travel for a selfie. Examples of such destinations are Santorini and Mykonos.

At the same time, at the peak of travel desires, unknown destinations appear until a few years ago, such as the island of Exuma in the Bahamas, where one can swim with pink wild boars, respectively, Aruba, where one can swim with flamingos, the natural swimming pool Blue Lagoon in Iceland, etc. The sharing of photos by visitors to these places has played an important role in the arrival of arrivals (Kourelou, 2019). So Instagram plays an important role in promoting destinations—with the right actions and synergies

Influencer Marketing has also an important role in the promotion of destinations. Both ordinary tourists, who contribute to the formation of a tourist destination by sharing posts, photos, and stories, as well as professional influencers acting as "trust agents" for businesses and consumers can be considered as opinion guides (Harrigan et al., 2021).

In recent years, the boom in social media has changed the rules of marketing. Businesses now, through the internet and in particular through social media, have managed to reach the market they are interested in more economically and efficiently.

One such method is influencer marketing. Hotels and tourist destinations work with Instagrammers and YouTubers, restaurants invite food bloggers to visit their restaurant for free, fashion companies make deals with fashion bloggers, etc. (Ki et al., 2020).

Simply put, influencer marketing seeks to influence the buying public that an influencer has "created". Companies and destinations no longer directly target their target market, but target it through people with online influence. Influencers are invited by partner companies to share content, such as photos and stories, at regular intervals, in order to gain the trust of their followers, so that they can promote their products and services more easily.

Influencer marketing is not a new fad, as it has always been. Companies and firms have always used celebrities (actors and athletes) to promote their products. But that has changed, and now "ordinary people" with large online audiences can influence with great success.

People spend a lot of their free time surfing social media. As social beings, they "follow" users with great influence, considering them trustworthy (Ki et al., 2020).

Finally, we must not underestimate the influence of an image or a video. Instagram seems to be the dominant force, as its influence seems to be huge. Social media users enjoy seeing beautiful images and videos, something that has been noticed by tourist destinations. Last year, Athens invited a group of German influencers, with very strong results. Indeed, video marketing has dominated as a trend since 2018, with more and more companies promoting their products and services, trusting them to YouTubers (Hudders et al., 2021).

6 Suggestions On How Mykonos Can Improve Its Online Presence

The most important element for the promotion and promotion of the island is its website, where Mykonos seems to have an average website. The website of a business or a destination is its identity in the online market. It is necessary to create a website for the destination with modern features and well-written content. It is important that the destination website is compatible with mobile phones, as a very important number of people use only their mobile phones to be informed (Chung & Koo, 2015)

An important and value for money promotion method is to advertise the destination through Google using Google AdWords. Google AdWords is a paid ad that gets the website in the first place of the results. This is achieved by specifying keywords that the user is likely to enter in the search bar. Google is essentially a channel of communication between the customer-tourist and the destination website. Selecting the destination to advertise through Google AdWords enables "access" to a large online audience. A big advantage of this method is the way the services are charged. The billing method is done through the PPC (Pay Per Click) model, which means that the charge is made only when someone clicks and is directed to the website.

Thus, the destination will not have to invest a large amount from the beginning for promotion. Google AdWords also allows you to select filters such as demographics, nationality and interests to make your ad more targeted. Thus, the destination can more easily approach the target markets it has selected (Solidcube, 2018).

In conjunction with Google AdWords, the destination should invest in SEO (Search Engine Optimization) for better website ranking. SEO means optimizing the website in order to rank well in the top positions of Google, that is, right after the Google AdWords ads. According to Google, 92% of users do not look beyond the first page when searching. For a successful SEO, it is necessary to research the appropriate keywords, the website declaration on the platforms Google, Bing and Yahoo, the research in terms of keywords and the continuous monitoring of the results (Solidcube, 2018).

Banner ads are a very common method of online advertising. They are small advertising messages, which usually display small slogans of a business or a destination, which encourage the user to click on and be taken to the advertiser's website. Hence, Mykonos should look for the right websites to place the banner ads.

This will be done either by purchasing space on the websites, or by exchanging space on the destination website. The charge is made via CPU (COST per thousand impressions), depending on the positions that the ad will collect. In this case, a choice will be made on the websites of travel agencies, tour operators, airlines, etc. For a banner ad to be successful, it must display compelling images representative of the destination with interesting content.

Within the destination website of Mykonos, a field called "3D Virtual Tours" will be created. The modern technological equipment enables us to project 3D tours in places, dynamically increasing the presence of the destination on the internet. Through this service the user will be able to tour all the points of interest of the island, the cultural and religious monuments, the museums, the sights, the beaches and the old town. It will be in the form of a map with all the points of interest pinned and the user, by simply clicking on a point, will show him a field with information on the point of interest. This action will amaze potential customers and make the destination more attractive to them. For all this to be successful, however, there must be the appropriate photographic material, both on the website of the destination, as well as in the banners and social media that we will mention below. Photography and video are a means of communication between the customer–tourist and the destination. Collaborations should be established with specialized photographers and videographers, who will focus on the comfort and unique features of the island, allowing it to live a unique virtual hospitality experience. The projection material will include high-resolution photos, digital videos, commercials, 3D Virtual Tours, and panoramic photography (Harrigan et al., 2021; Belias et al., 2017a, b, 2019).

After all this, it is very important to monitor and analyze the traffic to the destination website. This can be achieved through Google Analytics. Thanks to this tool, the destination can have a complete picture in terms of website traffic. Data such as navigation time, website return rate, and visitor demographics are available. The analysis of such statistics is important for the optimization of the website (Chaffey & Ellis-Chadwick, 2019).

Besides that, it is important to take advantage of the fact that Mykonos is a destination which attracts a large volume of well-known personalities such as sportspersons and pop artists who have a tremendous influence not only in real life, but also in the digital space. Hence, Mykonos can use influencers. More precisely no one can survive in the world of internet marketing if they do not adapt to the new data. At the top of Content Marketing is now Influencer Marketing. As we saw in the primary survey, 90% of Mykonos tourism executives agree with the promotion and promotion of the island through Influencers. According to research by Google Trends, in the last decade Influencer Marketing has grown rapidly by up to 100%. Influencers create an excellent range of photos for social media, have an extremely large and loyal audience, share creative descriptions of their travels and are now the ones who create the trends (Ki et al., 2020).

Therefore, Mykonos should follow an Influencer Marketing strategy in order to get the most out of it and face the competition. Once the objectives have been set, the destination should conduct a thorough research in order to make the appropriate collaborations. Influencers in their field should be selected who share a similar culture and interact with the target markets of the destination. The initial research will be done on Instagram and Facebook, in order to find the profiles that best fit the destination profile. Particular attention will be paid to how competitors are projected. There are tools on the internet that specialize in Influencers search. These are Deep.social, Discover.ly, and Podbay.fm. They are Influencers classification and analysis tools that provide detailed information about their audience (demographics, nationality, etc.) and the influence they exert.

Mykonos' collaboration with Influencers will include photo, video, and live broadcasts sharing their experience through their own digital media. It will also include daily stories promoting the sights of the island, its gastronomy through the restaurants they visit, as well as the natural beauties of the island, creating original content, in the form of storytelling. A special basis will be given to the hashtags of the island. Influencers should constantly promote the island's hashtags. The hashtags will help to establish the recognition of the destination and to acquire their own online status. One way to increase engagement with the destination, and not just with Influencer, is giveaways. Giveaways are a great way to boost your Influencer marketing campaign. The rules of these contests will include tag other users and follow the destination profile. This means that more people will learn the destination in a short time. Contest prizes will include accommodation in destination hotels, airline tickets and in some cases complete holiday packages. Influencers are the ones who influence the tourist flow by creating new trends. The most important thing for a successful Influencer Marketing is to set the goals of the destination, something that will help in choosing the right Influencers.

7 Conclusion

The internet has taken by storm the tourist industry as more and more people search and book for their next vacation online. The future of the tourism product requires the presence of every destination on the internet more than ever. The role of social media in the future of the tourism product is important. More and more people are turning to social media to search for information about a destination. Internet users have high demands, preferring destinations and businesses that can answer any of their questions and provide them with any information. Social media allows internet users and prospective customers to exchange views with others about a destination that others may have already visited. It is important to invest the destination in a Social Media Marketing strategy to promote the destination, targeted and low cost, as social media provides flexibility in targeting achieving the best-desired result. Social media and the internet have taken over most of the population. Proper use of these depending on the interest of each destination, choosing the right strategies, can bring very positive results.

In this paper, the suggestions made for Mykonos focus on two areas. The first one is to develop and improve its web presence with a rebranded website that will fully utilize all of the multimedia and other applications that digital marketing may offer today. The second one—and more effective—is to focus on influencer marketing. As a matter of fact Mykonos attracts tens of well-known personalities so why not to take advantage of this. Mykonos shall collaborate with well-known personalities so to use—mostly on Instagram—their profiles so to leverage its brand image and awareness.

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Virtual Tourism/Virtual Reality and Technology Use: Applications and Implications for Religious and Pilgrimage Tourism. The Case of Greece

Ioanna Chatzopoulou

Abstract The article aims to present the applications and the value of technologies (virtual reality, digital technologies, information technologies (IT), internet, etc…) in the development of cultural/religious tourism, especially in Greece, a country with a unique and rich religious heritage and a member of the European Union, which over the last few years has taken significant actions and initiatives in the area of digitisation and online accessibility of cultural material. Furthermore, it examines potential areas of impact for technology. 'Cultural heritage' includes monuments, architectural works, works of monumental sculpture and painting, inscriptions, cave dwellings, historic buildings, archaeological sites but also cultural aspects which have no tangible, material dimension (e.g. music, dance, knowledge and practices, etc.). Furthermore 'Religious heritage' includes sacred, religious sites, Holy Places, churches, monasteries, artefacts, as well as icons, wall paintings, manuscripts and works on paper, works of minor arts, ceramics, textiles, paintings, mosaics and copies. Cultural/religious heritage as a sector of tourism plays an important role in promoting sustainable and inclusive economic growth, fostering innovation and providing benefits for all. The use of technology can play an essential role in enabling cultural experiences, knowledge creation, accessibility of cultural/religious heritage and in offering additional opportunities for a better utilization, management and preservation of religious heritage. Making tourism and culture inclusive and virtually accessible for all is vital, especially in pandemic periods.

Keywords Virtual tourism · Religious tourism · Virtual reality · Technology use · Digital tour-guiding · Cultural tourism · Cultural religious heritage

I. Chatzopoulou (✉)
Department of Tourism Management, University of Patras, Patras, Greece
e-mail: ichatzop@upatras.gr

V. Katsoni and A. C. Şerban (eds.), *Transcending Borders in Tourism Through Innovation and Cultural Heritage*, Springer Proceedings in Business and Economics,
https://doi.org/10.1007/978-3-030-92491-1_61

1 Introduction

Greece presents a rich religious cultural heritage, both tangible as well as intangible. There is not a single city or region, in mainland or on the islands, where you won't find traditions, festivals, religious celebrations and sites of orthodox religious devotion (pilgrimages, monasteries, churches, metochia), which coexist with religious sites related to various dogmas and religions, highlighting the unique history and religious heritage of Greece.

There is a strong interdependency between religious heritage and tourism. The number of tourists annually choosing their destination for its religious sites is increasing greatly. People visit religious heritage sites for religious purposes, for pleasure, or because they are interested in the cultural and historical aspects (Simone-Charteris & Boyd, 2010). Religious heritage tourism has a social and economic impact. Besides, it can be a powerful instrument for raising awareness regarding the importance of safeguarding and preserving religious cultural heritage for future generations.

However, initiatives to preserve this heritage and to develop pilgrimage tourism have been fragmented.

This article examines how the use of digital technologies, such as immersive, virtual and augmented reality and 3D digitisation can contribute to the protection, preservation, dissemination and promotion of tangible and intangible cultural assets and to the creation of a holistic tourist product for pilgrims and admirers of art.

2 Definition and Content of Cultural/Religious Heritage

2.1 Tangible Cultural Heritage

The 'Cultural heritage' includes monuments, architectural works, works of monumental sculpture and painting, inscriptions, cave dwellings, historic buildings and archaeological sites.

In particular, according to Article 1 of the Convention concerning the Protection of the World Cultural and Natural Heritage 1972, adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organization on 16 November 1972, as 'cultural heritage' are considered the following.

'Monuments: architectural works, works of monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of outstanding universal value from the point of view of history, art or science; groups of buildings: groups of separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science sites: works of man or the combined works of nature and of man, and areas including archaeological sites which are of outstanding universal value from the historical, aesthetic, ethnological or anthropological points of view'(http://portal.unesco.org/en/ev.php-URL_ID=13055&URL_DO=DO_TOPIC&URL_SECTION=201.html).

2.1.1 Tangible Heritage of Religious Interest

A specific form of heritage is religious heritage, which consist of components of cultural and natural heritage, such as buildings, landscapes, historic cities, artefacts with religious and spiritual significance.

In particular the term 'Religious property', as used in the International Council on monuments and sites (ICOMOS) study 'Filling the Gaps - an Action Plan for the Future', defines 'any form of property with religious or spiritual associations: churches, monasteries, shrines, sanctuaries, mosques, synagogues, temples, sacred landscapes, sacred groves, and other landscape features, etc.'

Furthermore, the term 'Sacred site' refers to areas of special spiritual significance to peoples and communities, and the term 'Sacred natural site' corresponds to the areas of land or water having special spiritual significance to peoples and communities, as proposed by the UNESCO/IUCN Guidelines for the Conservation and Management of Sacred Natural Sites, 2008 (https://whc.unesco.org/en/religious-sacred-heritage).

Due to their vital importance for safeguarding cultural diversity for present and future generations, the religious and sacred properties are protected by the Word Heritage Convention of 1972.

The above-mentioned Convention establishes a Word Heritage List to which signatory States Parties can nominate cultural and natural heritage of outstanding universal value.

Approximately 20% of the properties inscribed on the World Heritage List have religious or spiritual connection to various ancient and indigenous beliefs systems (35 inscriptions of which most relate to antiquity and relatively few to living spiritual traditions), Hinduism (15 inscriptions), Buddism (30 inscriptions), Confucianism and Shintoism (17 inscriptions), Zoroastrianism, Judaism (7 inscripitons), Islam (18 inscriptions) and Christianity (106 inscriptions, of which 13 relate to early Christian Church and Ethiopian Christianity, 21 to Orthodox Church, 67 to Catholic Church and 5 to Protestantism) (Jokiletho et al., 2005, p. 85).

2.2 *Intangible Cultural/Religious Heritage*

Cultural heritage also includes cultural aspects which have no tangible, material dimension, inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.

In particular according to Article 2 of the UNESCO's 2003 Convention for the Safeguarding of the Intangible Cultural Heritage.

'1. The intangible cultural heritage means the practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith—that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity' (http://portal.unesco.org/en/ev.php-URL_ID=17716&URL_DO=DO_TOPIC&URL_SECTION=201.html).

A lot of intangible heritage has spiritual aspects. Intangible cultural heritage elements relating to religious traditions are for instance prayers and songs, clothing and sacred items as well as ritual and ceremonial practices.

On the Convention' s for the Safeguarding of the Intangible Cultural Heritage Lists of UNESCO (List of Intangible Cultural Heritage in Need of Urgent Safeguarding/Representative List of the Intangible Cultural Heritage of Humanity/Register of Good Safeguarding Practices) are inscribed 132 religious practices and religious arts from all over the word [like Ethiopian epiphany (inscribed 2019) which is a festival celebrated all over Ethiopia to commemorate the baptism of Jesus Christ by John the Baptist in the River Jordan, Mongolian traditional practices of worshipping the sacred sites (inscribed 2017), the annual three-day pilgrimage to St. Thaddeus Apostle Monastery in northwestern Iran (inscribed 2020), the ritual journeys in La Paz during Alasita, which begin on 24 January and last two or three weeks, dedicated to Ekeko, the city's beneficent god of fertility, the festival of the Santísima Trinidad del Señor Jesús del Gran Poder, which takes place on the Day of the Holy Trinity in the city of La Paz, involving 40,000 devotees, the Holy Week processions in Mendrisio (Switzerland), Kutiyattam, (Sanskrit theatre, originated more than 2,000 years ago, which is practiced in the province of Kerala, in theatres located in Hindu temples), the Regong arts (plastic arts of painting and sculpting, carry on by Buddhist monks and folk artists of the Tibetan and Tu ethnicity in monasteries and villages along the Longwu River basin in Qinghai Province in western China), etc..] (https://ich.unesco.org/en/purpose-of-the-lists-00807).

3 Religious Heritage as a Sector of Tourism

Religiously motivated travel is perhaps the oldest and most widespread type of travel in human history (Simone-Charteris & Boyd, 2010; Collins-Kreiner, 2010a, b). Religion and spirituality are still among the most common motivations for travel. According to United Nations World Tourism Organization (UNWTO) (2014), 300 to 330 million tourists visit the world's key religious sites and pilgrimage/religious tourism destinations every year (like Vatican City in Italy, Santiago de Compostela in Spain, Loudres in France, Jerusalem in Israel and Mount Athos in Greece), with approximately 600 million national and international religious voyages in the world, 40% of which take place in Europe. The number of tourists annually visiting the world's most prominent religious sites is increasing greatly (Eade & Sallnow, 1991; Rinschede, 1987).

People visit religious heritage sites for religious, educational and leisure purposes or because they are interested in the cultural and historical aspects (Liro, 2021; Shinde & Olsen, 2020; Nolan & Nolan, 1992).

The growing interest for religious tourism worldwide is not only beneficial for the tourism sector and the economic growth (Fanelli, 1993; Vijayanand, 2012; Vukonic, 1998) but can also be a powerful instrument for raising awareness regarding the importance of safeguarding religious tangible and intangible heritage and help preserve the integrity and authenticity of these heritage, for future generations.

Greece is a country which has a unique wealth in religious heritage assets (traditions, festivals religious celebrations, monasteries, churches or pilgrimages), like the Meteora monasteries, declared in 1988 as UNESCO World Heritage Sites, the monastic community of Mount Athos, the monasteries of Osios Loukas and Agia Lavra, the Holy Cave of the Apocalypse and Agios Ioannis Theologos Monastery located on Patmos Island, the church of Panagia Soumela, the Panagia Ekatontapiliani on Paros island, Symi's Panormiti Monastery, the Early Christian and Byzantine churches of Thessaloniki, that have been declared by UNESCO as World Heritage Sites, the church of Panagia Evangelistria of Tinos, which has been a pilgrimage destination and a center of religious tourism since the 19nth century, due to the Holy Icon of Virgin Mary, attracting only in 1886 during the Feast of the Dormition (Assumption) of Megalohari (Virgin Mary) 8.000 pilgrims according to the local newspaper 'Icho tis Tinou', 17 august 1886, n. 173, p. 1 (Seraïdari, 2019).

Religious/Pilgrimage Tourism as a particular sector of special interest tourism is covered by Greek Law 4582/2018/Art. 15.

The significance of the promotion of the pilgrimage /religious tourism has been recognized also by the Greek Church.

In particular, on 23 November 2000, the Holy Synod of the Greek Church founded a Committee responsible for the religious tourism, whose aim is to promote and disseminate the unique historical, religious and cultural value of Greek monasteries and sacred places.

The Greek Church has entered into tourism collaboration agreements with the Church of Russia (October 2012), the Church of Cyprus (November 2014), while further agreements with the Churches of Bulgaria, Serbia, Poland and Georgia are planned (Seraïdari, 2019).

In January 2013, a pilgrimage tourism collaboration protocol has been agreed between the Greek Church and the Greek Ministry of Tourism, whose aim is the further development of pilgrimage tourism activities through the protection and promotion of religious monuments, sacred places, monasteries and pilgrimages http://www.ecclesia.gr/greek/holysynod/commitees/tourism/mnimonio_paideias.pdf).

4 Promoting Religious/Pilgrimage Tourism Through the Digitisation and Online Accessibility of Cultural–Religious Resources

As already mentioned above, religious/pilgrimage tourism is one of the most important sectors of tourism not only in Greece but also worldwide.

However, the further promotion of religious/pilgrimage tourism requires the protection of the religious heritage from numerous natural or human-derived threats (such as excess exploitation of religious heritage resources by the market, vandalism, improper maintenance and/or care, degradation and pollution of their environment), but also the promotion, protection, conservation, restoration, research, dissemination, proper utilization, management, sustainable use and accessibility of cultural assets.

In these areas, technology plays a very significant role.

In particular, digital technologies such as immersive, virtual and augmented reality and 3D digitisation are important for the dissemination and promotion of tangible and intangible cultural assets.

They can play a key role in attracting tourists to a destination and facilitating cultural experiences and creative or tourism-related reuses of cultural religion heritage without borders.

3D digitisation is a necessity for tangible, immovable, cultural heritage at risk, but also for preservation, conservation and restoration, education and research purposes (Alivizatou-Barakou et al., 2018).

Furthermore, the digitisation of cultural heritage can provide virtual access to cultural heritage that is difficult to access or inaccessible, like the monastic community of Mount Athos, which is completely closed to women, or the manuscripts of the Athonite State.

Technologies such as 3D modelling and augmented reality can increase accessibility and enjoyment of museums, broaden access to cultural heritage for persons with visual impairments, by contributing to the creation of accessible tactile experiences, enhance the experience in traditional cultural heritage venues, contributing to the conversion of a simple visit to a rich media experience and create new venues for experiencing cultural heritage (Arnold, 2005; Madirova & Absalyamovaa, 2015).

5 EU's Digital Cultural Heritage Policy

The European Commission through extensive policy, coordination and funding supports Member States' cultural policy, with a special emphasis on digitisation and online access to cultural material and digital preservation and curation (https://cordis.europa.eu/article/id/413473-how-digital-technologies-can-play-a-vital-role-for-the-preservation-of-cultural-heritage).

Europeana, Europe's platform for digital cultural heritage, was launched by the European Commission on 20 November 2008. It currently provides access to over 58 million digitised cultural heritage records from over 3600 cultural heritage institutions and organizations (https://digital-strategy.ec.europa.eu/en/policies/europeana). Greece has submitted more than 700,000 digital objects to Europeana. In particular the National Documentation Centre (EKT), in its role as National Aggregator, submits cultural content to Europeana through the SearchCulture.gr infrastructure it develops. EKT also participates in the project 'Europeana Common Culture', through which it aims to increase the Greek content in Europeana (https://www.ekt.gr/en/news/23330).

The digital collections of Europeana include 120.000 images of digitised manuscripts and textual records from antiquity to the early print era many of them have a religious content, but also photographs, paintings and drawings of places of worship—across Europe, which illustrate the rich religious and architectural European heritage (Synagogues, many of which are sadly no longer present, churches and cathedrals, mosques).

Furthermore, the users of the platform have the opportunity to make a journey through Byzantine Ravenna, one of Europe's most important Byzantine cities, to have a glimpse of the impressive architecture and of the variety of structural and decorative baptisteries in the Byzantine period or to discover the symbols, the texts, the architecture and the traditions of Buddhism around the World.

Europeana promotes local, sustainable responsible and innovative tourism, as it offers the general public more opportunities to discover Europe's rich diversity of culture and nature in their own country or in another EU country.

Alongside these efforts, in 2019, 26 European countries, (among them Greece) signed a Declaration of cooperation on advancing digitization of cultural heritage. The Declaration invites the Member States to leverage synergies between digital technologies and Europe's cultural heritage in three pillars of action: (i) a pan-European initiative for 3D digitization of cultural heritage artefacts, monuments and sites; (ii) enhancing cross-sector, cross-border cooperation and capacity building in the sector of digitized cultural heritage; and (iii) fostering citizen engagement, innovative use and spillovers in other sectors (https://cordis.europa.eu/article/id/413473-how-digital-technologies-can-play-a-vital-role-for-the-preservation-of-cultural-heritage).

In 2020, with the help of experts the Commission also developed the 10 basic principles for 3D digitisation of tangible cultural heritage, an important guideline for heritage professionals, institutions and regional authorities in charge of Europe's cultural heritage, wanting to digitise their content (https://digital-strategy.ec.europa.eu/en/library/basic-principles-and-tips-3d-digitisation-cultural-heritage).

Furthermore, through the Horizon 2020 programme, the Commission offers support to research and innovation in the cultural heritage domain, with special emphasis on the use of cutting-edge technologies. From 2014 to 2020, funds through Horizon 2020 towards digital cultural heritage have been around EUR 70 million in total. In January 2021, the Commission launched a European competence center for digital preservation and conservation of European Cultural Heritage. The center, which has been granted up to €3 million from the Horizon 2020 programme, will set up a collaborative digital space for cultural heritage conservation and give access to repositories of data, metadata, standards and guidelines (https://digital-strategy.ec.europa.eu/en/news/commission-sets-centre-digital-preservation-cultural-heritage-and-launches-projects-supporting).

Furthermore, the European Commission is funding various projects, that are making important contributions to digital cultural heritage efforts, like DM2E, a project that aims to technically enable as many content providers as possible to integrate their content into Europeana, (https://pro.europeana.eu/project/dm2e), ARCHES, DigiArt, ViMM and EU-LAC-MUSEUMS projects, which have been using technologies such as 3D modelling and augmented reality, to increase the accessibility of museums, PLUGGY, which has developed the first-ever social network, in order to promote European cultural heritage, I-Media-Cities project, which has launched a platform that uses audiovisual material to allow anyone to discover the rich cultural heritage of nine European cities, Gravitate project, which has developed a 3D reconstruction of cultural heritage objects or Inception project, which has launched an innovation in 3D modelling of cultural heritage. (https://cordis.europa.eu/article/id/413473-how-digital-technologies-can-play-a-vital-role-for-the-preservation-of-cultural-heritage).

6 Greek Policy and Initiatives in the Area of Digitisation of Cultural–Religious Sector

6.1 The Virtual Byzantine and Christian Museum of Athens

The Byzantine and Christian Museum of Athens was founded in 1914 and is one of Greece's national museums. Its areas of competency are centred on—but not limited to—religious artefacts of the Early Christian, Byzantine, Medieval, post-Byzantine and later periods which it exhibits, but also acquires, receives, preserves, conserves, records, documents, researches, studies, publishes and raises awareness of. The museum houses more than 25,000 works of art such as icons, sculptures, ceramics, ecclesiastical textiles, paintings, jewelries and architectural elements, wall paintings and mosaics, date from between the third and twentieth century AD, from the entire Greek world, as well as regions in which Hellenism flourished. (https://www.byzantinemuseum.gr/en/museum).

The Byzantine and Christian Museum is implementing the project e-Byzantine and Christian Museum. The Museum is equipped with MuseumPlus, an internationally renowned software solution for the organization of museums and the web-based management of collections.

The above project allows the Museum to.

- Upgrade its archaeological collections management system by utilizing modern digital applications;

- Develop a new, accessible digital archive which can be further enriched and provides valid information on Byzantine and post-Byzantine civilization;
- Improve its communication and deepen its relations with many and diverse stakeholders, as well as with the world public;
- Offers to the website visitors a virtual tour of the Museum's permanent exhibition but also of the most important exhibitions held at the Museum over the past twenty years.
- Website visitors can evaluate their experience from their visit to the virtual museum by posting comments and observations in the Electronic Guest Book, while children, teenagers, families and school groups can participate in a series of interactive educational applications (memory and observation games, creative activities, like painting, role games) (https://www.ebyzantinemuseum.gr/?i=bxm.en.virtual-museum).

6.2 The Foundation of the Hellenic World

The Foundation of the Hellenic World is a privately funded non-profit cultural organization. Its mission is the preservation and dissemination of Hellenic history and tradition and the creation of an awareness of the universal dimension of Hellenism, through new technologies, like 3D representations, multimedia and virtual reality applications, which travel the visitors through time, to monuments and sites of Greek cultural heritage and offer them the experience of being immersed in the Virtual world. (http://www.ime.gr/fhw/index.php?lg=2&state=pages&id=80#,http://www.ime.gr/fhw/index.php?lg=2&state=pages&id=94).

6.2.1 The Technological Cultural Venue 'Hellenic Cosmos'

'Hellenic Cosmos', the Cultural Centre of the Foundation is an ultra-modern Cultural Centre and Museum, where visitors experience Hellenic history and culture through the use of state-of-the-art technology and audiovisual and interactive media.

The Centre offers a wide range of activities, such as interactive exhibitions, Virtual Reality Tours, educational programmes, conferences, theatrical performances, documentaries and art events. 2006 is inaugurated 'Tholos', a semi-spherical Virtual Reality theatre, with a capacity of 130 people, where digital productions are presented (http://www.fhw.gr/cosmos/index.php?id=1&m=1&lg=_en, (http://www.ime.gr/fhw/index.php?lg=2&state=pages&id=80#).

One of the interactive Virtual Reality productions, specifically created for the 'Tholos' is 'Hagia Sophia: 1500 Years of History', a comprehensive digital representation of the church of Hagia Sopia in Constantinople.

The interactive show reconstructs in full detail the interior of the church, its architectural design, the sculptural and mosaic decoration, presenting at the same time the various phases of its construction along with important historical, social and economic facts about life in Byzantium. The audience is given the opportunity to visit this iconic building, and to appreciate it as it was in its prime (http://agiasophia.tholos254.gr/en/, http://www.fhw.gr/cosmos/index.php?id=1&m=1&lg=_en).

6.3 Religious Heritage in the Digital Public Space

6.3.1 The National Documentation Centre (EKT)

The National Documentation Centre (EKT) is a public organization that promotes knowledge, research, innovation and digital transformation. It was established in 1980 with funding from the United Nations Development Programme. Since August 2019, it has been established as a discrete public-interest legal entity under private law, and is supervised by the Ministry of Digital Governance (Article 59/Law 4623/2019).

As a digital and natural infrastructure of national scope its institutional role is to collect, document, disseminate and provide long-term preservation of quality digital content and data produced by Greek scientific, research and cultural communities.

EKT has a state-of-the-art computer infrastructure and Data center, equipment for the digitisation of various types of archives, digital libraries, electronic reading room open to the public, register infrastructure for the Greek research and development activity (https://www.ekt.gr/en/about).

In the European Commission report on Cultural Heritage: Digitisation, Online Accessibility and Digital Preservation published 12 June 2019, which gives an overview of strategies, policies and best practices of member states for digitisation of cultural heritage, Greece received a particular mention as an example of best practices 2015–2017, with reference to the National Archive of PhD Theses, managed by the National Documentation Centre (EKT) along with EKT's ePublishing service for electronic open access publications.

Furthermore the National Documentation Centre (EKT), in its role as National Aggregator, submits cultural content to Europeana, the European digital cultural platform (https://www.ekt.gr/en/news/23330).

Apart from these the EKT has developed SearchCulture.gr, a cultural digital space, that aggregates Greek Digital Cultural Content, produced by 72 institutions through public funding, among them Research Centre for Byzantine and Post-Byzantine Art, Institute of Historical Research and Orthodox Cultural Heritage of Chania.

The collections of the cultural digital space of EKT consist of 717.875 items, which include 32.172 religious artefacts and monuments of the Early Christian, Byzantine and the Ottoman period.

Furthermore, the cultural digital space of EKT hosts virtual thematic exhibitions, e.g. 'Thessaloniki, a multicultural metropolis'.

The rich photographic and archival material of the virtual exhibition, which covers the period from the beginning of the nineteenth century until the interwar years, unveils, among others, the important religious monuments of the city, (byzantine churches, orthodox monasteries, synagogues and mosques). (https://www.searchculture.gr/aggregator/portal/thematicCollections/Thessaloniki).

6.3.2 The Collection "Monastic Archives: Manuscripts from Mount Athos and Patmos", in 'Pandektis' Digital Repository

The project 'PANDEKTIS—A Digital Thesaurus of Primary Sources for Greek History and Culture' is developed by the National Hellenic Research Foundation under the framework 'Digital Greece' (www.psifiakiellada.gr) and is co-financed at 75% by the European Union—European Regional Development Fund and at 25% by the Greek Public Domain (Operational Programme for IS–OPIS, 3rd CSF 2000–2006). The PANDEKTIS digitisation and online dissemination has been developed by the Greek National Documentation Centre (EKT).

The project contains major digital collections of Greek history and civilization, which have been produced by the three humanistic Institutes of the National Hellenic Foundation for Research—the Institute of Neohellenic Research, the Institute of Byzantine Research and the Institute of Greek and Roman Antiquity. http://pandektis.ekt.gr/pandektis/history.jsp.

The digital collection 'Monastic Archives: Manuscripts from Mount Athos and Patmos', hosted in 'PANDEKTIS', is part of an infrastructure programme which promotes systematic research of archival and manuscript collections. The collection includes more than 5.009 Byzantine and Post-Byzantine manuscripts and documents from Mount Athos and Patmos: 4902 manuscripts are kept in 10 monasteries of Mount Athos and the Church of the Protaton in Karyes (Haghiou Pavlou, Dionysiou, Docheiariou, Karakallou, Kastamonitou, Xeroptamou, Pantokratoros, Stavronikita, Hilandar and Panteleimonos). The remaining 107 are preserved in the monastery of Saint John the Theologian in Patmos (http://pandektis.ekt.gr/pandektis/handle/10442/9045).

6.4 Programmes for the Digitisation of Religious Heritage and the Promotion of Religious/Pilgrimage Tourism

6.4.1 The Re-Cult Project: Fellow Travellers in Religious Greece and Cyprus

The Re-Cult project is being implemented under the INTERREG V-A Greece—Cyprus 2014–2020 Cooperation Programme.

The main objective of the Strategic Project is to promote the rich tangible and intangible religious cultural heritage of the cross-border region of Greece and Cyprus through the development of coordinated planning and the use of information technology in order to create a holistic tourist product for pilgrims and admirers of art.

The corporate structure of the Act is composed of the Deputy Ministry of Tourism of the Republic of Cyprus, who is the principal beneficiary, the Hellenic Ministry of Tourism, the Holy Archdiocese of Cyprus, the Church of Greece, the Association of Cyprus Tourist Enterprises, the University of the Aegean, the Cyprus University of Technology and the Center for Research and Development of the Holy Metropolis of Syros. The project is co-funded by the European Union and from National Resources of Greece and Cyprus.

Within the project the following activities will be implemented:

- Digital cataloging.
- Design and development of a digital museum, library and mobile app of virtual tour.
- Actions for updating, displaying and highlighting digital repositories.
- Marking of selected points in the intervention areas.
- Pilot development of Certified Routes.
- Training of stakeholders.
- Developing networking and cooperation between tourism operators and cultural and religious monument management bodies.
- Development of common tools to promote the religious heritage of the region (http://www.recult-greece-cyprus.gr).

6.4.2 The Action 'Digital Culture Projects'

The project is co-financed by the European Union—European Regional Development Fund (Operational Programme 'Competitiveness, entrepreneurship and innovation', 2014–2020).

Principal beneficiaries of the project are the Hellenic Ministry of Culture, the Holy Archdiocese of Athens, the Israeli Community of Thessaloniki, such as legal entities under public and private law with responsibilities in the field of culture.

The main objective of the Project is to protect and disseminate the cultural heritage (movable and immovable monuments, collections, archives) and to promote scientific research, education and tourism, through the use of technology (digitisation and documentation of cultural material, creation of digital repositories and digital museums, use of digital technologies, such as immersive, virtual and augmented reality and 3D).

file:///F:/VIRTUAL%20TOURISM/Proskllhsh_03_%CE%95%CE%A0%CE%91%CE%BD%CE%95%CE%9A.pdf.

7 New Policies and Measures that Support Digital Transformation of Cultural/Religious Heritage Sector

7.1 European Union New Policy Instruments

In 2020, the Commission launched an evaluation of the Recommendation on the digitisation and online accessibility of cultural material and digital preservation (2011/711/EU).

The evaluation highlights the success of the Recommendation in increasing the digitisation and online access to digital resources in the cultural heritage sector, across the EU during the past ten years. However, the COVID-19 crisis has underlined once more the importance of improving online access to digitised cultural material and improving its use/reuse. According to the evaluation, advanced technologies (e.g. 3D digitisation) or emerging technologies (e.g. virtual reality or augmented reality) can empower the potential of the cultural heritage sector and offer new opportunities to digitise cultural tangible and intangible heritage for preservation, conservation, restoration, research, as well as for broader online access and reuse by citizens and various sectors, such as tourism. Moreover making full use of cultural heritage data would be beneficial not only to the cultural sector, but also to other sectors (e.g. research, sustainable tourism, education), while increased collaboration with other Cultural Heritage Institutions at international level and further adoption of common standards for digitised content are important for the promotion of European culture (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011H0711).

7.2 The Digital Transformation 'bible' of Greece (2020–2025)

In December 2020, the Greek Ministry of Digital Governance has launched a Digital Transformation 'bible' for the years 2020–2025 outlining a holistic digital strategy. Through collaborations with stakeholders from the public and private sector as well as with the research and academic community and the civil society, the 'bible' describes the objectives, the guiding principles, the strategic axes, the horizontal and vertical interventions and the implementation measures of the digital transformation of the Greek society and economy.

The Action Plan of the strategy provides the implementation of more than 400 projects in the following sectors: Economy, Development & Innovation, Foreign Policy, Education, Culture, Sports, Employment & Social Affairs, Health, Environment & Energy, Justice, Public Administration, Transformation of Cities and Communities, Transportation, Maritime Affairs & Insular Policy, Tourism, Migration & Asylum Policy. (https://www.greeknewsagenda.gr/topics/business-r-d/7379-the-digital-transformation-%E2%80%9Cbible%E2%80%9D-of-greece-2020-2025).

According to the 'bible' Greece has made during the last years significant progress in the area of digitisation of cultural material (archives, libraries, art and archaeological collections), while many museums have websites, which host digitised cultural material.

However, according to the 'bible' more activities have to be implemented like the adoption of national common standards for digitised content, the promotion of 3D digitisation of tangible cultural heritage, the digitisation and documentation of all cultural movable material, the use of digital technologies, such as immersive, virtual and augmented reality, the further contribution to Europeana with the submission of digitised cultural content like intangible cultural–religious assets (prayers, songs, ritual and ceremonial practices), the maintenance, upgrade and update of existing digital repositories and platforms (like 'ODYSSEUS' portal of Ministry of Culture and Sport) and the enrichment of their content, e.g. with thematic virtual tours.

Furthermore, the 'bible' provides the digitisation of the cultural heritage of the Greek Church but also of significant byzantine monuments of Mount Athos.

In my opinion alongside these actions, provided by the 'bible' further activities could contribute to the digital transformation of cultural / religious heritage sector, like the enrichment of the content of digital portal for museums, monuments and sites 'ODYSSEUS' with:

– a digitised pilgrimage map,
– portable virtual museums,
– virtual thematic religious tours and exhibitions (for instance, about the Palaiochristian and Byzantine Thessaloniki, the places where the Apostle Paul preached, etc.),
– time travelling and virtual visits of religious and other monuments with the use of digital tools, like HistoPad, (a digital mediation tool that allows the visitor to go back in time thanks to its augmented reality, 3D reconstructions and interactive functionalities),
– practical information about accommodation, food, distances, cultural events, etc.,
– web applications that offer a map-based interface and focuse on specific cities and regions, giving information about their cultural life and offering virtual visits of their monuments, museums, etc.

8 Final Considerations

As already mentioned above, during the past ten years a significant progress has been made across the EU and in Greece in the area of digitisation, online accessibility and digital preservation of cultural material. However, the COVID19 pandemic and the fact that cultural material is vulnerable to various threats that are often difficult to predict or prevent (like the recent fire in Notre Dame) have underlined in EU but also in Greece the urgent need for wider use of digital technologies (such as immersive, virtual and augmented reality and 3D), for increased collaboration between all responsible stakeholders from the public and private sector as well as with the research and academic community and the civil society and for further adoption of common standards for digitised content.

A holistic digital strategy in the cultural–religious sector would be beneficial not only for the sector itself, but also for the development of a sustainable and innovative tourism at religious heritage sites.

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