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Vicky Katsoni
Amitabh Upadhyia
Anastasia Stratigea *Editors*

Tourism, Culture and Heritage in a Smart Economy

Third International Conference IACuDiT,
Athens 2016

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Preface

The current book of proceedings is the outcome of the effort of a number of people, who participated at the *3rd International Conference organized by the International Association of Cultural and Digital Tourism (IACuDiT)* in Athens, May 19–21, 2016 (<http://iacudit.org/Conference2016/>). The chair of the conference, i.e. IACuDiT is a global network of people, who bear on a wide range of issues of concern and interest in cultural and digital tourism, in an era of major global changes. IACuDiT is a nonprofit international association, which values creative, ethical, and progressive action, aimed at the improvement of global hospitality and tourism research on cultural and digital issues. IACuDiT brings together a wide range of academics and industry practitioners from cultural, heritage, communication, and innovational tourism backgrounds and interests. It mainly promotes and sponsors discussion, knowledge sharing, and close cooperation among scholars, researchers, policy makers, and tourism professionals. It is based on the notion that: “Technological changes do not influence the missions of cultural tourism actors in the areas of promotion and product development, but rather the manner of carrying them out”. It provides its members with a timely, interactive, and international platform to meet, discuss, and debate cultural, heritage, and other tourism issues that will affect the future direction of hospitality and tourism research and practice in a digital and innovational era.

The Conference was co-chaired by the Skyline University College, United Arab Emirates; the University of Applied Sciences, Austria; and the National Technical University of Athens (NTUA), Greece.

The *theme* of the 3rd IACuDiT Conference was on the *Tourism, Culture and Heritage in Smart Economy*. The *scope* of the conference was to shed light on the latest developments in the tourism sector, a sector considered as a key driver for many national and regional economies, cross-cutting cultural, environmental,

political, economic, social and technological aspects of contemporary societies. In this respect, the ultimate goal was to provide a step motivating an interdisciplinary, fruitful, and challenging dialogue that could promote further understanding and interaction among a multidisciplinary academic audience, tourism industry professionals and key practitioners, as well as decision makers. Towards this end, the Conference is touching upon a range of key themes affecting both the tourism sector per se but also sustainable tourism development, in order scientific knowledge but also practical experiences to be creatively shared and synergies to be created.

Based on the nature of the tourism sector and its interaction with many different dimensions of tourist destinations, an interdisciplinary audience of academic researchers and scholars, industry professionals, and governmental officials and other key industry practitioners have contributed to the 3rd IACuDiT Conference. Their valuable contributions have formed the content of the current book, enriching though the perspectives, the context, the approaches and tools that can be used for a thorough understanding, planning and promoting local assets along the lines of sustainability in environmental, economic and social terms.

To all these people who have helped and supported the realization of the 3rd International Conference of IACuDiT and have brought to an end the current editorial effort, we would like to express our gratitude. Special thanks and sincere appreciation are due to all our keynote speakers, for providing valuable input that has enriched discussions and argumentation of the Conference. We would also like to address our gratitude to the Greek Ministry of Tourism and the Hellenic Republic Ministry of Culture and Sports, without the support of which it would not be possible to organize this symposium. Their full understanding, support and encouragement made this task much easier for us. Finally, special acknowledgement goes to the Universities co-chairing and supporting this conference, namely the: Skyline University College, United Arab Emirates; University of Applied Sciences, Austria; and the National Technical University of Athens (NTUA), Greece.

We would like to hope that our ambition to add value to such a complex and intriguing issue as the one of tourism, by shedding some light on its interdisciplinary nature as well as tools and approaches to cope with it, was fraught with success. In any case though, bearing in mind the Henry Miller's saying:

"... one's destination is never a place, but a new way of seeing things",

we would like to hope that the 3rd IACuDiT Conference has contributed to the creation of a fertile ground for interdisciplinary work and new ways of thinking of the current, but also future challenges of the topic at hand.

Vicky Katsoni



Amitabh Upadhya



Anastasia Stratigea



May 2016
Athens, Greece

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Editorial

The dynamic role of *tourism* in local economic development is nowadays largely appreciated, with the tourist sector been considered as a structural element of modern societies. Tourism has become one of the major sectors in many local economies, mainly due to its increasing share in income distribution, but also the opportunities it creates for upgrading local development perspectives.

In this respect, *tourist development* has become one of the major policy paths towards regional development, largely drawing upon the *positive impacts* of tourism on motivating regional development processes, income creation, entrepreneurship, etc. Nevertheless, one should also be aware of the *negative impacts* of tourism development as well, which emerge from the high pressure exerted on the social, cultural, and environmental aspects of host destinations. Such a consideration, and the need to seek a balance between positive and negative impacts of tourism, has pushed forward the emergence of the sustainable tourist development concept. Pursuing sustainable tourism development objectives is nowadays at the forefront of current policy paths, as consensus has been reached as to the very important contribution of tourism to many of the world's most pressing challenges, from economic growth to climate change, thus recognizing tourism as an economic powerhouse and a contributor to all three pillars of sustainable development.

Sustainable tourist development has nowadays been set at the heart of global but also local policy efforts in both tourist developed and developing areas, seeking to reap the economic benefits of tourist development but also manage carrying capacity aspects of available resources in destinations; and sustain cultural integrity, essential ecological processes, biological diversity and life support systems (Stratigea and Katsoni 2015). Sustainable exploitation of destinations' natural and cultural assets is, in this respect, considered as a great challenge and a key planning goal, an end state to be reached by means of coordinated efforts of a variety of players, i.e. policy makers, tourism stakeholders, planners, local societies, etc.

Speaking of the *tourism sector* per se, a range of great challenges is also coming to the fore that renders the tourism market an increasingly competitive and complex arena. Players in this arena, i.e. tourist businesses, need to re-position their strategy

and re-engineer their processes in order to survive and properly adjust to external signs and changes of the general decision environment but also the tourist market.

Key trends appearing nowadays in the tourism sector are driven by both increasing environmental awareness and huge developments in the Information and Communication Technologies (ICTs) sector. The mainstream of these trends refer to the *demand* and *supply* but also the *destination* side and can be shortly described as follows (Stratigea and Katsoni 2015):

- On the *demand side*: a persisting trend appears towards *more 'experienced, sophisticated, educated, knowledgeable and demanding' consumers*, increasingly seeking *new, meaningful and authentic tourist experience*, based on personalized preferences.
- On the *supply side*: the exploitation of technology is nowadays critical for the tourism industry so as to achieve competitive advantage and provide economic benefits for localities, thus reducing the *asymmetric distribution* of economic, political, and cultural capital globally. ICTs and their applications enable tourists and businesses to participate in the emerging electronic market and benefit from arising opportunities. Based on that, the supply side will manage to meet the growing trend towards the *customization* of the tourist product, by establishing 'one-to-one' but also 'win-win' (customers and businesses) marketing approaches. This newly evolving production environment values the most efficient relationships that are based on the creation of alliances, partnerships and networks among firms, enhanced by the emergence of ICTs. Tourist stakeholders with an ability to learn quickly collaborate and translate that learning into active sharing of online experience, will be able to gain competitive advantages in these rapidly changing marketplaces (Katsoni 2012; Katsoni and Venetsanopoulou 2013). Moreover, environmental protection objectives re-engineer production processes of the tourist sector in order the demand for environmentally committed tourist businesses and products to be effectively satisfied.
- On the *destination side*: the changing characteristics of the tourist market call for the development of *new products and services* for meeting newly emerging *special interest markets*, thus potentially affecting, among others, the *destinations' management* towards the development of targeted and increasingly *theme-based tourism products and services*. These are broadly oriented to one or a combination of three *e-words*: *entertainment, excitement and education/experience* of visitors (UNWTO 2002). Destinations' marketing has also been largely affected by developments of *information technology and social media*, increasing competition among destinations.

Of importance in this respect is also the evolving context of smart cities and its penetrating role to a variety of sectors, the tourism sector as well. *Smart tourism* is emerging in such a context, with the term presenting, according to Gretzel et al. (2015), a new buzzword that attempts to delineate the increasing reliance of tourism industries, tourists and destinations on emerging forms of ICT that allow the transformation of massive amounts of data into value propositions. Speaking of the

destinations, the struggle of cities to follow the new smart city paradigm and the expansion of the digital world has marked also a redefinition of the *role of DMOs*. Cultural and heritage resources of a destination need a different approach in the digital era. The DMO got easily transformed from being a marketing organization to a management organization and now it is needed to go beyond traditional management approaches and become a *Digital Destination Organization*, a very interesting topic presented by the keynote speaker Dr. Amitabh Upadhyia in the 3rd International Conference of IACuDiT, 2016. The digital world is waiting with ample opportunities.

The *key themes* emerging from the above discussion and the ways these can affect tourism development both at the *macro* (the destination) and the *micro* (the business firm) level were explored in the context of the 3rd International Conference, 2016, organized by the International Association of Cultural and Digital Tourism (IACuDiT) on ‘*Tourism, Culture and Heritage in Smart Economy*’. The conference goal was to get more insight into the various aspects of the above themes, by collecting different views, opinions and practical experiences from different places of the world through the creation of an interdisciplinary platform of interaction among academia, policy makers, practitioners, tourism industry, etc.

The present book of proceedings draws upon the contributions of a large number of people, who have participated in the 2016 International IACuDiT Conference; and have presented different views and dimensions of the core theme of the conference. A crop of *thirty three contributions* was collected by this chance, which, are further classified into *three distinct parts* as follows:

- Part I ‘Smart’ Cultural Heritage Management
- Part II Tourism Business Environment—Current Developments and Experiences
- Part III Methodological Frameworks, Tools and Approaches for Sustainable Tourism Management

Papers falling into each specific part of the book have as follows:

Part I ‘Smart’ Cultural Heritage Management

Part I consists of *six chapters*. Its focus is on exploring the role of Information and Communication Technologies (ICTs) on heritage management. Papers incorporated in this part reflect the new challenges and opportunities for marketing cultural destinations, heritage and related products that are enabled in the highly connected ‘smart’ environment, marked by the revolutionary technological developments and their potential for “searching, gathering, storing, elaborating, generating, visualizing and transmitting information” (Bangemann 1994). Within such environments, new potential is created for smart cultural tourism that can add value to cultural heritage management and relating marketing strategies of businesses and destinations.

Along these lines, in Chapter “[Serious Games at the Service of Cultural Heritage and Tourism](#)”, Andreas Georgopoulos, Georgia Kontogianni, Christos Koutsaftis and Margarita Skamantzari explore the value of ICT-enabled applications for a

through multidimensional geometric documentation and realistic visualization of cultural heritage assets. They also discuss the role of Serious Games as a tool for cultural heritage management, education and tourism, based on ICT advances and especially the textured three dimensional models. According to the authors, these constitute an attractive platform; enabling people to get acquainted with the heritage treasures and get motivated to visit the place and admire the treasures live. In this paper, this technological merger is explained and three interconnected applications are presented, serving the purpose of proving the concept. All three examples use realistic models produced for documentation purposes, which convey the real impression of the monuments visualized to the user. In this respect, they result into visitor-friendly environments, easy to use and understand, while maintaining the accuracy and realism of the 3D models.

In Chapter “[Dissemination of Environmental Soundscape and Musical Heritage Through 3D Virtual Telepresence](#)”, Georgios Heliades, Constantinos Halkiopoulos and Dimitrios Arvanitis deal with the design and implementation of a 3D telepresence visualization interface that aims at the remote experience and dissemination of musical cultural heritage and environmental soundscapes to the public, by utilizing the latest technology available. The architecture of the application consists of a server database, containing the scientific data collected; and client applications that allow multiple users to enter the 3D environment and interact simultaneously. Based on Unreal 4 graphic engine and developed for a wide variety of platforms, devices and operating systems (i.e. Linux, Macintosh, Windows or Android), these client applications can be ported to PC, tablets, mobile phones and ultimately to any web browser supporting HTML5. The paper sheds light on the main research challenges in the domain of cultural heritage informatics as well as a number of parameters that can affect cultural content digitization process.

In Chapter “[Digital Integration of the European Street Art: Tourism, Identity and Scientific Opportunities](#)”, the work of Virginia Santamarina-Campos, Blanca de-Miguel-Molina, María de-Miguel-Molina and Marival Segarra-Oña aims at analyzing digital information regarding street art in Europe, in an effort to reveal the value and cultural content of such an art and its role in shaping cultural identity; as well as its potential as a cultural resource that is recognized by artists, creatives or researchers, but is completely unknown to other parts of the society. Content analysis is used as a methodological approach to deal with digital information on the European street art, collected through a wide range of electronic sources (Websites, Apps, Web of Science, etc.). Through the results of data analysis, the authors claim that street art is nowadays a trend topic; while aggregation of digital resources could motivate new development perspectives of street art as part of cultural heritage and identity, adding value to tourist destinations’ management and marketing.

Chapter “[A Hashtag Campaign: A Critical Tool to Transmedia Storytelling Within a Digital Strategy and Its Legal Informatics Issues. A Case Study](#)”, written by Anna Paola Paiano, Giuseppina Passiante, and Lara Valente, deals with transmedia storytelling as a cutting-edge tourist-oriented approach to promote a territory in a smart perspective, with a focus on the power of a hashtag campaign within a

pilot Instagram tour, occurred in 2015. Starting from the belief that involvement, participation and sharing are useful keys to most industries and sectors, and especially to tourism, the authors undertake an in-depth study of Salento up'n'down case, as a successful example of 2.0 initiative in terms of creating new models for public engagement and visitor meaning-making (i.e. travel-generated content) through the application of the “legal informatics by design and by default” logic. Data collection and analysis show how Salento up'n'down becomes a viral tourism web-based event, in terms of reach, exposure and engagement through the social media channels. By integrating the conceptual discussion on the adoption of technology-based innovations in the tourism sector with a 2.0 tourist-oriented empirical experience, the study provides useful insights on the practical implementation of future location-based transmedia storytelling projects.

Chapter “[Museums + Instagram](#)”, prepared by Katerina Lazaridou, Vasiliki Vrana and Dimitrios Paschaloudis, elaborates on Instagram as the social photo sharing service, and the new opportunities this offers to museums and galleries as a mean enabling museums' image building in the Internet, as well as promotion of their products, e.g. communication to users of quality pictures from the museum's collection, short information along with small snapshots from the museum's workaday life, etc. The power of Instagram for managing and marketing museums and galleries content and activities has not yet been fully explored and appreciated. This work attempts to fill this gap and investigate the use of Instagram by the most visited museums worldwide. It records museum performance characteristics like number of followers, following and number of posts, etc. The paper draws useful conclusions on the ways that Instagram can be utilized by museums for boosting their Internet visibility and attracting more attention and potential visitors.

Finally, in Chapter “[Evaluation of Athens as a City Break Destination: Tourist Perspective Explored via Data Mining Techniques](#)”, last paper of Part I, Gerasimos Panas, Georgios Heliades, Constantinos Halkiopoulos, Gerasimos Antzoulatos, Dimitra Tsavalia and Argyro Bougioura investigate the attractiveness and competitiveness of Athens as a city break destination. A survey through questionnaires has been conducted among actual international visitors of Athens, in order to explore tourists' preferences and their perception regarding Athens image as a city break destination. The methodology adopted consists of two concrete phases. During the first phase, questionnaires were designed for collecting relevant data. During the second phase, these data were collected and analyzed based on data mining techniques (use of classification algorithms for hidden patterns identification). Such a data management approach can support a more effective destination management, by pinpointing the critical factors that can affect the level of satisfaction of potential tourists as to the specific destination.

Part II Tourism Business Environment—Current Developments and Experiences

The *second part* of the book consists of *twelve chapters* that aim to capture current developments and gather experiences as to the evolving tourist business environment (the micro-level).

More specifically, in Chapter “[The Insight of Tourism Operators in Contemporary Business Environment](#)”, Eriks Lingeberzins attempts to explore peculiarities faced by tourism operators in a continuously evolving business environment. His effort is based on quantitative research, engaging 118 respondents, who represent tourism operators from different countries and of different size. Data collected by tourism operators’ responses were referred to current market state, market transformation changes, the role of customer and supplier relationship, as well the understanding and ability of operators to interpret factors related to the tourism enterprise management. Based on the results obtained, author identifies the most substantial attributes of the contemporary business environment. As such, tourism operator perception and related operations, perceptions regarding tourism product distribution, employee social skills additionally to practical knowledge, etc. are highlighted. Results confirm author’s assumption that the management of tourism operators is increasingly dependent on tourist businesses’ ability to respond to the ongoing international tourism market changes or in other words to properly adjust to a continuous changing business environment.

In Chapter “[Measuring the Twitter Performance of Hotel E-Mediaries](#)”, Vasiliki Vrana, Kostas Zafiroopoulos, Konstantinos Antoniadis and Anastasios-Ioannis Theocharidis elaborate on the role of information communication technologies and the use of Web and Web 2.0 applications towards motivating changes in travel and tourism sectors. They focus on Twitter, as the most popular micro-blogging platform, which allow hotel booking websites to spread information and deals, listen to customers’ needs and increase their engagement, enhance their satisfaction and obtain deeper insight into their experiences. They claim that, up to now, little research effort has been devoted at investigating the use of Twitter by hotel booking websites. The paper aims to fill this gap and record major hotel booking websites and their Twitter accounts. Twitter performance indexes are used to describe the activity and performance of these accounts. Descriptive statistics, principal components analysis and correlational analysis are used to investigate whether significant differentiations among hotel booking websites exist, regarding Twitter performance. Twitter performance is also investigated as to its alignment with hotel booking websites’ commercial web traffic data and analytics.

Chapter “[Modulation of Conditions and Infrastructure for the Integration of Change Management in Tourism Sector](#)”, prepared by Ioannis Rossidis, Petros Katsimardos, Konstantinos Bouas, George Aspridis and Nikolaos Blanas, elaborates on the constantly changing socio-economic circumstances and decision environment, and the conditions that delineate readiness for change of tourist businesses in order to adjust to this environment. Towards this end, the paper explores the necessary conditions that need to be fulfilled in order to effectively adjust operational approaches and processes, leading to active re-engineering of some or all functions of an organization and especially a hotel unit.

In Chapter “[The Impact of ISO 9001 Quality Management System Implementation in Tourism SMEs](#)”, Dimitris Drosos, Michalis Skordoulis, Miltiadis Chalikias, Petros Kalantonis and Aristeidis Papagrigoriou, stress the importance attached nowadays on service quality, perceived as a potential standard

of excellence for any organizations around the world. Service quality is central to the marketing concept, with evidence of strategic links between service quality and overall service performance. On the other hand, it is already obvious that the rapid international developments in the business world form new standards and conditions in the organization and production processes. Within this framework, businesses would proceed to the development and use of more effective methods, which will allow them to evaluate the service and product quality as well as the satisfaction of their domestic and foreign clients. Along these lines, the paper explores the impacts of ISO 9001 on small and medium-sized tourism enterprises (SMEs), by placing emphasis on a literature review and critically analyzing total quality management (TQM), quality management systems (QMS) and attributes of International Standardization Organisation (ISO) systems.

Chapter “[The Concept of the Innovative Tourism Enterprises Assessment Capability](#)”, written by Leszek Koziol, Anna Wojtowicz and Anna Karaś, elaborates on the concept of an innovative capability evaluation system of a company. The paper works out the issue of gap identification between the desired innovation potential and the one that the company owns. A set of innovative capability key determinants that constitute the basis for assessing this ability was extracted along a two-phase research approach. Moreover, thirteen evaluation criteria, with appropriate weights and scales of measurement, were adopted for inclusion in the innovative capability evaluation model. In the empirical part of the paper, the concept of innovative capability was validated; while a range of actions, targeting the leveling of innovation potential gaps as well as stimulating the process of innovation in the hotels researched was also elaborated.

In Chapter “[Looking for Determinants of the Environmental Concern at the Hospitality Industry](#)”, Angel Peiro-Signes and Marival Segarra-Oña use the Community Innovation Survey 2010 (CIS 2010) database and data from 695 companies, from three different countries, in order to identify potential factors that are capable of determining the environmental concern of hospitality firms, while innovating. The paper demonstrates that the innovation orientation, the importance of external information sources for the innovation and the perception of barriers toward innovation are effective factors in predicting the environmental concern. Additionally, it is shown that innovation orientation is the most powerful predictor of the environmental concern while innovating, which suggests that innovation is a key driver to encourage environment concern of companies at the hospitality industry.

Chapter “[The Importance of Human Resource Management for the Development of Effective Corporate Culture in Hotel Units](#)”, prepared by Labros Sdrolias, Ioannis Anyfantis, Ioannis Koukoubliakos, Donka Nikova and Ioannis Meleas, attempts to shed light on the importance of human resources management for the development of effective corporate culture, focusing at the hotel sector. Business organization and management regarding human resources has to be part of corporate and strategic management. Careful scheduling, recruitment procedures, selection procedures and training plans are proved as important components that should put high in the hierarchy of corporate targets.

In Chapter “[Human Resource Management, Strategic Leadership Development and the Greek Tourism Sector](#)”, Dimitrios Belias, Panagiotis Trivellas, Athanasios Koustelios, Panagiotis Serdaris, Konstantinos Varsanis and Ioanna Grigoriou deal with the issue of human resource management (HRM) and strategic leadership development as essential elements in all economic sectors, aiming at the design of recruitment, retention and professional development practices of employees and the effective implementation of the strategic planning process. The paper investigates a range of sources on this specific issue, for setting the ground and principles drawn from the international research context. Next, it explores HRM and strategic management concepts in the Greek context, where a number of questions arise as regards whether or not the applied strategies—or lack of certain strategies—respond to high quality service needs of tourism organizations and to the overall development of the tourism sector in Greece. Answers to issues raised are sought in relevant literature explored.

Chapter “[The Strategic Role of Information Technology in Tourism: The Case of Global Distribution Systems](#)”, by Dimitris Drosos, Miltiadis Chalikias, Michalis Skordoulis, Petros Kalantonis and Aristeidis Papagrigroriou, elaborates on the role of Information Technology (IT) and particularly the use of Web technologies for opening up new forms of engagement and interaction, as well as new organizational potential. The focus of the paper is on the potential of IT in tourism and more specifically on the role of Global Distribution Systems and their remarkable impact on the tourist industry.

Chapter “[A Theoretical Model of Weighting and Evaluating the Elements Defining the Change of Organizational Culture](#)”, by Theodoros Stavrinoudis and Christos Kakarougkas, attempts to develop a new theoretical model for exploring change of organizational culture at individual, group, organizational, industry and national level, by properly identifying, weighting and assessing specific elements that determine this change. In this work, a review of theoretical contributions shows that the process of change of organizational culture can follow three alternative paths. Each path has unique attributes, while all paths share the common objective of transforming the old organizational culture into a new one. The first path—formal/ revolutionary—is based on a specific change program, imposed by the management of an organization. The second path—informal/evolutionary—is not based on a specific program, but on long-term changes based on development, competition and conflicts marked by opposing forces. The third path—hybrid—is a combination of the previous two. Based on this distinction, the paper elaborates on the elements that compose the three paths, which feed the development of the theoretical model of change of organizational culture.

In Chapter “[Entrepreneurship and Innovation: Current Aspects](#)”, work of Aristidis Papagrigroriou, Petros Kalantonis, Vasiliki Karagianni, Miltiadis Chalikias and Dimitris Drosos attempts to shed light on the linkages of innovation and entrepreneurship. The paper elaborates on conceptual approaches of entrepreneurship, as well as the influence of innovation on entrepreneurship; while finally it sketches key initiatives of EU towards the promotion of innovation in small and medium-sized entrepreneurship.

In Chapter “[Social Media Tools and \(E\)Destination: An Italian Case Study](#)”, work of Anna Paola Paiano, Lara Valente, Valentina Ndou, and Pasquale Del Vecchio shows how the use of social media tools, may be critical to enable tourism destination competitiveness by analyzing a destination digital strategy aimed to define the best features to perform a winning digital strategy that allows to promote and market a tourist destination on the web. A benchmark of some Italian e-destinations best practice examples has been conducted and the chosen cases are, then, analyzed more in depth, through a qualitative online exploratory survey.

Part III Methodological Frameworks, Tools and Approaches for Sustainable Tourism Management

The *third part* of the book—Part III, consisting of *fifteen chapters*, aims at presenting recent developments on methodologies, tools and approaches that are capable of dealing with sustainable tourist development perspectives and paths. The collection of different views, provided by these papers, offers a valuable insight, steering policy decisions at the macro-level (the destinations).

More specifically, Chapter “[PM4SD as a Methodological Framework for Sustainable Tourism](#)” by Giusy Cardia and Andrew Jones elaborates on the issue of sustainable tourism, i.e. the prevalent tourism development model of the last few decades. The paper reviews the concept of sustainable tourism, stressing the different interpretations and perceptions of the concept by different stakeholders, leading to rather conflicting definitions. Then the paper elaborates on the past and current sustainable tourism policies at the EU and the international level; while explores also the main sets of indicators developed for assessing sustainable tourism achievements so far. Finally, the paper proposes a specific methodological approach project management for sustainable development—PM4SD a well-structured methodology relevant to the implementation of sustainability principles by elaborating on current knowledge and good practices and, based on these resources, developing new and innovative vocational teaching and training materials and methods for strengthening sustainable tourism management potential.

In Chapter “[Project Cultour+: Building Professional Skills on Religious and Thermal Tourism](#)”, Afroditi Kamara, Martin Gomez Ullate, Luis Ochoa Siguencia, Veronika Joukes and Altheo Valentini elaborate on two very important forms of sustainable tourism, namely pilgrimage and thermal tourism that are gaining ground in recent years. In this paper, experience gained by the CULTOUR+ European project is presented, serving the goal to enhance the professional capacities and upgrade the tourist services regarding pilgrims’ routes and thermal springs in several European countries. Key issues addressed are: cultural routes management, investigating and understanding the needs of these special tourist target groups, pinpointing places of their interest, monitoring the infrastructure (notably the accommodation facilities); and training young entrepreneurs towards improving and diversifying the services offered. The final aim is to create an instrument for mapping and promoting religious and thermal tourism cultural routes in a large part of Europe; and to upgrade tourist specialists’ knowledge stock as to the

improvement and diversification of relative products/services and anticipation of the needs of respective tourist clientele.

In Chapter “[The Model Do-Di: An Emerging Methodology for the Management of the Relation Between Tourism, Culture and Development](#)”, Giusy Cardia and Juan Ignacio Pulido Fernández attempt to elucidate the value of culture for sustainable tourism development. The integration of tourism and culture for reaching sustainability objectives lies at the heart of the paper, in an effort to shed light on the theoretical and practical background of this integration. This is carried out through the adaptation of the theoretical principles to a real case study, where the relationship between tourism and culture is depicted as well as the power of their integration for local development. Capitals of culture are used as a prominent example of this integration. Through the identification of domains, which are common to the European Capital of Culture (EcoC), the paper develops the Matrix Do-Di (Domains-Dimensions), composed by 111 indicators. Do-Di matrix is considered as a tool for assessing the development potential of the successful integration of tourism and culture in a city as EcoC, EcoC candidate, or any other city; and was tested in case of the city of Valletta, as European Capital of Culture 2018.

In Chapter “[Participatory Decision-Making for Sustainable Tourism Development in Tunisia](#)”, Salma Halioui and Michael Schmidt deal with the challenging task of planning tourist development, taking into consideration the high complexity of the tourist sector, with the diverse and deeply interacting components, engaging a variety of stakeholders with conflicting goals. The paper develops a participatory model for guiding tourism development in Tunisia, targeting the identification and analysis of potential problems and understanding of the causal interactions within the tourism sector in Tunisia. The model investigates the complex feedbacks among the three sustainability modules, namely economic, environmental and socio-cultural sectors. A literature review and interviews among 36 tourism stakeholders from different areas, helped to identify the elements of the system and the different feedback loops. The main result of this study is the development of a system dynamic-based tourism model for Tunisia that can support decision-making towards the achievement of sustainable tourism development.

Chapter “[In Search of Participatory Sustainable Cultural Paths at the Local Level—The Case of Kissamos Province-Crete](#)”, by Maria Panagiotopoulou, Giorgos Somarakis, Anastasia Stratigea and Vicky Katsoni, elaborates on the development and implementation of a participatory methodological framework for setting strategic guidelines for the sustainable cultural development of a specific area, the Province of Kissamos-Crete. This particular framework is actively engaging local stakeholders’ groups throughout the steps of the planning process. GIS-mapping of natural and cultural resources sets the ground of this participatory planning exercise, on which the structuring of two scenarios, regarding the sustainable exploitation of cultural reserve, is based. These scenarios present discrete options for successfully linking cultural preservation and alternative tourism development. Stakeholders’ analysis reveals potential conflicts between local views and planning objectives as well as opposing interests among local groups that need to be properly managed through the planning

process; while engagement of various interest groups strengthens insight into the value and diversity of this heritage; and properly directs the process of scenario building and evaluation towards widely acceptable cultural management outcomes.

In Chapter “[Digital Strategies to a Local Cultural Tourism Development: Project e-Carnide](#)”, Maria Isabel Roque and Maria João Forte discuss the issue of the new technological potential in support of the dissemination of textual and visual tourist information through Websites and mobile apps; and the experience gained by the e-Carnide project. Framed by a theoretical approach on the role of smart economy for cultural tourism development in peripheral areas, the paper focuses on a case study, dealing with documents, interviews and observations, in order to understand how the e-Carnide project evolves. The study comprises an analysis about the strengths, weaknesses, opportunities and threats (SWOT analysis) of the project in order to realize its social and cultural implications; and appreciate how it can be applied in other similar and enlarged projects. Results of the research indicate that the new technological strategies can promote population’s involvement, understanding, and valuing of their heritage, considered as important factors for a cultural and creative tourism development that is focussing on an authentic and immersive experience of places.

In Chapter “[Putting Social Innovation into Action: The Case of The Ecotourism at the Dominican Republic](#)”, work of Marival Segarra-Oña and Angel Peiró-Signes is focusing on social innovation, and participation as key component of social innovation; and environmental concern as a differentiating aspect that generates competitive advantage and is in alignment with a society’s aspiration for a sustainable future. Based on these two pillars, they attempt to analyze, study and shape the process of identifying needs, generating ideas and assessing innovation that integrates social, business and sustainability goals in seeking ecotourism development at the Dominican Republic. The whole study is based on the adoption of an innovative methodology, the living-lab, consisting of a research methodology for identifying needs in real-life environments. Identification of needs is based on participation of relevant stakeholders, aiming to engage them in a value creation process. Main findings, difficulties, barriers, etc. of the implementation of this approach are presented in the paper.

In Chapter “[Landscape, Culture and Place Marketing—The International Dance Festival in Kalamata, Greece](#)”, Sotiria Katsafadou and Alex Deffner analyze the interaction of landscape, culture and special events and the impact of this intangible relationship to a tangible level in a place. The paper begins with a theoretical analysis of the concepts of landscape, culture, special events, place marketing and cultural tourism that are relevant to the topic of this research. The theoretical framework is followed by the case study of the International Dance Festival in Kalamata. Special events, as place demonstration action, allow a place to promote its comparative advantages and upgrade its tourist product. The International Dance Festival in Kalamata, which has been going on for 22 years, has shaped city’s cultural identity and therefore its landscape. The paper provides a new perspective regarding the way that culture and place marketing can influence landscape.

In Chapter “[Assessment of Impact-Contribution of Cultural Festival in the Tourism Development of Thessaloniki](#)”, work of Sofia Tsiftelidou, Dimitris Kourkouridis and Valia Xanthopoulou-Tsitsoni seeks to assess the contribution of cultural festivals in tourism development through a specific case study example, the one Thessaloniki Municipality. Particularly, the aim of this work is to examine the contribution of cultural festivals, both in local businesses and in the whole city. The paper consists of three basic parts: the first part, in which the theoretical framework is set, drawing upon theoretical concepts related to the tourism sector and especially cultural tourism; the second part that elaborates of the specific case study, by presenting the current state of the Municipality of Thessaloniki and in particular the organization of cultural festivals; and the third part, which describes the research methodology and analyzes the results of this primary research.

Chapter “[Is Silver Economy a New Way of Tourism Potential for Greece?](#)”, prepared by Dimitrios Kyriakou and Dimitrios Belias, elaborates on an issue that is gaining importance in terms of tourism development in modern societies, namely the issue of silver tourism. Senior travelers nowadays become an important tourism market segment, although not yet fully explored, due to their specific attributes namely their level of wealth, higher discretionary income, lower consumer debt, greater free time to travel, tendency to travel greater distances and for longer lengths of time, etc. The paper undertakes a literature review on this specific topic, while it stresses the importance of a range of issues that are still under exploration, e.g. what is the exact definition of the senior tourist market; income and propensity to travel; share of income spent to tourism; perspectives of silver group when traveling; etc. Drawing upon this background discussion, the paper attempts to provide some guidelines on the way policy makers and professionals in Greece can actually react in this trend, in order to develop and expand silver tourism as a means for combating economic crisis, tackling down seasonality and creating a supplementary sustainable and viable tourism product.

In Chapter “[The Information and Promotion of Rural Tourism in the Globalised Era: The Case of Madeira Island](#)”, Elisabete Rodrigues elaborates on the issues of information dissemination, promotion of rural tourism, and the profile of rural visitor, with particular concern for the Country Homes in Madeira Island. Through the interconnection of the visitor profile as to demand and travel arrangements, and the current tourist promotion policy of Madeira’s Country Homes, the crucial role of innovation in the context of information dissemination on rural tourism in the digital tourist era is depicted. Due to the lack of relevant studies in Madeira Island, a combination of qualitative and quantitative methods was launched (questionnaire surveys, semi-structured interviews, fieldwork and bibliographical and documentary research) in order to fulfil paper’s objectives. Results of the paper depict the need to adopt innovative ICT-enabled approaches for disseminating information and promoting rural tourism in the specific study area, strengthening thus its potential to follow sustainable tourist development paths.

In Chapter “[Thermal Spring Health Tourism in Albania: Challenges and Perspectives](#)”, Vusal Gambarov and Hecarta Gjnjika attempt to grasp thermal resorts conditions, challenges and perspectives in the Albanian market, in an effort to identify bottlenecks of the limited exploitation of the country’s valuable thermal water resources towards thermal tourism development. The main purpose of the paper was to understand why Albania people do not show any preference in thermal tourism as a primary alternative for spending holidays and leisure time. Towards this end, the study carries out a survey, aiming to gather data by means of a questionnaire, filled by face-to-face communication with respondents. Analysis of results of this survey is used to reveal current problems and barriers, as these are perceived by both the business community and consumers.

In Chapter “[The Role of Experience in Shaping Student Perception of the Significance of Cultural Heritage](#)”, the work of Savvas Makridis, Spyridon Alexiou and Maria Vrasida examines how experiences shape student perception regarding culture and heritage during their on-campus studies. More specifically, the paper sheds light on the quantitative exploration of the role and impact of extracurricular experience in constructing student perception within the vicinity of students’ immediate academic environment; and the study of its influence in creating a comprehensive perception of heritage at large. The methodological approach is based on a pilot research, in which students were considered as ‘semi-informed’ individuals, with a predetermined inclination towards tourism, heritage and heritage interpretation, relevant to their studies. The specific choice of semi-informed specimen allows for a high level of accuracy in the quantitative aspect of the research. The study also looks at how experiences can subsequently reshape student perceptions, by urging them to become more closely attached to the culture and heritage of a place, be it by way of sightseeing landmarks or adhering to local customs as culturally aware members of their community. Research findings indicate that students’ experience: influences significantly the interpretation of heritage and, in turn, cultural perceptions; and affects the latent potential, prospects and options such experiences offer to students thereafter.

Last but not least, in Chapter “[Forecasting British Tourist Inflows to Portugal Using Google Trends Data](#)”, the joint effort of Gorete Dinis, Carlos Costa and Osvaldo Pacheco aims at: exploring the Google Trends (GT) data in order to understand the behavior and interests of British tourists in Portugal, as a tourist destination; verifying whether GT data correlate with the tourism official data of Portugal; and investigating whether GT data can improve forecasts on the arrival of British tourists in Portugal. As to its methodological approach, the study utilizes Google trends data on a set of search terms to predict the demand for hotel establishments by UK residents in Portugal; employs the ARIMA model and Transfer Function in order to evaluate the usefulness of these data; while it correlates Google trends data with official tourism data of Portugal. Outcomes produced by the paper can support a better understanding of the behaviour patterns of predicted British travelers to Portugal and enhance the potential to predict the British tourist inflows to Portugal for policy purposes.

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Part I
‘Smart’ Cultural Heritage Management

Serious Games at the Service of Cultural Heritage and Tourism

Andreas Georgopoulos, Georgia Kontogianni, Christos Koutsaftis
and Margarita Skamantzari

Abstract Recent advances in contemporary technologies have greatly affected everyday life. In the field of cultural heritage, ICT (Information Communication Technologies) have enabled applications for the thorough multi-dimensional geometric documentation and consequently for the realistic visualization of monuments and artifacts. At the same time the driving force of technology is the game industry. Games and especially Serious Games can be put at the service of cultural heritage, education and tourism exploiting the aforementioned advances and especially the textured three dimensional models. They constitute an attractive platform enabling people to get acquainted with the heritage treasures and get motivated to visit the place and admire the treasures live. In this paper this technological merger is explained and three interconnected applications are presented in order to prove the concept through these implementations. They concern the development of Serious Games for an archaeological site, which aim at the trivial or more specialized information dissemination about that site, while familiarizing the prospect visitor with the environment and the monuments of the site offering the possibility of virtually visiting them. Moreover the development of a virtual museum within a game development environment is presented, which provides the possibility to learn about each exhibit, but also it offers the opportunity to the user to closely examine the exhibits through rotating their three dimensional models. All these examples use realistic models produced for documentation purposes, which convey the real impression of the monuments visualized to the user.

Keywords Serious games · Cultural heritage · Virtual museums

JEL Classification Q55 · O33

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1 Introduction

During the last decades there have been numerous efforts concerning the 3D digitization of cultural heritage and the development of virtual museums, digital libraries and serious games. The realistic result has always been the main concern and a really challenging task when it comes to 3D modelling of monuments, artifacts and especially sculptures. The 3D virtual spaces and modern technology are more and more used especially in the development of applications in e-learning and edutainment by cultural organisations and museums (Moldoveanu et al. 2003).

For some decades now the Laboratory of [Photogrammetry] of [NTUA] is active in the geometric recording of cultural heritage objects, small or large, movable or immovable. During these years technology has rapidly evolved to enable the swift and easy production of realistic 3D models, able to serve many purposes such as simple visualization or metric information extraction. In this paper a further use of these models is demonstrated. Namely they are exploited to add realism to edutainment products, like Serious Games and Virtual Visits.

For that purpose three applications are described. The first one is about the developments of a Serious Game for the Ancient Agora of Athens, which aims to convey the trivial information about the site, while at the same time familiarizes the visitor with the environment and the monuments of the site offering the possibility of virtual visiting them. The second application is about the development of a Virtual museum for the Stoa of Attalos which provides the possibility to learn about each exhibit on one hand and on the other it offers the opportunity to the user to closely examine the exhibits. The third application presented is about a Serious Game for the Stoa of Attalos in particular, which aims at the dissemination of conservation notions and values to more advanced visitors. All the applications were developed in Unity 3D personal edition software.

2 Ancient Agora of Athens Serious Game

2.1 *Serious Games in Cultural Heritage*

Serious Games for Cultural Heritage applications can significantly help people who are note oriented or specialized in this field, such as tourists, museum visitors, students etc., to gain experience and expand their knowledge. This kind of games can be interactive through the use of virtual tour facilities, posing questions about heritage objects and the monuments and many other similar activities.

Many applications for Cultural Heritage have been developed in the past. The *Ancient Pompeii* application (Maim et al. 2007) has as main goal the simulation of a crowd of Virtual Romans that exhibit realistic behavior in a specific district in Pompeii. The *Parthenon project* aims to create a virtual version of the Parthenon and its separated sculptural elements so that they could be reunited in a virtual

representation (Debevec 2005). The *Ancient Olympic Games* (Gaitatzes et al. 2004) is the subject of a number of gaming applications associated with Olympic Games in Ancient Greece and was developed by the Foundation of the Hellenic World. This project consists of three mini applications. The first one is the “*Olympic Pottery Puzzle*” according to which the user must re-assemble a number of ancient vases putting together pot shards. Another one is the “*Feidias Workshop*” which is an interactive virtual experience and takes place during the construction of a tall golden ivory statue of Zeus, one of the seven wonders in the world. The “*Walk through in Ancient Olympia*” is the last mini game of the Ancient Olympic Games project. In this application the user can virtually visit the site and furthermore learn about the ancient games in Olympia. Moreover the player can visit and learn more things about the ancient building of the Olympia. *Priory Undercrofts* game aims to solve a treasure hunt scenario by collecting medieval objects that used to be located in and around of the remains of the Coventry’s original Benedictine monastery demolished by Henry VIII (Doulamis et al. 2012). *ICURA* is a Serious Game application in which the player learns about Japanese culture, habits and some language basics by investigating the 3D environment, collecting items, combining them and talking to persons in order to complete the game (Froschauer et al. 2010). The *MuseUs* application is carried out in museums and is running as a smartphone application. In this game the user is invited to create his own exposition and is guided by the application in doing so when he visits a museum (Coenen et al. 2013). The *Via Appia* Serious Game is an indirect augmented reality system in which 1 km of the Via Appia Antica was reconstructed in three time periods and the user can explore the notion of narrative movement and travel across space and time in a cultural heritage context, which includes a quiz game with questions related to the information provided in the virtual environment (Liestol 2014). Finally, the *Fort Ross* is mentioned, whose main goal is to explore novel ways for archiving, disseminating and teaching cultural and historical information and creating an interactive tool able to educate elementary school students and park visitors about California history (Lercari et al. 2013, 2014).

2.2 Data Available

For the game development different kind of photogrammetric 3D data were used. Firstly for the terrain creation, on which the 3D models were placed, a raster DSM (Digital Surface Model) and the corresponding orthoimage from the National Cadastre and Mapping Agency S.A. were used. Furthermore different kinds of 3D textured models were used which vary as far as their source and epoch are concerned, because some of them illustrate the existing situation and some others have been historically reconstructed (Kontogianni and Georgopoulos 2015a, b). The 3D model of the Giant of the Odeon of Agrippa (Kitsakis 2011) and the south west side of the foundations of the Middle Stoa (Karageorgou et al. 2010) were created with the use of a time of flight (ToF) terrestrial laser scanner and overlapping digital

images for the texture. The model of the temple of Hephaestus was created with a ToF laser scanner which assigns colour information to the points. The southwest side of the Middle Stoa was historically reconstructed according to old drawings, images, existing literature, and experts' assumptions (Kontogianni et al. 2013). In addition, 3D models of artifacts, such as the sima, available in the relevant museum, were created with image based modelling methods. The procedure was carried out in the Autodesk 123D Catch[®] web service. Moreover, again with the use of image based modelling methods, the 3D texture model of the Holy Apostles church was created. In this case the 3D model was created using the Agisoft Photoscan[®] software. The 3D model of the Stoa of Attalos was taken from the 3D Warehouse library, from which additional 3D models of other monuments were also taken in order to complete the final result and give the opportunity to the players to learn more information about the monuments of the Athenian Agora. These monuments are: The East Building, the South Stoa II, the Temple of Ares, the Vouleftirion, the Metroon, the Aiakeion, the Tholos and the Fountain House (Kontogianni and Georgopoulos 2015a, b).

2.3 The Development of the Application

The main menu of the game has the following options: Two virtual tours, the quiz game and a help button with some instructions about the application. Two options of the virtual tours were created for the game's purpose; the first one presents the area as it is today in the 21st century and the second one as it was in the 2nd century A.D. In the virtual tours there are options in order to help the player navigate easily in the game environment. The available options give to the player the chance to return to the main menu, exit the game or continue with the other virtual tour. Furthermore a minimap helps the players navigate in the virtual environment. Also the name of each monument is annotated above or beside each monument so as to help the player see and learn which monument he/she visits (Fig. 1). The tour was realized with the use of arrow keys of the keyboard and the mouse.

When the player finishes the virtual tour he/she is able to return to the main menu in order to select the quiz game. The game begins with a message, which asks the player if he/she wants to learn more things about Ancient Greek Architecture. If the user selects "yes" he/she will be presented with information about Ancient Orders (Doric, Ionic and Corinthian) and about all the different kinds of Ancient Greek Temples. If he/she selects "no" then he/she will continue with the game (Kontogianni 2015). After this training stage the user has acquired the basic knowledge of Ancient Greek architecture, which will prove very useful during the actual visit of the site, as it will enable the visitor to understand how these buildings were in the past.

Then the player will continue with the game. Firstly he/she will see an image of the Ancient Agora with all the monuments participating in the game. The monument that the user is able to visit is designed with a button in yellow colour. The



Fig. 1 An overview of the virtual tour

other monuments are still locked to the user and their buttons are colored red. When the player finishes with a monument, its colour becomes green and the next monument is unlocked (Fig. 2).

After selecting the unlocked monument the player is introduced into the virtual environment where he/she can tour and see how the monument is today or how it used to be in the past, in case it does not exist anymore. Furthermore the player is offered a text with some historical information about the monument (Fig. 3). Furthermore in case of the virtual tours instrumental music was added for a more entertaining experience.



Fig. 2 Map of the Ancient Agora before (left) and after (right) the visit of a monument

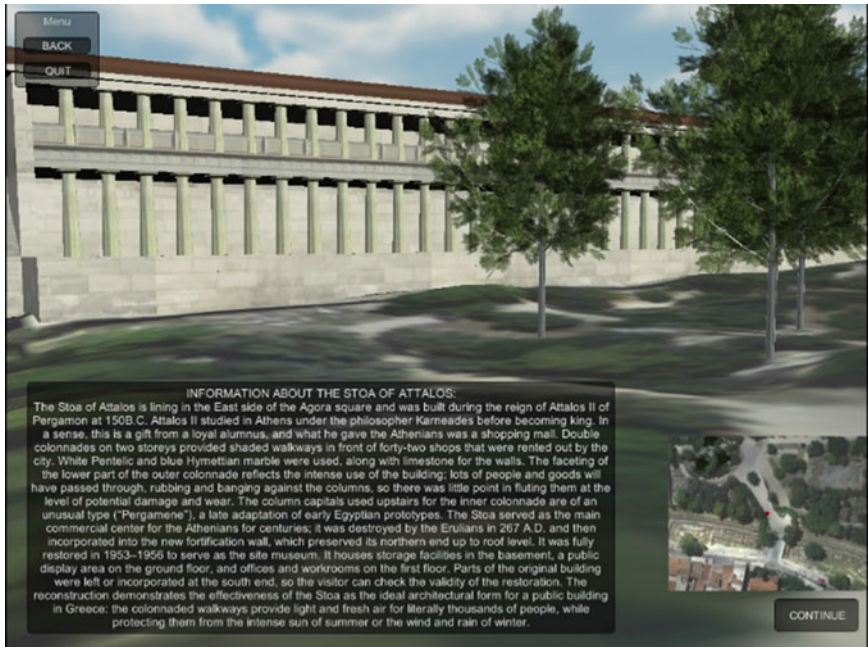


Fig. 3 Virtual tour with the information of the monument

When the player finishes the virtual tour he can continue with the quiz game which consists of five multiple choice questions for each monument (Fig. 4). These questions are based on the text that the user should have read during the virtual tour. The player can click on the answer that he knows or believes that is correct. The questions are about the history and the architecture of the monument.

In case that the choice is correct the user will continue with the next question. In this case the button of the correct answer turns green and the game automatically continues to the next question. If he/she answers wrongly, the player does not lose but a new window is loaded automatically, containing the explanation of the correct answer. In this case the relevant button is momentarily colored red (Kontogianni and Georgopoulos 2015a, b). Where necessary a drawing or an image of the monument is presented for better understanding. After completing all the questions



Fig. 4 Types of the questions of each monument

for each monument the player returns to the map and he/she is able to continue with the next monument which has just been unlocked. The game finishes when the player answers all the questions for all the monuments. Then he can quit from the game with the escape button of the keyboard.

3 The Virtual Museum of the Stoa of Attalos

3.1 The Advantages of Virtual Museums

Developing and displaying a museum in a virtual environment has some advantages especially concerning the preservation and promotion of cultural heritage but also the development of tourism and the promotion of the touristic product. Virtual museums are important to both the visitors and the museums themselves and their curators. The majority of the museums only exhibit a small part of their collection due to the lack of space and of course due to the fact that some objects are extremely valuable or fragile (Lepouras et al. 2004). In a virtual and interactive environment the visitor is able to interact with the digitised exhibits and learn all the essential, historical information about them. Moreover, in a virtual environment the visitor can view a virtual reconstruction of important objects, buildings and archaeological sites that may no longer exist are damaged or access to them is not permitted. Moreover collections may also be displayed made of objects that are spread in various museums around the world.

Furthermore, the digitisation of cultural heritage helps to preserve it, store, renew, retrieve and make it accessible for a wider audience in a more appealing and contemporary way, especially to people with special abilities or people that may never have the chance to visit the real museum (Sylaiou et al. 2009). The wide use of internet, social media and websites can make the digitised content of a museum more accessible and transport it to everyone all around the world. It is important to mention the result of the Colorado's University research according to which 70% of a total of 223 million people who visit a museum website would subsequently be more likely to go and also visit the real museum (Griffiths and King 2007). This means that the virtual museum functions in a complementary manner to the real museum. Moreover, it has been proven that the visitors tend to remember more information when they are having a digital or recorded tour in a museum rather than when they are just reading the panels of the exhibits in the museum (Schwarzer 2001). Finally, in virtual museum exhibitions the visitor is able to fully control the navigation as well as to freely explore, move around, manipulate the exhibits and create his/her own, unique virtual experience or collection of 3D digital exhibits even from different museums. It is obvious that every effort and innovation that concerns the digitisation of cultural heritage and the development of virtual museums and applications is a complicated, difficult, controversial task with many advantages and can only benefit and offer both the museums and the visitors.

Especially in Greece, 65% of the tourists make an online search of their destination and 45% of them are interested in cultural heritage, monuments, museums and archaeological sites. It is rather important to make cultural heritage appealing and accessible to all in order to promote it and attract more people.

The Virtual Museum of the Stoa of Attalos is an application where the visitor is able to make a tour in the museum on his own, explore it, interact with the exhibits, rotate them and learn all the necessary information about them (Skamantzari 2015). The development of this application took into consideration various aspects such as the requirements' analysis, the architectural design, the planning of the exhibits' presentation, the user interaction, the programming process and the evaluation of the final product (Lepouras et al. 2004).

3.2 Data Available

As far as the Virtual Museum of the Stoa of Attalos is concerned, the virtual environment hosts some of the exhibits which can be found on the ground floor of the Stoa of Attalos, in the Ancient Agora of Athens. For this project, only 16 of the exhibits were chosen from the south part of the colonnade of the museum and the most important concern was to produce accurate, realistic and appealing 3D models that can be used in virtual applications, especially in a short period of time. That is why photogrammetric methods and 3D surveys were used for the mass production of the exhibits' 3D models and the development of the virtual museum. In order to process the data and build the accurate, textured 3D models of the exhibits PhotoScan Professional[®] v.1.1 software by Agisoft was used (www.agisoft.gr).

3.3 The Development of the Virtual Museum

The application is available in two languages, Greek and English. In the beginning of the virtual tour the visitor has the chance to read the instructions that are available in order to freely navigate in the environment and understand the options and opportunities he/she has in the virtual museum (Fig. 5). Particular attention was given to the formation and design of this panel with the instructions so as to make the virtual tour simple and understanding. The parameters that concern the movement, speed, rotation, height vision and behaviour of the visitor were extremely important in order to make the navigation friendly and easy for the visitor, as the majority of them may not have any previous experience with this kind of applications or even with the use of computers. This is the main reason why the instructions appear in the beginning of the application. During the navigation the visitor listens to the music that is used as a sound effect so as to have a more appealing, pleasant, entertaining and interesting navigation.

the screen. In that way the visitor is able to manipulate, examine closely and observe the details of every exhibit and at the same time learn not only the available information of the small panel that exists in the real museum, but also further information about it. The curator of the museum has the opportunity to choose the information that will be available to visitor and this is one of the advantages of this kind of applications. The visitor is free to exit the virtual museum by pressing the Esc key whenever he/she chooses to do so. Finally, the last element that was added in the virtual environment was a mini-map to help the visitor move around and navigate in the environment without feeling disorientated, simply by offering him/her a view of the virtual museum from the top.

4 Discovering the Stoa of Attalos

The “Discovering of Stoa of Attalos” game aims at helping the player to understand the fact that the Stoa of Attalos is the result of a controversial reconstruction campaign, carried out by the ASCSA in the years 1953–56 only partially presented in the current interpretation strategies of the building (Koutsaftis 2016) as well as basic information about the project: rationale, techniques, materials used etc., without neglecting core historical facts about the original use of the building: who built it, its original use and how it was destroyed. More specifically, the player is expected to comprehend the fact that a small percentage of the building material is the original and to be able to distinguish between old and new in the context of the Stoa of Attalos. On a broader educative level, the application aims at extending the visitor’s perception of the restoration of antiquity monuments. This attempted by introducing anastylosis (Hueber 2002) and reconstruction (Stanley-Price 2009) as two distinct scientific methods of conservation, by comparing them and ultimately by prompting the visitor-player to apply the knowledge acquired by recognising them in other cases of antiquity monuments (Koutsaftis and Georgopoulos 2015).

Since the gaming concept is dependent on the fidelity of the virtual representation of the Stoa of Attalos, the selected method for the generation of the 3D model of the virtual space was the image-based modelling technique and the 3D model of the Stoa was created in Agisoft Photoscan[®] software such as the exhibits in the case of the Virtual Museum.

4.1 *The Development Of the “Discovering the Stoa of Attalos”*

The game is structured in four parts, which include the introduction, the main game in 3D space, a transitional section and a second quiz. A title menu and a closing credits scene are also part of the game (Fig. 7).



Fig. 7 The structure of the “discovering the Stoa of Attalos” game

The game begins with the introduction which is a slideshow with a succession of static images and textual information. Necessary background facts about the history of the Stoa of Attalos, from antiquity until the present time are included. It is explained to the player that the Stoa of Attalos is the result of a reconstruction project and that only a small portion of the building has survived since the antiquity. The last slide introduces the game concept and locates the 3D space of in the Stoa. A diagram, clarifies the part of the Stoa’s area that is occupied by the gaming environment. The player is presented with the game mission, the task that is to be fulfilled: answering correctly on the question of the originality of the specific part of the Stoa of Attalos that is included on the interaction hotspot each time.

After finishing the introduction part players are able to continue with the main game in which they are transferred to the Stoa of Attalos where they can freely navigate, using a first-person perspective and can examine closely the surfaces and some exhibits and objects. As already explained, the game area is confined in the textured modelled part of the Stoa. The interaction between player and textured model composes the core of the gameplay. Seven areas of authentic material were recognized after consultation with the site’s archaeologists and were mapped on the model, on the interior façade of the stores and on the internal façade of the south wall.

When the player approaches each one of these areas, a quiz dialog is triggered. The question the player is confronted with is about the authenticity of the material in the specific area, which is highlighted in order to be clear which part is in question. A GUI (graphic user interface) provides immediate feedback for the choice (Yes/No) and occasionally additional information (text, images) connected with the specific interaction area is also displayed (Fig. 8).

Obviously, for the game play to be challenging enough, it must contain various degrees of difficulty. For that reason, it was necessary to include interaction with areas of restored material or added objects. Besides, among the learning goals, as it was previously analyzed, is the understanding of technical matters of the reconstruction project as well as the current use of the Stoa of Attalos, which can be supported by providing context-sensitive information. Both these goals are closely linked to restored parts of the monument. The areas of restored material are organized in object groups, providing identical feedback to the player’s interaction.

These groups are the following three: a. *The Ionic colonnade*. Clicking on each of the columns the player is informed about the sourcing of marble and the fact that local craftsmen worked following ancient techniques, all with accompanying images. b. *The statues—exhibits*. It is clarified that all the statues and the ionic capital are added objects. The use of the Stoa as a museum is highlighted, as well as

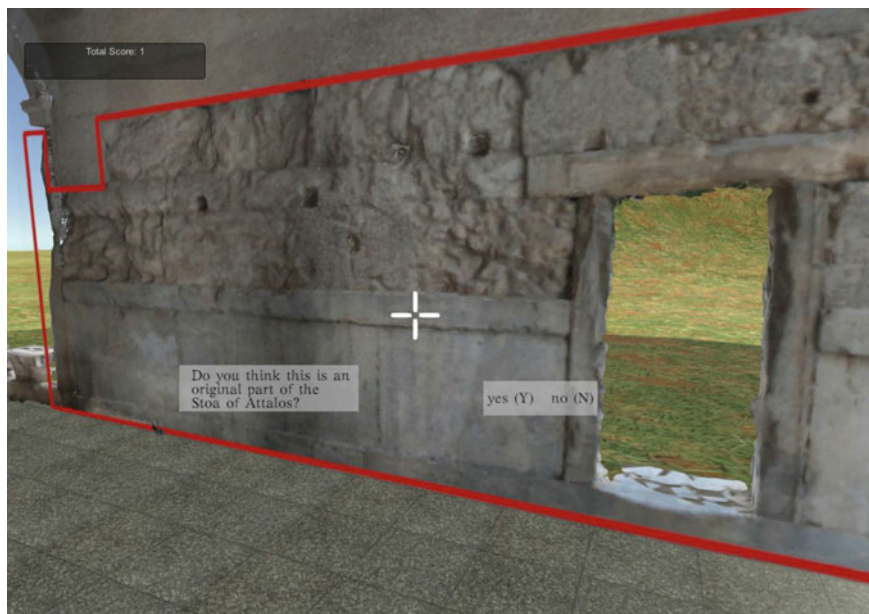


Fig. 8 Quiz dialog in one of the interaction hotspots

the wealth of the findings of the Agora excavations. And finally, *c. The wooden doors on the stores wall*. Information provided is on the current uses of the building of the Stoa as a museum, administration offices and open-air sculpture exhibition.

In the transitional section which is the next step of the game, the concept of reconstruction as a specific conservation method is introduced and juxtaposed to anastylosis as the preferred alternative method nowadays. The example of the Acropolis is introduced as an anastylosis case. This section, like the introduction, has a guiding role to the player by organising the acquired knowledge in the previous part of the game, providing a summary of the completion of the level and offering a chance for reflection, while functioning also as an introduction to the next challenge and the task and its objectives.

In the last part of the game, the player is challenged to apply the knowledge acquired in the previous section by recognizing which one of the two methods (anastylosis—reconstruction) is implemented in a series of restored monuments which are presented in photographic images (Fig. 9). The feedback to the player's choice is accompanied by some basic information about the intervention in each case.

Simple quizzes have been explored as a basic and schematic game structure, but also one that involves cognitive aspects such as reflection, analysis of the question on available clues and previously learned concepts and critical reasoning. The player can easily focus on the content of such embedded quizzes, which have been proven to successfully enhance first-person exploration of virtual game spaces and

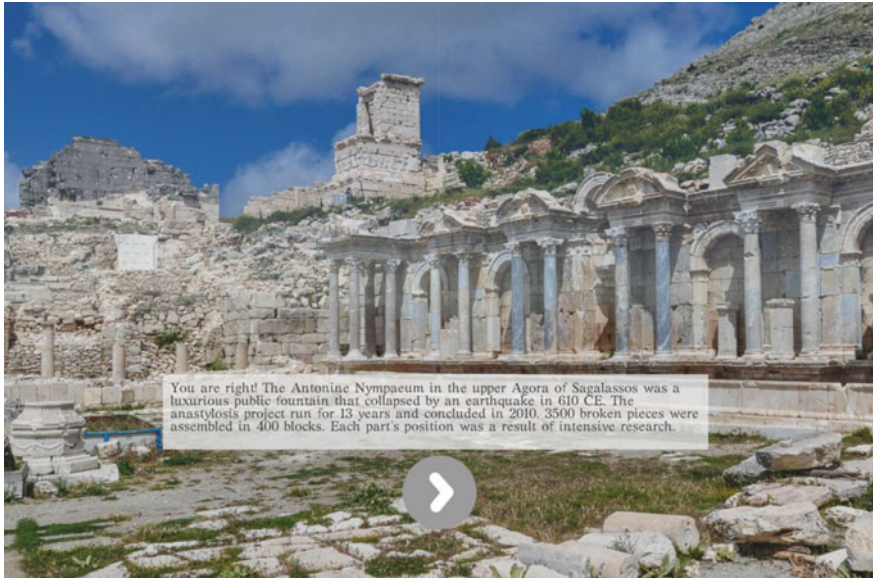


Fig. 9 Screenshot from the image quiz “anastylosis or reconstruction?”

provide the same degree of satisfaction as state-of-the-art games (Bellotti et al. 2010). In this case, a specialized technical intervention, the restoration of an archaeological monument, becomes the subject of a game and since the content can be a challenging one, the simple visual quiz structure was selected. Focus is indeed on the content and the application of previously acquired knowledge.

Moreover, this part of the game could generate a positive spillover effect by stimulating the player to learn more about the presented monuments or even inspire him/her to visit the sites in person.

5 Conclusions

Although it may sound strange, tourism and cultural heritage in general have a lot to benefit from technological advances in the field of Geomatics. The ability to produce realistic three dimensional texture models of archaeological objects, small or large, movable or immovable using contemporary computer vision and photogrammetric algorithms, has contributed a lot to the dissemination of vivid visual information about the treasures of museums and archaeological sites. Hence through these technological achievements a contemporary way is developed for attracting visitors.

The development of the virtual museum and the two games and their realization in Unity 3D[®] was a rather challenging and complex process that required constant

testing and control at every step of the procedure. The results, as shown, were visitor friendly environments, easy to use and understand, while maintaining the accuracy and realism of the 3D models. Information and Communication Technologies (ICT) combined with Geomatics methodology of data acquisition and processing offer many interactive possibilities. The educational character of these applications is rather obvious as the visitors/players learn through a vivid, realistic and appealing process while at the same time they have the chance to interact with the monuments and the exhibits and advance their knowledge in a pleasant manner. At the same time the touristic product is believed to be promoted in a subtle, but effective way. Many improvements can be made to these virtual museum and game applications. However it is believed that they prove the concept set as goal at the beginning of this effort.

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Dissemination of Environmental Soundscape and Musical Heritage Through 3D Virtual Telepresence

Georgios Heliades, Constantinos Halkiopoulos
and Dimitrios Arvanitis

Abstract This paper presents the design and implementation of a 3D environment telepresence visualization interface, aiming at the remote experience and dissemination of musical cultural heritage and environmental soundscapes to the public, utilizing the latest technology available. The architecture of the application is consisting of a server database containing the scientific data collected, and client applications that allow multiple users to enter the 3D environment and interact simultaneously. Based on Unreal 4 graphic engine and developed for a wide variety of platforms, devices and operating systems (i.e. Linux, Macintosh, Windows or Android), these client applications can be ported to PC, tablets, mobile phones and ultimately to any web browser supporting HTML5. To accommodate the dynamic nature of a musical and soundscape heritage archive, expansions will be publicly available through regular updates and client patches. The main research challenges in the domain of cultural heritage informatics are novel data capture in many formats under a variety of conditions and provision of semantically-based representation, search and editing information technologies to support processing, management and dissemination of cultural content and environments. There is a number of parameters that can affect cultural content digitization process: accuracy, volumes of data, variety of capture conditions, material types, environmental challenges. The technical side of exploitation includes the music production of selected samples out of the recorded material and a modern environment for management and dissemination of all the collected material from Audio-Visual

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Ecology and Ionian Music Archive (IMA) projects (#D10, D12/MIS35600—EU funded), using the 3D virtual technology.

Keywords Musical heritage · Digitization · Multimedia databases · 3D virtual environment · Unreal 4 · Environmental soundscapes

1 Introduction

Two of the main research challenges in the domain of cultural heritage informatics are novel data capture in many formats under a variety of conditions and provision of semantically-based representation, search and editing information technologies to support processing, management and dissemination of cultural content (Arnold 2008; Conti et al. 2006; Cutrí et al. 2008) and environments (Arnold and Geser 2007; Gagliardi and Schettini 2008). There is a number of parameters that can affect cultural content digitization process: accuracy, volumes of data, variety of capture conditions, material types, environmental challenges (White et al. 2004). As far as management and dissemination technologies (Koukopoulos and Styliaras 2010, 2013) are concerned, we should take into account the representation of cultural content (Halkiopoulou and Boutsinas 2012) preserving specific people's temperament in different environments.

European Union sponsored many projects last decade that promote the online accessibility of cultural content (Hankinson et al. 2009) as a key dimension of the information society (Heliades 2016). The Ionian Music Archive (IMA) is an EU funded project (Koukopoulos et al. 2016) under completion that runs at the Section of Applied Technology of the Department of Sound and Musical Instruments Technology that belongs to the Technological Institution of Ionian Islands since early 2012 under project number #D10/MIS35600. The project involves the preservation of a huge amount of musical wealth which is under extinction as well as the provision of a central point of reference for the Ionian musical culture. Joint partners in this attempt include colleagues from the University of Athens, the University of Patras and the Ionian University and at this phase, the islands of Kefalonia, Zakynthos (Zante) and Lefkada (Lefkas) are considered within project scope (see Fig. 1).

There are two main courses of action, one is the preservation and the other is exploitation. The preservation work package includes all the actions that stem from the necessity of not losing all those local music patterns and sounds that our ancestors have brought through time and they are not held in any savable form. Actions of this kind, mainly include sound recordings, digitization of archival material which is also in danger of loss (e.g. music scores, tapes, vinyl disks etc.) and reconstruction of under-extinction musical instruments, such as the Kefalonian “skortsampouno” (local type of bagpipe). In terms of exploitation, typical actions of work include an ethno-musicological framework on which all findings in all areas/islands are placed, as well as an accompanying educational course for local schools. The technical side of exploitation includes the music production of selected samples out of the recorded

Fig. 1 The Ionian Islands on the map



material and a modern environment for management and dissemination of all the collected material over the web.

2 Literature Review

Achieving efficient management and dissemination for Musical Cultural Heritage an advanced information system is designed and implemented which is based on a multilayered architecture.

The architecture is modular and consists of mainly two layers:

- The digitization layer in which the digitization methodology and activities are taken place. The layer provides hardware and software tools as well as services for digitization.
- The information system’s layer which includes all the necessary databases, web services and tools for efficient multimedia management and dissemination as well as users and systems administration.

The multilayered architecture is illustrated in Fig. 2.

The main entities in the information systems layer are:

- Multimedia database: the multimedia database is responsible for storing and preserving of musical cultural heritage documents and further presented in the next section.

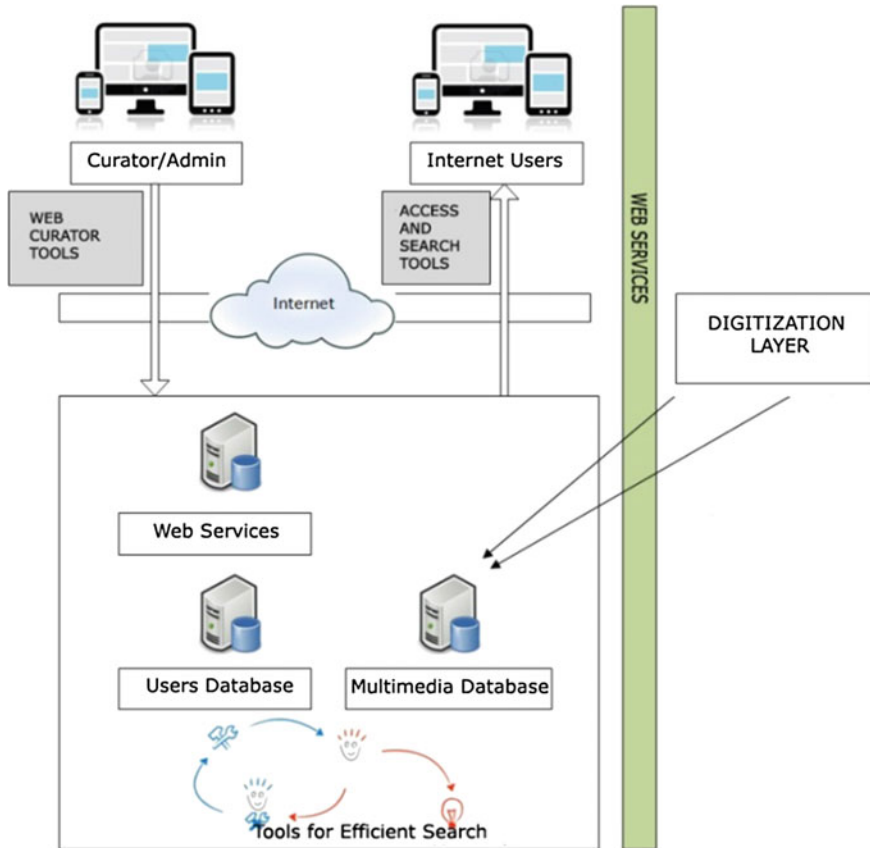


Fig. 2 General multilayered architecture

- Users database: preserves and manages the user and user groups profiles in terms of access and security features. Each user group has discrete security parameters.
- Web services server: the servers provides the necessary tools and services to the curators, administrators and the internet user. The tools enable the target groups to efficiently access, manage and search the multimedia database.

The user's target groups defined are:

1. The curators group: A group of users with different access levels responsible for inserting, editing and deleting items from the multimedia database. Curators are responsible for providing raw material (archives, location details, description, etc.) or annotating raw material. Also, curators can create musical documents (projects), view, classify and comment them. Furthermore, they can manage and disseminate musical documents (archive directors and music teachers).

2. The administrators group: A group of users with access and manage privileges for the web portal's pages and services.
3. The internet user with access to the search tools and overall information about the musical cultural heritage.

The architecture, the design and implementation principles for the information system are:

1. The entities and relations of the multimedia database are fully taken under consideration for the implementation of the information system.
2. Application of standards and best practices in cultural digitization, management and dissemination for added value.
3. Best practices on long-term digital preservation.
4. Usability and quality criteria for web tools and portals.

2.1 Database Architecture

In Fig. 3, we illustrate the architecture of multimedia database that stores musical heritage documents. The basic database entity is musical document. A musical document may have many creators and counterparts and one publisher. Also, it may consist of various file formats, while it contains information of a specific media type. A musical document has been digitized in a specific way, in one location and in one language and it is stored physically in a specific storing medium. Moreover, it may refer to many topics, it has one source and it can be related with many other documents.

2.2 Operations

Inserting: it allows authorized users to insert data to multimedia database. The curators can insert primitive material or projects to multimedia database.

Deleting: it allows authorized users to delete data from the database. The curators can delete primitive material and projects from the database. Searching: it allows users, depending on their attributes to search for an object (primitive material or project) in the database. This operation is available to all categories of users, but internet users can search only for projects, while curators can search both for primitive material and projects.

Viewing/listening: it allows users, depending on their attributes to access, view and/or listen to certain objects in the database. This operation is available to all users

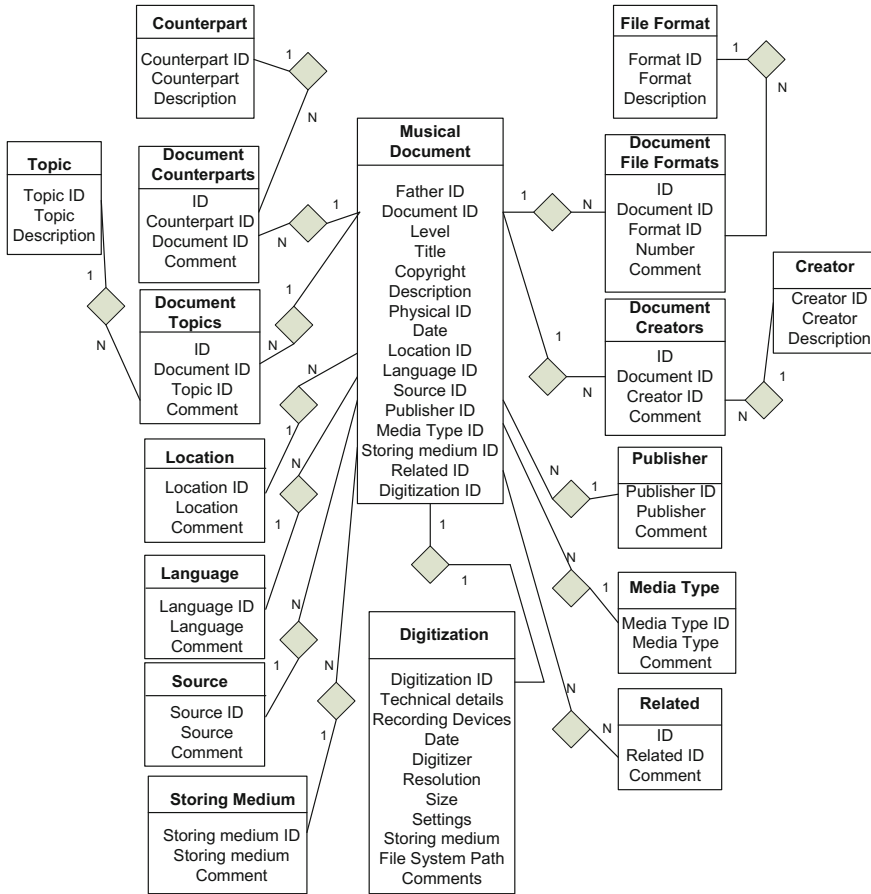


Fig. 3 Multimedia database architecture

(Tsolis et al. 2007), but internet users can view only projects, while curators can view both projects and primitive material. *Editing*: it allows authorized users to modify existing projects or primitive material. This operation is available only to curators. Editing has the following levels: (i) As is: use of a primitive multimedia file as it is. (ii) Segmenting: use of a specific part of a primitive file. (iii) Processing: use of a primitive multimedia file after it is processed. Annotating: it allows users to annotate primitive material or projects (only curators).

The application architecture is based upon Unreal Engine 4, one of the leading technologies for 3D graphic and gaming engines available in the market. Users connect remotely to a server, using a local client on various platforms (Windows, Linux, iOS, Android on PC, mobiles or tablets) to create an account and gain access to the multimedia database. When connected, multiple users simultaneously or privately, are able to visit virtual environments associated with the sounds and

multimedia files available. Navigation through the virtual environment is possible through various interaction methods including hand or head gestures, gaming control (joystick/gamepad), keyboard, mouse or touch-screen. 3D graphical interaction menus that will be visible to the user, inside the virtual world allow users to choose between different virtual environments, select specific sounds to listen to and navigate through the sceneries.

The architecture layout that provides access to remote users (Fig. 4), is based on a client-server framework connection over the internet. Offline access is available as

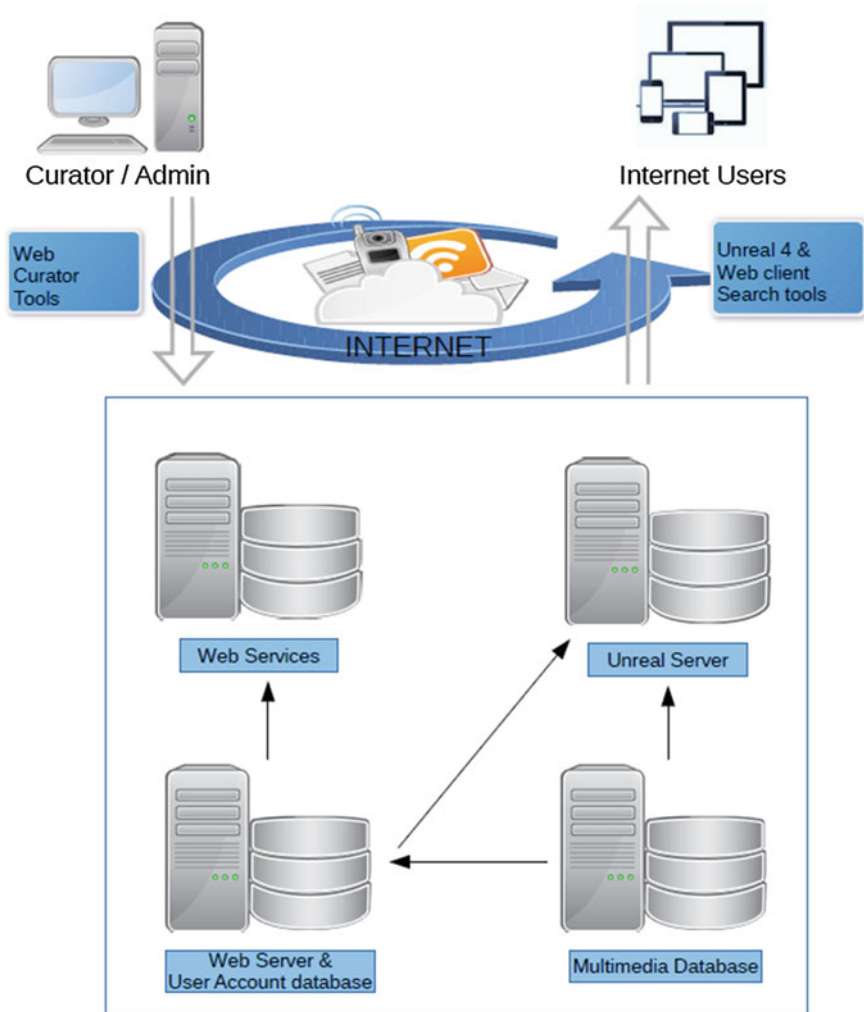


Fig. 4 Architecture layout

well, as a single-player mode, with the user limited to the content that has already been downloaded to the client. The client contains the multimedia files stored in a local database and they will be accessed as soon as the user chooses associated environment through the virtual 3D menus.

For every multimedia sound, a virtual environment scenery is designed using Unreal Engine 4 technology. The technology allows a very realistic representation of items associated with the multimedia files accessed by the users, i.e. a bird on a tree inside a forest, a village chorus with local musical instruments on a social event (weddings, celebrations etc.), sounds of waves on a beach, night sounds on a mountain and many other available in the Musical Cultural Heritage multimedia database.

Unreal Engine 4 multi-player is based around the client-server model. The server is an important part of Unreal Engine 4 multi-player that takes all of the important synchronization decisions, contains all of the authoritative state, handles client connections, travelling to new maps, uploading new game data for new environments and handles the overall game-play flow of starting an event, ending it, etc., while connected clients maintain a close approximation of events that are triggered both by user interaction and server's responses.

3 Methodology

3.1 *Audio System Overview*

The audio system in Unreal Engine 4 is made up of several components, each working together to produce the audio experience for users. When an audio file is imported into the engine and dropped into a level, several options become available such as the basic Volume or Pitch levels to adjust, as well as more fine-tuning settings such as Sound Attenuation, which defines how a sound is heard based on the distance from its origin. Unreal Engine 4 also allows for building composite sounds in the form of Sound Cues. The Sound Cue Editor which enables combining sounds as well as applying modifiers called Sound Nodes to alter the final output. All the sounds from the Ionian Music Archive database will be imported to the game engine using the content browser

The remote user accesses the game server through a client that includes all or part of the Ionian Music and Sound Archive, included in the downloaded client package distributable. When the user needs access to a new sound library that is not downloaded yet, the client will request access to the multimedia database server and update/patch the new sounds, graphics or interface binary executables.

Unreal Engine 4 currently supports importing uncompressed 16 bit wave files at any sample rate (see the chart below). For best results, it is recommended that sample rates of 44,100 Hz or 22,050 Hz be used. Importing a sound file into the editor generates a Sound Wave asset that can be dropped directly into a level or can

be used to create a Sound Cue and edited inside the Sound Cue Editor. Unreal Engine 4 also supports multi-channel sounds (e.g. Fig. 5) and uses a special naming convention when importing files for multichannel use.

3.2 Sound Cue

Sound Cues are composite sounds that allow to modify the behavior of audio playback, combine audio effects, and apply audio modifiers with Sound Nodes to alter the final output. The Sound Cue Editor is a node-based editor that is used to work with audio. By default, every Sound Cue's Audio Graph Node contains an Output node, which has a speaker icon on it. The Output node's default value for Volume Multiplier is 0.75, and for Pitch Multiplier is 1.00. These values can be modified in the Details panel. The volume and pitch settings are used to manage relative Sound Cue volumes. This affects the output of all audio contained within the Sound Cue. If multiple Sound Waves are used with Mixer or Random Nodes, it is possible to control their volume and pitch independently by adding Modulator nodes.

Every imported audio file is represented in the Sound Cue Editor as a Sound Wave. A Sound Wave asset can be selected in the Content Browser and then added to the Sound Cue by right-clicking anywhere in the Sound Cue Editor and choosing the Sound Wave in the From Selected category on the context menu (Fig. 5).

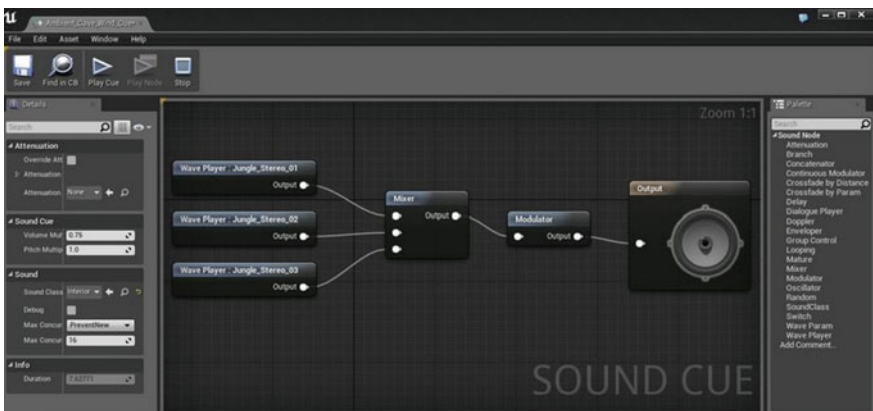


Fig. 5 Sound cue layout

3.3 Audio Node Graph

The Audio Node Graph is located in the Viewport panel. It displays the audio signal path from left to right, with interconnected nodes representing audio control modules and audio files. The Output node, which has an image of a speaker on it, represents the final output of audio as heard in-game and is always positioned furthest to the right in the signal path. The source audio files (Sound Waves) are always positioned furthest to the left in the signal path. Wires are used to connect the nodes.

To preview playback, play buttons are located in the toolbar at the top of Sound Cue Editor window. The Play Cue button plays the entire Sound Cue, and the Play Node button plays the sound from the selected node. (If multiple nodes are selected, the Play Node button is grayed out and unavailable.) While a Sound Cue is playing, to aid in debugging, the wires of currently active nodes turn red. This makes it easy to follow the Sound Cue's construction in real time.

3.4 Sound Attenuation

Sound Attenuation assets allow the definition of attenuation properties in a reusable manner. Any place to specify one-time use attenuation properties, can be specified instead by the Sound Attenuation asset. This allows adjustment to attenuation properties without having to revisit every sound individually. Sound Attenuation is essentially the ability of a sound to lower in volume as the player moves away from it. It works using two radii: MinRadius and MaxRadius. As a user moves from the sound's origin through the MinRadius, volume of the sound is at 100%. Passing between the MinRadius and the MaxRadius, the volume linearly fades between 100% and silence. The rate at which this fade occurs is based on the DistanceModel property and the Distance Algorithm setting, which provides several types of falloff curves to control the volume in-between the radii. Once outside the MaxRadius, the user is outside the limit of the sound and hear only silence. While the Distance Algorithm can be used to define the falloff, Attenuation Shapes can be used to specify the shape of the Attenuation Volume itself. Sphere, Capsule, Box, or Cone can be used as the Attenuation Shape based on audio preferences and confinements.

3.5 Attenuation Natural Sound

The Natural Sound attenuation model is a more 'realistic' falloff model that tries to take into account how sounds are heard in an environment. Among many distance algorithms this is the best use case for natural sounds i.e. fires or other point-interest

Fig. 6 Attenuation natural sound graph

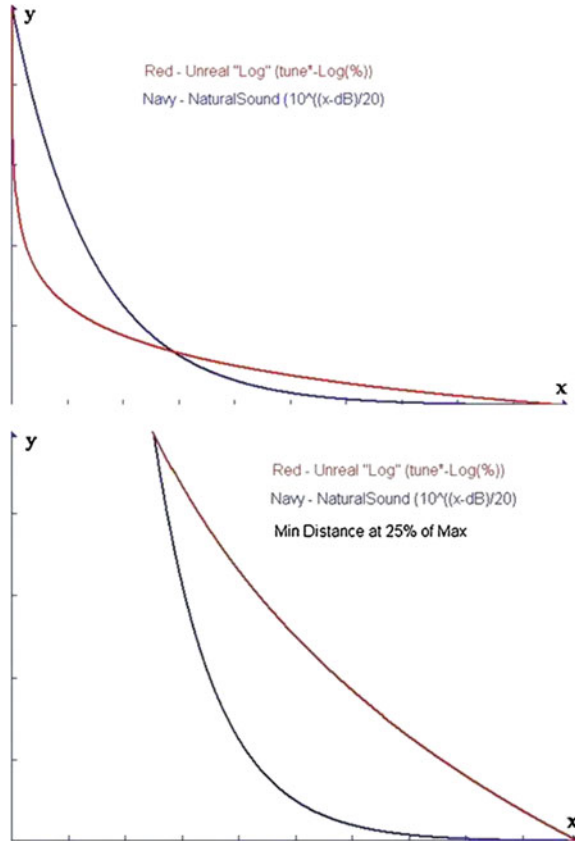
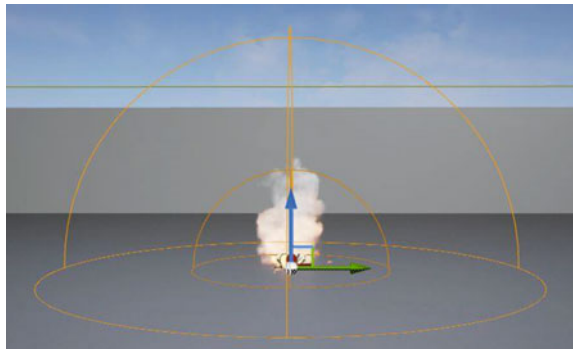


Fig. 7 Attenuation sphere control



or high frequency content that the logarithmic attenuation does not feel 'right' for a sound's falloff (Fig. 6).

3.6 Attenuation Sphere

Use case: The default volume is good for most usage scenarios, like ambient outside sounds (fires, birds, streams, etc.) (Fig. 7).

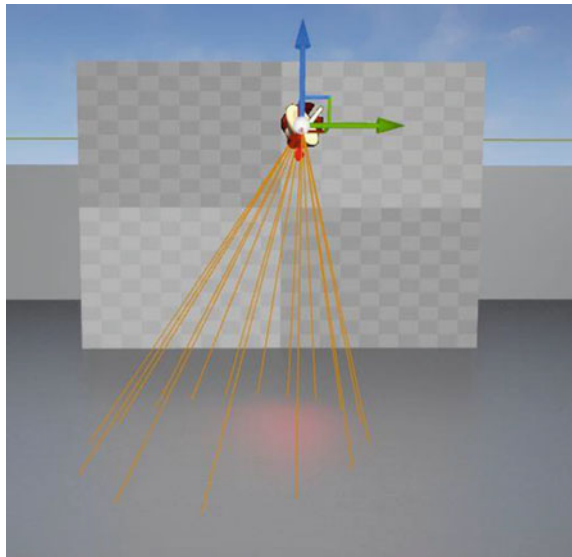
3.7 Attenuation Cone

Use case: Good for projecting sound at a player as the sound is at its max when inside the cone in front of the origin, directly behind the origin results in silence (the example above could represent a security camera which tracks the player) (Fig. 8).

3.8 Reverb Effects

Reverb Effects are a definable asset with several properties that can be easily adjusted and applied to any Audio Volume placed in a level. With a Reverb Effect, settings (pictured below) can be adjusted to allow control of elements like the echo density, overall reverb gain, air absorption, to help craft the overall “feel” that the developer is after.

Fig. 8 Attenuation cone control



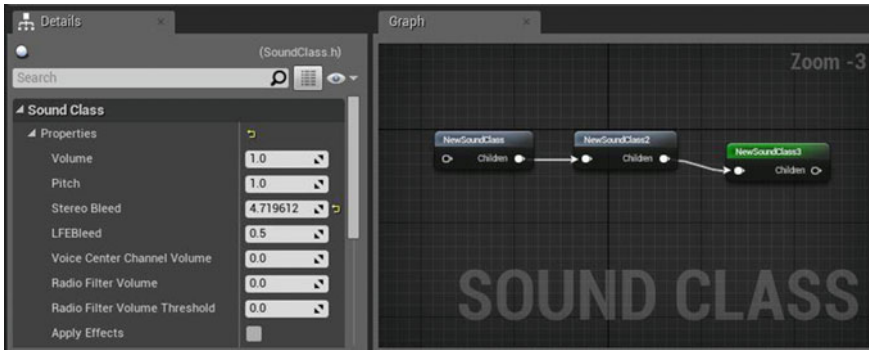


Fig. 9 Sound class control

3.9 Sound Class

Sound Classes are a collection of properties that can be applied to a number of Sound assets. The properties inside a Sound Class act as multipliers to the existing values and will be carried out by all Sound assets assigned to the Sound Class.

Hierarchies can be created by adding Child Classes, which will allow to pass down only specified properties from the parent class to children classes. Classes can be connected together inside the Sound Class Editor, which shares a similar node-based interface as seen in the Sound Cue Editor.

Passive Sound Mixes can be added (see the Sound Mix section below) to a Sound Class which will kick in and activate automatically whenever the Sound Class is played (for example, having music automatically lower whenever a dialogue Sound Class is played) (Fig. 9).

3.10 Sound Mix

Sound Mixes allow to set the EQ Settings (Equalizer Settings) and modify Volume and Pitch properties of Sound Classes. Multiple Sound Mixes can be active at the same time, all contributing to the overall audio effect. It is possible to Push (Activate) or Pop (Deactivate) Sound Mixes directly inside a Blueprint with the Push Sound Mix Modifier and Pop Sound Mix Modifier nodes or activate them passively whenever a sound with a given Sound Class is playing within a specified threshold. Within the Sound Mix asset itself, which can be opened by Double-Clicking the asset in the Content Browser, several properties exist. EQ Settings for the mix can also be specified to adjust the high, middle, and low frequencies and gains. As the EQ Settings of multiple Sound Mixes cannot be combined, the EQ Priority allows control of which active mix's properties are applied at any given time. Inside the Sound Classes section, it is possible to set

which Sound Classes are to be affected by the mix. For each Sound Class there are Volume or Pitch adjusters, options to set if the mix settings are to be applied to Child Classes, or modify the Voice Center Channel Volume.

The Sound Mix section allows to specify how the Sound Mix properties are applied or removed. Delay indicates how long before the mix properties should begin being applied. Fade in Time and Fade out Time specify how quickly to transition from no effect to the specified properties. Duration allows a pushed Sound Mix to automatically pop itself after the specified duration. A value of -1 indicates to never automatically pop and passively applied Sound Mixes will not automatically pop.

Dialogue Voice and Dialogue Wave

3.11 Creating 3D Widgets

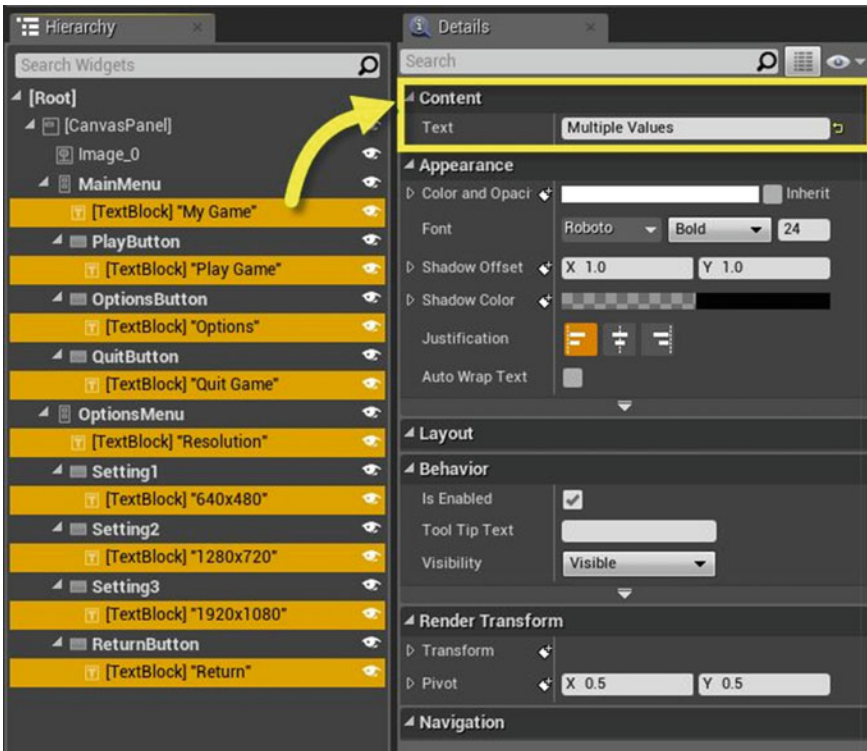


Fig. 10 3D widgets control panel

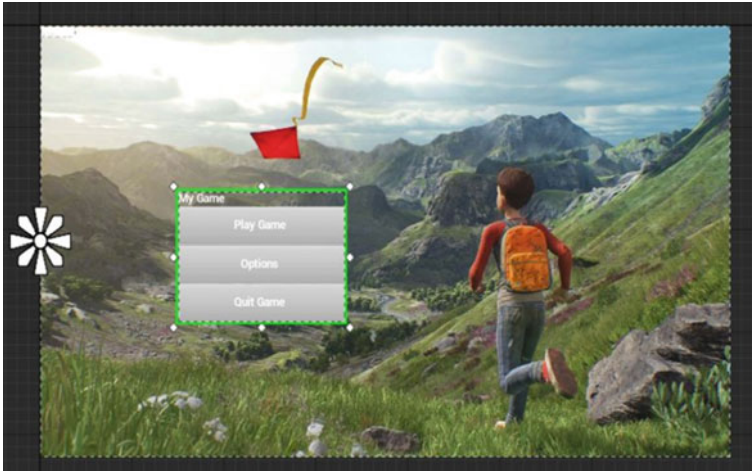


Fig. 11 UI screen space

Most UI elements can be rendered in 2D screen space, however there may be instances where it is desirable for an object to appear inside the game world instead overlaid on screen. This could be a computer terminal or key pad that a player must interact with, it could be the display of an enemy or player health bar, or even a menu that will be displayed in the game world in 3D space (Figs. 10 and 11).

4 Results

With the use of Unreal 4 it is possible to allow access to the Ionian Music & Sounds Archive to a much broader audience. People from all over the globe and of all ages are able to explore the archive, represented in an immersive audiovisual experience, strongly associated with the environment that each sound originates from. Such access methods, especially when they are used on very common devices like smartphones, tablets or PCs and when they can easily be integrated with social media, will increase popularity, user views and web traffic of the website that is already available.

The suggested user interface, being based on one of the best game engines available, serves both as an educational and entertaining material, raising visiting interest and touristic attraction to audiences that would be otherwise unreachable. By enhancing the game interface using 3D Virtual Reality technology (i.e. Google Cardboard or Oculus Rift) which are fully compatible with Unreal 4, the result can prove an entertaining, immersive and attractive showcase, increasing marketing potential.

5 Conclusion

In this paper we describe the design and implementation of a 3D environment telepresence visualization interface, aiming at the remote experience and dissemination of musical cultural heritage and environmental soundscapes to the public, utilizing the latest technology available. The implementation technologies are based on open source software tools (Unreal 4, Mysql, PHP, Java), programming languages and standards which support sustainability of the services on the long term. Local societies and cultural organizations must indulge to this idea and contribute to the subsequent incorporation projects that will maintain this project as an active source in the era of digital tourism.

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Digital Integration of the European Street Art: Tourism, Identity and Scientific Opportunities

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Abstract The purpose of this paper is to analyze the digital information regarding Street art in Europe. The disaggregation of this information is a problem to analyze the European Street Art in the scientific, touristic and educational contexts. We use content analysis as a methodology to get the digital information on the European Street art. Then, we applied a descriptive analysis of the data. Findings show us that, from the general websites (295), the majority of them present basic information. On the other hand, in the scientific environment and from the papers databases, researchers publish their works on non-specialized journals, what generates a dispersion of the knowledge. However, in the last 2 years, Street art is a trend topic and the aggregation of the digital resources could enhance the development of new perspectives of this heritage as economic and scientific value in Europe. Otherwise, we are losing many cultural and educational opportunities of our muralist production in Europe.

Keywords Cultural heritage · Open museum · Inclusive communities · European identity · Local development · Tourism

JEL Classification Z11 Economics of the Arts and Literature · Z18 Public Policy · Z32 Tourism and Development · O34 Intellectual Property and Intellectual Capital · O52 Europe

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1 Introduction

From the end of the 20th century and the beginning of the 21st, a substantial muralist production has been found in Europe, showing the revolution of an international language used on personal creations to favor the formation of a common identity. As a cultural property, these representations demand to create awareness about a symbolic unification (Santamarina Campos et al. 2015). Even their cultural value, these artworks are not known or even understood for the majority of the European citizens. Furthermore, a kind of ‘illegal’ status and the absence of cultural public policies do not change this situation for the general citizens.

The birth of the European Union and its development has been shown by a heterogeneous group of artists that use the streets to develop different paths towards artistic expression while stimulating a cultural revolution leading to socio-political thinking, and therefore engaging citizens into a public and identity-defining art movement. This movement is recognized normally by artists, creatives or researchers but it is completely unknown by other part of the society.

Moreover, the disaggregation of this information is a problem to analyze the European Street Art in the scientific, touristic and educational contexts. As we can observe, this lack of integrated information generates four problems: disaggregated and uncatalogued digital resources; difficulties to share research results (scientific-higher education context); lack of conscience of their heritage value; and no-definition of their temporal and legal limits.

Therefore, the absence of European public policies in order to value this heritage makes difficult to measure its impact at the cultural and educational levels.

2 Literature Review

According to the literature, two dimensions can reach the representation and construction of shared local identities: social-political (identity) and/or economic (linked to tourism).

From the political point of view, the use of mural paintings to defend the identity begun at the end of the XX century in some countries such as Brazil (Aldana 2013), El Salvador (Heidenry 2014), Mexico (Coffey 2012), Berlin (Colomb 2012), Spain (Garcia 2014), Algiers (Grabar 2014) or North Ireland (Rolston 2012). Recently, street art shows the political movements of other places as El Cairo (Abaza 2013), although the political view can depend on the informant (Skinner 2015).

To create a sense of local identity, the negotiation with citizens is fundamental (Atkinson 2007; Iveson 2013; Metaxas 2009; Moctezuma 2001; Visconti et al. 2010). In some cases, this negotiation has led in the success of the initiative, like New Orleans (Ehrenfeucht 2014) or Edinburgh (Munro and Jordan 2013).

Moreover, local identity helps places to differentiate them as attractions (Erickson and Roberts 1997). From the beginning of the XXI century, some places are using street art as a way to show social life and enhance local identity, while promoting place image at the same time (McCarthy 2006).

One of the challenges while studying Street art is that the concept is not well-defined (Testa 2013). In a search through Google Chrome, using as keywords 'street art', 'urban art' and 'mural painting', we can find more than 18 alternative terms such as 'Modern paintings', 'Wall Art', 'Wall Painting', 'Graffiti arts', 'Wall murals', 'Mural art', 'Street painting', 'Murals', 'Street Art Mural', 'Street Mural Art', 'Public art', 'Graffiti', and so on. This situation generates many words related to street art. For example, artist Shaggy highlights that "Each one has its one definition, concept and version regarding graffiti" (Farré 2015). After analyzing how they are used in the webs, we can find that there is no consensus about their meaning or concept, for this reason is not possible to find in them precise information for scientific purposes. Without a common concept, we cannot have classification standards to analyze street art.

Behind the concept of 'street art' we can find a wide range of art disciplines (Irvine 2011) that have in common a sense of 'democratic art' (Jagodzinska 2011; Riggle 2010). In the case of street art at the walls, muralism has a large historical past, while the graffiti started to develop by the 70 s at North America (Young 2010). Both have a social base and are big paintings, which environment is the city, but muralism follows a traditional process of production whose aim is to build a narrative (political or social of the place) (Crosier 2010), while graffiti appears usually without permission (Young 2010, 2012) and is intentionally ephemeral (Monto et al. 2013). However, this distinction is recently disappearing and graffiti is shown as a sophisticated form of creative industry (Dickens 2010; McAuliffe 2012) and a recognized art movement (Irvine 2011; Bengtsen 2013; Gartus and Leder 2014). Furthermore, 'legal' graffiti is being used to promote creative cities (McAuliffe 2012; Batista et al. 2013).

From this point of view, we think that the expression 'street mural art' could integrate the legal and professional graffiti with traditional muralism.

In relation to the no-definition of the temporal limits of street mural art, it is commonly expressed that street art is ephemeral per se (Torre 2015). This characteristic has influenced the artist apathy of the technique applied, using materials not convenient for outdoor and with short durability. They center the creative process on the result, with high artistic quality but low techniques. The short life of some street art has produced a debate about if the murals should be restored or not and who should do it in the first case. Sometimes the time to perceive the mural is very short and makes difficult to record and enjoy it. Artist Martín Roy indicates, "Street art is ephemeral. That is real but it is the fact that gives it adrenaline. You paint with the uncertainty of how many time the artwork will live; if 2 days, 1 week or 15 years" (Ordoqui 2013). Anyway, at present we can also conserve these artworks in a digital way; that is the 'real' conservation could be substitute for the digital one when the artists want their artworks to be ephemeral.

About the no-definition of their legal limits, it is said “for graffiti the intellectual property law is not very precise” (Fish 2013). Furthermore, its vandalism connotation in some cases influences negatively in the perception and valuation of this heritage resource. In Europe, each country has political competences on Street art in different government levels: municipalities, regions or central governments. In addition, there is no consensus about the protection of the artist’s copyright, finding heterogeneous criteria. All these problems could be solved with an integrated European public policy for the street art that at present does not exist.

3 Methodology

We used content analysis (Berg and Lune 2012) as a methodology to get the digital information on the European Street art. According to Hsieh and Shannon (2005), content analysis is a qualitative method “for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns”. In this case, we selected websites and mobile applications (APPs) as a text. Using as keywords ‘street art’, ‘urban art’ and ‘mural art’ we browsed, from January to April 2015, the information of the websites available at Google Chrome and the APPs available at Google Play and Mixrank (Table 1). Then, we browsed through the website TripAdvisor the touristic offer for ‘Street Art’ and ‘attractions’, founding 41 positive results. Moreover, for the scientific information, we searched the database Web of Science (Thompson Reuters), using as keywords ‘graffiti’ OR ‘street art’. Only published in 2015, we found 175 scientific papers.

Table 1 Information extracted from the websites and apps

295 WEBS	48 APPs
Country (one or some European)	Country (one or some European)
WEB name	APP name
Web address	Web address for localization
Contact information	Contact information
Web description	APP description
Is linked with an app or not	Offers murals geolocalization
Offers murals geolocalization	Offers tours
Offers tours	Last web version
If yes, description of the tour	Number of artworks
Type of information	Developers/owners
Last version	Score
Year of construction	Number of comments
	App version

4 Results

Findings show us that, from the general websites (295), the majority of them (88%) have been created to illustrate specific events, neighborhoods or cities, and they present basic information, but not conceptual descriptions (Fig. 1).

That is, we found very few websites with a global information about what is street art, where can you find it, which tours are offered, which is the meaning and characteristics of the murals, who is the artist and why he/she painted that mural, if the mural is legal or illegal, which is the relation of the mural with its environment, which materials were used to paint the mural and so on.

Only 6% of them offer a tour to understand the artwork’s environment (Fig. 2) and 3% have a linked app to join the tours in situ (Fig. 3). With this situation, the offer is limited to a reduced and specialized public. Many of the webs are difficult to understand or find the information if you are not kind on street art. Moreover, there is no diffusion of these websites on social networks or tourism companies, only the one made through the particular webs of Street art. Then, their dissemination is very limited.

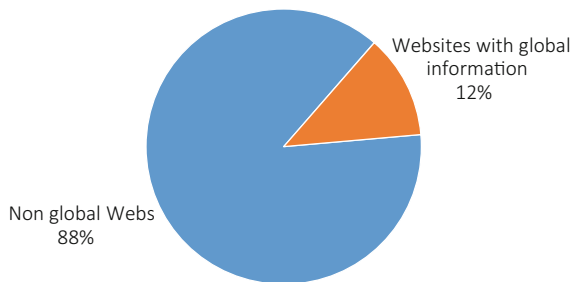


Fig. 1 Percentage of WEBS with global information

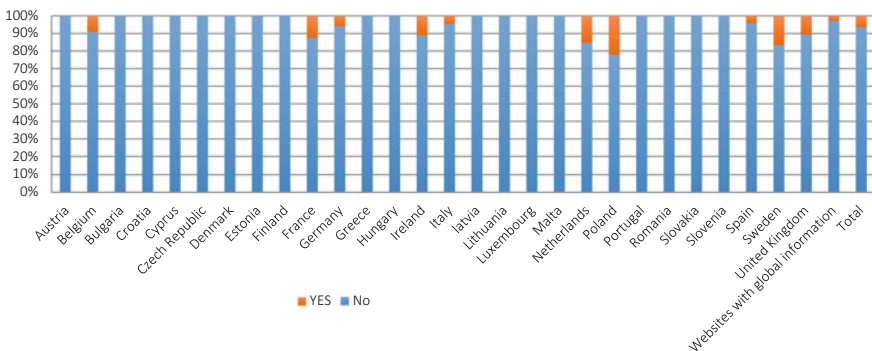


Fig. 2 Percentage of WEBS with tours

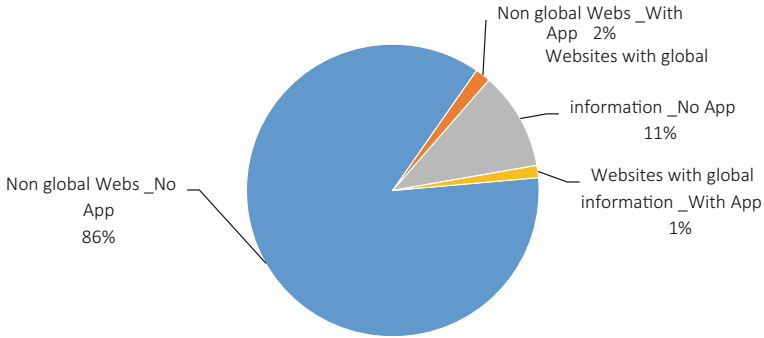
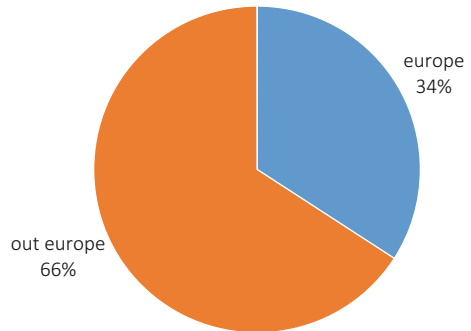


Fig. 3 Percentage of WEBS with APP

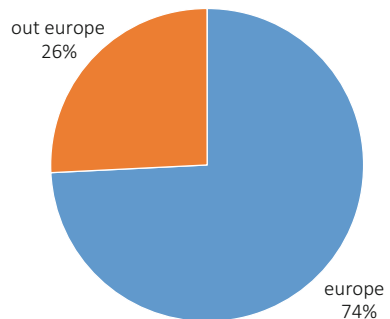
Fig. 4 Offered street art services worldwide in TripAdvisor LLC



Even more, from the results in TripAdvisor (41 tours), only 34% are from Europe (Fig. 4) but 74% of the valuations applied to them (Fig. 5), which shows that in Europe it is a potential attraction. Locations such as Camden-London, Belfast or Berlin are places more and more visited because of their murals.

Regarding the APPs analyzed, we can observe that few of them are linked to web platforms. For this reason, is more difficult to find or know them. From a search in Google Play and Mixrank using as keywords ‘Street Art’, ‘Urban art’ and

Fig. 5 Valuation of the Street art services worldwide in TripAdvisor LLC



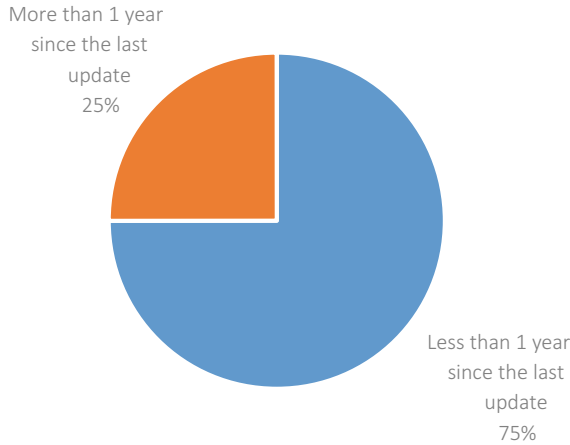


Fig. 6 APPs. Time since last update

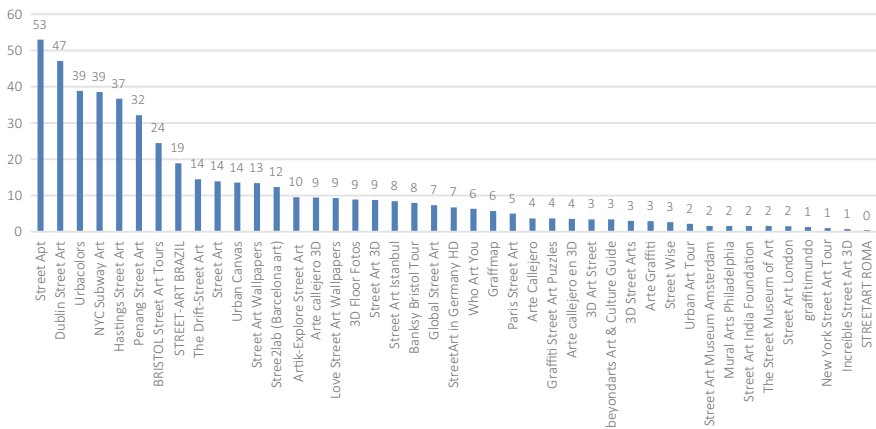


Fig. 7 APPs. Time from last update (in months)

‘mural painting’, we can find 48 apps and 75% of them have been created in the last year (Figs. 6 and 7). This shows the increasing interest in the topic.

In 2014 the apps with more downloads reached an amount of 10,000–50,000, while in 2015 there are apps with 50,000–100,000 (Fig. 8) downloads. Moreover, this type of apps are better and better valued by their users.

In the last year, they have increased their value mean half point, from 3.74 in 2014 to 4.3 in 2015, in a five scale (Fig. 9). Those apps more updated are more valued; from 21.33 valuations, they have obtained 44.03 the last year (Fig. 10).

With these data we can observe that Mural Street Art is a trend but the number of downloads, even if it is increasing, is still low if we compare it with other cultural

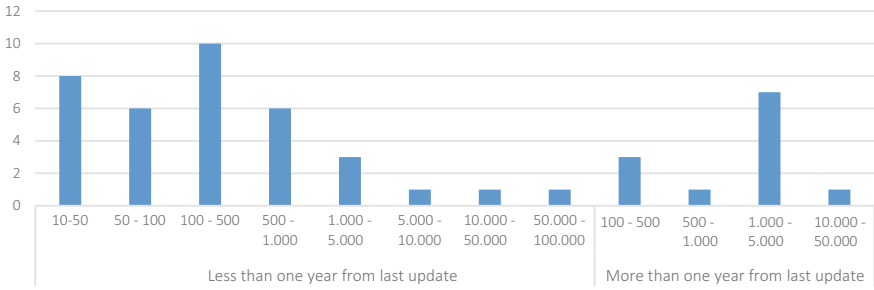


Fig. 8 APPs download frequency distribution

Fig. 9 APPs valuations before and in 2015

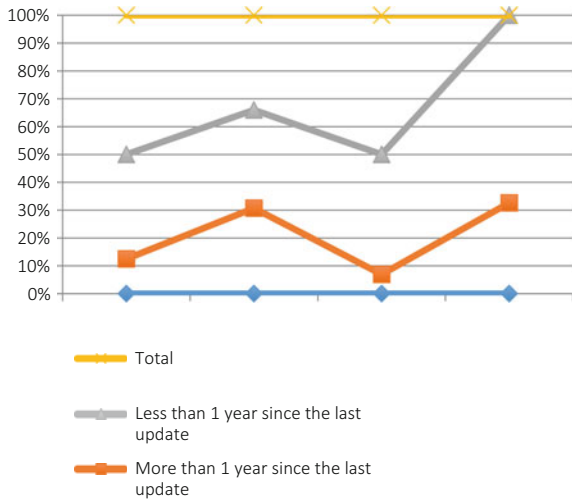
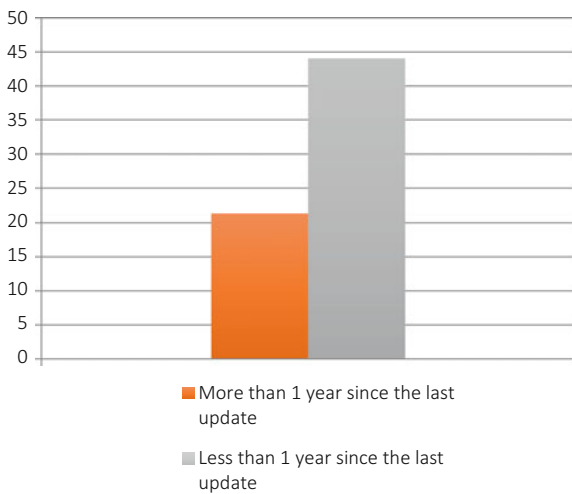


Fig. 10 Number of APPs' valuations before and in 2015



heritage initiatives as *Fotopedia Heritage*, which exceeds a million and a half of downloads (Michán 2010). This app is ranked as one of the top 50 of the history according to the Apple Saloon of Fame that constitutes a virtual passport for its users as it incorporates hundreds of places that are considered Cultural and Natural Mundial Heritage. It is considered as the biggest virtual book of pictures of the world (SEGITTUR 2013). But, of course, these are very well-known heritage places because of their world recognition, what has supposed many years of dissemination and activation through communities and the support of a lot of organizations.

Why street art seems to be out of our European Heritage? This problem could be the consequence, based on users' opinion, of the low visibility and promotion of the apps and because users' necessities are not covered. Even if you are interested in the topic, is quite difficult to find information for the public. Mainly the apps are not multilingual, they have not a contents' classification for an optimize search, they are not collaborative (users cannot attach pictures of new artworks from their mobile and/or share them in social networks) and they do not provide circuits to force the movement.

Therefore, the absence of museographic proposals related to those webs and apps, offering coherent circuits, makes difficult to propose value to the artworks and appreciate their touristic interest. For example, Google Street Art web proposes an online museum but it is not moved to the street with an app to guide you through the open museum. This initiative has not reached an impact as expected and its development is quite slow. The interface is not intuitive and the information is unclear. From a scientific point of view, it is not a platform created as a virtual library, with reviewed information. Its digital resources classification does not let the users to have a valued information from the artworks nor to understand it, unless you will be an expert on the topic.

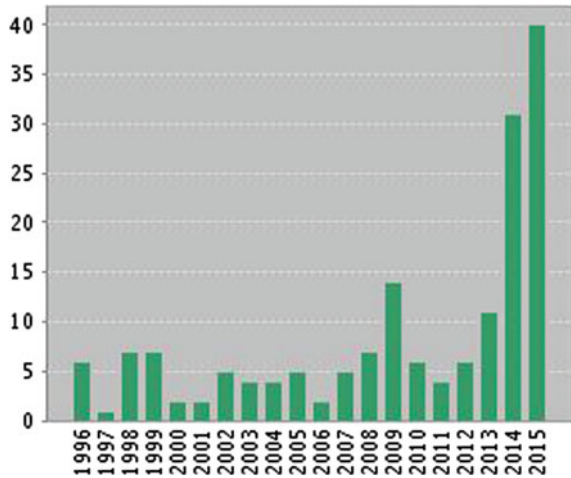
From a scientific point of view, all those webs cannot be classified as suppliers of scientific resources because their design do not use the international standards for cataloguing heritage resources. While they can have artists' participations, they cannot obtain Scientific or universities interest as this kind of publication is not recognized in the scientific context.

By contrast, in the scientific environment researchers do not find top journals to publish their works nor cultural journals interested in street art. Top journals frequently have no interest on the topic, being difficult to publish on them. Therefore, the researchers normally publish their works on non-specialized journals, what generates a dispersion of the knowledge.

There is not a specific research area on Street art nor a specialized journal on the topic. This fact generates a dispersion of the street art knowledge, being difficult to find scientific contents and to create synergies among them.

However, in the last 2 years, Street art is a trend topic. From a search on the Web of Science (Thompson Reuters) using as keywords ('graffiti' OR 'street art') we obtain 175 papers published in 2015. Up to 30 papers are related to social and conceptual aspects of Street art, but they are classified in diverse research areas: Arts & Humanities, Social Sciences, Information Science and Library Science,

Fig. 11 Latest 20 years papers published on street art. Published items in each year. This report reflects citations to source items indexed within All Databases (Web of Science 2015)



Psychology, Theatre, Art, Literature, Arts and Humanities, Geography, and Government and Law.

From a wider search on the Web of Science (Thompson Reuters) of the last 20 years, using as keywords 'graffiti' OR 'street art' (Fig. 11) we can observe how in the last 2 years papers on street art have exponentially raised.

This figure can show a positive tendency of the journals for publishing research related to street art, given that the public, especially young people, little by little know this heritage.

5 Conclusion

The lack and disaggregation of contents in Europe is a problem for the public to know the street art and for the researchers to analyze it in the scientific context as it makes difficult research and create networks. Besides, it is a disadvantage for creative industry and tourism, as they have not an organized material to exploit. In addition, for the educational and social context it is a weakness because, without a complete and processed information the public, especially citizens and students, do not know how to interpret that symbolic artworks.

However, street art is a social and alive art (Torre 2015) that requires interacting with the artwork. Its dimensions and location involves going around and observing it in situ. The environment, the history of a place, can give us additional information about the artwork. For this reason, it would be convenient to offer to the users the possibility of creating different circuits with geolocalized information of the artworks to generate tourism and give more value to them. This will help to appreciate the artworks in their own space (Santamarina Campos et al. 2007).

Street art, as a public art, has to be showed in the street for appreciating all its value, creating open and participating museums. The European street art is hardly known by the European citizens and this could lead to a lack of institutional and social sensibility, which can produce a deactivation process and a fast loose of this heritage resource. This situation is even more challenging as there is not an efficient communication among artists and young people to access and understand the artworks' information.

There is a lack of conscience of the heritage value of the contemporary muralism, what is a consequence of its unknown social value—symbolic, economic and politic. The main reason is that the dialectic around it is quite elitist, and the public do not understand the significance of the artworks. However, with the appropriate information about their symbolism, they can be interpreted. If we are able to send this knowledge to young people, we can use street art as an educational resource and, besides, to show the youth their local identity.

Part of its unknown political value to express and understand the local identity, is a consequence of the negative view of the graffiti that started in the 80 s as an expression of symbolic vandalism (Becerril 2013). However nowadays we have many examples of positive experiences of using street art, like New Orleans or Melbourne. The challenge is to convert the 'illegal' graffiti in 'legal' graffiti, involving the community and the artists in its production development.

Moreover, there are opportunities for economic local development through Street art that are not used. Street art is normally out of the touristic tours and this is a disadvantage for the tourism and creative industry. There is a lack of public policies to show street art, to support and insert it in the cultural and economic policies of the places. However, when it is inserted, it can generate a new attraction for the place, as the case of Chemainus in Canada.

A first step could be the aggregation of the present and future digital resources, which could enhance the development of new perspectives of this heritage as economic and scientific value in Europe. To provide centralized information of the European street art will be necessary as a way to conserve and understand this heritage. Furthermore, we could take profit of the different cultural and educational opportunities of our muralist production in Europe with this kind of information available and prepared for different profiles of people.

Regarding the scientific works on European street mural art, we find that here is a lack of studies, especially in international top journals, at least using English keywords in a specific database as the Web of Science. Although they are increasing in the last years, they are few if we compare the figures with other culture topics as paintings or sculpture. Even more, at present we could say that the majority of works published in the top journals are under the category of 'Urban studies'.

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A Hashtag Campaign: A Critical Tool to Transmedia Storytelling Within a Digital Strategy and Its Legal Informatics Issues. A Case Study

Anna Paola Paiano, Giuseppina Passiante, Lara Valente
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Abstract This paper dwells upon transmedia storytelling as a cutting-edge tourist-oriented approach to promote a territory in a smart perspective with a focus on the power of a hashtag campaign within a pilot Instagram tour occurred in 2015. Starting from the belief that involvement, participation and sharing are useful key to most industries and sectors, and especially to tourism, we study in-depth Salentoupndown case, as a successful example of 2.0 initiative in terms of creating new models for public engagement, visitor meaning-making (i.e. travel generated content) through the application of the “legal informatics by design and by default” logic, on the assumption that no digital solution today can be conceived without assessing it as by law enacted. Data collection and analysis show how Salentoupndown becomes, in terms of reach, exposure and engagement through the social media channels, a viral tourism web-based event. By integrating the conceptual discussion on the adoption of technology-based innovations in the tourism sector with a 2.0 tourist-oriented empirical experience, the study provides useful insights on the practical implementation of future location-based transmedia storytelling projects.

Keywords Transmedia storytelling · Smart territory · Tourist experience · Co-creation · Value · ICT and social network law

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1 The Shift from Storytelling to Transmedia Storytelling: A Literature Review

Although the stories are inherent to human nature, in the 2.0 society, characterized by the spread of social networks and bi-directionality of online communication, the act of communicating, understood as relate to and interact with, has changed significantly.

The failure of the classical conception of geographical boundaries, political, language and communication, the use of M2M connections,¹ the massive use of mobile devices, which have become real locative media (because of the location-based services), as well as the increasing availability of apps have helped to modify social behavior and, especially, human relations. It is a phenomenon that led to the inevitable establishment of a new communication structure and, more generally, of a parallel universe, complementary to our,² where everything converges.³ As stated by Henry Jenkins, formerly professor at the center of Comparative Media Studies (MIT), “old and new media collide, where the big media and grassroots media intersect, where the power of the media producer and the consumer interact in unpredictable ways” (Jenkins 2007). This implies the creation of new opportunities of action for users, or “former audience” (Gillmor 2004), who get a hitherto unpublished centrality, within what Tim O’Reilly, who coined the definition as well as the creation of the expression Web 2.0.⁴ itself.

¹Machine to machine refers to direct communication between devices using any communications channel, including wired and wireless. In modern times the communication is often via the Internet of Things (IoT). Widespread adoption of Internet Protocol Version 6 (IPv6), with its extremely large address space, is necessary to accommodate all of the sensors and machine-readable identifiers that Internet of Things will require. The term M2M is evolving. In fact, if, originally, it was accomplished by having a remote network of machines relay information back to a central hub for analysis, which would then be rerouted into a system like a personal computer, recently, M2M communication has changed into a system of networks that transmits data to personal appliances. The expansion of IP networks around the world has made machine to machine communication quicker and easier while using less power. These networks also allow new business opportunities for consumers and suppliers. Cit.: https://en.wikipedia.org/wiki/Machine_to_machine.

²The network theory, or Social Network Analysis (SNA) is a methodology for the analysis of social relations that arises with Jacob L. Moreno. The American psychiatrist and founder of sociometry (the science that analyzes human behavior), establishes a new systemic approach of social psychiatry. The SNA is based on the idea that society is composed of a series of more or less complex relations, networks, as well. Nowadays, it is applicable in different social sciences, such as sociology, anthropology, psychology and economics, as well as in management. In addition, it was advantageously used in the study of various phenomena, such as: international trade, the spread of information, the study of institutions as well as the functioning of organizations. Recently, SNA has been applied to physics, biochemistry, genetics and in computer science. https://it.wikipedia.org/wiki/Analisi_delle_reti_sociali.

³Including the notion that the content itself is accessible on more devices, thus, increasing the potential as well as the message distribution channels.

⁴The definition as well as the term Web 2.0 was born in 2004, during a brainstorming session between O’Reilly and MediaLive International Radar. Thus was born the Web 2.0 Conference, in

called “architecture of participation”,⁵ it became a real role model. In fact, it encourages users to add value to the software at the exact moment in which they participate actively while they use it. The web thus becomes a place of relationships, sharing of knowledge, the construction of new meanings: it stops being just a medium, taking a broader aesthetic and communicative way, to become a social environment to all intents and purposes.

Thus, **the network becomes the breeding ground for the spread of the so-called User Generated Contents (UGC)**,⁶ i.e. all the topics/materials/information (texts, images, audio and/or video recordings) created on the Net by non-professional users, and distributed on: social networking platforms (e.g. Facebook, Foursquare, Flickr, Twitter; video sharing platforms (e.g. YouTube, Vimeo), wikis, blogs, aggregator sites, etc.⁷ The Net becomes what Pierre Lévy calls “collective intelligence” or what Derrick De Kerchove calls “connective intelligence”. It is the key role played by the web 2.0 to restore centrality to content and so to users, through its inherently conversational setting (evolving, thus, from a simple product to a service). As Florek states (2011: 83), ‘web 2.0⁸ provides services that invite users to engage in direct and strong participation’ and ‘with the advent of user-generated content, every individual might potentially influence the way in which [a territory] is perceived and evaluated’.

A growing number of companies belonging to different sectors, is adopting this approach, rediscovering, therefore, the importance of digital content, which nature is more visual, smart, cross-platform and can generate storytelling.⁹ In particular, storytelling, if well adapted to the business strategies, is able to increase the company’s value in the long term. However, for this to happen, it must offer the **intangible values associated to the product, such as feelings, in order to create unique narratives/representations that inspire, excite and involve the relevant public and that they are able, therefore, to generate identification with the values expressed by the brand.** Communication becomes, therefore, more dynamic and interactive, especially since relations with the various public are established in the network across multiple platforms: **from communities to social networks, from blogs to review sites, from video sharing sites to the official ones.**

(Footnote 4 continued)

order to analyze the development and web trends along with new business opportunities in the industry.

⁵<http://www.oreilly.com/pub/a/web2/archive/what-is-web-20.html>.

⁶Internet redefines the social dynamics, proposing a tribal order in which the sharing of ideas and values gives each individual an active role in any context of daily life. The shift from a passive user to the user-generated content, and then from the top-down innovation to the bottom-up one, from static website to semantic web determines the birth of the New Web, a neologism coined by Seth Godin to designate innovation paradigms of communication.

⁷<http://www.oecd.org/internet/ieconomy/38393115.pdf>.

⁸Digital channels provide forums for travelers to discuss the places they have experienced, by uploading photos and videos which guarantee a genuine creation of communities of interests emphasizing local events, and encouraging electronic word of mouth (eWOM) recommendations.

⁹<http://www.mcs4you.it/storytelling-e-smart-travelling-sono-il-nuovo-mercato/>.

As noted Erica Corbellini, SDA Professor of Strategic and Entrepreneurial Management, “Today, the rise of the digital age has introduced two more elements: the need to develop the story across multiple media, with a continuous return between virtual and real world, and the opportunity to engage the customer to make him the hero of the story” (Corbellini 2014). This means that if, on the one hand, companies have the opportunity to interact directly with the customer/user, the other side, consumers, becoming more and more demanding, active and interactive, so as to configure the *prosumer* model (Fabris 2009; Toffler 1981; Rifkin 2000), they found, in these channels, new spaces to express their opinions (both positive and negative) about the companies and/or their products/services, taking part in the creation of meaning, decentralizing the relationship between author and user.

In such a scenario, where copyleft replaces copyright, **knowledge products are interpreted as a “commonweal”**, allowing those who benefit through a licensing system, to use it, and to be able to distribute and modify freely.¹⁰ It is, therefore, a communication that, moving in multimedia and multi-channel mode, contributes, at each stage of the communicative process, to the user experience, providing new and distinct information, creating real access points through which the user can be completely immersed in the story, anywhere and at any time (Dowd et al. 2013), in a continuous dialogue (Giovagnoli 2011). In other words, **the traditional storytelling becomes not only a cross-media storytelling, but rather a transmedia storytelling.**

The term **transmedia storytelling**, coined by Henri Jenkins in 2003¹¹ and revisited by the same, in 2011, means “a process where integral elements of a story is systematically spread through multiple channels, to create a consistent and coordinated entertainment experience. Each medium provides its own specific contribution to the development of the story.”¹² Although both used to identify narratives and imaginative universes, distributed on multiple media, unlike the cross-media storytelling, trans-medial generates “types of narrative sharing the same narrative elements and imaginative (plots, characters, atmospheres,...) but that change depending on the publishing platform on which they are distributed. The same short film could be rewritten, for example, for a number in serial form, or adapted to the cinema. Its protagonist could become the hero of a series of cartoons, while a secondary character might be the spokesman of the story on social networks” (Giovagnoli 2013).

Jeff Gomez,¹³ president of the New York-based animation studio Starlight Runner, provides a further definition of transmedia storytelling, describing it as “the

¹⁰http://www.unitus.it/biblioteche/webif/06-docs/download/nuovo_diritto_autore.pdf.

¹¹<http://www.technologyreview.com/news/401760/transmedia-storytelling/>.

¹²A process where integral elements of a fiction get dispersed systematically across multiple delivery channels for the purpose of creating a unified and coordinated entertainment experience. Ideally, each medium makes its own unique contribution to the unfolding of the story (Jenkins 2011).

¹³He is tech savvy applied to the narrative. During his career he has contributed to the creation of fantastic worlds of Avatar, Pirates of the Caribbean or the Halo videogame.

vanguard of a process of transmitting a message, a theme or a plot to a mass audience through a skillful and well planned use of multimedia platforms.¹⁴ It is a philosophy of communication and of brand extension which lengthens the life cycle and enriches the creative content of such a process”.¹⁵ Thus, **Involvement, participation and sharing** are the keywords to describe the viewing experience that takes place through different platforms and includes the use of portals, social networking and user-generated contents, where the story is adapted according to either the expressive possibilities of the medium or its strengths.

Although different, the points of view of Jenkins and Gomez share several elements. In fact, both of them state that **transmedia storytelling is supported by either the technological component** (internet, mobile, app, community, social networks, games) **or the ipersociality principle** (Jenkins 2006), i.e. the intention to contribute to the creation of stories, even by people, increasingly **active media consumers**,¹⁶ who do not directly deal with the main production. Therefore, it is an economy based on knowledge sharing (Chen et al. 2009)¹⁷ leading, inevitably, to a **democratization of the story** (Kalogeris 2014), emphasizing, as well, at each step, the cognitive and experiential contribution of the prosumer. In fact, **building worlds**, not necessarily fictitious, **is one of the most meaningful elements of transmediality**: the more specific the description of these worlds is, the more users will believe in them (e.g., Nike’s marketing campaigns).

No matter how numerous the actions able to encourage the audience involvement are (e.g., post, forward, share, rate and comment a publicly content, edit or re-edit content) (Gomez 2010¹⁸), since, one of the chief barriers to transmedia storytelling lies in succeeding in incorporating the audience feedback within the narrative (Dowd et al. 2013). The Italian pioneer in transmedia storytelling, Max Giovagnoli,¹⁹ shows that, in reality, **this innovative and complex way of storytelling techniques use stories arising from very different disciplines** (Table 1), defining it as “a real drama-related *mélange* made up of (documentary, reportage and scientific) data and entertainment (infotainment, pure narration or even enhanced storytelling). The

¹⁴The film industry is among the first application areas of transmedia storytelling, which, to date, is the field that has achieved the most impressive results. Some popular examples of transmedia storytelling generated differentiated industrial productions (including films and video games) in famous cases such as *Star Wars*, *Indiana Jones*, *Harry Potter*, *Matrix*, *Avatar*, etc.

¹⁵<http://www.starlightrunner.com/transmedia>.

¹⁶<http://ideas.sdobocconi.it/strategy/archives/3091>.

¹⁷Recent studies have analyzed in detail the role played by the three aspects of intellectual capital (human, structural/ organizational and relational), evaluating their performance in terms of knowledge transfer in the context of cooperation where a crucial role is played appearance relational, on which companies should leverage as much with their partners as with their partners, to mobilize their human and organizational capital, and reach, as well, the best result in terms of cognitive transfer. In other words, the quantity and quality of relational capital active in intra-, inter- and extra-company relationships affect the extent of absorption of knowledge of the company.

¹⁸<http://www.scribemedia.org/2010/10/31/transmedia-storytelling/>.

¹⁹<http://www.maxgiovagnoli.com/bio/>.

Table 1 Transmedia Storytelling five key factors (Giovagnoli 2013)

1. People experience mgmt (individual/social, active/passive etc.);
2. Space mgmt (real, virtual etc.);
3. Time mgmt (linear, asynchronous etc.);
4. Action mgmt (interactive, traditional, interoperable etc.);
5. Involved platform mgmt (technological management, physical etc.).

Translation provided by the authors

media used by transmedia franchise and communication projects “TM” create an accurate bouquet, where communication media become part of a virtuous roll-out that rarely endorses a channel over others. The narrative, and the experience in which different audiences are involved”. Giovagnoli says. “are, on the contrary, transversal and interoperable. Otherwise, it would not make sense to involve, simultaneously, so different media and platforms.”²⁰

Finally, there are two basic factors contributing to the growth of transmedia storytelling. Firstly, the proliferation of new media such as video games²¹, internet and mobile platforms with their applications, secondly, the economic incentive for media creators due to lower production costs by sharing *assets*.

2 The Power of a Digital Tourist-Oriented Approach in a Smart Perspective

Generally speaking, the adoption of Information and Communication Technologies (ICTs) has triggered an irreversible trend, changing radically the traditional functioning and competitive landscape for many industries, more and more involved in managing the adoption of technology-based innovations, “towards quantifiable competitive gains and advantages with respect to the competition”.²²

The same can be said about tourism that is quickly becoming an information and knowledge intensive sector, in order to face a set of new challenges arising from the influence of the emerging technologies and procedures on both visitors (enriching their experiences) and environment, which means remaining competitive in today’s globalized economy. In fact, from a tourism perspective, ICT, **by introducing smartness to all organizations and communities**, could contribute in terms of generating value-added to the overall tourist experience, while also improving

²⁰<http://www.ninjamarketing.it/2012/04/17/storytelling-e-futuro-transmedial-il-parere-di-max-giovagnoli-intervista/>.

²¹Which have now surpassed the concept of mediums aimed at an audience of teenagers in order to procure only fun, often through technical and aggression strategies.

²²https://competecaribbean.org/wp-content/uploads/2015/04/Improving-Competitiveness-in-the-Caribbean-Tourism-Sector-Through-ICT-Based-Innovations_September_v4_docx.pdf

efficiency and supporting process automation (Werthner 2003 as cited in Gretzel 2011). Thus, borrowing Komninos' definition of smart city, as the result of **“the integration of three elements: the city, the knowledge, the digital space.”** the development of a territory in a smart perspective could also encourage its evolution in Smart Tourism Destination, since as the scholar continues, “The smart city can be the frameworks but also the fieldworks in which the action of collective intelligence becomes real. Although it is a complex system, it can certainly provide more resources than the traditional city because it offers not only services, but digital tools that enable people to be active, to confront and work together.” (2013).²³ By describing this process, Komninos does not suggest a pattern, but rather a 7-step roadmap, where **both digital space and intelligent environment are useful key factors.**²⁴

In order to restrict the analysis to the scope of this paper, we will study the importance and benefits of **transmedia storytelling as a cutting-edge tool within the management and marketing strategies of the tourism industry of a territory aiming to develop in a smart perspective.** Despite being a key industry around the globe, with a billion international travelers, only recently, the tourism sector is beginning to explore transmedia storytelling techniques. In fact, although consumer narratives, or stories, have been treated as a source of brand information (Delgadillo and Escalas 2004; Durgee 1988; Gilster 1993), storytelling has been notably absent from the brand management literature, even though it has gained more interest recently (Woodside 2010). Stories “provide an authentic human experience that taps into psychological fundamentals, making them the most effective way to engage audiences” (Rutledge 2011²⁵), making them feel smart at all times and give them opportunities for user-generated content they share each other: a kind of voyeurism able to create a strong emotional and potentially viral connection. Before traveling, tourist research depends on the screens they have available at the time. While traveling, they are equipped with portable devices, having immediate access to a large amount of data (Nejjai 2012). Tourists aim to live different experiences and expect highly personalized experiences (JWT 2013²⁶), and sharing their discoveries online is an essential part of their trip (JWT 2011²⁷). Furthermore, both the wave of **web-based communities**, known as

²³<http://www.smartcityexhibition.it/en/news/nicos-komninos-smart-city-grounded-collective-intelligence>.

²⁴1. Description of the city with its districts and community; 2. Ecosystem of innovation: Which is the process of learning to face the city problems; 3. Digital space and intelligent environment: web 2.0, crowdsourcing, social media, mobile app useful to support Phase 1 and 2; 4 Strategy: Integration of points 1, 2 and 3 to find intelligent solutions; 5. Applications and solutions for the city; 6. Business models for the production of new sustainable services; 7. Measurement of results. (Ibidem)

²⁵<http://athinklab.com/2011/01/23/storypower-5-keys-for-social-media-marketing-using-storytelling/>.

²⁶<https://www.jwtintelligence.com/2013/04/travel-changing-course/>.

²⁷<http://www.jwtintelligence.com/2011/03/transmedia-rising/>.

Web 2.0, along with their use of hashtags, have significantly changed market conditions even in tourism.

In this vein, the use of hashtags on social media channels often increases the influence of content as they make it public. Hashtags are words or phrases preceded by the symbol# that classifies or categorizes the accompanying text in a sentence and they are quite useful to mark keywords/topics.²⁸ While there is nothing wrong in using a random hashtag, a solid strategy behind their use (Hiscott 2013)²⁹ can bring real, concrete results to business, in general, and to tourism promotion strategies in particular. By increasing the relevance of electronic word of mouth (eWOM) and being a valuable tool to share tastes, if well used, hashtags can make digital branding strategies so compelling.

3 Mobilising Visitors Engagement with a 2.0 Initiative: The Case of Salento Up'n'Down 2015

Based on the importance of (mobile) technology to the tourism sector, in terms of creating new models for public engagement, visitor meaning-making as well as encouraging the construction of multiple interpretations of the same territory, the project **Salento Upndown** aims: on the one hand, to promote the local territory via mobile photography, with the photographic and personal storytelling of the influencers who have been invited to participate in it³⁰; on the other hand, to support the monitoring of the hashtag campaign, envisaged by the 2.0 strategy of the initiative.

Salento Upndown stems from a partnership between Instragramers Lecce and the e-Government Laboratory of the University of Salento. The project developed into a tour aimed to discover the Salento region in an “up and down” mode, which took place from May 29 to June 3, 2015: a bus, 24 participants (both Instragramers and bloggers—among them 5 foreigners—Table 2) who experienced a rich programme/activities.³¹

Listed below are the numbers of **Salento Upndown 2015**:

- 12 government agencies;
- 24 partner local companies;
- 24 European Instagram top influencers;³²

²⁸<https://en.wikipedia.org/wiki/Hashtag>.

²⁹<http://mashable.com/2013/10/08/what-is-hashtag/#WFnQccPHnuq8>.

³⁰Cit. <http://instragramers.com/news/>.

³¹<http://www.xupndown.com/tour-2015/>.

³²Social Media Reporters able to tell, through mobile photography, memories and emotions through their shots.

Table 2 Instagramers and bloggers involved in Salento Upndown

Involved instagramers and bloggers	Country	Instagrami nickname
Ekaterina Mishchenkova	Russia	@Katia_mi
Alexei Mavlonazarov	Russia	@atmolex
Tiziana Vergari	Switzerland	@tizzia
Ilaria Barbotti	Italy	@ilarysgrill
Allan Edward Hinton	England	@chaiwalla
Emilio Chulia Soler	Spain	@ejota_seventyeight
Orazio Spoto	Italy	@oraziospoto
Maria Claudia Venturini	Italy	@piccolauma
Beatrice Manzoni	Italy	@vadoanord
Andrea Antoni	Italy	@stailuan
Emma Barreca	Italy	@hypoisson
Alessandro Bordoni	Italy	@ilcavallopaizzo
Marco Usai	Italy	@gusions
Manuela Vitulli	Italy	@manuelavitulli
Mariachiara Montera	Italy	@maricler
Marco Bottalico	Italy	@markettoz
Annarita Dipace	Italy	@_annina_
Sara Meledandri	Italy	@_54R4_
Benedetta Loconte	Italy	@sgrillina
Eligia Napoletano	Italy	@eligianap
Alessandro Piemontese	Italy	@comunicale79
Milena Calogiuri	Italy	@milcsecond
Gabriele Dell'Anna	Italy	@gaker79

- 1.5 million direct followers for a shared real time storytelling;
- 3 million indirect followers, through the participation of the social influencer community;
- 6 days to travel the Salento Region and 7 tour stopovers (see Fig. 1).

All the information are available in a (multilanguage follow-up) pilot-portal, www.salentoupndown.com: a real time aggregator of data arising from web surfers (including influencers involved) using the hashtag #salentoupndown. (Figure 2).

The project has been also a research test within the **Project Puglia@Service PON** (labeled with the hashtag #ApuliaSmarTourism).³³(Figs. 3, 4, 5, 6, 7 and 8)

After the tour, a **docu-reality show**, starring international Instagramers, has been developed and produced, which main goal consists of performing a new format of

³³Coordinated by Giuseppina Passiante (Professor at University of Salento) and funded by the Ministry of Education, with the participation of two research fellows from the team.

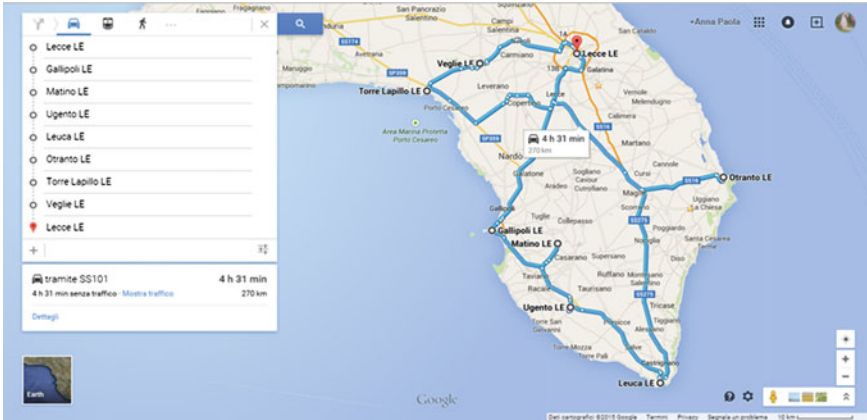


Fig. 1 #salentoupdown tour stopovers

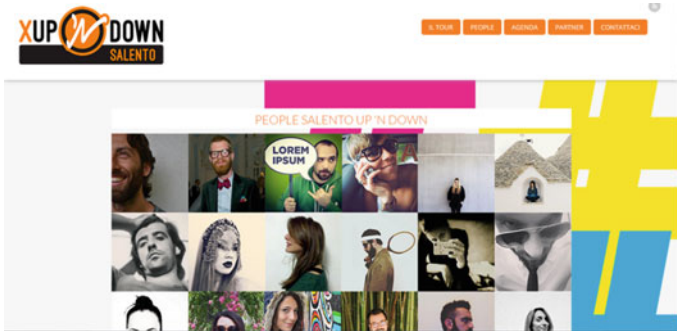


Fig. 2 The pilot portal HP: www.salentoupdown.it

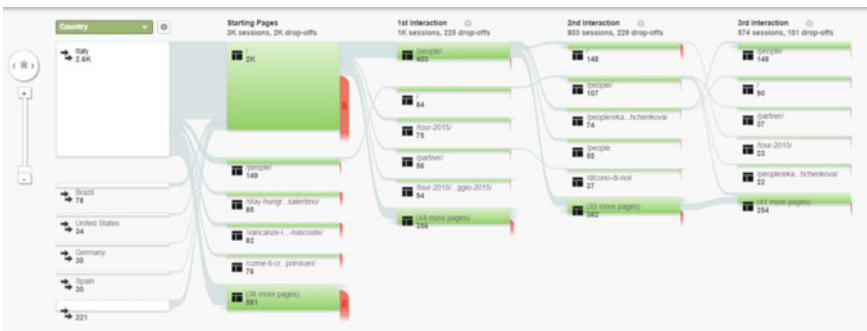


Fig. 3 User flow graphical represents the paths users took through the analyzed site. The users flow report examines traffic patterns and troubleshoot the efficacy of the site

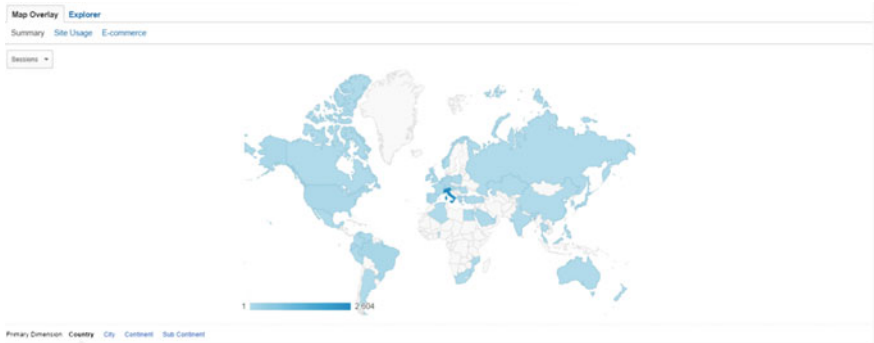


Fig. 4 The locations report in the audience section. Google Analytics determines locations from a visitor’s IP addresses and where internet service providers assign those ranges. Location data can be useful for targeting the future marketing and advertising

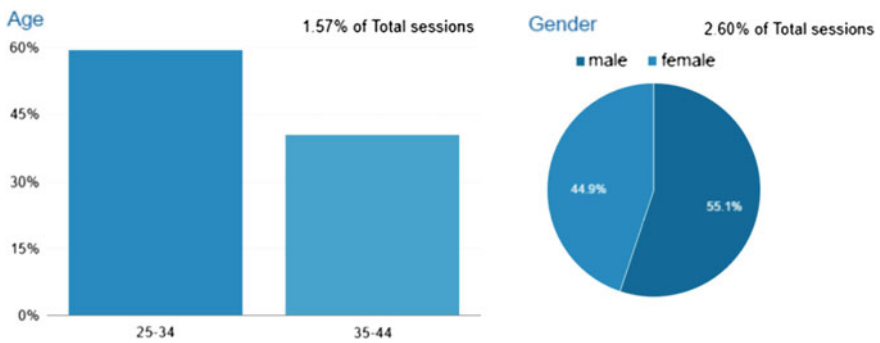


Fig. 5 Age and Gender identifies users by six categories: 18–24, 25–34, 35–44, 45–54, 55–64, and 65+ and Gender identifies users as either male or female

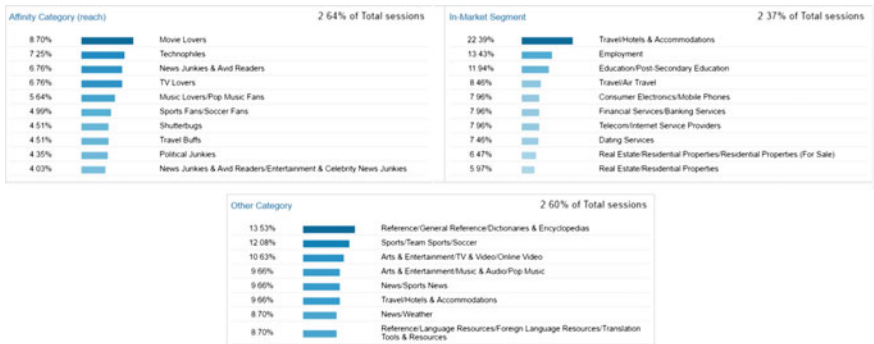


Fig. 6 Affinity categories identifies users in terms of lifestyle; for example, technophiles, sports fans, and cooking enthusiasts. These categories are defined to be similar to TV audiences. In-Market segments identifies users in terms of their product-purchase interests. Other categories provides the most specific, focused view of your users. For example, while affinity categories includes the category news, travel/hotels and accommodations

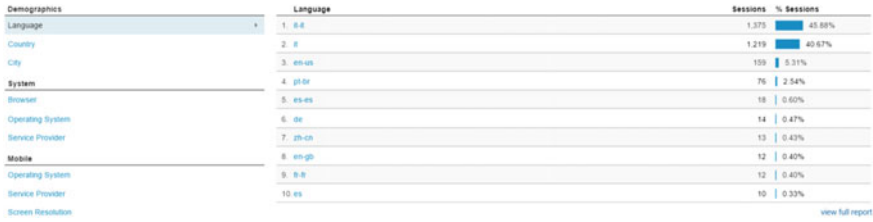


Fig. 7 Demographics overview

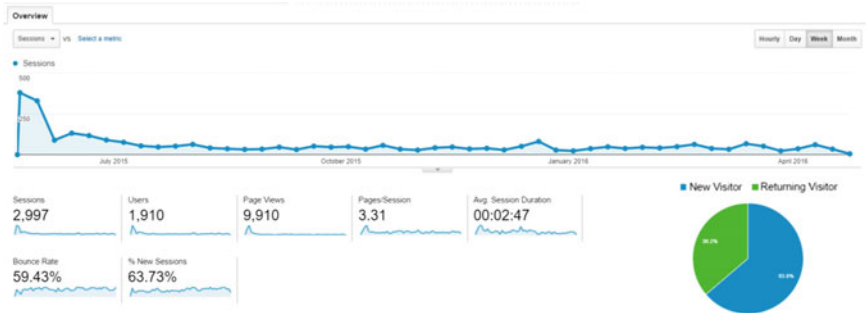


Fig. 8 Overview of audience report



Fig. 9 Reach and impression

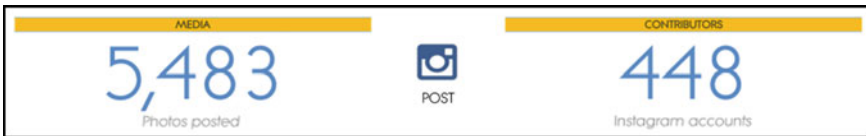


Fig. 10 Total number of post and contributors

territorial narrative, through the eyes and feelings of the Instagramers involved³⁴(Figs. 9, 10, 11, 12).

³⁴The short video (about 4 min) is available on the dedicated YouTube channel <https://www.youtube.com/watch?v=dt4TxWZxnY4>. The long video version (about 20 min) has been selected

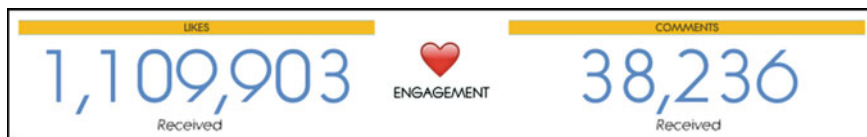


Fig. 11 Total engagement—likes and comments

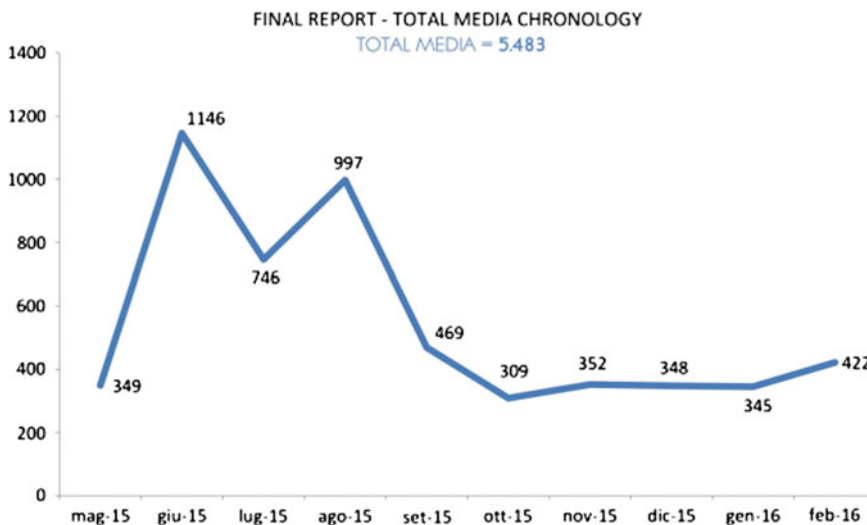


Fig. 12 Chronology report

4 Methodology

From the methodological point of view, the present study could be considered part of the qualitative research scenario. Qualitative methods have to be meant as an intensive and thorough study of the processes of participation and subjective change. Action research is small-scale intervention in the functioning of the real world and a close examination of the effects of such intervention” (Cohen and Manion, 1984, p. 41). All participants were aware, active members of the research process. In fact, the researchers, by investigating on the following question:

(Footnote 34 continued)

as a special event of the XVII edition of the European Film Festival—April 19, 2016. A debate on “Telling a destination between cinema and social networks” will follow.

Can a hashtag campaign be a critical tool aimed to design a territorial transmedia story-telling within a tourist-oriented digital strategy? Which are the legal informatics issues?

have applied and evaluated the Participatory Action Research Methodology (PARM³⁵) (Lewin 1946³⁶; O'Brien, 2001; McNiff 2002) in the context of researching processes enabling a **tourist-oriented design experience related to a hashtag campaign**.

So, the approach of the paper is based on qualitative methods and on a series of data collection and analysis.

4.1 Data Collection

Data collection timelapse: May 29, 2015 (i.e. the launch of SalentoUpNDown). April 26, 2016.

Data were processed and analyzed by using online measuring tools, as follows:

- #salentoupndown on **Facebook** and **Twitter** VIA a **Hand-Ranked Sentiment Analysis**;
- # salentoupndown on **Instagram** VIA **MetriZ**³⁷;

³⁵Participatory Action Research (PAR) itself has emerged in recent years as a significant methodology for intervention, development and change within communities and groups. It is now promoted and implemented by many international development agencies and university programs, as well as countless local community organisations around the world. Essentially, Participatory Action Research involves all relevant parties in actively examining together current action (which they experience as problematic) in order to change and improve it. They do this by critically reflecting on the historical, political, cultural, economic, geographic and other contexts which make sense of it. Instead it tries to be a genuinely democratic or non-coercive process whereby those to be helped determine the purposes and outcomes of their own inquiry (Wadsworth 1998). The essential difference between traditional linear research methodologies and participatory action research is its cyclical nature: 'starting' with reflection on action, and proceeding round to new action, which is then further researched. Cit. <http://sustain.pata.org/wp-content/uploads/2015/02/100025-Learning-Markets-WEB.pdf>, p.8.

³⁶Kurt Lewin first coined the term 'action research' in 1946 defining it as 'a comparative research on the conditions and effects of various forms of social action and research leading to social action' that uses 'a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action' (Lewin 1946).

³⁷The Viralic group developed metriZ[®], on-demand service that allows users to obtain, at the end of an online/offline initiative, based on one or more hashtags, the following metrics:

- Reach: potential scope of users reached by post with the hashtag analyzed.
- Engagement: total amount of likes and comments generated by Instagram users involved in the analyzed hashtag.
- Impression: potential number of views reached by post bearing the analyzed hashtag.
- Contributors: number of users involved by the initiative.
- Average: Total posts made with the analyzed hashtag.
- TOP Contributors: Users' rankings (with the highest number of published posts, the most like and the largest number of comments left on posts containing the analyzed hashtag).

Table 3 Instagram analysis

INSTAGRAM analysis was focused on #salentoupndown
Post: 5483 (constantly growing) 2900 coming not from the tour
Like: about 1.109.903 (constantly growing)
Interaction: 15.051 (constantly growing)
Comments: 38.236 (constantly growing)
Impressions: 46.385.860 (constantly growing)

Table 4 Facebook analysis

TWITTER analysis was focused on #salentoupndown
Tweet: 240 (constantly growing)
Retweet: 1115 (constantly growing)
Preferred: 1650 (constantly growing)

- the online pages of the **pilot portal** www.salentoupndown.it VIA **Google analytics**.³⁸

4.2 Results

As for Facebook, only by searching with the# salentoupndown³⁹, the event has got about 7000 and about 750 like interactions (constantly growing data) (Tables 3 and 4).

The photo with the highest number of like, more than 7.000, named “Shrimp likes” shot in Gallipoli, was posted June 1, 2015, by the Russian top influencer Ekaterina (Fig. 13).

Google Analytics’ approach is to show high-level, dashboard-type data for the casual user, and, more in-depth, further data than those provided by the mere set. Google Analytics analysis can identify poorly performing pages with techniques such as funnel visualization, where visitors came from (referrers), how long they stayed and their geographical position. It also provides more advanced features, including custom visitor segmentation (Figs. 14 and 15).

An analysis conducted on the pilot portal www.salentoupndown.com, during the timelapse May 29, 2015–April 26, 2016) follows:

³⁸**Google Analytics** is a freemium web analytics service offered by Google that tracks and reports website traffic (“*Get the Power of Google Analytics: Now available in Standard or Premium, whatever your needs are Google Analytics can help*”. Retrieved 2012-04-08). Integrated with AdWords, users can now review online campaigns by tracking landing page quality and conversions (goals). Goals might include sales, lead generation, viewing a specific page, or downloading a particular file. (*How do Goals work in Analytics and Adwords?*, *Cerebro Marketing*, retrieved February 17, 2016).

³⁹Except for the remaining no. 54# used during the tour, nor even by searching for individual profiles hosted Instagramers who sometimes did not use the official #.

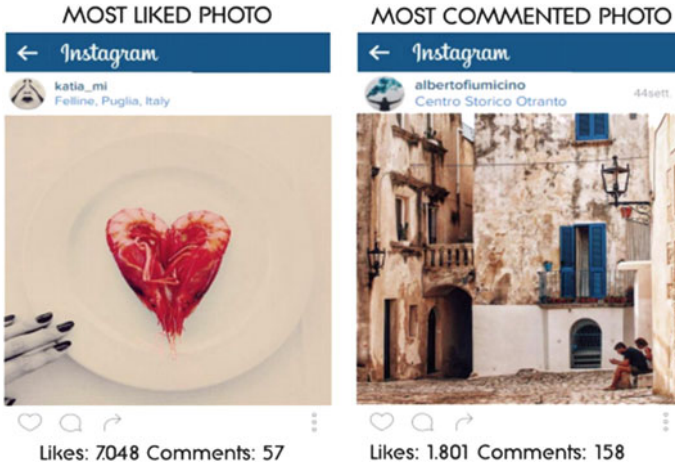


Fig. 13 Most liked and commented photos

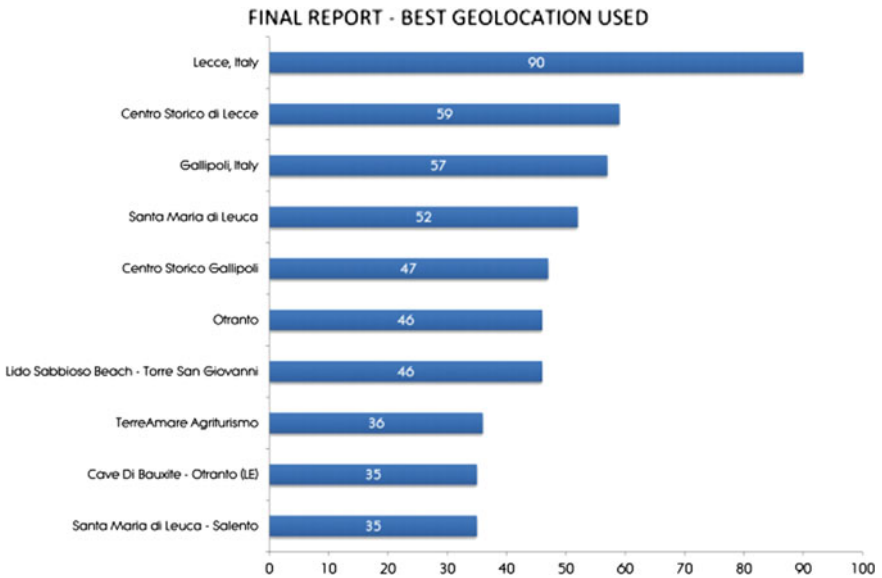


Fig. 14 Best geolocation used

Data collected by Google Analytics confirm that the Salento region and its products' appeal is remarkable in the world, above all in USA, Japan, France, Germany, Brazil, Spain, Russia, Greece, Albania, Switzerland.

FINAL REPORT - TOP 10 MEDIA CONTRIBUTORS

Rank	User	Media
1)	@lukcortezlsk	230
2)	@milcsecond	199
3)	@letizia_joy	191
4)	@igerslecce	185
5)	@gaker79	175
6)	@alkoipa	172
7)	@nelsalento	137
8)	@andrewsofficial	103
9)	@titti_stomeo	102
10)	@giorgiabornton	76

Fig. 15 Top 10 media contributors

Data monitored and processed by Metriz confirm the virality performed by the hashtag campaign on Instagram, in terms of engagement. A snapshot of the metrics monitoring follows:

5 Legal Informatics Issues

Since action research is carried out in real-world circumstances, and involves close and open communication among the people involved, the researchers paid close attention to ethical considerations in the conduct of their work (Winter 1996). Thus, for the first time, the research project SalentoUpnDown 2015 investigated on a series of legal informatics, due to **SalentoUpnDown** uniqueness in the international context.

The legal informatics study are the basis of some Instagram tour choices, on the assumption that the “smart legal informatics solutions” let the base/foundation of “a smart solution”, including solutions related to the “smart cities”.

In fact, in Europe there are some pending approval regulations that put the law before each digital solution: It is a clear example of the new Regulation Policy, which will be published in 2016,⁴⁰ and in which it is clearly stated the principle of

⁴⁰For more details: <http://www.consilium.europa.eu/en/policies/data-protection-reform/data-protection-regulation/>—Retrieved April 25, 2016.

“Privacy by design and by default”.⁴¹ Using the European logic, it is necessary to state that EVERY digital storytelling solution MUST always takes on a new principle: “Legal date by default and design.”

Here we report the sectors of legal informatics analysis developed before and during the Tour, focusing on Instagram and secondary social networks (Facebook and Twitter) used only to repost the productions of the main one. We analyzed the Normative documents of Instagram, effective on January 19, 2013, therefore, after the purchase of Instagram by Facebook.

- (1) Study of the “Terms of use” of the principal social network used in the tour—Instagram. and Copyright/Copyleft related to the post generated by the top influencers of the tour.

The first study was focused on the activities of the “Terms of use” of Instagram dedicated to ownership of content posted by the influencers invited to the Tour. The “Rights” section, item no.1, of the new Instagram “Terms of use”,⁴² declares:

Instagram does not claim ownership of any Content that you post on or through the Service. Instead, you hereby grant to Instagram a non-exclusive, fully paid and royalty-free, transferable, sub-licensable, worldwide license to use the Content that you post on or through the Service, subject to the service’s Privacy Policy, available here: <http://instagram.com/legal/privacy/>[...]. You can choose who can view your Content and activities, including your photos, as described in the Privacy Policy.

Therefore, during and after the tour, this legal standard has permitted the reuse of both photos and contents of the posts of the influencers involved: e.g. Tour promotion activities carried out through the various mass media or through online publication (i.e. websites, blogs), etc.

In these cases, the “Terms of use” should be read and interpreted together with the “Community Guidelines”⁴³ and “Privacy Policy”⁴⁴.

Then, the analysis should be supplemented by the Italian legislation on “Copyright”: Law no. 633, 1941; Article 2575 and subsequent of the Civil Code; Law no. 218, 1995, Article 54, which establishes how the rights on intangible assets are regulated by state law in which these assets were used, although the advent of the Internet complicates the identification of the place where the activity was carried out.

⁴¹The “privacy by design and privacy by default” is one of main new principles introduced by the EU Commission in the proposal of the new legal framework for the protection of personal data. These principles represent the conceptual evolution of privacy since they explicate the inclusion of privacy into the design of the business processes and IT applications support, in order to include all the necessary security requirements at the initial implementation stages of such developments (privacy by design), or rather put in place mechanisms to ensure that only personal information needed for each specific purpose are processed “by default” (privacy by default)(<http://europrivacy.info/2015/06/09/privacy-design-privacy-default/>—Retrieved April 25, 2016).

⁴²<https://www.instagram.com/about/legal/terms/>— Retrieved March 29, 2016.

⁴³https://www.facebook.com/help/instagram/477434105621119/?ref=hc_fnav.

⁴⁴<https://www.facebook.com/help/instagram/155833707900388/>.

On the basis of the three regulations Instagram, “Terms of use”. “Community Guidelines”. “Privacy Policy”, and the Italian legislation on “Copyright”, during the tour, the following citation format was used for the reuse of posts and their contents:

Ph. Credit: *[Name and Surname of the specific Influencer]*. @..... *[nickname of the specific Influencer] on Instagram.*

- (2) Information on privacy and releasing related to video shooting to be used in cross-media way for further enhancement of the tour. Instagram has its own “Privacy Policy” (see Footnote 44). Italy has, also, its own privacy legislation derived from EU law: Legislative Decree no. 196, 2003 of Italian Law. The joint study of each of those regulations has allowed to prepare an information privacy for participants (influencers) in the Tour, authorizing: personal data processing; video production and photos throughout the tour. The same releasing was used to inform influencers about post management policy during and after the tour, as well, and so, about the possibility of both organization and sponsors to reuse posts and their contents according to the format set out in the above point 1).
- (3) The use of Instagram’s API
The project website (www.salentoupndown.it) was equipped with a search engine able to collect the post published on Instagram with the #salentoupndown, in order to ensure a real-time storytelling of the Tour and the subsequent viral usage of the #.
To do this, we proceeded to the study and application of Instagram’s “Platform policies” on the subject of API.⁴⁵
- (4) Study of regulatory limits in the use of drones for shooting video and photos. In Italy there is a specific legislation for the purpose of a proper use of drones, in technical terms (Article 743 of the Code of Navigation; ENAC Regulation “aircraft remote control” of December 16, 2013, amended on July 16, 2015) and in terms of privacy and management of data collected as video and photos (Legislative Decree no. 193 of 2003). The use of drones for shooting video during the Tour was then governed by these regulations.

6 Conclusions

Increasingly the use of Internet as the main source of information for planning a trip (Cai et al. 2004). **online consumer-generated information**. convert the role in **traveler decision-making** (Gretzel and Yoo 2008). TGC has a significant impact on this tourism sector whereby travelers have direct access to the information they

⁴⁵<https://www.instagram.com/about/legal/terms/api/>.

need to make their travel decision and, above all, they are empowered to create their own content (Sigala 2011).

Web 2.0 and especially social media tools enables **social collaboration among travelers** whose information (i.e. traveler-generated content) become more trustworthy and useful rather than professional travel advice. So, travelers are becoming increasingly more interested in seeking out each other opinions of the fellow travelers (Fotis et al. 2012; Leung et al. 2011).

This paper has aimed to investigate the use of TGC **to create a transmedia storytelling around a hashtag campaign:#salentoupndown, the 6 days travel experience.**

The event has already reached an unexpected result: the #salentoupndown has become viral (Instagram, Twitter and Facebook), as demonstrated by the monitored and collected data.

At the end of our research, we expect to show an evidence coming from the analysis: **the hashtag represents not only the tour event but also the territory as representative of an entire area.**

The tourist and stakeholder in general have used the hashtag and have joined the campaign demonstrating a strong interest for the transmedia storytelling products, which would increase the engagement and visibility of tourism sector of Salento increasing value.

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Museums + Instagram

Katerina Lazaridou, Vasiliki Vrana and Dimitrios Paschaloudis

Abstract Instagram, the social photo sharing service includes dedicated mobile applications that allow users to take and manipulate photographs and small videos and to share them online while other users can react through comments and ‘likes’. Since its’ launched, Instagram has seen enormous growth; and now Instagram community counts more than 400 million monthly active users. Museums and galleries have begun to exploit the opportunity to offer visitors quality pictures from the museum’s collection, short information along with small snapshots from the museum’s workaday life and to shape the museum’s image in the internet. Despite the fact that it is the most popular photo capturing and sharing application, up to date there have been very few published, academic studies about Instagram. The paper fills this gap and investigates use of Instagram by the most visited museums worldwide. It records museum performance characteristics like number of followers, following and number of posts. The paper concludes on how Instagram can be used by museums to their advantage, to boost their visibility on the internet, attract more attention and potential visitors.

Keywords Instagram · Photo sharing · Museums · Performance

JEL Classification O33 · L11

1 Introduction

Today’s turbulent economic environment and reduction of museums budgets has put increasing pressure on them and to attract more visitors and widen their appeal (Chan 2009; Goulding 2000). Museums’ relationship maintenance with visitors,

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donors, and volunteers heavily influences its survival (Adamovic 2013). Thus, museums explore new ways to increase self-generated revenues along with attendance levels (Silberberg 1994). Over the last decade social media become more and more popular and offer a prominent and visible place for museum to engage with audience (Fletcher and Lee 2012). Nowadays, museums, galleries and other cultural centers are using social media such as social networking, social bookmarking, podcasting, blogging and photo sharing and mobile applications to provide timely information such as exhibits, workshops and demonstrations to their visitors in an effort to motivate their publics during and even in-between exhibitions (Russo and Peacock 2009; Weilenmann et al. 2013). Museums are increasingly investing time, employees, and money to create and maintain a high profile social media presence (Adamovic 2013). Moreover, in recent years there has been a trend in museums to provide various forms of mobile applications for visitors to use during their visit (Weilenmann et al. 2013).

Instagram is mobile photo-sharing application that offers users a way to upload photos, to use filters to transform the pictures and share them instantly. Instagram and other photo and video sharing applications has been by museums to provide timely information about museum features such as exhibits, demonstrations and workshops (Weilenmann et al. 2013). To date, despite the widespread use of smartphones and Instagram little research efforts has been devoted to investigate how museums are using Instagram and exploiting its features and possibilities. The paper tries to fill this gap and investigates Instagram use by top visited museums. It describes activity and performance of these accounts and records differentiation among museums regarding Instagram performance.

2 Instagram

Instagram was launched in October 2010. Its name was derived from the combination of words ‘instant camera’ and ‘telegram’. The application is based on a social network called Burbn intended to allow users to exploit GPS enabled smartphones to check-in or share their location with friends (Weilenmann et al. 2013)

Instagram is an online mobile photo-sharing, video-sharing, and social networking service that provide to its users an instantaneous way to capture and share their life moments with friends through the series of (filter manipulated) pictures and videos (Hu et al. 2014).

According to a ranking which focuses on websites’ daily visitors and page views, Instagram holds the 24th place (Alexa 2016) with 400 Million monthly active users (Smith 2016) who share 80 million photos per day. Moreover, on March 2016 Instagram holds the 7th place of the most popular Social Networking Websites (eBiz 2016).

2.1 *Instagram Functions*

Instagram users after creating an account can follow other users. The user who follows another user is called “follower”. Instagram’s social network is asymmetric, like Twitter in the vein that if a user A follows B, B need not follow A back (Hu et al. 2014).

Functionality of Instagram relies on five main buttons and pages. The home page where the user can see a “stream” of the latest photos and videos from all ‘following’ users, listed in reverse chronological order (Hu et al. 2014). However, the user can like or comment on them and the most liked photos/videos can be seen in another page named explore page. This page can also be used as a search engine to find other users and photos/videos according to a specific hashtag or location. Camera page enables the creation of a post. Instagram-user can share a picture taken with the help of a mobile/tablet camera (Instagram 2016) and can also enhance it manually or with the help of 40 pre-modified filters. All these filters are available in the application but the user can select 23 filters that utilize often and put them on the modification process. When the adjustments are complete, the user can add a caption, hashtags using the # symbol to describe the pictures and videos, and tag or mention other users by using the @ symbol before posting them (Hu et al. 2014). The latter effectively creates a link from the post to the referenced user’s account whilst hashtags facilitate the categorization of the published photos/videos. The use of a specific hashtag can put a picture in the same category with others which have the same hashtag too. Another important option that Instagram users can do in this step is to geotag their posts in order to share the location in which the photo/video was taken. In this case there is also another categorization of posts which is based on a specific location. All the above mentioned activities are gathered in the fourth button which is called Activities page. This page presents every update concerning the user and the accounts that follows in order to keep track of likes and comments about their posts, tags and followers (Instagram 2016). At last the Profile page which includes every user’s post and his account’s settings. It also presents the followers of the user and the accounts that the user follows. From this page, people can edit their Instagram profile and change the settings of the application according to their preferences (Instagram 2016).

3 Social Media Use

Social media have enhanced the capability of museums. They provide museums with the added ability to reach millions of people, to have a “many-to-many” relationship and to perform marketing, engagement-focused and educational practices (Coldicutt and Streten 2005; Kidd 2011; Langa 2014 Wetterlund 2012). Museums and other cultural organizations use social media for many purposes as: to increase public engagement and build communities of interest around the

museum; increase the museums' reach to communities and individuals, connect with visitors in a more meaningful way, get more audience and communicate exhibitions and activities (Angus 2012; Kidd 2011; Fletcher and Lee 2012; Osterman et al. 2012; Spiliopoulou et al. 2014; Tuğbay 2012). Moreover, messages can be sent and received instantly without filters imposed by the media or time lapses cause by direct mail (Wright and Hinson 2008). However effective use of social media requires time to be implemented and the organizations need to continually work on them and update the content regularly (Evans 2008).

Museum audiences can use social media, both on and offsite, to interact with the museum, museum staff and each other learn in new and different ways (Adamovic 2013), express their experiences, and upload their own photos and videos taken during their visit. The ease of use, speed and flexibility they offer has resulted in active participation of the audience and creation of user generated content (Agichtein et al. 2012; Fletcher and Lee 2012). Thus visitors are transformed from passive observers into active participators and museum's ambassadors (Holdgaard and Klastrup 2014; Villaespesa 2013). Up to now museums use social media as an one-way communication channel focusing only on increasing the number of fans and promotional messaging, event listing and reminders and there is some evidence to suggest museums are trying to increase their use of social media as multi-way communication channels (Fletcher and Lee 2012).

Research on Instagram is in its infancy. Bakhshi et al. (2014) investigated social engagement, with likes and comments on Instagram. Their results show that photos with faces are 38% more likely to receive likes and 32% more likely to receive comments, while that the number of faces, their age and gender do not have an effect. Hochman and Schwartz (2012) used Cultural Analytics visualization techniques and analyzed 550000 images on Instagram, taken by users from New York City and Tokyo. Comparative visualization research indicates differences in local color usage and cultural production rate. Hu et al. (2014) use computer vision techniques to examine the photo content on Instagram. They identified eight popular photos categories, five distinct types of Instagram users in terms of their posted photos, and claimed that user's audience (number of followers) is independent of his/her shared photos on Instagram. Bradley (2016) tried to find out why people post on Instagram. He claimed that individuals are drawn to cell phones because they are easy to use and the majority of respondents use Instagram for entertainment purposes and do not rely on Instagram for their news information. Carah (2016) examined the Instagram activities of the global vodka brand Smirnoff and the fashion retailer General Pants and claimed that Instagram expands the terrain upon which brands operate by dispersing the work of creating and engaging with images into consumers' everyday lives. Finally, Weilenmann et al. (2013) investigated how Instagram, is used to communicate visitors' experiences while visiting a museum of natural history, based on an analysis of 222 instagrams created in the museum, and 14 interviews with the visitors who created them. They concluded that instagrammers work to const their own narratives from their visits and when they communicate their experiences using instagram they extend the reach of the museum beyond its walls.

4 Methodology

The ranked list of the top most visited museums was searched. Fifty top according to the annually number of visitors were recorded. The museums are: LOUVRE, Paris, France, BRITISH MUSEUM, London, U.K., NATIONAL GALLERY, London, U.K., THE METROPOLITAN MUSEUM OF ART, New York, NY, VATICAN MUSEUMS, Vatican, Vatican, TATE MODERN, London, U.K. NATIONAL PALACE MUSEUM (TAIWAN), Taipei, Taiwan, NATIONAL GALLERY OF ART, Washington, D.C., NATIONAL MUSEUM OF KOREA, Seoul, South Korea, Musée d'Orsay PARIS, CENTRE POMPIDOU, Paris, France, NATIONAL FOLK MUSEUM OF KOREA, Seoul, South Korea, State Hermitage Museum ST PETERSBUR, Victoria and Albert Museum LONDON, Museum of Modern Art NEW YORK, Reina Sofia MADRID, Museo Nacional del Prado MADRID, Somerset House LONDON, Rijksmuseum AMSTERDAM, Centro Cultural Banco do Brasil RIO DE JANEIRO, National Art Center Tokyo TOKYO, National Portrait Gallery LONDON, National Gallery of Victoria MELBOURNE, Shanghai Museum SHANGHAI, MuCEM MARSEILLES, Galleria degli Uffizi FLORENCE, Tokyo National Museum TOKYO, National Galleries of Scotland EDINBURGH, Moscow Kremlin Museums MOSCOW, Instituto Tomie Ohtake SÃO PAULO, Grand Palais PARIS, Getty LOS ANGELES, National Museum of Scotland EDINBURGH, Van Gogh Museum AMSTERDAM, FAMSF SAN FRANCISCO, Museo Soumaya MEXICO CITY, Musée du Quai Branly PARIS, Centro Cultural Banco do Brasil BRASÍLIA, Saatchi Gallery LONDON, Art Institute of Chicago CHICAGO, Acropolis Museum ATHENS, State Tretyakov Gallery MOSCOW, Tate Britain LONDON (tate), Australian Centre for Moving Image MELBOURNE, Palazzo Ducale VENICE, Galleria dell'Accademia FLORENCE, Teatre-Museu Dalí FIGUERES, Queensland Art Gallery/GoMA BRISBANE, Gyeongju National Museum GYEONGJU LACMA LOS ANGELES

The recording was done from 11/12/2015 to 11/1/2016. For each museum its Instagram account (if one exists) was recorded along with Instagram activity indexes: number of followers, number of accounts following, and number of total posts. In Twitter research number of followers of an account, number of other accounts an account follows (following), and number of tweets, are indicators of Twitter performance (Anger and Kittl 2011; Bakshy et al. 2011; Bayram and Arici 2013; Crump 2011; Rossi and Magnani 2012; Sevin 2013), thus similar indexes in Instagram were recorded.

5 Findings

Fourteen out of the fifty museums (28%) do not have an Instagram account. Especially, five out of the top-20 museums do not have an Instagram account. These museums are the: Vatican Museums, National Palace Museum (Taiwan),

National Folk Museum of Korea, Reina Sofia, Madrid and Museo Nacional del Prado, Madrid.

Table 1 presents the museums that have an Instagram account, the number of annual visitors and the numbers of followers, posts and following on 11/1/2016.

Table 2 presents the descriptive statistics of the recorded indexes. Regarding the distributions of the Instagram performance indexes, skewness ranges from 1.39 (posts in the tome frame) to 2,26 (numbers of followers). The medium positive values of skewness imply that there is a tendency for some museums to have high values of the indexes while most museums have low values.

Table 1 Museums, visitors, and Instagram performance indexes

Museum	Visitors (annually)	Followers	Posts	Following
LOUVRE	9.260.000	369.000	520	90
BRITISH MUSEUM	6.695.213	284.000	898	287
NATIONAL GALLERY	6.416.724	44.600	271	100
THE METROPOLITAN MUSEUM OF ART	6.162.147	1.000.000	1393	68
TATE MODERN	5.785.427	486.000	714	
NATIONAL GALLERY OF ART	3.892.459	75.900	806	672
NATIONAL MUSEUM OF KOREA	3.536.677	3.776	698	180
Musée d'Orsay	3.500.000	3.327	0	3
CENTRE POMPIDOU,	3.450.000	22.000	187	39
State Hermitage Museum	3.247.956	71.400	1561	201
Victoria and Albert Museum	3.180.450	176.000	817	89
Museum of Modern Art New York	3.018.266	1.200.000	1489	289
Somerset House	2.463.201	29.100	681	273
Rijksmuseum	2.450.000	35.200	290	156
Centro Cultural Banco do Brasil	2.399.832	24.700	772	88
National Portrait Gallery	2.062.502	56.100	711	186
National Gallery of Victoria	2.035.033	58.300	1757	1269
MuCEM	1.996.154	5.656	798	152
National Galleries of Scotland	1.914.776	2.245	199	110
Moscow Kremlin Museums	1.903.543	9.012	1882	226
Instituto Tomie Ohtake	1.864.022	24.600	803	290
Grand Palais	1.855.346	31.500	916	128
Getty	1.788.646	60.300	772	328
National Museum of Scotland	1.639.574	3.578	186	619
Van Gogh Museum	1.608.849	50.400	314	158
Museo Soumaya	1.528.851	8.214	181	138
Musée du Quai Branly	1.495.817	1.364	2	56

(continued)

Table 1 (continued)

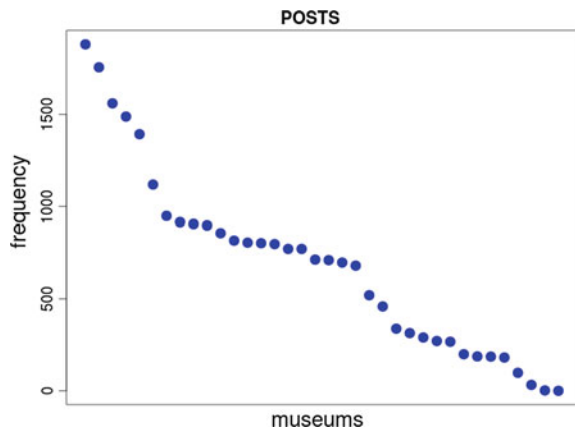
Museum	Visitors (annually)	Followers	Posts	Following
Centro Cultural Banco do Brasil	1.476.744	15.700	857	94
Saatchi Gallery	1.430.672	888.000	1119	200
Art Institute of Chicago	1.424.105	50.400	459	90
Acropolis Museum	1.377.405	615	32	11
State Tretyakov Gallery	1.376.639	14.900	338	920
Australian Centre for Moving Image	1.353.718	3.605	267	60
Teatre-Museu	1.297.311	802	98	66
Queensland Art Gallery/GoMA	1.290.497	21.300	906	635
LACMA	1.241.937	337.000	949	453

Table 2 Descriptive statistics for the Instagram performance indexes

	Median	Mean	Std. deviation	Skewness	Min	Max
Following (11/1/2016)	156	249,26	273,74	2,22	3	1269
Followers (11/1/2016)	30300	151905,4	209203,2	2,26	615	1200000
Total number of posts	713	684,53	493,97	0,68	0	1882

Number of posts indicates the activity of an Instagram account. Total number of posts ranges from zero to 1882. Up to 11/1/2016, Musée d’Orsay has posted 0 photos or videos, Musée du Quai Branly only 2 and Acropolis Museum 32. While the most active museums are Moscow Kremlin Museums that has create 1882 posts, State Hermitage Museum 1561 posts and Museum of Modern Art New York 1489 posts. The mean number of posts is 684,53. Figure 1 presents a scatterplot of the total number of posts of the top visited museums.

Fig. 1 Total number of posts



Number of followers and following, provide an indication of the network expansion of an Instagram account. Number of followers describes how many Instagramers have subscribed to see the photos/videos posted by the account. However, not all the followers really “follow” the account by means that they need not see and read labels of every post. Number of followers range from 614 to 1200000. Museum of modern art New York has the maximum number of followers. The Metropolitan museum of art, New York and Saatchi Gallery follow with 1000000 and 888000 followers respectively. Acropolis Museum in Athens has the minimum number of followers. Teatre-Museum has also less than 1000 followers. The mean is 151905,4 and the Std. Deviation is 209203,2. As the standard deviation is much larger than the mean, there is a great dispersion of this particular index among the museum accounts. Most of the museums have only few a followers, while only a few of the museums have a bigger number of followers. Figure 2 presents a scaterplot of number of followers. The skewness of the distribution is obvious.

Number of following describes how many accounts the museums have subscribed to follow. Number of followers range from three to 1269. The mean is 249,26 and the Std. Deviation is 273,74. Skewness is also recorded at the number of following. Figure 3 presents a scaterplot of number of following. National Gallery of Victoria has the maximum number of followers. All the other museums follow less than 1000 Instagram accounts. From Table 1 it is evident that museums accounts follow only few other accounts. This relatively small number of following indicates that the museums do not engage with the museum visitors. Museum visitors use Instagram to construct their own narratives from their visits and to communicate their visit to their followers (Weilenmann et al. 2013)

Table 3 describes the correlation between Instagram performance indexes. Number of followers is significantly correlated with the number of posts. It seems that the more followers a museums have the more active it is. Museums with many followers try to meet the needs of their followers who are interested in them and offer to them more information, photos and videos.

Fig. 2 Number of followers

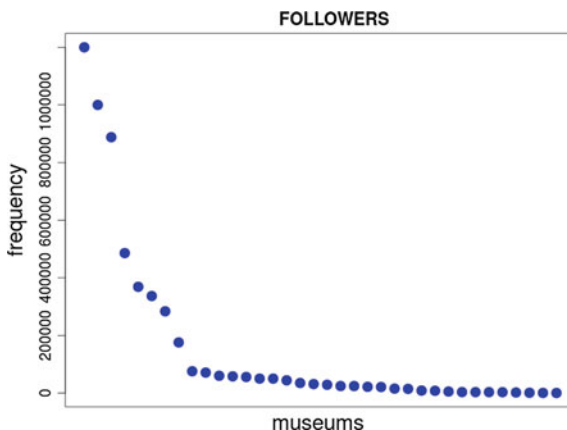


Fig. 3 Number of following

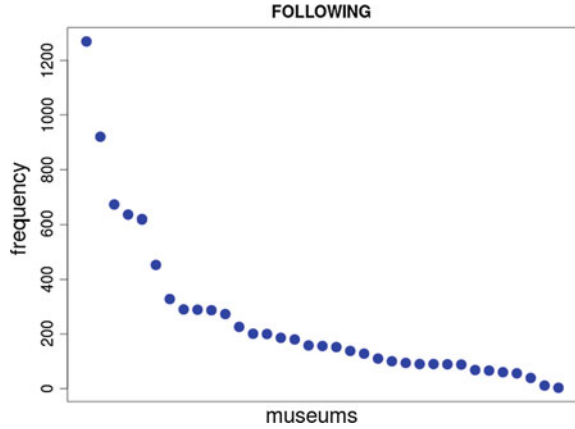


Table 3 Correlation coefficients among the Instagram performance indexes

	Followers	Following
Followers		
Following	-0,4	
Total number of posts	0,45*	0,36

* $p < 0.05$

Next linear regression was employed to model the relationship between the scalar dependent variable *visitors* and the explanatory variable *followers*.

The generated equation is:

$$Visitors = 2414564 + 2,29 * followers$$

The equation describes the expected change in *Visitors* for a one-unit change in *followers*. There is some significant association between the two variables *Visitors* and *followers*. However the equation implies that a museum cannot get more *Visitors* from Instagram but number of followers of an Instagram account plays a complementary role.

6 Conclusions

This paper aims at investigating Instagram use by the most visited museums worldwide. It studied 36 out of the fifty most visited museums, those that have an Instagram account. It took into consideration three main performance indexes, the numbers of followers and numbers of following that provide an indication of the network expansion of the Instagram account and the number of posts that indicates the activity of an Instagram account. Data for the 36 accounts were provided. Positive values of Skewness were recorded for these indexes and imply that there

is a tendency for some museums to have high values of the indexes while most museums have low values. This finding is in accordance with findings on other social networks where skewness has been recorded in some indexes (Antoniadis et al. 2014; Drezner and Farrell 2004, 2008, Theocharidis et al. 2015).

Next, correlations between performance indexes were investigated. Only number of followers is significantly correlated with the number of posts. The finding suggests that museums try to meet followers need by updating frequently their profile and offering photos, videos and information to their followers. The more followers a museums have the more active it is and vice versa. Moreover a direct relationship between number of followers and number of visitors was detected. Higher values of visitors are associated with higher values of followers. Most visited museums can be a destination in and of itself. However, they can benefit and take advantage of Instagram use. Besides their well-established reputation presence on the Instagram might be used as a marketing tool to attract more visitors.

Nowadays people spend more time to accessing social media through their mobile phones rather than their desktops. In this vein, community engagement of a museum through Instagram is easier than ever. However, it is not enough for a museum to engage with people through social media. The most important is to turn lurkers into visitors. A tendency is recorded that Instagram has a positive contribution. Up to now museums do not fully exploit all possibilities offered by Instagram. Their main strategy is to follow only a few accounts. This strategy results in pure utilization of user generated content. Museums may use hashtag search in order to find user generated content about the museum and to communicate it to its followers.

The paper gives an evident that Instagram may successfully serve as another channel of information provision. Further research should take into consideration more performance indexes and activity of Instagram accounts and to associate Instagram performance with other indexes like age of Instagram account and general popularity and impact of the museum.

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Evaluation of Athens as a City Break Destination: Tourist Perspective Explored via Data Mining Techniques

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Abstract The present study based on city tourism and specifically in the profile of tourists who visit Athens, the capital of Greece. Athens has been always considered among the most attractive tourist destinations given the fact that is known for its abundant historical and cultural inheritance and significant philosophers, historians and scientists. In recent years has been developed a different, mostly negative image. Therefore, the current study will examine those negative aspects of Athens that led to its degradation as a tourist destination and it will present the point of view not only that of experienced tourism professionals, but also that of tourists; The research aims to investigate the attractiveness and the competitiveness of Athens as a City Break destination. A survey through questionnaires has been conducted among actual international visitors of Athens, in order to explore tourists' preferences and their perception regarding Athens image, as a City Break destination. The methodology, that was adopted, consists of two concrete phases. During the first phase, questionnaires were created and submitted. During the second phase, the data set were collected, preprocessed and analyzed based on Data Mining techniques evaluating the results. More specifically, classification algorithms were utilized so as to manage to describe hidden patterns. Also, the parameters of the algorithms were set, depending on the application cases, and the results were correlated with the demographic characteristics of the respondents, in order to evaluate and assess the significance of exported rules/conclusions. The study's major contribution is that to identify Athens' perceived image as a City Break Destination, and pinpoints to critical factors for achieving higher level of satisfaction in future tourists.

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1 Introduction

1.1 *The Focus on Customer's Own Experiences*

City Break tourism has become the key player of the European tourism industry growing by 3.5% in total bednights (ECM Report 2014) and it is classified within the wider segment of urban tourism. Urban tourism is recognized as an important form of tourism to support local and national economic growth, as cities can absorb many different types of tourists (Carlisle et al. 2016; Ashworth and Page 2011; Smith et al. 2010). Gunter and Onder (è) indicate that City tourism has outperformed EU-27 national tourism in terms of bednight growth rates in the last 5 years (ECM and MU 2013).

1.2 *Tourism and Greece*

Tourism contribution (2014) was 17.3% to Gross National Product and 13 billion Euros to the Greek economy with more than 22 million visitors (cruises are excluded). The market share is 1.8% worldwide and 3.8% in Europe. It is characterized by high seasonality as 56% of international arrivals are recorded from July to September. Its main markets are Germany, UK, France, Russia and Italy and the top 5 airports are Athens, Heraklion, Rodes, Thessaloniki and Corfu. The average per capita expenditure is 590 euros which significantly less than the previous 5 years (SETE). Mass tourism especially the Sun and Sea oriented tourism model can be considered as obsolete for sustainable development. Sociopolitical changes, the rise of cheaper competitors, the seasonality create the need for developing new differentiated tourism products. According to IPK International' European Travel Monitor in 2005, there was an increase by 20% in City Break destinations, while there was just a 3% increase in the Sun and Sea Holidays (Freitag 2006).

According to SETE (2015), international arrivals in Greece account for 17.1 million with a 7% increase compared to 2014. Athens airport increased its arrivals by 18% while domestic airport had a marginal increase of 2%. Greece top 5 markets were: United Kingdom, Germany, Italy, France and Holland increasing their market share while Russia in 6th position dropped its share by 44%. Athens main markets are Italy, Germany and the United Kingdom.

City Break refers to a travel niche that has significantly grown the last 15 years. There is no commonly recognized definition. Trew and Cockerell (2002) suggest that the most widely used definition is "a short leisure trip to one city or town,

with no overnight stay at any other destination during trip Tourists may visit the city as only destination or as part of larger trip". City Brake consists of leisure trips, with main scope to relax, meet the culture, and visit sights. Most City breaks are short stay, usually weekends. Trew and Cockerell (2002) pinpoint that city breaks trend is the duration of stay to become longer. In some cases, City Breaks are often addition to a tourist's main holiday. Page (2002) indicates factors that have contributed to the increase of secondary trips among European tourists.

- Increased holidays
- Public and national holidays which create long weekends ideal for small escapes in Cities
- Rising of disposable income from double salary families
- Reduced cost of travelling and variety of travel options
- Huge positive impact of low cost airlines

According to Dunne et al. (2007) "*the presence of a low cost carrier can often guarantee an injection of new visitors and new routes into a city*". Low cost air carriers have made many cities highly accessible at very low cost. Moreover the growth of the internet usage in the tourism industry works both as motivator for City Breaks holidays, as potential tourists are becoming recipients of daily arousal marketing communication messages via social media transforming cities to desired holiday destinations, as well as, facilitator with the ease that people book every holiday component (transport, accommodation, events) via mobile devices.

2 Literature Review

Cities development as tourist destinations is accredited by most governments and public and private tourism bodies due to the vast number of benefits which encompasses for the host country, directly to the tourism companies and indirectly to the supporting industry. Cities main benefit of becoming a city break destination is to overcome the seasonality problems that often arise in urban destinations. City breaks trips are very important for the hotel industry, in order to eliminate the decrease in overnight stays during the weekends, where there is no demand for business purposes. Main benefits are income increase, unemployment decrease, infrastructure development, upgrade of standards of living for the local population.

Athens is the capital of Greece situated in the centre of mainland Greece. It has been reformed to a modern Mediterranean city due to 2004 summer Olympic Games introducing an ultra modern subway, new freeways and further infrastructure development targeting to fulfill the increased tourist flow from other European and not only countries. It is a highly accessible city as it has a new contemporary awarded airport. It is directly linked by air with 37 European cities and 6 international. Furthermore benefits from the neighboring port of Piraeus, the largest port

in Greece which links mainland Greece with the Aegean islands. The port of Rafina is also 30 min drives from the centre of Athens. The maritime connection makes Athens ideal for a stopover en route to the islands.

Athens is well known for its history and culture. The historic centre has many points of attraction such the Acropolis and the new museum. The northern suburbs are ideal for shopping and mount Parnassos is a 2 h drive for winter sports. The southern suburbs have access to beaches suitable for sea and sun experience. According to a qualitative research, carried out by Lagos et al. (2008) via survey with selected Opinion Leaders, Athens has both strengths and weaknesses as City Break Destination. Although its core strengths are Archeological Sites, Cultural heritage, and climate, did not manage to become a competitive City Break destination as it is not a tourist friendly city due to bad infrastructure, traffic congestion, high costs, unattractive urban landscape, lack of large conference centers, poor value for money and pollution as well as incomplete marketing communication strategy.

During the years 2008–2012, Athens tourism has seen a decline due to the economic Crisis and the insufficient air connection with long haul destinations. According to Euromonitor International (2012) Athens was ranked 50th in 2008, 65th in 2009, 77th in 2010, 82nd in 2011 and out of the top 100 in 2012. International news media networks reproduced and communicated a negative image of Athens, as a city suffering from strikes, riots and lack of safety. Travel warnings can cause cancellations and direct tourists flow to competitive destinations. This phenomenon was enhanced by the positive tourist trend towards Asian Cities. Athens main European competitors managed to retain their position. Main competitors of Athens are all major European Cities especially those located in Mediterranean countries.

According to the travel analyst ECM (2014), despite the ups and downs in the ranking, arrivals continue to grow in global urban centers, illustrating the continued economic importance of tourism to the world's cities. According top 100 city destinations ranking by Euromonitor international report (2014) Athens was placed in position 51st position with 3.388.3 international tourists arrivals, experiencing an increase of 29.4% compared to 2013. According to Trip advisor (2016 travelers' choice) Athens is ranked 12th among European city Break destinations.

Athens image is affected directly by the socio-political environment of Greece and Europe. A Censuswide study (2016) for SETE Intelligence revealed that Greece's image remains positive in respect of attractiveness and safety to the British, German and American markets. The recent terrorist attacks negatively affect France, Thailand and Turkey, while the refugee crisis negatively affects 40% of potential international visitors to Greece, which is higher than competitors such Italy and Spain but significantly lower than Turkey.

2.1 *Motivation and City Break Travel*

Crompton (1979) identified the push and pull concept with push factors explaining the desire to travel, and pull factors identifying the actual motives to visit a specific destination. According to Teare (1994) there are six primary motives for City Break:

- To attend a pre-arranged event
- To take a brake and escape from routine problems/pressures
- To relax in a different environment
- To visit a specific town
- To compensate for missed summer holiday
- From the specific benefits derived from short breaks vacations.

According to Dunne et al. (2007) key pull factors were identified convenience, ease of access, cost of travel, fun destination, pre arranged event, friendly image, previous visit, tourist sites and security. Private companies seem to understand the importance of City break tourism of Athens as well as its potential by investing. Six new high-class Hotels, part of international hotel groups, are expected to operate promptly in the center of Athens only proves that fact.

2.2 *City Tourism Competitiveness*

“City tourism competitiveness refers to the ability of a city o optimize its attractiveness to potential tourists by providing substantial benefits. Factors that influence one city’s tourism competitiveness are complex and can be divided into two major groups. According to Cibinskiene and Snieskiene (2015) the fist group consists of general external environment factors (political, legal, economic, social, cultural and environmental), while the second group consists of internal environment factors (tourism enterprises,tourism resources, tourism infrastructure and recreation)”.

3 *Methodology*

In order to examine the image of Athens as an international City Break Destination it was decided to use a combination of qualitative and quantitative methods.

Phase one consisted of 4 in-depth interviews, with a specialized in city break travel agent, two experienced professional tour guides and a representative of the volunteer organization BEST which targets to European students. Tuckman (1972) describes interviews as way to provide access to what is inside a person’s head, his thinks, attitudes and beliefs.

Phase two involved a face to face survey carried out at the airport of Athens and the Athens Centre, specifically in the areas of Acropoli, Plaka and Monastiraki, in order to explore tourists' preferences and their perception regarding Athens image, as a City Break destination. The sample was 100 international leisure visitors of which 57% was identified as city break holidaymakers and 43% were visiting Athens as a midway/part of a wider holiday.

Data Mining is an emerging knowledge discovery process of extracting previously unknown, actionable information from very large scientific and commercial databases. It is imposed by the explosive growth of such databases. Usually, a data mining process extracts rules by processing high dimensional categorical and/or numerical data. Classification, clustering and association are the most well known data mining tasks.

Classification is one of the most popular data mining tasks. Classification aims at extracting knowledge which can be used to classify data into predefined classes, described by a set of attributes. The extracted knowledge can be represented using various schemas. Decision trees, "if-then" rules and neural networks are the most popular such schemas. A lot of algorithms have been proposed in the literature for extracting classification rules from large relational databases, such as symbolic learning algorithms including decision trees algorithms (e.g. C4.5) and rule based algorithms (e.g. CN2), connectionist learning algorithms (e.g. back propagation networks), instance-based algorithms (e.g. PEBLS) and hybrid algorithms.

Association rules can be used to represent frequent patterns in data, in the form of dependencies among concepts attributes. In this chapter, we consider the special case, that is known as the market basket problem, where concepts-attributes represent products and the initial database is a set of customer purchases (transactions).

4 Results

Classification methods aim to identify the classes from some descriptive traits. They find utility in a wide range of human activities and particularly in automated decision making. Decision trees are a very effective method of supervised learning. Its aim is the partition of a dataset into groups as homogeneous as possible in terms of the variable to be predicted. It takes as input a set of classified data, and outputs a tree that resembles to an orientation diagram where each end node (leaf) is a decision (a class) and each non-final node (internal) represents a test. Each leaf represents the decision of belonging to a class of data verifying all tests path from the root to the leaf. The tree is simpler, and technically it seems easy to use. In fact, it is more interesting to get a tree that is adapted to the probabilities of variables to be tested. Mostly balanced tree will be a good result. If a sub-tree can only lead to a unique solution, then all sub-tree can be reduced to the simple conclusion,

this simplifies the process and does not change the final result. Ross Quinlan worked on this kind of decision trees.

Decision trees are built in “ctree (Conditional Inference Trees)” by using a set of training data or data sets. At each node of the tree, “ctree” chooses one attribute of the data that most effectively splits its set of samples into subsets enriched in one class or the other. Its criterion is the normalized information gain (difference in entropy) that results from choosing an attribute for splitting the data. The attribute with the highest normalized information gain is chosen to make the decision.

During the construction of the decision tree, it is possible to manage data for which some attributes have an unknown value by evaluating the gain or the gain ratio for such an attribute considering only the records for which this attribute is defined. Using a decision tree, it is possible to classify the records that have unknown values by estimating the probabilities of different outcomes. Ctree builds decision trees from a set of training data in the same way as ID3 or C4.5, using the concept of information entropy.

The training data is a set $s = s_1, s_2, \dots$ of already classified samples. Each sample s_i consists of a p-dimensional vector $(x_{1,i}, x_{2,i}, \dots, x_{p,i})$, where the x_j represent attribute values or features of the sample, as well as the class in which s_i falls. At each node of the tree, “ctree” chooses the attribute of the data that most effectively splits its set of samples into subsets enriched in one class or the other. The splitting criterion is the normalized information gain (difference in entropy). The attribute with the highest normalized information gain is chosen to make the decision.

The “ctree” algorithm then recurs on the smaller sublists. In order to specify the best result, it was necessary to fit the data to the model in a proper way. This task was carried away by changing and testing the controls of “ctree”.

The parameters in the control function that were altered are:

- mincriterion

The value of the test statistic (for testtype == “Teststatistic”), or 1 - p-value (for other values of testtype) that must be exceeded in order to implement a split.

- minsplit

The minimum sum of weights in a node in order to be considered for splitting.

- mtry

The number of input variables randomly sampled as candidates at each node for random forest like algorithms.

- maxdepth

The maximum depth of the tree.

Tree 1 (same as Tree 2, 3)

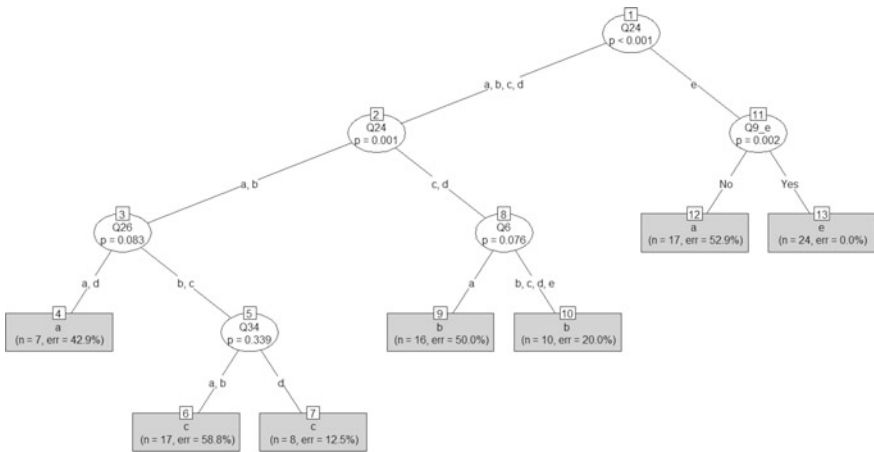
- ‘mincriterion’ value: 0.001
- ‘minsplit’ value: 20L
- ‘mtry’ value: Inf (Infinite)
- ‘maxdepth’ value: Inf (Infinite)

Tree 4, 5

- ‘mincriterion’ value: 0.001
- ‘minsplit’ value: 50L
- ‘mtry’ value: Inf (Infinite)
- ‘maxdepth’ value: Inf (Infinite)

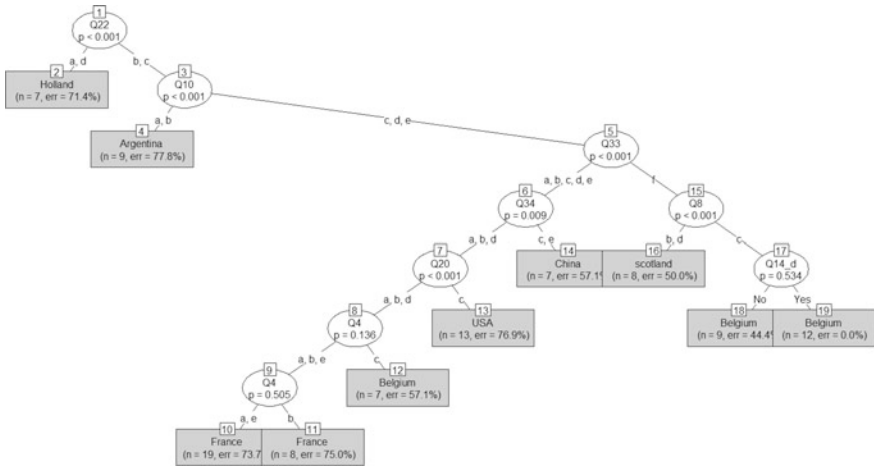
Tree 1

- Depended variable: Q5 (With whom are you traveling?)
- Independed variables: Rest



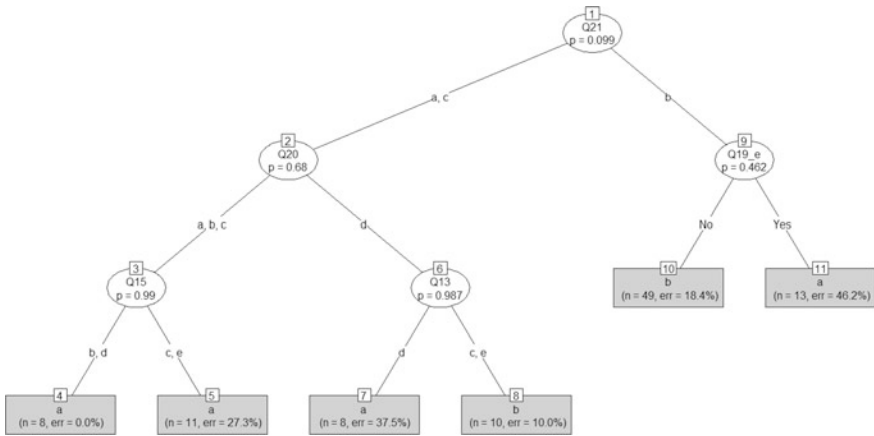
Tree 2

- Depended variable: Q31 (Which country do you live and/or come from?)
- Independed variables: Rest



Tree 3

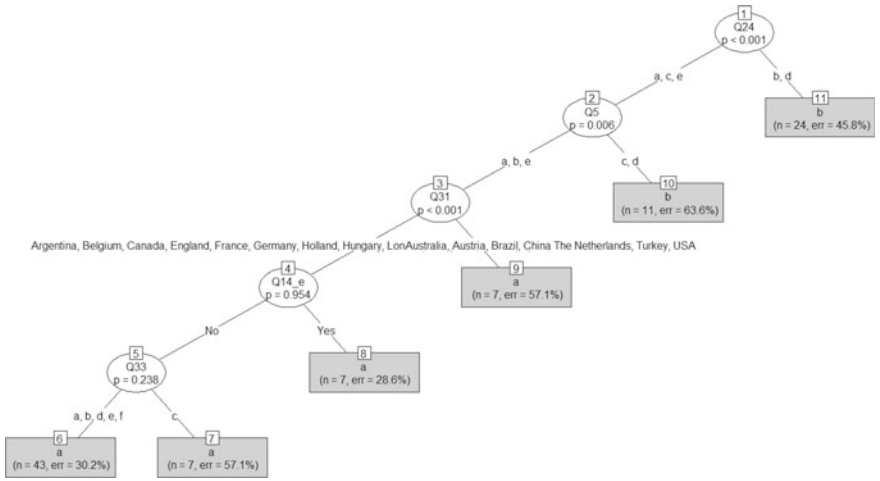
- Depended variable: Q32 (What is your gender?)
- Independed variables: Rest



Tree 4

- Depended variable: Q34 (What is your marital status?)
- Independed variables: Rest

[4] Q31 in Argentina, Belgium, Canada, England, France, Germany, Holland, Hungary, London, Phillipines, Poland, Spain, The Netherlands, Turkey, USA
 [9] Q31 in Australia, Austria, Brazil, China: a (n = 7, err = 57.1%)



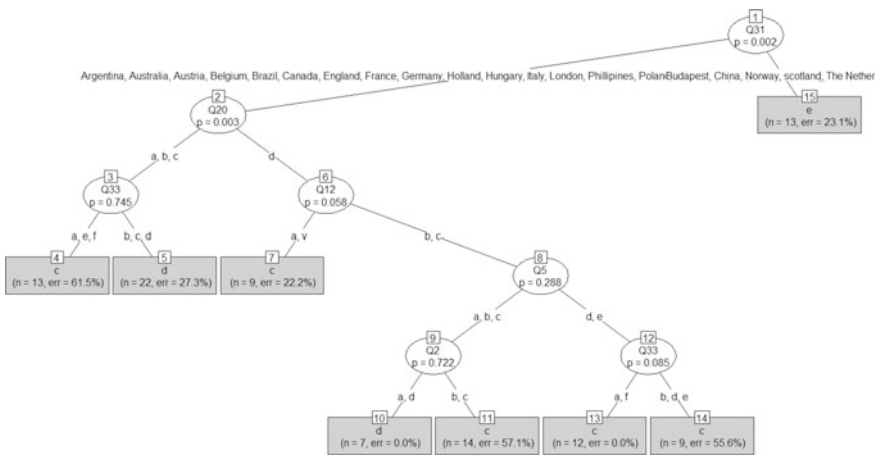
Tree 5

- Depended variable: Q35 (What is the highest degree or level of school you have completed?)
- Independed variables: Rest

[1] root

[2] Q31 in Argentina, Australia, Austria, Belgium, Brazil, Canada, England, France, Germany, Holland, Hungary, Italy, London, Philippines, Poland, Romania, Spain, Sweden, Turkey, USA, w. Africa

[15] Q31 in Budapest, China, Norway, Scotland, The Netherlands: e (n = 13, err = 23.1%)



4.1 Mining Association Rules

Association Rule Mining is a common technique used to find associations between many variables. In Data Mining, Apriori is a classic algorithm for learning association rules. Apriori is designed to operate on databases containing transactions (for example data collected from surveys in this case). As is common in association rule mining, given a set of item sets, the algorithm attempts to find subsets which are common to at least a minimum number C of the itemsets.

Apriori uses a “bottom up” approach, where frequent subsets are extended one item at a time, and groups of candidates are tested against the data. The algorithm terminates when no further successful extensions are found. Apriori uses breadth-first search and a tree structure to count candidate item sets efficiently. It generates candidate item sets of length k from item sets of length $k - 1$. Then it prunes the candidates which have an infrequent sub pattern. According to the downward closure lemma, the candidate set contains all frequent k -length item sets. After that, it scans the transaction database to determine frequent item sets among the candidates.

Association rules present association or correlation between item sets. An association rule has the form of $A \rightarrow B$, where A and B are two disjoint item sets.

The Goal: studies whether the occurrence of one feature is related to the occurrence of others.

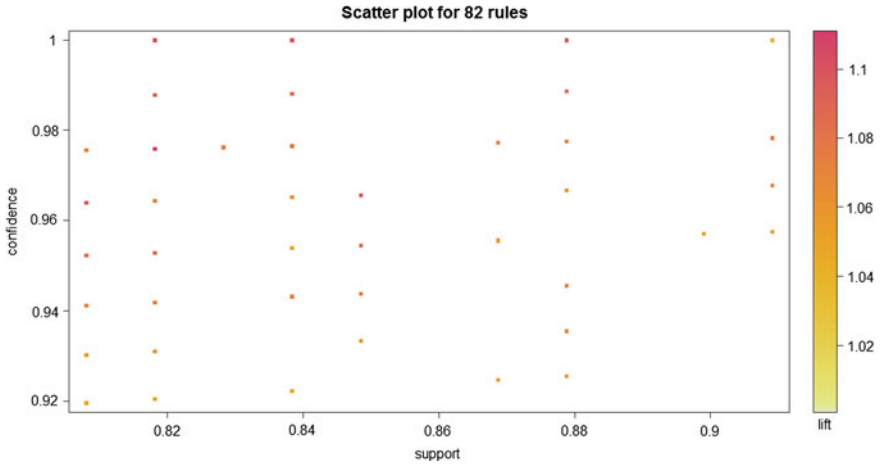
Three most widely used measures for selecting interesting rules are:

- **Support** is the percentage of cases in the data that contains both A and B ,
- **Confidence** is the percentage of cases containing A that also contain B , and
- **Lift** is the ratio of confidence to the percentage of cases containing B .

4.2 Apriori Rules Visualization

- **Scatterplot**

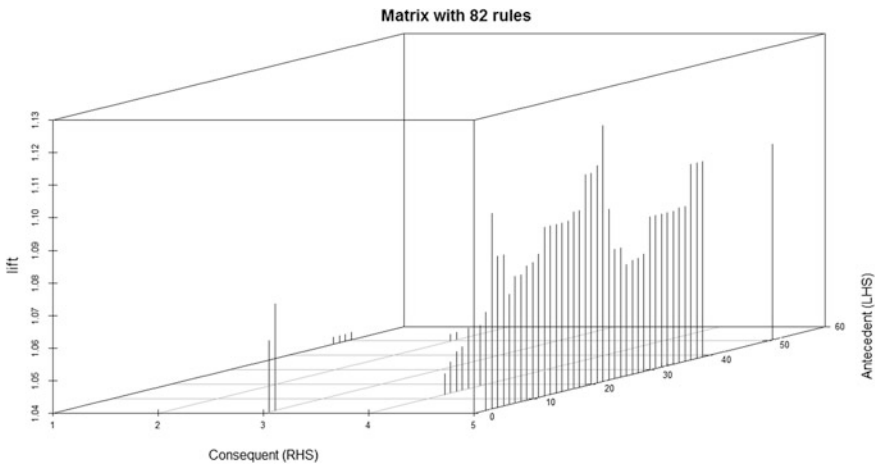
This visualization method draws a two dimensional scatterplot with different measures of interestingness (parameter “measure”) on the axes and a third measure (parameter “shading”) is represented by the color of the points. There is a special value for shading called “order” which produces a two-key plot where the color of the points represents the length (order) of the rule.



• **Matrix3D**

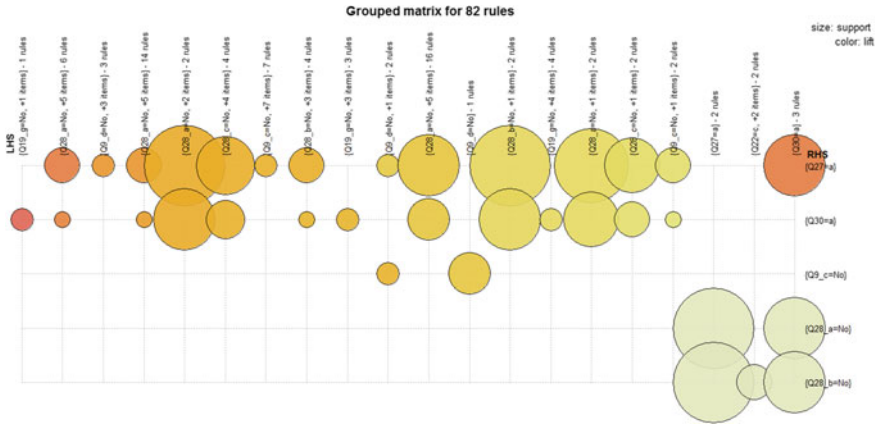
Arranges the association rules as a matrix with the item sets in the antecedents on one axis, and the item sets in the consequent on the other. The interest measure is either visualized by a color (darker means a higher value for the measure) or as the height of a bar (method "matrix3D"). Specifically of our use, the parameters that were altered are:

- measure = "lift"
- control = list(reorder = TRUE)



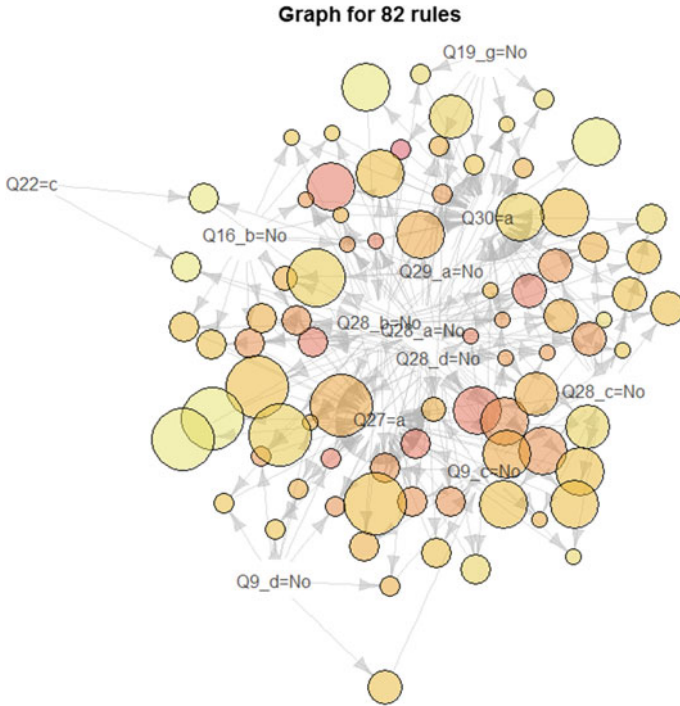
- **Grouped Matrix plot**

Antecedents (columns) in the matrix are grouped using clustering. Groups are represented as balloons in the matrix.



- **Graph**

Represents the rules (or itemsets) as a graph. Specifically of our use, the parameters that were altered are:

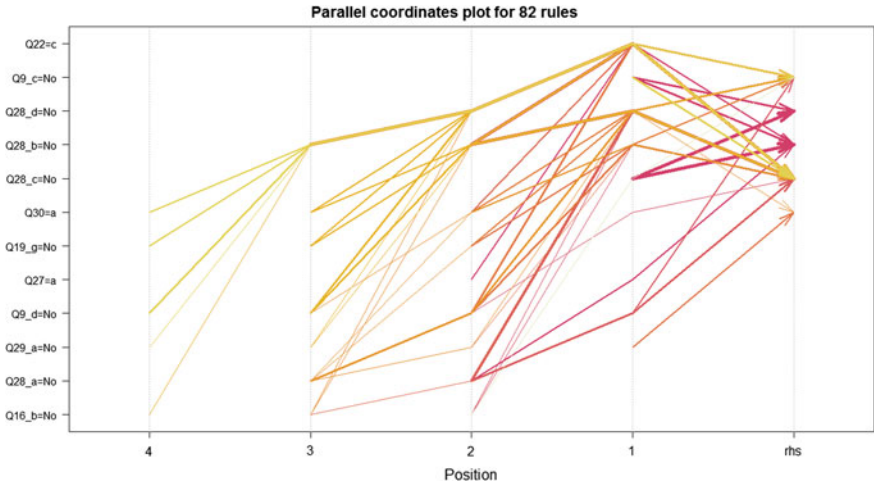


- control = list(type = "items")

• **Paracoord**

Parallel coordinate charts are a visualization that consists of N amount of vertical axes, each representing a unique data set of 82 rules, with lines drawn across the axes. The lines show the relationship between the axes, much like scatter plots, and the patterns that the lines form indicates the relationship. We can also gather details about the relationships between the axes when you see the clustering of lines. Let's take a look at this using the chart below as an example. Specifically of our use, the parameters that were altered are:

- control = list(reorder = TRUE)



4.3 *Apriori Rules*

For the top 10 rules that were extracted from the apriori the following parameters were altered:

- support: A numeric value for the minimal support of an item set
- confidence: A numeric value for the minimal confidence of rules/association hyperedges

Specifically of our use: Support: 0.8, Confidence: 0.9

After the extraction, the top 10 rules, also, presented lift approximately 1.

id	lhs	rhs	support	confidence	lift
552	{Q19_g=No, Q27=a}	=> {Q30=a}	0.8181818	0.9759036	1.110511
53	{Q30=a}	=> {Q27=a}	0.8787879	1.0000000	1.100000
12456	{Q9_d=No, Q28_a=No, Q28_b=No, Q28_d=No}	=> {Q27=a}	0.8181818	1.0000000	1.100000
13548	{Q9_c=No, Q28_a=No, Q28_b=No, Q28_d=No}	=> {Q27=a}	0.8383838	1.0000000	1.100000
15043	{Q16_b=No, Q28_a=No, Q28_b=No, Q28_d=No}	=> {Q27=a}	0.8383838	1.0000000	1.100000
15988	{Q28_a=No, Q28_b=No, Q28_c=No, Q28_d=No}	=> {Q27=a}	0.8787879	1.0000000	1.100000
11126	{Q28_a=No, Q28_b=No, Q28_c=No, Q28_d=No}	=> {Q30=a}	0.8484848	0.9655172	1.098692
9573	{Q9_c=No, Q28_a=No, Q28_b=No, Q28_d=No}	=> {Q30=a}	0.8080808	0.9638554	1.096801
10689	{Q16_b=No, Q28_a=No, Q28_b=No, Q28_d=No}	=> {Q30=a}	0.8080808	0.9638554	1.096801
5538	{Q28_a=No, Q28_b=No, Q28_c=No}	=> {Q27=a}	0.8787879	0.9886364	1.087500
5542	{Q28_a=No, Q28_c=No, Q28_d=No}	=> {Q27=a}	0.8787879	0.9886364	1.087500
4502	{Q9_c=No, Q28_a=No, Q28_b=No}	=> {Q27=a}	0.8383838	0.9880952	1.086905
4506	{Q9_c=No, Q28_a=No, Q28_d=No}	=> {Q27=a}	0.8383838	0.9880952	1.086905
4530	{Q9_c=No, Q28_b=No, Q28_d=No}	=> {Q27=a}	0.8383838	0.9880952	1.086905
5222	{Q16_b=No, Q28_a=No, Q28_b=No}	=> {Q27=a}	0.8383838	0.9880952	1.086905
5226	{Q16_b=No, Q28_a=No, Q28_d=No}	=> {Q27=a}	0.8383838	0.9880952	1.086905
3939	{Q9_d=No, Q28_a=No, Q28_b=No}	=> {Q27=a}	0.8181818	0.9878049	1.086585
3943	{Q9_d=No, Q28_a=No, Q28_d=No}	=> {Q27=a}	0.8181818	0.9878049	1.086585
11406	{Q19_g=No, Q28_a=No, Q28_b=No, Q28_d=No}	=> {Q30=a}	0.8181818	0.9529412	1.084381
2793	{Q9_c=No, Q28_a=No, Q28_b=No}	=> {Q30=a}	0.8080808	0.9523810	1.083744
2797	{Q9_c=No, Q28_a=No, Q28_d=No}	=> {Q30=a}	0.8080808	0.9523810	1.083744
2817	{Q9_c=No, Q28_b=No, Q28_d=No}	=> {Q30=a}	0.8080808	0.9523810	1.083744
3139	{Q16_b=No, Q28_a=No, Q28_b=No}	=> {Q30=a}	0.8080808	0.9523810	1.083744
3143	{Q16_b=No, Q28_a=No, Q28_d=No}	=> {Q30=a}	0.8080808	0.9523810	1.083744
3628	{Q28_a=No, Q28_b=No, Q28_d=No}	=> {Q30=a}	0.8787879	0.9456522	1.076087
5874	{Q28_a=No, Q28_b=No, Q28_d=No}	=> {Q27=a}	0.9090909	0.9782609	1.076087
5566	{Q28_b=No, Q28_c=No, Q28_d=No}	=> {Q27=a}	0.8787879	0.9775281	1.075281
id	lhs	rhs	support	confidence	lift
3947	{Q9_d=No, Q28_a=No, Q29_a=No}	=> {Q27=a}	0.8080808	0.9756098	1.073171
4482	{Q9_c=No, Q28_c=No, Q28_d=No}	=> {Q27=a}	0.8080808	0.9756098	1.073171
3430	{Q19_g=No, Q28_a=No, Q28_b=No}	=> {Q30=a}	0.8181818	0.9418605	1.071772
3434	{Q19_g=No, Q28_a=No, Q28_d=No}	=> {Q30=a}	0.8181818	0.9418605	1.071772
529	{Q9_c=No, Q28_b=No}	=> {Q30=a}	0.8080808	0.9411765	1.070994
3163	{Q16_b=No, Q28_b=No, Q28_d=No}	=> {Q30=a}	0.8080808	0.9411765	1.070994
777	{Q9_d=No, Q28_b=No}	=> {Q27=a}	0.8181818	0.9642857	1.060714
3458	{Q19_g=No, Q28_b=No, Q28_d=No}	=> {Q30=a}	0.8181818	0.9310345	1.059453
71	{Q9_d=No}	=> {Q9_c=No}	0.8484848	0.9545455	1.061798
4510	{Q9_c=No, Q28_a=No, Q29_a=No}	=> {Q27=a}	0.8282828	0.9761905	1.073810
5230	{Q16_b=No, Q28_a=No, Q29_a=No}	=> {Q27=a}	0.8282828	0.9761905	1.073810
3966	{Q9_d=No, Q28_b=No, Q28_d=No}	=> {Q27=a}	0.8181818	0.9759036	1.073494
3326	{Q28_a=No, Q28_c=No, Q29_a=No}	=> {Q30=a}	0.8383838	0.9431818	1.073276
3947	{Q9_d=No, Q28_a=No, Q29_a=No}	=> {Q27=a}	0.8080808	0.9756098	1.073171
480	{Q22=c, Q28_d=No}	=> {Q28_b=No}	0.8383838	1.0000000	1.042105
482	{Q22=c, Q29_a=No}	=> {Q28_b=No}	0.8383838	1.0000000	1.042105

Athens was chosen as their final destination by 57% while 43% used it as a midway stop to continue their journey. First time visit accounted for 58% and revisit 42%. Athens was chosen as a City Break destination by 62%. Regarding the length of stay most chose a 4 days stay (43%), followed by 3 days (19%) and 2 days (9%). Hotel was the most popular form of accommodation (75%). Only 3% visited the city in order to attend an event or festival, which proves that are not supported by an effective communication strategy. Internet was the main booking channel for 44% of the sample followed by travel agents (24%) and group booking (29%). The vast majority had a good shopping experience (75%) characterizing

prices normal (71%). Athens restaurants were rated as very good (71%) and Greek Hospitality was acclaimed by 88%. Regarding their expenses 42% spent 250–500 Euros, 24% 100–250 Euros and just 20% more than 500 Euros. Finally 91% wishes to revisit Athens and 88% willing to recommend Athens as a City Brake destination.

The data analysis via data mining tools has revealed the following Rules which prove statistically strong:

- (Rule 53) The sample that would visit again Athens they would recommend Athens as a city break destination.
- (Rule 9573, 777, 3939, 3943 κ.α.) Those that have not visited (Q 9) “Cycladic Art Museum” and “Benaki Museum” and would not visit again Athens due to lack of proper infrastructure (Q28) they would still recommend Athens as a city break destination.
- (Rule 5538 and 5542) Those that would not visit again Athens for other reason (Q28) they would recommend Athens as a city break destination.
- (Rule 5222 and 5226) Those that have answered (Which of the following did you prefer for your meals; hotel restaurant, traditional tavern in city center, fast food restaurant) (Q16) they would visit again Athens.
- (Rule 3947) Those that would you visit again Athens (Q29) and like the most its nightlife they would recommend Athens as a city break destination.
- (Rule 685, 627) Those that would visit again Athens (Q29) and like the most its nightlife, Greek cuisine and Athens’s market and hospitality they would recommend Athens as a city break destination.
- (Rule 480, 482) Those that characterized Greek hospitality (Q22) nice and friendly they would visit again Athens as well as for its nightlife, Greek cuisine, Athens’ market.
- (Rule 3458) Those that used for transportation metro, public buses, private buses, tram, taxi, rented car (Q19) and would not visit again Athens because they were dissatisfied with the quality of services offered and due to lack of proper infrastructure (Q28), they would still recommend Athens as a city break destination.
- (Rule 582 and 585) Those that prefer for their meals hotel restaurant, traditional tavern in city center and fast food restaurant (Q16) and would not visit again Athens due to lack of proper infrastructure they would still recommend Athens as a city break destination.
- (Rule 71) Those that did not visit (Q 9) “Cycladic Art Museum” they did not visit “Benaki Museum” as well.

5 Conclusion

It became clear through the research carried out, that Athens is an attractive City Break destination, but which deserves immediate improvement in certain aspects. Although the majority of people surveyed chose Athens for city tourism and were quite satisfied with the services and infrastructure, there was a percentage that remained unsatisfied, which cannot pass unnoticed.

Another conclusion drawn from the survey was that many of the guests had formed a negative image of Athens through the media of their country, broadcasting only negative news for the city. By visiting Athens, they realized that media communicated a false image of Athens.

Generally Greece and specifically Athens, which is capital of the country, need rebranding. Through the rebranding process Athens can reposition itself as a unique city break destination. In conclusion, the investigation revealed that both infrastructure and facilities in Athens need a constant upgrade whereas cultural sites, market, restaurants/taverns, nightlife and public transports were satisfactory, but there were still a significant number of tourists which identified some disadvantages.

The fact that even dissatisfied visitors are willing to recommend Athens as a City Break destination, proves that Athens encompasses some unique advantages which must strategically communicated to target audiences.

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Part II
Tourism Business Environment—Current
Developments and Experiences

The Insight of Tourism Operators in Contemporary Business Environment

Eriks Lingeberzins

Abstract Tourism operators historically have been an important part of the tourism industry and have remarkably contributed to the development of mass tourism as well as other forms of tourism. In the meantime, business environment is experiencing ongoing transformation which involves socio-economic changes, traveller habit alterations and emergence of new business forms. For tourism operators and other traditional tourism and hospitality management organizations these are new challenges and they require prompt reaction to transform existing business models in order to maintain competitiveness. The purpose of this paper is to explore and identify peculiarities of the tourism operators in contemporary business environment. Results of the paper are based on quantitative research involving 118 respondents, representing tourism operators from different countries and of different size. Respondents have been questioned and results have been processed based on survey consisting of 45 questions, aiming to analyse present market situation, market transformation changes, the role of customer and supplier relations, as well the understanding and ability to interpret factors related to the tourism enterprise management. Based on acquired results, author identifies most substantial characteristics of contemporary business environment. They give several indications in relation to tourism operator perception and operation as well develops ideas regarding tourism product distribution, emphasizes the importance of employee social skills additionally to practical knowledge. Results confirm author's assumption that contemporary business environment is a substantial basis to state that the management of tourism operators is increasingly dependent on enterprise ability to respond ongoing international tourism market changes.

Keywords Tourism operators • Tourism management • Customer satisfaction

JEL classification M11

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1 Introduction

Mass tourism as a contemporary phenomenon of tourism industry has emerged starting from the middle of the 20th century (Davidson 1993) and its development has been closely related to the development of tourism operators as one of the most visible business forms of tourism organization. Fast increase of people movement with a motive to travel for decades has been basis for the tourism operator industry development. According to UNWTO data, in 2015 number of international arrivals has reached 1.2 billion (WTO 2016), which is equal to 4% growth compared to a year before and also future prognosis remain favourable (WTO 2015). This fast growth also has stimulated comprehensive discussion within the industry about changing profile of international travellers due to the emergence of new outbound tourism markets and development of new tourism destinations. Under these circumstances tourism operators and other tourism and hospitality enterprises are questioned about their ability to meet changing requirements of international traveller and understand their perception of tourism operator offers and service. The place and the role of tourism operators in contemporary business environment become uncertain. On the one hand side, tourism operators are still among main market players of tourism business environment, on the other hand, their functions, business models and set-ups are shifting away from the traditional understanding as of organizations in charge of tourism product development, production and sales. Traditional tourism management literature (Weaver and Lawton 2009; Goeldner and Ritchie 2008; Halloway 2006) most often perceives tourism operators in the context of the classical tourism product distribution chain, where tourism operators produce tourism product, which is distributed to the end consumer via travel agencies. In the meantime, management scientific literature often refers to tourism organizations, including tourism operators, as examples of typical “new organizations” (Drucker 1988; Starbucks 1992; Stewart 1997) with main asset being intangible and main resource being identified as knowledge. It has become obvious that contemporary tourism operators are complex organizations encompassing specific tourism industry knowledge, systems of customer relation management, value proposals (Osterwalder et al. 2005) to customers and destination offerings to the consumer. In order to describe the insight of tourism operators in contemporary business environment, author has made literature review on issues related to the management of tourism operators, circumstances and general operation perception of tourism operators. Following literature review, author sets research question: alterations of the perception of tourism operators is determined by transforming insight of tourism organization management. Based on the literature review, quantitative research has been performed involving tourism industry professionals, identifying perception of tourism operators and their functions and the role of tourism operators in tourism product distribution to draw conclusions answering research question. Author would like clarify terminology used, explaining that in the context of this paper, customers are understood as tourism operators’ direct

clients, while end consumers are understood as end consumers of tourism operators' tourism product.

1.1 Tourism Operator's Insight: Management Perspective

International development of tourism operators is closely related to globalization and its' related processes. They are unified by changing and more complex conditions which tourism operators have to respect. Present development of tourism operators is described by certain obscurity and uncertainty and previously existing routines and systems are not in place anymore (Gergs and Trinczek 2008: 144). At the same time, there are several issues which have emerged and increased its importance when exploring contemporary tourism operators. Author identifies several most crucial areas to be further explored in research part of this article, in order to identify the role of tourism operators in contemporary business environment.

First, general perception: tourism operators and their role in tourism industry. D. Reid highlights several approaches in tourism organization research studies. Most common is named as economic approach, although, there is also socio-psychologic, sociologic, municipality and ecologic approach. The basis of economic approach is entrepreneur's understanding of tourism as a profit-loss model where entrepreneurs aim to understand what does tourist want and following understanding and perception of these needs tourism products are developed (Reid 2003: 111). This approach illustrates most classical and traditional understanding of the role of tourism operators, where keyword is embedded within production.

Similarly K.J. Blois indicates that development of service sector has developed two main issues: first, how consumers perceive individual services and secondly, how enterprises which offer services should organize their activities (Blois 1983: 260). More contemporary authors, such as S. Page, distinguish more specific issues, naming marketing, operational activities and the importance of human resource management (Page 2007: 310). It is also said that operational activities are the most complicated tasks to be completed as it involves several directions to deal: capacity, standards, planning, organizations' ability to meet demand and control (Page 2007: 314). In order to accomplish these activities, tourism operators have become highly dependent on their human resources and their knowledge and skills.

Second: tourism operators as intellectual capital or high intangible asset organizations. Human resource knowledge and skills are important to develop innovative products, provide excellent customer service and maintain quality of the service. Similar to other intangible asset organizations, tourism operator's performance is illustrated by the outcome of their activities—in the case of tourism operator it is service. Service, defined as intangible product which production and consumption cannot be separated (Hall and Lew 2009) creates new type of challenges to maintain quality. Tourism operator activities relate to quality dimensions, such as reliability, empathy, tangible products, responsiveness and confidence (Bowie and Buttle 2011: 308). As emphasized by Beesley and Cooper (Beesley and

Cooper 2008), organization's ability to acquire, share and use knowledge is crucial in the present business environment and global competition, as they rise general competitiveness and ability to be innovative (McLeod et al. 2010: 1665).

Organizations are expected to acquire new knowledge which allows them to operate internationally and human capital plays an important role in its acquisition. For the international entrepreneurship an important part of the knowledge is intercultural communication and ability to implement it into daily operation (Huang 2010). Besides, management of tourism operators is based on the need to coordinate long list of activities, which involves travelling, accommodation, catering and others (Old et al. 2006: 59).

For international tourism operators intercultural communication as a tool which allows to achieve their goals by offering their product to different end-consumers and providing customer satisfaction respecting customer cultural difference. Even this aspect is primary analysed in the context of the international marketing R. Gruning and D. Morschett speaks about range from locally adapted to ethnocentric marketing, internationally standardized to global marketing (Gruning and Morschett 2012: 277).

Additionally, N. Rao and R.P. Dass emphasize the importance of human resources for following purposes which leads to third aspect, explained below. Interaction between different employees of an organization is directly related to customer satisfaction while customer satisfaction plays crucial role in effective realization of marketing activities (Nageshwar and Das 2002). In the meantime, tourism industry is recognized by high impact of so called contingent workers, which are important element to secure service quality and customer satisfaction but at the same time are not organization's employees (Gavino et al. 2010).

These aspects of tourism operator management lead to the question about main activities of tourism operators and their abilities to complete these activities.

Third: tourism product and customer satisfaction. As defined by K. Halloway (Halloway 2006), there are two core elements of the tourism industry—tourists and tourism product. Tourism product—development, operation, distribution and control is the backbone of tourism operator activities which remains unchanged since the emergence of tourism operators as a form of business activities. It is based on explanations provided by S. Smith which looks on tourism product as a good with the main difference from manufactured good being in place, service, hospitality, freedom of choice and involvement (Smith 1994: 587–589). While P. Kotler defines product as any offering that can be perceived attractive for the market, to purchase it and consume it in order to satisfy desires or needs (Kotler 1984: 463).

For tourism operators, tourism product is a tool to highlight organization's uniqueness and innovative character of the offer (Scherle and Coles 2008). Following evaluation of tourism product, customer satisfaction is developed. It is based in cognitive and emotional evaluation by the consumer (Pavlic et al. 2011). As said by A. Kobylanski, it is reaction to specific product offer or organization (Kobylanski 2012: 31) or positive attitude towards service provider which is achieved by fulfilling customer expectations (Bowie and Buttle 2011: 352).

Therefore, to assess perception of tourism operators in contemporary business environment, author concludes that several areas using quantitative survey should be explored. In particular—the role of tourism operators and observed changes and further expectations, the importance of human resources and their contribution to customer satisfaction, the importance of globalization, tourism product and service quality in the context of customer satisfaction and organization’s abilities to meet these expectations.

2 Methodology of the Study

The study aims at researching and describing operations and management of international tourism operators as well as their operational variability processes. The survey was carried out during the period from June 19, 2015 to July 9, 2015. The *non-probability sampling* was used for this study. Justification for the choice of the method of selection is subordinated to the definition of the study problem and to the management model of an international tourism enterprise as a phenomenon (Kumar and Thondikulam 2005). Since this part of the study does not aim at generalizing the findings (Sekaran and Bougie 2011), but rather at assessing the management principles of a modern tourism enterprise, the choice of certain subjects, able to provide us with the necessary information (Sekaran and Bougie 2011: 277), is justified. However, stating the exact number of tourism enterprises, which can serve as a basis of determining the general group is difficult, given the interpretation differences during the registration process of such companies. Thus, the author justifies the usage of the typical cases method—the most typical representatives of the population—according to this study employees of international tourism companies and corporate executives who meet the following criteria defined by the author—firstly, employees of international tourism companies, executives and heads of companies offering multi-destination tourism products and, secondly, employees of international tourism companies, executives and heads of companies the geographical location or products of which meet the destination criteria defined by the author—the Baltic sea region countries.

According to these criteria a general group consisting of 170 respondents was selected. Electronic questionnaires were sent to all of them. During the course of this study 118 valid questionnaires were received back. The questionnaire consisted of 45 questions, 27 of which made up the scale of the sequence of attitudes, where questions were asked according to the Likert-type scale using from 1 to 5 statements, asking the respondents to evaluate them by choosing phrases between “disagree strongly” and “agree completely” (Kristapsone and Kamerāde 2011). The rest of the questions were formed according to the nominal or interval scales.

Internal consistency of the survey was calculated using SPSS 22.0 to those 27 questions which made up the scale of the sequence of attitudes (Table 1).

As reliability statistics indicates $0.8 > \alpha \geq 0.7$, author concludes that results can be further analysed.

Table 1 Survey reliability statistics

Cronbach's alpha	Cronbach's alpha based on standardized items	No of items
0.754	0.778	27

In order to find out the respondents' opinions about the changes in the management of modern enterprises, based on the works by C. Savage, V. Bennis and M. Vitzel covering the summary of the changes in the management functions, questions about this topic were offered. Based on the scientific literature multiple choice questions were offered.

3 Results of the Survey Carried Out Among Tourism Industry Professionals

After studying the cultural differences of end consumers and observing these differences in product evaluations and in the context of destinations, the author came to conclusions that can be used when assessing the management of an international tourism operator in the context of contemporary business environment. The author carried out a quantitative survey among tourism industry professionals to confirm the conclusions made after reading scientific literature on management features of an international tourism enterprise, as well as to assess the attitude of tourism professionals to the management of an international tourism operator and the importance to have broader perspective unlike the traditional tourism operator management model, reflecting such aspects as tourism company's interaction with the destination as well as the company's partnership with its customers and indirectly with tourists and suppliers of certain services. Referring to traditional tourism operator management model, author refers to perception of tourism operator as producer of a tourism product, which is further distributed via travel agencies to the end consumer—tourist.

There were 118 respondents, 80.5% of which represented tour operators, 13.6% travel agencies, 4.2% on-line travel agencies and 1.7% positioned themselves as free-lanced agents. However, 38% of tour operators have mentioned operations of travel agencies as their secondary business activity, same story with travel agencies—their respondents have indicated tour operators' activities as their secondary business activity. 52.5% of respondents were mainly dealing with outgoing tourism and 47.5% with the incoming. The author concludes that such a division confirms the previously described ambiguity concerning operations of tourism enterprises when the traditional understanding of work of tour operators and travel agencies is strictly determined. Modern tourism companies cannot be analysed keeping in mind only one type of activity; one should take into consideration much wider scale of operations in accordance with the current situation in the country. There are medium-size (<250 employees), small (<50 employees) and micro (<10 employees) companies. 52.5% of respondents are employed by medium-size or small tourism

enterprises, 84.7% of which are based in Europe and 15.3% elsewhere and they offer multi-destination products within the region of this study.

The selected respondents can be characterized as professionals with great experience in the tourism sector—the majority of respondents have been in the business for more than 10 years (66%), which justifies the adequacy of the chosen judgmental selection when describing the business principles of an international tourism company.

The respondents' knowledge is also confirmed by their current position in the company—71% of respondents are higher or middle-level managers. Considering the described justification for the chosen method the author has also included in the selection the operational level employees because they meet the selection criteria—they are employed by companies, the daily work of which is connected with the region of this study. 115 from the 118 respondents have answered in the affirmative, that their work is connected with international tourism, while the 3 respondents who answered in the negative are representing tourism enterprises dealing with outgoing tours (2 tour operators and 1 travel agency). However, only 58.5% of respondents have answered in the affirmative that they have deep knowledge about international business, but despite that fact, when asked whether this knowledge helped in their everyday work, the arithmetical average assessment of answers was 3.69.

To describe the tourism industry in general and the changes characterizing it which should be taken into account when developing the management model of an international tourism enterprise, the respondents confirmed the conclusions made in the scientific literature about changes in activities of tour operators.

The results reflect changes, both, within last 5 and 10 years, and comparing the two periods of time, close connection can be observed. Assessment of changes in tourism operators' activities within last 5 years has mean of 4.25 points and median 4, while within last 10 years—mean increases to 4.45 points and median to 5. Future changes have been assessed with mean 4.12 and median 4. This means that changes in the international tourism should be looked at within the context of long-term socio-economic changes which, according to the globalization processes, can be influenced by changes in customer segments and in the overall attitude to traveling.

However, the most significant processes affecting the changes are political and economic changes (88.1%), consumer self-education (44.9%), mass tourism development (36.4%), diversification of tourist cultures (35.6%) and changes in the social structure (28%). Relatively less important are found such changes as transparency of the business environment (16.1%), decline of loyalty (16.1%), the growing importance of certain brands (11.9%), and climate change (6.8%). The author concludes that tourism companies are aware of and able to assess the changes of the situation and understand exactly the meaning of changes caused by tourists.

Understanding of global processes in the tourism industry as well as product awareness in the tourism sector in general is also estimated to be different from other sectors that confirm peculiarities of international tourism enterprise management dealt with in the review on scientific literature. With mean value 3.51 points respondents claim that the importance of global processes is more essential

in tourism than in other industries and with even higher mean value—3.81 point, that the understanding of the concept of product in tourism is different from the same concept in other sectors. Finally, mean value to the statement that the main activity of tour operators is buying services from suppliers and selling them to customers is 3.63 points.

However, at the same time, understanding of tour operators' activities remains relatively traditional, indicating that their main activities are connected with intermediary services. Despite this, 82.2% of the answers have confirmed that there are other activities that characterize tour operators' work.

At the same time, when describing services of tour operators or agencies, along with package tours (84 times) and personalized (84 times) travel services, other things, including the destination and know-how sharing (69 times), providing quality and reliability of services (67 times) are also mentioned. Only 22 times intangible assets are referred to when mentioning offers of a tour operator or an agency.

Tour operators specializing in incoming tours are very often identified as reliable sources of information concerning destination—83% of respondents fully or partly agreed to that. In the author's opinion, the high evaluation of tour operators as reliable sources of information about the destination turns them into creators of destination's image. Consequently, all the information available to tour operators on the destination as well as on the level of different nationality tourists' satisfaction with the services offered in the destination gets eventually transferred to the end customers—tourists, by tour operators in co-operation with their customers.

Taking into consideration business activity as well as changes in business activity of an international tourism enterprise as a representative of the service sector, one of the criteria reflecting the changes in business activity of a company is changes in the needs of customers and tourists. Respondents were offered 6 allegations about the importance and variability of needs of both, customers and tourists.

The author believes that it is necessary to distinguish between the two estimates (customers and tourists), identifying the differences in the assessment of variability of needs characteristic to customers and tourists characterizing the management context of a tourism enterprise as well as priorities of tourism industry professionals. This can be noted from Fig. 1, where the summary of responses regarding end consumers' needs can be seen.

As one can see, the overall needs assessment can be described as high. Questions about meeting the needs of tourists and additional costs are evaluated more ambiguously. In the author's opinion, comparison of these statements confirms the importance of the intangible capital during interaction of tourists and service providers, confirming the importance of tourists' needs; however, satisfying them is not strongly correlated with increasing costs. It can be concluded that customers expect tour operators to understand the peculiarities of tourists and to keep them in mind when providing their services.

The author concludes that respecting the needs of both—customers and tourists is recognized as an essential prerequisite for operation of a tourism enterprise, in

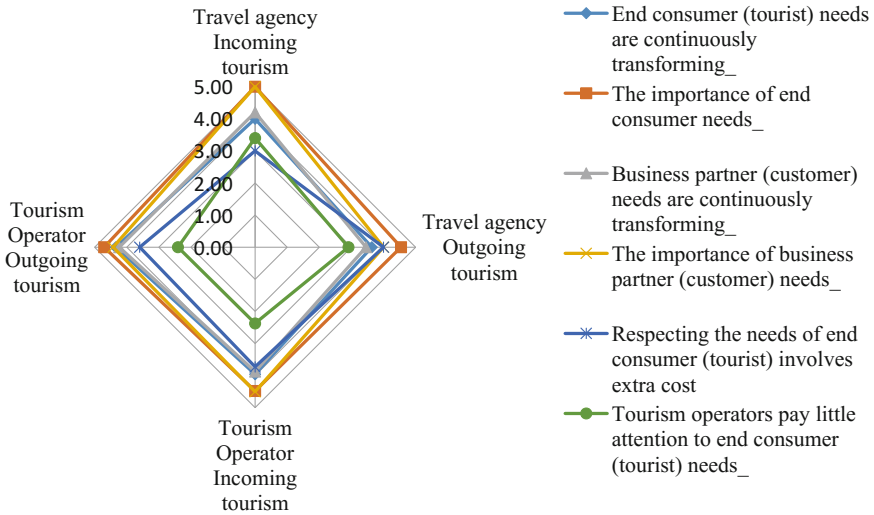


Fig. 1 Assessment of the end customers’ needs

addition, both, tour operators and agencies have evaluated it highly enough. However, tour operators’ attitude to tourists’ needs should not be assessed unambiguously, taking into account that 18.6% of respondents agreed with the statement that the tour operators paid little attention to the needs of tourists, 31.4% of respondents had neutral attitude to this statement. Getting feedback from customers and tourists is to be considered as another equally important task. This statement has been confirmed by research data, where answers to such statements as “clients’ feedback is important for business development”, “tourists’ feedback is important for business development”, “regular feedback from customers can improve cooperation” and “regular feedback from suppliers can improve cooperation” have received as high mean value scores as 4.64, 4.57, 4.58 and 4.51 respectively, all having median of 5.

This means that running a tourism enterprise should be viewed as a system always in the working process, which includes preparing the company’s offer while interacting with suppliers (individual service providers), customers and end consumers, thus continuously developing the company’s offer.

As confirmed by the survey results, the existence of such a system encourages cooperation, which is regarded as certain relationship and the way to form structural capital. At the same time, the company shares the acquired knowledge with all the parties involved in the purchase—consumption chain of their offer.

The needs as well as formation of feedback is subject to segmentation, taking into account differences between tourists based on the researched cultural differences reflected in the general evaluation of individual services and the offers of companies. Segmentation in the tourism industry is not rare as recognized by majority of respondents (according to the survey, only 3.3% of respondents do not

agree fully or partly disagree with this statement, while 62.7% of respondents fully or partially agree with it).

Tourists' country of origin, which is usually characterized by its cultural diversity is an important factor for service providers—according to the survey results (Fig. 47), providers of services should be aware of tourists' country of origin, moreover, the arithmetic average of the importance of providers' awareness mean value is 4.17, which is higher than 3.85—the arithmetic average of the importance of evaluation of segmentation prevalence. The author concludes that segmentation is not considered a special tour operators' task, at the same time, customers of tour operators expect their country of origin to be taken into account when developing products.

This means that tour operators are responsible for the tourists' understanding of differences. Offering the company's products, which are designed taking into account these differences may ensure higher tourist satisfaction with provided services, forming feedback from customers that helps to develop and improve the relationship.

51.7% of respondents do not agree fully or partly with the statement that cultural differences are not important for service quality evaluation, while 26.3% of respondents fully or partly agree with it. Minimal negative correlation $r = -0.02651$ exists between evaluations of this statement and prevalence of segmentation rating, thus justifying the cultural differences as a possible approach to customer segmentation in tourism. Suppliers and their reliability is the most often mentioned component of the tourism industry, which is mentioned 77 times. It is followed by knowledge of the industry—63 times, the destination image—56 times and creativity in their daily work—52 times, and only then come tourists. As shown in Fig. 48, tour operators and travel agencies as tourism organizers are not mentioned as the most important components in this sector. Although, given the restrictive nature of the research method during this very phase of the study which does not allow generalizing the findings, the author concludes that the data obtained for indicative purposes can be interpreted. They suggest that the common knowledge about tourism destinations, the tourism sector in general and forms of cooperation with suppliers is much more substantial than the tour organizations themselves (companies). Knowledge of the industry is considered the most important precondition when creating new companies (mentioned 91 times), followed by practical experience in tourism (85 times), existing customer contacts (66 times) and inspired employees with ideas as well as staff competencies and education (60 times). Intercultural competence as an important prerequisite is mentioned least often—only 33 times.

Co-operation with suppliers and customers is highly appreciated and 45.7% of the respondents fully or partly agree that personal contact with suppliers can compensate for a higher price, while 72.1% of the respondents fully or partly agree that personal contact with customers is just as important as service fees and 84.7% of respondents fully or partly agree that a common product development (in cooperation with suppliers) can improve the competitiveness of the company. Only 1.7% of respondents do not fully agree with this statement. 72.9% of the

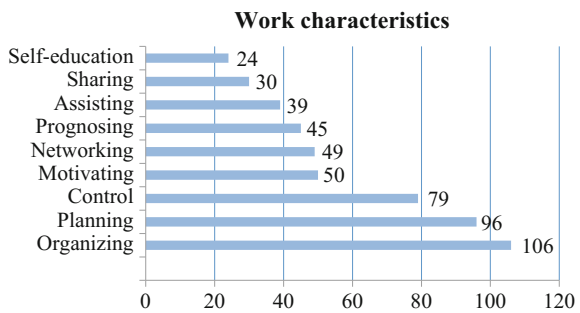
respondents fully or partly agree that in an emergency situation they should be able to reach the senior level management of their suppliers and only 6.7% of the respondents fully or partly disagree with this statement. The author concludes that the surveyed tourism professionals see managing process of a tourism enterprise as a complex process of interaction between customers and suppliers, where personal contact is also significant, thus confirming the high intangible capital features of business management reviewed in the scientific literature and the intellectual capital as the company’s core resource.

When assessing their daily duties, most respondents referred to organizational and planning functions, but the relatively frequently mentioned duties are particularly noteworthy as well—networking and making predictions, confirming the characteristic peculiarities of the Savage highly intangible organizations. Meanwhile, indicating the main source of knowledge necessary for performing one’s duties, 78.8% of respondents mentioned direct networking and communication with customers and suppliers and only 9,3% of respondents—formal education and skills development courses, but 11.9% of respondents—vocational training offered by the company. Overview of responsibilities of employees can be seen in Fig. 2 where can be seen number of responses to each pre-defined responsibility.

The survey data point to relatively conservative understanding of creative approaches during organization of work, as only 9.3% of respondents completely agree that tour operators are using creative approaches, 36.4% agree partly, the majority of responses are neutral (43.2%). However, when looking through multiple choice answers, 43.2% of respondents saw creative strategy as innovation, 24.6%—as a new product, 21.2%—as an adapted business model and 11% as an improved strategy.

Despite the fact that the survey results confirm the importance of the tourism destination for the work of a company and despite the fact that all the chosen respondents in their daily work are dealing with products of multi-destination tourism enterprises, only 55.9% of respondents out of the 3 possible response options, chose the multi- destination product concept offered by the author and reviewed in the scientific literature.

Fig. 2 Responsibilities of tourism operator employees



4 Conclusions

Tourism enterprises and the ambiguous nature of organizational form of their activities—the survey data point out the existence of mixed enterprise types, where duties of tour operators and those of travel agencies are not strictly separated. The traditional understanding of tour operators' and agencies' duties as well as the vertical subordination, is conditional. Although the survey data should not be generalized and applied to all companies, the observed tendencies are justified, so, when describing tourism enterprises in the context of management it would not be necessary to distinguish between tour operators and travel agencies.

Referring to tourist satisfaction survey results, the author concludes that incomplete picture is created about the operating principles of tourism enterprises as products offered by tourism companies are very much dependent on the level of tourists' satisfaction with individual services, which are also variable in different destinations, therefore activities of a tourism company are described only by considering their intermediary function.

The tourism sector as a whole is characterized by changing corporate principles of operation dependent on the changes caused by globalization which include the total market changes, customer segment diversification and the need to see running of a tourism enterprise as a complex, where service providers and suppliers as well as customers and end-customers are equally important.

In the management of international tourism enterprises differences between customers, which can be regarded as the basis of segmentation are characterized by cultural differences and the customers' perception of the importance of end-customers 'cultural differences when assessing the quality of services and giving feedback. Consequently, relations and the structural funds as intangible resources of companies are essential in their work.

Managing an international tourism company has to be analysed not only according to the four classic management functions (planning, organizing, managing and controlling) because the presence of networking and personal contacts has been observed during the management process. These tasks of business managers create the basis for working out the company's offers.

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Measuring the Twitter Performance of Hotel E-Mediaries

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Abstract ICT, use of web and web 2.0 applications have deeply affected the way travel and tourism organizations distribute up-to-date content and their products in the marketplace. Traditional intermediaries, like travel agents, tour operators or even the Global Distribution Systems are progressively disappearing. Consumers undertake their entire tourism product search and booking on-line and therefore a wide range of new tourism e-Mediaries emerge, like single supplier provisions, web-based travel agencies, portals and hotel booking websites. Twitter allow hotel e-Mediaries to spread information and deals, to listen to customers, increase customer engagement, enhance customer satisfaction and obtain deeper insight into the customers' experiences. Up to now, no research has been devoted at investigating the use of Twitter by hotel e-Mediaries. The paper fills this gap and records major hotel e-Mediaries websites and their Twitter accounts. Twitter performance indexes are used to describe the activity and performance of these accounts. Statistical analysis investigates if significant differentiations among hotel booking websites exists, regarding Twitter performance. It is investigated whether Twitter performance is in accordance with hotel booking websites' web traffic data and analytics.

Keywords e-Mediaries · Hotel booking services · Twitter · Performance

JEL Classification O33 · L11

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1 Introduction

On November 2015, the Internet has captured the attention of 3,366,261,156 (Internet World Stats 2015) users worldwide and has tremendous impact on global commerce (Pollock and Benjami 2001) as 80% of the online population has used internet to purchase something (Weinstein 2013). The travel and tourism industry is one of the world's largest industries with a global economic contribution of almost 7.6 trillion U.S. dollars in 2014 while the revenue of the global hotel industry was 457 billion U.S. dollars in 2011 and is forecasted to be 550 billion U.S. in 2016 (Statista 2015). Travel and tourism industry is also one of the world's largest industries in the electronic marketplace, due to the information-based nature of tourism products and the intangible character of the their promotion and distribution (Doolin et al. 2002; Nysveen and Lexhagen 2001). Online hotel booking is the second largest sales item after air travel (Marcussen 2008). In 2010, the revenue generated through online travel bookings was at about 309 billion U.S. dollars (Statista 2015).

The use of Internet has changed tourism consumers' behavior dramatically (Mills and Law 2004). Using Internet, consumers can undertake their entire tourism product. They search, look for advice and finally book online (Garces et al. 2004). Travelers have direct access to a huge amount of information provided by tourism organizations, enterprises and increasingly by other users (Buhalis and Law 2008). As the internet becomes a distribution channel, a place for information acquisition and business transaction, it plays an important mediating role between customers and tourism companies (Liang and Law 2003). Consumer adoption of the Internet has prompted a change in the tasks of the traditional intermediaries, travel agents and tour operators (Law et al. 2004; Nysveen and Lexhagen 2001), and in the way in which hotel rooms are being distributed (O' Connor 2003). Thus the Internet have restructured the entire touristic value chain (Buhalis and Jun 2011), forced the existing intermediaries to take Internet up to develop or adapt corresponding business models (Egger and Buhalis 2008; Sigala 2007) and new intermediaries (e-Mediaries, or cybermediaries) emerged in the cyber-world, to facilitate transactions between buyers and sellers and receive a percentage of the transaction's value (Turban et al., 2008).

The recent explosion of social media like blogs, microblogging, virtual communities, wikis, social networks, collaborative tagging, shared media files and consumer generated content have tremendous impact on Internet users expectations, decision making behavior (Sigala 2007) and their ability to make travel plans. Tourists and travelers make extensive use of social media technologies and show to appreciate offered possibilities (Laloumis and Katsoni 2013). As social media 'are taking an important role in travelers' information search and decision making behaviors' (Yoo et al. 2007) tourism related enterprises tend to adopt them in order to communicate with the potential customers, promote their products, engage with consumers (Hudson and Thal 2013), increase brand awareness and strengthen emotional connection with the brand (Laloumis and Katsoni 2013).

Twitter is the most popular microblogging tool with more than 320 million monthly active users (Twitter 2015) and 1.3 billion estimated number of registered users (Smith 2016). With these hundreds of millions of users and the great potential for commercial work, Twitter is a great opportunity for enterprises to reach a global audience of new and existing customers, to discover what's happening in the world right now, to share information instantly, and to connect with people and other businesses around the globe. Up to now research effort has been devoted at investigating use of twitter by tourism related companies and especially e-Mediaries for hotel booking services. The paper fills this gap and investigates Twitter use by major hotel booking e-Mediaries. Twitter performance indexes are used to describe the activity and performance of these accounts. Descriptive statistics, Principal Components Analysis and Correlational analysis are used to investigate if significant differentiations among hotel booking websites exist, regarding Twitter performance. It is also investigated if Twitter use is in accordance with hotel booking websites' web traffic data and analytics.

1.1 Intermediation in the Hotel Industry

Hotel establishments have two alternative distributional organizations: an intermediated distribution or a direct distribution where internet plays a prominent role (Calveras and Orfila 2014). Traditional intermediaries are tour operators and travel agents. In 1994 before the massive use of the internet only 20 to 25% of all hotel rooms were reserved through agencies (Schulz 1994). However the use of Internet has forced hoteliers to change their traditional modes of operation (Medina-Munoz and Garcia-Falcon 2000). Meanwhile the wide use of Internet as a means to deliver up-to-date content resulted in the creation of conditions for the emergence of a wide range of new tourism e-Mediaries, while many of them are owned or powered by existing non-tourism organizations like Microsoft's Expedia. The major GDSs also realized the dramatic changes and entered the online market by developing interfaces for consumers like Travelocity.com owned by Sabre and TRIP.com owned by Galileo (Buhalis and Licatta 2001).

Hoteliers need to understand that a mixed online strategy integrating the use of hotel website (which remains the core of their digital strategy) (Baloglu and Pekcan 2006), use of internet distribution channels (Gazzoli et al. 2008) and use of social media (O'Connor 2010) is the pre-requisite for success (Inversini and Masiero 2014). According to a recent research by Statistic Brain (2015) regarding Internet source for hotel booking, 65.4% are made through Brand Website (e.g. www.marriott.com), 19.5% through Merchant Website: (e.g. Expedia/Hotels.com, Travelocity and Orbitz), 11.3% through Opaque Website, where customers choose a fare or rate without knowing the brand of the supplier until after the item is purchased (e.g. Priceline) and 3.7% through Retail Website: (e.g. HRS, Bookings, Venere in Europe). E-Mediaries have the advantage of offering one-stop-shop for booking hotel rooms or sometimes of booking the entire holiday (O'Connor 2008).

One of the problems that the Internet has brought around is the plethora of travel information and choices (Buhalis and Law 2008) and the consumers feel lost. E-Mediaries aggregate products (Kim et al. 2009) and act as providers of reputation and as guarantors of quality (Calveras and Orfila 2014). Moreover, aggregation of products, smart business practices related to pricing and loyalty programs enable e-Mediaries to provide the final consumers with cheaper solutions (Inversini and Masiero 2014; Kim et al. 2009, Toh et al. 2011) and sometimes to provide cheaper room rates than those offered by hotel brand websites (Gazzoli et al. 2008).

2 Twitter in Tourism

Twitter is an information network made up of 140-character messages called Tweets (Twitter 2015). It's an easy way to discover the latest news related to subjects of interest and has turned into the place to be for marketers and a great platform to reach audience. Chu et al. (2010) claimed that it is an information publish venue (Chu et al. 2010) as 63% percentage of its users say that it is a source for news for them (Digital Marketing 2015). Tourism enterprises may use Twitter to disseminate information, connect with tourists and potential visitors and build relationships, expand online branding opportunities, provide access to tourism services and listen to the voice of their customers (Antoniadis et al. 2014; Bulearca and Bulearca 2010). Atadil et al. (2010) who investigated the impact of Twitter and Facebook on information gathering and tourists' attitudes towards hotels found that about 70% of study participants use Twitter and Facebook to obtain hotel information and that information affects a hotel choice of about 64% of respondents.

According to a study conducted by University of Massachusetts Dartmouth Center for Marketing Research on how companies in the Fortune 500 list were using social media, 78% of the Fortune 500 corporations use Twitter in order to listen to and engage with their target audiences, monitor competition and watching trends. Eight out of the Top 10 corporations consistently post on their Twitter accounts. Further, 85 of the Top 100 corporations have an active Twitter account. 41% of Twitter accounts belong to Top 200 corporations and 37% of Twitter accounts come from corporations ranked in the bottom 200 of the Top 500 (Ganim et al. 2015). The research gives insights into what's working and what's not for the big companies and shows how small firms can't benefit. The growing use of Twitter which has been expanding rapidly since its official launched in 2006 and the lessons learned by Fortune 500 companies imply that tourism enterprise including e-Mediaries have to adopt Twitter effectively in their digital strategies and fully exploit all of its potential for information sharing and creating dialogue.

This paper aims to describe the activity and performance of e-Mediaries Twitter accounts, to examine if this activity is in accordance with the general web popularity of the relative e-Mediary organizations, and finally to examine if e-Mediary accounts offer the conditions for community building among followers and support discussion among the organizations and their followers. The first is examined by

reporting on the recorded Twitter indexes of the accounts and their statistics. The second is examined by using correlation coefficients among the Twitter activity indexes and web popularity indexes. The third is examined by recording features of the accounts (retweets and mentions/replies) that allow for interactivity, discussion and community building.

3 Methodology

During 1–8 March 2016 the websites of 58 e-Mediaries were searched and their relative Twitter accounts were recorded. The following Twitter activity indexes were recorded: Number of Tweets, Number of Tweets per day, Number of Following, Number of Followers, Number of Likes, Number of Lists, Age of the account (years), Number of Photos and videos, Number of Tweets and Retweets (during one month period 4/2–3/3 2016), Number of Replies (during one month period 4/2–3/3 2016). Further, several web ranking indexes were recorded for the original websites of the e-Mediaries.

The original idea was to combine Twitter indexes and describe the relative placement of the accounts regarding their activity on Twitter, and then correlate this activity with their general web presence to understand whether their Twitter activity is in accordance with their general web popularity and authority.

The findings present the descriptive statistics of the indexes. Principal Components Analysis is used to produce a component of the indexes in order to better describe and understand the activity of the Twitter accounts. Spearman's correlation coefficients are calculated among factor scores of the accounts and the general web rankings of the original e-Mediaries websites. These web rankings are Alexa global rank, Alexa bounce rate % (Percentage of visits to the site that consist of a single page view), and Total sites linking in (number of sites that Alexa found that link to the site).

4 Findings

The striking finding of Table 1 which presents the descriptives for the key indexes is that the standard deviations of all the key indexes are greater than the means. This means that there is a great variability for every index. There are accounts that have very few or zero number of the key indexes while there are other that have thousands or tens of thousands. Skewness is relatively low to medium, but in the case of Followers, Following, Likes and Lists the values are greater. This means that to a certain degree, some accounts have bigger activity regarding the indexes, while the most have very small. Number of followers is especially skewed; its skewness equals to 5.5, and it ranges from 5 to 772,000 followers. KAYAK, Expedia, Orbitz, Booking, Hotels.com, Priceline, and tiket have the larger numbers of followers.

Table 1 Descriptive statistics of the key variables of the analysis

	Minimum	Maximum	Mean	Std. Deviation	Skewness
Tweets	5	40,100	7984	10,100	1.787
Tweets per day	0	20	3.4	4.28	2.042
Following	0	31,300	2876	4966	3.966
Followers	5	772,000	38,208	112,007	5.494
Likes	0	19,800	1468	3560	3.774
Lists	0	40	3.81	7.090	3.850
Age (years)	2.5	9	6.6	1.3	-1.403
Photos and videos	0	3436	757	968	1.600
Tweets and Retweets (4/2–3/3)	0	410	61	95	2.118
Replies (4/2–3/3)	0	691	59	142	3.022

Regarding the number of tweets, Expedia, Booking, tiket, LOwcosyolidays, Lastminute.com, Hostelbookers, Hotels.com, and Roomorama come first, while the most active regarding tweets per day are tiket, Expedia, Booking, LOwcosyolidays, Lastminute.com, Hotels.com.

Hotwire, HomeAway, Hostelbookers, Splendia, Lastminute.Com, i-escape, Roomorama, Expedia, Orbitz, Priceline and Booking Are at Least Seven Year Old Accounts

Regarding number of replies, serving as interactive information channels, the following come first: Expedia, Booking, Lastminute.com, Priceline, LOwcosy holidays, Hotels.com, Hotwire, KAYAK. These accounts, more than others, strive to address to specific followers’ questions and requests. In this way they manage to transform Twitter to a channel of more personalized information, transforming it from a small message medium to a communication and e-marketing channel.

PCA is used to summarize the indexes. It produces one Principal Component (PC) having eigenvalue over unity, which accounts for 63% of the initial variance. Table 2 presents the factor loadings. When this PC has large values it is associated with large values of the initial variables. The produced factor score for each account is a new index that can be easily used to sort the accounts according to their activity.

Table 2 PCA resulting to one Principal Component summarizing the key variables

Percentage of variance explained: 63%	Factor loadings
Tweets	0.935
Tweets per day	0.912
Photos and videos	0.837
Replies (4/2–3/3 2016)	0.805
Tweets and Retweets (4/2–3/3 2016)	0.764
Following	0.699
Followers	0.498

Table 3 Top Hotel e-Mediaries websites according to Twitter performance and activity

	Tweets	Tweets per day	Following	Followers	Likes	Lists	Age (years)	Photos and videos	Tweets and Retweets (4/2-3/3)	Replies (4/2-3/3)	Alexa global rank	Alexa bounce rate	Total sites linking in (Alexa)
Expedia	40,100	14.94	31,300	344,000	10,200	6	7.3	3436	346	691	456	21.4	11,280
tiket	36,100	20.02	225	81,900	133	1	4.9	2618	410	86	10,611	21.1	844
Booking	36,700	14.31	4804	90,700	7397	6	7	1158	10	563	111	23.6	52,508
Lastminute.com	26,100	9.3	6107	58,300	2351	0	7.6	3267	107	453	4168	24.9	4059
LWocsyholidays	32,800	12.95	2609	15,700	526	4	6.9	3276	108	311	22,149	22.7	1167
HomeAway	15,000	4.97	17,600	32,800	1898	5	8.2	1886	274	34	1674	43.2	7592
Orbitz	15,400	5.94	6195	151,000	14,800	0	7.1	3073	233	54	1485	23.2	5281
Hotels.com	21,500	8.49	5118	86,000	5116	0	6.9	678	264	236	551	24.5	9289
KAYAK	10,700	4.22	1637	772,000	831	5	6.9	770	96	174	579	14.6	6820
homestay	12,800	7.35	3956	13,400	592	2	4.7	3148	104	18	67,980	33.8	203
Hostelbookers	22,300	7.78	11,200	22,600	924	11	7.8	979	4	0	20,063	35.7	4405
Superbreak.com	11,000	4.56	2339	7860	2989	1	6.6	2041	136	49	73,505	30.3	732
Priceline	10,500	4.05	3945	85,000	2917	3	7.1	482	47	313	872	14.8	5962
Splendia	7352	2.59	1778	6282	399	2	7.7	1439	308	3	131,224	29.8	755
Roomorama	21,500	7.92	210	10,600	188	3	7.4	864	0	3	56,283	41.2	393
Secret Escapes	8385	4.29	5044	60,700	1173	4	5.3	1069	74	62	14,454	26.6	602
Hotwire	8926	2.71	5583	25,700	977	1	9	82	34	207	2514	22.8	2476
HolidaysRental	3613	3.57	8554	9676	19,800	34	2.7	1298	0	0	465,819	40.7	611
otel.com	8820	3.57	69	15,500	43	10	6.7	1875	4	0	40,246	50.7	415
i-escape	8247	3.04	2892	13,100	436	5	7.4	969	44	4	121,609	35.6	527

Table 3 presents the top Twitter accounts according to the factor scores of this one PC. Expedia, tiket, Booking, Lastminute.com, Lowcosyolidays, HomeAway, Orbitz, Hotels.com, KAYAK and homestay are the top ranking e-Mediaries on Twitter. Their rankings are the outcome of better performing overall in all the key indexes. They excel in number of followers, number of tweets, and number of photos they post. The accounts and their followers are very active in retweeting, replying and mentioning. Overall, they serve as very active agencies which not only provide information but also they are proactive by offering information that might interest to followers. They provoke conversation and serve as the seeds of communities building among them and their followers.

However, it is not clear so far whether the rankings of the accounts are in accordance with the overall web presence of the e-Mediaries. To explore this, three web presence indexes were used: Alexa global rank, Alexa bounce rate, and Total sites linking in (Alexa). Spearman's non-parametric correlations were used to cope with skewed distributions of the key Twitter variables. These correlations between these three indexes and all the key Twitter indexes plus the factor score resulted from PCA are computed, and presented in Table 4. There are many statistically significant and high correlations. Number of tweets, tweets per day, followers, and replies are more correlated with web indexes. The overall factor score is also significantly correlated with all the three web indexes. So, overall, the conclusion could be that there is a strong association between general web presence and Twitter performance of the relative accounts. Twitter accounts do not deviate from supporting the image and appearance of the e-Mediaries presence on web.

Table 4 Spearman's correlation coefficients between key variables of Twitter activity and general performance indexes of the Hotel e-Mediaries websites

	Alexa global rank	Alexa bounce rate %	Total sites linking in (Alexa)
Tweets	-0.783**	-0.273	0.700**
Tweets per day	-0.761**	-0.303*	0.672**
Following	-0.434**	-0.142	0.455**
Followers	-0.810**	-0.266	0.737**
Photos and videos	-0.486**	-0.113	0.386**
Tweets and Retweets (4/2-3/3 2016)	-0.535**	-0.307*	0.386**
Replies (4/2-3/3 2016)	-0.710**	-0.529**	0.542**
Factor score	-0.728**	-0.301*	0.657**

(*: $p < 0.05$, **: $p < 0.01$)

5 Conclusion

The paper described the Twitter appearance and activity of the hotel e-Mediaries. Fifty-eight Twitter accounts were recorded and their activity and performance indexes were also recorded and analyzed. There is a significant differentiation regarding activity. Some accounts are very active, while others are only partially involved in spreading information and attracting users. Twitter activity is in accordance with the organizations web presence and popularity. This association is evident especially for number of tweets, tweets per day, followers, and replies.

Further, there is evidence that e-Mediaries accounts, besides serving as notifications boards, they also improve discussion and community building among them and the followers. They do this by posting a lot, providing photos and information and mainly by replying. They offer in this way a means for dialog with their followers and conversation among their followers. In this way they achieve a primary goal of web 2.0 applications presence: achieve interactivity, personalization and community building.

There is a debate on if and how information provision organizations use Twitter effectively to promote information provision and discussion as well. The second would be effectively achieved by supporting community building among users and followers. There is evidence from other scientific fields, for example from e-government, that many (governmental) agencies do not respond effectively to this need. On the contrary in this case study it is evident that e-Mediaries manage to communicate with their Twitter followers on a community basis. This is more evident for the most active accounts. These, in turn, are those associated with e-Mediaries which have larger web presence and popularity.

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Modulation of Conditions and Infrastructure for the Integration of Change Management in Tourism Sector

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Abstract The current socio-economic conditions and the changing environment, form the perpetual need for adaptation to multifaceted operational developments. The prerequisite need for survival and development of organizations consists in cultivating the capacity to understand the new environment and to timely adapt it. The importance of the change, it has become absolutely understandable especially in business world and especially in the tourism sector, since it is inextricably linked with the survival of the constantly changing competitive environment. The need for direct but effective changes, spurred scientific research, in shaping particularly timely administrative visa, change management. The implementation of organizational change based on the principles of change management, requires prior configuration of conditions and infrastructure. The implementation of a change poses a major difficulty as well consists of an extremely laborious, multi-level and critical process which would jeopardize the viability of an organization. Creating readiness for change, based on the effort influence the perceptions, values, intentions and behaviors of people working in an organization. In this context, witnessed by the imperative need to develop the framework in which the implementation of a change, it will be possible. This study will analyze the conditions that should be

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fulfilled in order to warrant the architecture of a new operational approach, bringing active repositioning some or all of the functions of an organization and specially in the hotel units. The mission of this article is to analyze the infrastructures needed for the adoption of an organizational change by connecting the context in which an organizational change developed, promoting the effectiveness and efficiency of an organization. The main objective of the article, besides the contribution to science is to contribute to the socio-economic development by strengthening the sustainability and efficiency of the agencies.

Keywords Change management · Organizational culture · Socio-economic development · Entrepreneurship · Greece

JEL Classification Z3 · Z32

1 Introduction

The modern era of the social economy and the ever changing environment have the two formed the need for adjustment in multidimensional business progress. A necessary condition for survival and development is to form and understanding of the current environment and timely adjustment to it. The necessity for immediate but effective changes, boosted the scientific research, to setup change management, form a modern “*shape*” of administration which contains a variety of authorities and methods, useful for tracking, processing and effective management of changes on businesses and organizations.

The value of this change has been completely comprehensive to the business world, considering it’s inextricable links to the survival in a constantly transforming and competitive environment. The meaning of this change, is designated by the identification of Darwin theory: concerning the development of kind with effective business management. Based on the cited links, in contrast to the theory of evolution, survival of the largest and most powerful was not accomplished. Though those who were able to adjust easiest to the changes, did (Joyce 1999). The said business that did succeed was those which were able to integrate into the business strategy the upcoming changes. So as to adjust in time and incorporate the said developments.

The necessity for this change has been denatured into scientific current which quickly became accepted as one of the most dominant forms of management (*especially in this contemporary era where development is extremely radical*). The price paid for not adjusting to these new developments soon became apparent in businesses that failed to observe and follow the said changes.

2 The Difficult Venture of Change

The usefulness of the implementation of change in contemporary administration has already been perceived. The constant changes that community and the economy face together along with the rapid technological improvements form a particularly demanding business environment which reduces as a prerequisite for survival, growth in the tracking of new business conditions, developing the consequent ability to respond to new administrative challenges. This project consists of an extremely administrative process that requires addressing a number of multifaceted parameters in order to successfully realise the introduction of a change. The difficulty of managing change is especially evident in the weakness shown by “*colossal*” companies to make the necessary changes which result in jeopardizing their own viability. It is reported that from the list of the 100 largest US companies (as published in *Fortune magazine* in 1956), only 30 exist today (Cook and Hunsaker 2001). According to Beer and Nohria (2000), a rate of 70% of change initiatives in specific business functions and behaviors fail while at the rate of 80% of a large business technology investments are either not used or are abandoned within six months. This evidence shows the difficulty to respond even for influential business, to the prevailing conditions whole moving to the necessary changes required by the ever changing exogenous environment. The causes of these failures are attributed to complacency and ineffective organisation, to stereotypes to individual and group inertia, inadequate knowledge of management, to problematic information channels, a lack of effort to change etc.

The identification, processing and alteration to an element or function is a very difficult administrative task. The process of change can be associated with one or more of the change of technological tools, the adjustment of the administrative procedure etc. The changes that may be made (Bourandas 2002) in an organisation may be reported in the following dimensions:

- Technical Dimension. Change in technical aspects of the organization’s operation.
- Managing Dimension. Changing management mode to increase efficiency.
- Organizational Dimension. Redefining the organizational structure with the aim of improving efficiency.
- Learning Dimension. Changing the administrative way by shaping new attitudes, beliefs and behaviors.
- Political Dimension. Reforming the political balance within the organisation.
- Civil Dimension. Modification of the organizational culture.
- Psychological Dimension. Changing the psychological state of human resources due to the resetting of the position and role.

From the analysis of this multi-level dimensions, the complexity and difficulty of successfully integrating a change are perceived, therefore highlighting the importance of the process for change (Bourandas 2002).

Despite the undeniable importance of implementing a change, organisations are faced with many problems of transition to a new state. According to international research some of the main causes of resistance to the impending changes are as follows:

- Fear and uncertainty of the unknown.
- The habit of a certain way of working which tends to lean towards inertia.
- The reluctance of workers to alter their way of working based on different perceptions of command and other staff members.
- Lack of confidence in those who suggest change and in the belief that somehow they will be compromised.
- Not comprehending the usefulness of change.
- Lack of incentives, limited time, arrogance/pride, fear of failure/lack of self-confidence (Weiermair 2008).

According to survey conducted by Kuebler and Ross (as cited in <http://www.allthingsic.com/bezos/>) the standard stages of reaction to a change are expressed in the following ways (Chart 1).

Overcoming these obstacles was the ultimate goal of change management which recruited a number of methods for the efficient management of resistance to change, such as emphasis on education/training better quality in communication, full participation, modern incentive practices, change in administrative culture etc. Below are the main ways of tackling resistance:

- Target. Set up of specific and clear goals.
- Set up rewards system: These rewards are construed as significant and attractive for the worker.
- Participation by employees: The active participation can strengthen their commitment and promote responsibility.

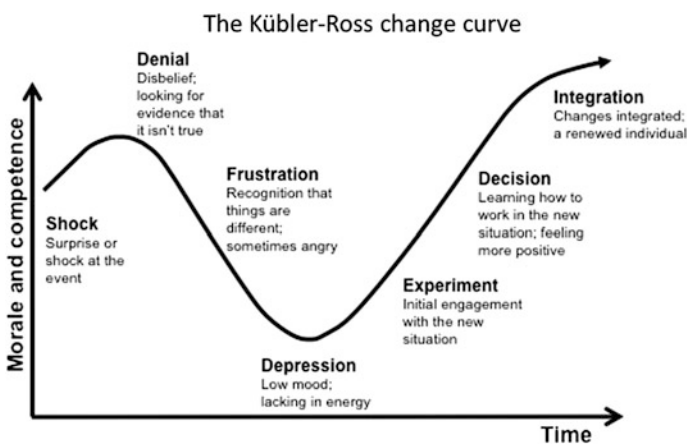
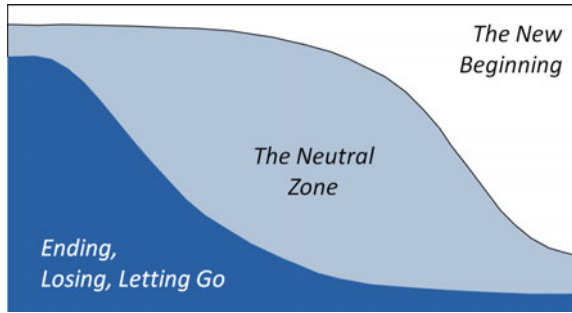


Chart 1 The Kubler-Ross change curve. Source <http://www.allthingsic.com/bezos/>

Chart 2 The Managing Transitions. Source <http://mindfulnext.org/change-and-transition/>



- Stress management and reinforcing support.
- Individual or group communication can reduce anxiety, insecurity and to function reassuringly (Joyce 1999).

It also seeks to prepare employees on an individual/psychological level to become more receptive to forthcoming changes. The level of readiness is influenced by:

- The personal belief that one can cope with change.
- The assumption that the said change is appropriate for the organisation and leadership are committed towards change.
- The belief of the individual that there is a commitment of the organization and leadership against change (Chart 2).
- The expectations for personal benefits after the management change (Osborne and Brown 2012).

As part of an effort to successfully implement the changes a plethora of import models has been created (Rossidis 2014) the most important listed below:

- The model of Lewin-Schein, whereby the attempted change is implemented through steps of “unfreezing” (*locating needs, defining ways of improvement, design change operations*), the change (*application of the change process*) and of “refreezing” (*securing and maintaining the change, feedback of the integration system and completion of change process*).
- The model of J. Kotter, in which eight individual steps were applied, the implementation of change (*recognition of the need for change, group formation for change, strategic planning, notification to all participants of the vision for change, ensuring total participation of short term goals, stability in results, adoption of a new corporate culture*).
- The research and action model (*Robins model*) according to gradual and independent actions which were undertaken leading to implementation of the overall change.
- Model of planned change, which refers to the creation of a logical sequence of actions based on a complete and thorough programme.

- The model of Blögen and Hope in accordance with the nature and intensity of change.
- The model of Cook and Hunsaker specifies in the process of adopting change.

The importance of change in management resulted in drastic improvements in fragmented business processes highlighting it as one of the most basic mythologies in recent years. The administrative way may change, depending on the degree of achievements of objectives or on a change in the environment. According to Professor Brookfield (2000), University of Liverpool, the level of changes in management are based on the effectiveness of working practices, the evaluation of performance and the dynamics of the management change. The ability of management to create exceptional business policies and effective mechanisms in administration which are focused on the recognition and adaptation to the required changes, enabling them to be offered the advantage of not only surviving but also the formation of dominating the existing competition.

3 Conditions for Integration of Organizational Changes

The implementation of an organizational change based on the principles of Change Management, requires prior configuration of conditions and infrastructure. Creating readiness for change is based on the attempt of influence: Beliefs, values, intentions and behaviors of people working in an organization. The implementation of a change of a significant degree of difficulty as well consists of an extremely laborious, multi-level and critical process by which the viability of an organization will be compromised. The change management has become one of the major administrative procedures to be followed by companies in order to ensure their survival in the current volatile economic conditions. Creating the necessary conditions that must be met in order to be founded edifice of a new operational approach, becomes extremely important as they may lead to a drastic relocation of part or all of an organization's operations (Bridges and Mitchell 2000). In particular, when a change management process should be identified:

1. The level at which the change will take place. That means to determine whether the attempted change to: individuals, groups or the entire organization.
2. The objectives of change. The objectives may refer to various level:
 - i. worker (*changes in knowledge, attitudes, skills, attitudes*),
 - ii. technology (*e.g. digitization processes, new information systems, new technology infrastructure etc.*),
 - iii. organizational structure (*new forms of segmentation, different control range, decentralization/concentration of power, etc.*),
 - iv. administrative process (*change in style, type and sequence of activities for handling an operation*),

- v. organizational culture (*change in mentality and culture participants*),
 - vi. the management style (*adoption of a different management model similar to the intended change i.e. participatory/consultative/authoritarian governance model*).
3. The content of the change. This item refers to the type or the real object of change. That is what eventually will change in order to achieve the objective.
 4. The implementation of the change process. In said step described technique/method/method with which to attempt to change (Bridges and Mitchell 2000).

At this point it should be noted that while the change can be referred to a necessary diversification in the structure, politics, technology, culture and procedures if it is not accompanied by the acceptance and support of organizational members are doomed to fail (Bridges and Mitchell 2000).

The successful implementation based to:

- (i) the manner in which members of a particular organization react and behave in the light of change,
- (ii) the way the business strategy focuses on human behavior,
- (iii) the prevailing sociopolitical perceptions and
- (iv) the prevailing emotional processes affects change management of change and which play a whole a particularly important role in the functioning of a body (Armenakis et al. 1993).

Identifying the need for change and the determination of the level on which it should bring about a change is in an extremely difficult and complex process. A desired change may be developed on many levels. The change regarding how caused, can be designed or emerging, intentionally or unintentionally, preventive or deterrent. The change regarding the nature can be continuous or periodic, incremental—evolutionary—gradually—or radical realignment—transformative—revolutionary—big bang. The change regarding the strategy can be based on “*rigorous*” economic value (*i.e. increase returns for shareholders, expanding market share*) or more “*soft*” organizational capabilities (*i.e. change in administrative procedures, changing organizational structures*). The change regarding the content may be technical or technological (*new technologies*) or physical (*relocation site*) or organizational (*transformation of existing structures and procedures*) or individual (*replacement of people, a change in beliefs, values, behavior*). The types of changes correlating the degree of importance and the stimulus, divided into different levels that the ideal change management strategy is determined (Beer and Nohria 2000).

Under the prevailing conditions selected and the appropriate strategies for managing change. The aforementioned correlation generally leads to the following broad strategies:

- a. **STRATEGY ADJUSTMENT** carried out on the existing framework, it happens gradually and attempt to make targeted improvements/adjustments in certain administrative levels.

- b. **RESTRUCTURING STRATEGY** which can bring about major structural changes redefining important body functions.
- c. **DEVELOPMENT STRATEGY** which involves the gradual change of the existing organizational framework, permanently adjusting their strategic positioning with respect to changes in the external environment.
- d. **STRATEGY REVOLUTION** referred to radically change the organizational framework redesigning (*many times of profound*) one or more functions/procedures/systems/structures (Osborne and Brown 2012).

For the successful integration of a change methodologies customarily used by the standards set by Knowledge Management. Below are the main elements that should include a matching of a change management process.

1. Recognition of the need for change. At that stage carried out to identify the need for change. Most often the need for change resulting from the emergence of a problem (*e.g. making losses or market share decrease*). Still a capable company should be able to distinguish between the need for change even in healthy/normal conditions providing for the problem. Of course this feature requires an intense extroversion, effective sensors and powerful reflexes. Required changes may refer to procedures, capabilities, functions, products/services, knowledge, strategies, etc.
2. Edit and design change. At this point it should be determined:
 - (a) the nature and content of the change,
 - (b) the channel from which the change is passed,
 - (c) any obstacles facing the attempted change,
 - (d) an appropriate change strategy, with interventions and tools to be used for implementing the change,
 - (e) the criteria for success and how to measure the results.
3. Management/Change Management. At this stage, the administration will be required to implement the change plan by selecting the appropriate management approach and education to change, the appropriate stimulation system, the required resources (*tangible and intangible*) and the necessary support systems.
4. Evaluation of the results and maintaining change. Finally, they should be compared with the expected results realized, to assess any deviations, to conduct feedback system based on the results obtained and finally to choose the appropriate retention policies of modular changes (Miller 2002; Cook and Hunsaker 2001).

One of the most important parameters that need to be addressed in order to permit the introduction of a change, determines or respectively (*if necessary*) to redefine the organizational culture that governs the set of beliefs, values, attitudes and attitudes that characterize the endogenous environment of an organization. In particular, organizational culture when Shein (2010) is “*a structured set of basic assumptions that have been discovered, invented or developed by a given group as it learns to treat external problems of adaptation and internal integration, which*

have performed well in the past so be considered generally applicable and therefore can be taught to new members as the correct way of perception, thinking, feeling about these problems". The culture that governs an organization is able to largely determine the possibility of integrating an attempted change as well as on the substance is the basis under which they will establish the building of a new administrative reality. The importance of culture is demonstrated by the undeniable impact that may result in any administrative function through:

- (a) the formation of a Common Framework of Reference (CFR) (*thinking/behavior/actions, system of values/attitudes/beliefs, etc.*),
- (b) the development of a sense of collective identity,
- (c) strengthening the commitment to the organization,
- (d) the guarantee of uniqueness and ensuring sustainability.

Particularly important task of modern administrations is the identification effort and influence of organization culture in order to promote the effectiveness of the changes through the harmonization and encourage common goals, language and procedures. The organizational culture is now reduced to one of major analysis fields when configuring the implementation of organizational changes (Schein 2010).

4 Change Management in Tourism Sector

The implementation of contemporary methods in hotel organizing and management could introduce major modifications to the more traditional way, in management and organization, more specifically on matters concerning training, the culture of each individual employee, the policy for motivation, the procedure of communication the implementation of new technology and innovation and finally the management of the workforce (Akrivos 2005).

According to Norris as change management we can define "*a set of strategies designed to smooth transition & helps employee accept and embrace change*" (as cited in Lee 2008) and as Levy mentioned the organizational change is the "*change that is designed by the executive management to face or prepare for challenges to its organization*" (as cited in Lee 2008).

According to Gkliatis and Koufopoulos (2013) and Ozdemir (2007) the successful change management in the other sectors. More specifically, the basic points are the effective communication, the importance of recognition and reward of the employees, to support the organizational change with the appropriate resources the participation of the employees in the organizational change, the role of the leader etc. Regarding the tourism sector, the aim of change management are, among others; diagnosis of the current status of the tourism industry; transformation towards the desired status, by setting goals for a competitive tourism sector and finally evaluate the result and have feedback for a competitive tourism.

The main difference in the configuration of change management in the sector of tourism, includes the fact that in the tourist industry, one has to take into consideration that customer characteristics change, as do social policies, technological and economical conditions and so on (Weiermair 2008).

The singularity of the management changes in the tourism sector lie in the fact that many participants are referred to, which have an immediate link to local tourist activities, the nature of tourism, where they vary in size, the indigenous and others. Furthermore, the role of various shareholders, the acceptance of the theoretical approach and finally the proof that is reflected on a practical level (Laws et al. 1998).

The importance of the organizational changes has been shown by Xaio and Smith (2006) and Costa (2004) in their report. They point out characteristically the issues that have already been developed such as organizational changes but also individual topics like tourism planning and development, veiled management, tourism decision making more.

The required changes in management of tourism businesses and particularly hotel infrastructure which would be accessible for all seasons and for the enrichment of every commodity and service that is provided. On individual topics in the management of changes, it has been proven that the employees have expressed their satisfaction with their efforts of implementing these changes (Charalabidis et al. 2014).

Particularly in Greece, the change management must begin from the CEOs' management; particularly the strategy for public policy must be characterized by stability, more specifically with an independent minister and official Secretary of Tourism, not to mention all other co-ministries. Finally, the main co-ordination must be of the highest level. The private sector must also contribute to the configuration, the attendance and to the valuation of the strategy for development in the tourism (Weiermair 2008; <http://www.greektourism2020???>).

Based on this policy the strategic plan for tourism has been formed, it already contains the research and data analysis, the marketing strategy for tourism products in the Regional Unit. One example of this policy is the plan for the Regional Unit of South Aegean. Its aim is to promote and display tourist products of the Regional Unit through a specially designed and complete set of actions aimed at target markets. The Strategic Plan of Tourism consists of research and data analysis, strategy for the marketing of products from the Regional Unit, design for identifying competition, a communication plan and a street map (<http://www.fortunegreece.com/article/trietes-stratigiko-schedio-anaptixis-tourismou-apo-tin-periferia-notiou-egeou>).

As for the private sector, the mergers and acquisitions are those that can mould the changes both in organization and management. One such example is the merger of Sani AE and Ikos AE into one group. The aim of this merger was the creation and function of luxury hotel units with the view to develop independently as brands of the association, available on the website (<http://www.fortunegreece.com/article/to-neo-megalo-deal-ston-xenodochiako-klado/>).

5 Conclusion

The analysis of the conditions required for the adoption of a change are an extremely critical process because the frame is connected to which an organizational change grows, promoting the efficiency and profitability of an organization. The implementation of a carefully designed change management program, especially in the era the economic crisis may significantly upwardly adjusting the prospects of implementation of a change, greatly enhancing the conditions and prospects of survival. Managing change is a neuralgic administrative function which provides all the necessary tools and practices to become an organization capable of adapting to constantly changing conditions of exogenous environment. At this point we should be emphasized that the development frame changes except for the undeniable value offered to administrations of bodies, is at the same time a highly useful tool workers adapt to a different work every day as shaped by the perpetual changes imposed by the globalized environment. The principles and methods of change management are the necessary tools that should integrate all agencies in their arsenal to maintain or increment their performance, aiming at openness and ultimately ensuring their sustainability. The configuration of an operational framework for the implementation of organizational changes, may lay the necessary acceptance and integration of administrative changes supporting the labor reality of participants and enhancing the smooth functioning of organizations.

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The Impact of ISO 9001 Quality Management System Implementation in Tourism SMEs

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Abstract During the last few decades service industry is one world's economy most growing industries. Modern management science's philosophy considers service quality as a possible standard of excellence for any organisations around the world. The concept of service quality has been presented in the international literature as a reliable index for the evaluation of any organisation results. Service quality is central to the marketing concept, with evidence of strategic links between service quality and overall service performance. On the other hand it is already obvious that the rapid international developments in the business world form new standards and conditions in the organization and production sector. Within this framework enterprises would proceed to the development and use of more effective implements and methods, which will allow them to evaluate the service and product quality as well as the satisfaction of their domestic and foreign clients. The purpose of this paper is to analyse the impacts of ISO 9001 on Small and Medium size Tourism Enterprises (SMEs). The main emphasis of the literature review will critically analyse the literature on quality, Total Quality Management (TQM), Quality Management Systems (QMS) and characteristics of ISO (International Standardisation Organisation) systems.

Keywords Quality · Quality Management System · ISO 9001 · SMEs · Tourism

JEL Classification L83 · L15

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1 Introduction

Over the last two decades, one of the fastest growing and competitive industries around the world is the service industry. The service industry is a very important industry for a country's economical progress. Good management practices and high level performance are needed to every service organisation. The service industry currently faces considerable strategic challenges to become more responsive to customers' demands by simultaneously improving efficiency and quality.

As the number of organisations increases, competition in the service industry becomes tough and service quality becomes an imperative to provide customer satisfaction and gain competitive advantage in the market, as delivering quality services directly affects customer satisfaction. A lot of studies about the service quality have been conducted around the world. The worldwide interest in the quality of service has been empowered by the need for evaluation and improvement.

On the other hand, during the last few decades year's tourism has become one of the main sectors of the world economy and one of the fastest growing economic sectors. In recent years, there has been an increasing interest in measuring the service quality in the tourism services which offered in Greece.

Tourism is a composite of activities, services, and industries that delivers a travel experience: transportation, accommodations, eating and drinking establishments, shops, entertainment, activity facilities, and other hospitality services available for individuals or groups who have been travelling away from home. It encompasses all providers of visitor and visitor-related services (Drosos and Tsotsolas 2014).

Tourism is defined as "*the temporary movement to destinations outside the normal home and workplace, the activities undertaken during the stay and the facilities created to cater for the needs of tourists*" (Cooper et al. 1993). It involves all types of travelling—day trips, short breaks or long holidays, visits to friends and relatives, travel for leisure or business, in this country or overseas.

Tourism brings significant economic and social benefits to countries, communities and to individuals. At a global scale, tourism's rate of growth has been phenomenal with worldwide international tourist arrivals rising from 25 million in 1950 to 1.2 billion by 2015.

Tourism is a special type of product and it needs to be analysed into two dimensions (Witt and Moutinho 1994). First, into the overall tourism product, the combination of all the service elements that visitors consume from the time they leave home, to the time they come back. The overall tourism product consists of five main components; destination attractions, destination facilities, accessibility, images and price (Witt and Moutinho 1994). And second, into the commercial products, which are components of the overall tourism product, such as accommodation, transport, attractions, etc.

It is common practice in the context of modern organizations, that increasing emphasis is given to the customer's opinion on matters associated with the quality of services as well as the satisfaction level that derives from them. All the service

organizations around the world recognize the importance of service quality as a strategic variable and a crucial determinant of long-term viability and success.

Last years, quality has been an essential strategic component for firms attempting to succeed and survive in today's fierce competitive environment. Quality is a part or at the centre of company strategies with aim to increase or sustain competitiveness. Even though quality has its routes in the manufacturing industry, it has been equally applied as a philosophy into the service sector such as the health care industry which as mentioned previously, is now driven by quality and consumer demands.

Amongst the Total Quality Management experts Crosby, Deming, Feigenbaum, Ishikawa, and Juran there is agreement that the purpose of quality management is to reduce costs and improve customer satisfaction that will lead to an improved competitive position. This agreement is similar to the view that competitive advantage is created through reduced rework costs and increased customer satisfaction through product improvement. These two points of improved customer satisfaction and reduced costs emphasize what quality management can achieve when being part of a strategy. Deming (2000) states that just the organisations which will adopt the modern quality management mentality will survive in the competitive global markets.

It is apparent that a quality may be important, but equally important is the careful implementation of such a system in order for the whole concept to prove successful. The alignment of every member of the organisation with the set goal will deliver a positive result that will eventually multiply the systems benefits. Deming (2000) wrote that by applying quality management, internal operations become more efficient which will result in more satisfied customers and consequently improved marketing and enhanced financial performance.

On the other hand, Yeung et al. (2003) found that organizations that applied Quality were reporting greater customer satisfaction due to increased quality but were unable to make any changes in their operational efficiency that would in turn increase their profit margins.

Parasuraman et al. (1985) developed a model for the determinants of service quality. The aforementioned model examined reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding/ knowing the consumer and, tangibles as determinants of service quality (Buttle, 1996). Based on the previous quality dimensions, Parasuraman et al. (1985) developed SERVQUAL, an instrument for measuring and managing quality of services. SERVQUAL's five dimensions quality of services are:

- Tangibles (facilities, equipment and appearance of staff).
- Reliability (ability to perform the promised service dependably and accurately).
- Responsiveness (willingness to help customers and provide prompt service).
- Assurance (knowledge and courtesy of staff and their ability to convey trust and confidence).
- Empathy (caring, individualised attention the organisation provides to its customers).

As these dimensions contain items from the original dimensions of services' quality, SERVQUAL's dimensions capture facets of all 10 originally conceptualized dimensions. Rohini and Mahadevappa (2006) in their paper with title "Service quality in Bangalore hospitals—an empirical study" listed the advantages of SERVQUAL as follows:

- It is accepted as a standard for assessing different dimensions of service quality.
- It has been shown to be valid for a number of service situations.
- It has been known to be reliable.
- The instrument is parsimonious in that it has a limited number of items. This means that customers and employers can fill it out quickly.
- It has a standardized analysis procedure to aid interpretation and results.

2 Tourism SMEs

According to Ghobadian and Gallear (1995), Small and Medium size Enterprises (SMEs) are the lifeblood of modern economies. They stress the importance for SMEs to continuously deliver quality, as they often tend to be suppliers to bigger organisations that depend on the delivery of quality products and services so that they in turn deliver the end product to the consumer and meet or exceed expectations. The constant effort for improvement must be followed by an increased awareness and monitoring of current trends, changes in consumer attitudes and other factors relating to the competition.

According to Jones and Haven-Tang (2005), the tourism industry is represented by a small number of large organizations and a great number of often family run SMEs. More specifically, the 2.7 millions of SMEs account for 99% of all enterprises in European tourism and more than 94% of them are recruit fewer than ten people and are sometimes family run as mentioned above (Karatzoglou and Spilanis 2005).

SMEs are considered important for the promotion of destination competitiveness whereas large organizations have a more profit making approach without being attached to the destination. On the other hand SMEs are able to offer unique selling propositions as they have the ability to customize and individualise service quality due to their flexibility.

Jones and Haven-Tang (2005), mention that "*in many family businesses the family is part of the product*" in a sense that the family is directly involved in delivering the product or service and comes in contact with the client. According to Dunn (1995) Family run SMEs take pride in offering good quality products or services and they often try to communicate this through using their family name as a brand name.

3 An Overview of Total Quality Management

In order to understand Total Quality Management and Quality Management Systems, it is necessary to define Quality and Quality Management. One of the leading experts in the field of quality is Dr. Joseph M. Juran who was one of the first to set the foundations of what is known as quality and quality management today. With 70 years of his life devoted to working and teaching quality and quality management, with a strong portfolio of large companies such as XEROX for whom he acted as a consultant over the years, he is internationally recognised as an expert in his field (Juran 2004). According to Nanda (2005), the quality expert Juran gave two meanings to the word quality despite the multiple meanings that it may have:

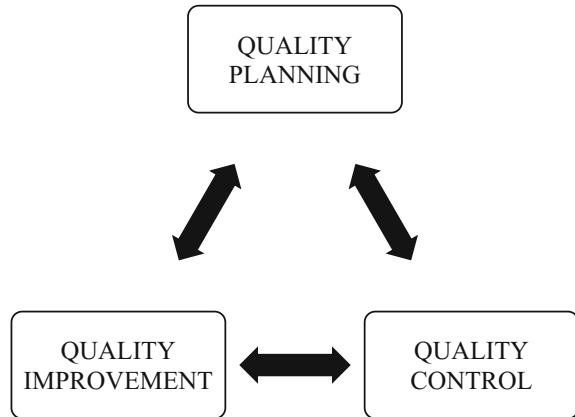
- Quality consists of those product features that meet the needs of customers and thereby provide product satisfaction.
- Quality consists of freedom from deficiencies.

Through the above two meanings it is evident that although Juran would like to have one universally accepted definition, it is difficult to express it in just one sentence. Despite this fact, Juran also described quality as “*fitness for use*”. By this term Juran meant that for a product to be of good quality it should do what the user expected it to do and that the user could count on it to fulfil its purpose. Juran supported this theory with five dimensions: Quality of design, quality of conformance, availability, safety and field use. Through these five dimensions Juran assessed the element of quality from all angles. Bearing in mind the above views of expert theorists, an increase in quality may increase performance in two ways. In the short run increased quality will produce an increase in profits through premium pricing. In the long run increased quality should have a positive effect on the market share which consequently will increase production levels and decrease operating costs through improved economies of scale. Evidently the element of quality has a lot to offer to potential users provided that it is managed appropriately with the assistance of the correct management tools.

Total Quality Management was defined by a number of reputable authors and foundations. Oakland (1993) defined Total Quality Management (TQM) as “*a way of managing the whole business process to ensure complete customer satisfaction at every stage, internally and externally*” (Witt and Muhlemann 1994). The European Foundation for Quality Management (EFQM) defines Total Quality Management as: “*all manners in which an organization meets the needs and expectations of its customers, personnel, financial stakeholders and society in generally*” (Geraedts et al. 2000). Another expert Deming (2000) wrote that Total Quality Management (TQM) refers to management methods used to enhance quality and productivity in organizations, particularly businesses.

Evidently many experts defined TQM but from different perspectives. As seen in the definitions of quality, TQM experts study it from different points of view as seen in the above definitions. Oakland’s definition focuses on customer satisfaction which in essence means that customer needs must be identified. Other authors have

Fig. 1 Juran's Trilogy
(Nanda 2005)



argued that this is not always possible as it is a timely process and by the time it is completed, customer needs and trends may have shifted. Deming also believes in customer satisfaction and not so much in conformance to specification like Crosby does as mentioned above when defining quality.

One of the biggest contributions that Juran had in the field of Quality management was the Juran Trilogy that includes three significant managerial functions: quality planning, quality control and quality improvement (Fig. 1).

Amongst the TQM experts Crosby, Deming, Feigenbaum, Ishikawa, and Juran there is agreement that the purpose of quality management is to reduce costs and improve customer satisfaction that will lead to an improved competitive position. This agreement is similar to the view that competitive advantage is created through reduced rework costs and increased customer satisfaction through product improvement. These two points of improved customer satisfaction and reduced costs emphasize what TQM can achieve when being part of a strategy. For TQM to be effective it is necessary to adhere to certain standards and to be managed efficiently through what are known as Quality Management Systems (Reed et al. 2000).

4 Quality Management Systems

For quality to be achieved it is necessary to be managed within a properly set framework. This framework is what a Quality Management System (QMS) will offer so that it can work as a roadmap towards quality and become part of the hosting organization's culture. This is better described in a few words through a definition of a Quality Management System by BS EN ISO 9000:2000 where it is defined as “a system to establish quality policy and quality objectives and to achieve these objectives” (Williams and Buswell 2003). Hoyle (2006), simply

mentioned that the purpose of a quality system is to enable the user to achieve, sustain and improve quality in an economical manor. Deming (2000) stated that by applying quality management, internal operations become more efficient which will result in more satisfied customers and consequently improved marketing and enhanced financial performance. Furthermore, according to others Total Quality Management orientation positively affects organizational performance (Demirbag et al. 2006; Feng et al. 2006; Li et al. 2008). On the other hand Yeung and Chan (1999) found that organizations that applied Quality Management Systems were reporting greater customer satisfaction due to increased quality but were unable to make any changes in their operational efficiency that would in turn increase their profit margins. Nevertheless quality experts such as Deming (1986) insist that only organizations which will adopt the modern quality management mentality will survive in the competitive global markets.

Quality is part or at the center of company strategies with aim to increase or sustain competitiveness. Even though TQM has its roots in the manufacturing industry, it has been equally applied as a philosophy into the service sector such as the tourism industry which as mentioned previously, is now driven by quality and consumer demands.

According to Camison (1996), when introducing a Quality Management System, it is certain that major changes will have to be made which will include management tools, organizational structures as well as attitude, perception and adaptability of the human resources that will be involved in the implementation of these changes. It is apparent that a Quality Management System may be important, but equally important is the careful implementation of such a system in order for the whole concept to prove successful. The alignment of every member of the organisation with the set goal will deliver a positive result that will eventually multiply the systems benefits.

5 Iso 9001

5.1 About ISO 9001

ISO (International Organization for Standardization) is the world's largest developer and publisher of International Standards. ISO is a network of the national standards institutes of 162 countries, one member per country, with a Central Secretariat in Geneva, Switzerland, that coordinates the system. ISO is a non-governmental organization that forms a bridge between the public and private sectors (ISO, 2010). The description of ISO itself reveals the International aspect that such a certification holds. Its established reputation and recognition will add value to the company before there comes a time where ISO will be mandatory in order to be able to compete in an international market like tourism.

The first ISO 9001 standard was formally introduced in 1987 and to date has been revised many times:

- ISO 9001:1987
- ISO 9001:1994
- ISO 9001:2000
- ISO 9001:2008
- ISO 9001:2015

According to Hoyle (2006) ISO 9001 is “a set of criteria that when applied correctly will help organizations develop the capability to retain and create satisfied customers”. According to ISO Organisation (2009) the ISO 9001 provides the fundamentals and vocabulary used in the entire ISO 9000 family of standards. It is an introductory set of standards that sets the scene in order to understand the basic elements of quality management and aims to familiarize the user with the use of processes for continuous product or service improvement. A key definition surrounding the ISO 9001 certification process can be found in Table 1.

According to Johnson (2000) ISO 9001 has been developed and changed considerably since 1987 when it was first introduced following the developments in the

Table 1 ISO 9001 certification process definitions (ISO Organisation, 2009)

Construct	Definition
Quality	Degree to which a set of inherent characteristics fulfill requirements
Quality policy	Overall intentions and direction of an organization related to quality as formally expressed by top management
Quality objective	Something sought, or aimed at, related to quality
Quality management System	Management system to direct and control an organization with regard to quality
Quality planning	Part of quality management focused on setting quality objectives and specifying necessary operational processes and related resources to fulfill the quality objectives
Continual improvement	Recurring activity to increase the ability to fulfill requirements effectiveness extent to which planned activities are realized and planned results achieved
Client satisfaction	Client’s perception of the degree to which the client’s requirements have been fulfilled
Service	Result of a process
Client	Organization or person that receives a service
Process	Set of interrelated or interacting activities, which transforms inputs into outputs
Procedure	Specified way to carry out an activity or a process
Supplier	Organization or person that provides a service
Audit	Is a documented assessment performed periodically in a formatted manner to verify continuing and effective implementation, in accordance with specified requirements, of a known and established quality system

market and the changing needs of users and customers. It evolved from a mere compliance tool to a certification of a prestigious set of standards that when implemented appropriately and for the right reasons, should prove a strong strategic tool.

A quality assurance system as laid down by the ISO 9001 standards has three main characteristics:

- Focuses on service delivery itself, not the outcome.
- Working processes are identified and performance is constantly measured.
- The system is verified through efficient document management of procedures and processes, measurement and performance indicators (Geraedts et al. 2000).

5.2 Evidence from ISO 9001 Implementation

According to Cianfrani and West (2009), ISO 9001 has proven to be the most applicable to any size companies, in any marketplace and for any product category in the world for the last two decades. They mention that top management find that ISO 9000 helps organizations meet customer requirements, improve bottom line performance through cost reduction and helps them create a competitive advantage.

A well designed and implemented Consultancy Project based on E.N. ISO 9001 has been shown to offer host organizations benefits such as consistency, reduced rework costs through efficient preventive and corrective actions and, measurement and improvement of the processes that focus on quality.

Lots of researchers have analysed the impacts of ISO 9001 implementation in SMEs. Psomas et al. (2013), tried to measure the impact of ISO 9001:2008 in business performance, through the empirical study they carried out using a sample of 100 ISO 9001:2008 certified service companies. Through their regression analyses they found that, ISO effectiveness affects operational performance (p-value = 0.00 and adjusted R² = 0.297) (Psomas et al. 2013). Furthermore they found that both ISO effectiveness affects and operational performance affect product/service quality (p-value = 0.00 and adjusted R² = 0.498) while operational performance affects product/service quality indirectly through its significant correlation with ISO effectiveness (Psomas et al. 2013). Last but not least, their research results indicated that the variables concerning ISO 9001 effectiveness, operational performance and, product/service quality affect the one concerning financial performance at a statistically significant level (p-value = 0.00 and adjusted R² = 0.210) (Psomas et al. 2013). According to others, Total Quality Management and Quality Management Systems implementation, are positively correlated with tourism enterprises performance as through this way business operating patterns are modified and more responsive to business environment changes (Claver-Cortés et al. 2008; Wang et al. 2012).

On the other hand, Sitki İlkey and Aslan (2012) through their analysis found that there is no statistically significant difference between the ISO 9001 certified and non-certified

companies in terms of overall performance average. However, the research results indicated that there is a statistically significant difference between certified and non-certified companies in terms of quality practice levels (p -value = 0.000), and its subsections top management leadership (p -value = 0.004), quality system processes (p -value = 0.000), supplier relations (p -value = 0.000) and, process control-improvement (p -value = 0.000) (Sitki İlkey and Aslan 2012). After analysing the impact of internal and external motivations for implementing an ISO 9001 system they concluded that there is no consensus about the effect of ISO 9001 certification on business performance (Sitki İlkey and Aslan 2012).

There are lots of motivations for the implementation of quality management systems. According to the analysis of Magd and Curry (2003), the most important motivations for ISO certification concern the efficiency improvement of the quality systems, the pressures from competitors/foreign partners, the market share maintenance/increasing, the government demands, requirements or pressures meeting and, the compliance with customers' requirements. Furthermore, the most important perceived benefits from ISO certification concern the documentation improvement, the efficiency of the quality system improvement, the assistance in supplier selection, product/service quality improvement, the assistance in quality management development and the use of ISO certification as a promotional tool (Magd and Curry 2003).

Except for the motivations, there are also barriers that prevent enterprises from implementing quality management systems. As far as the tourism industry is concerned, Hwang and Lockwood (2006) identified the most important barriers for quality management systems implementation. According to their research results, customers' changing demands, the limited resources due to performance measurement strategies, the lack of skilled labours, hospitality lifestyle, the lack of competitive benchmarking and, location issues are the main barriers for quality management systems implementation in tourism SMEs (Hwang and Lockwood 2006). It should be noted that in many case the aforementioned barriers do not prevent operators from implementing quality management systems but they do make their implementation more difficult (Hwang and Lockwood 2006).

The aforementioned results indicate the need for further research, as lots of studies show a positive impact of ISO 9001 implementation in business performance, while others show no impact. However, it can be accepted that an ISO standard application may have affect positively an organisation even in some cases it does not affect all its operations such as the financial one. Important for the success and the efficiency of an ISO system is that an organization implements it because of internal motivations which can led its people to fully adopt the new philosophy. The most important reason to adopt a quality management system such as ISO 9001 is survival. Overall ISO 9001 is a tool for quality improvement which according to Cianfrani and West (2009) will have two advantages for an organization: better processes that should offer a reduction in cost and increased customer satisfaction that should generate more sales.

6 Conclusion

Exploring the world of ISO revealed to managers the way that quality could be controlled and methodically improved through a standardisation of procedures that would offer repeated processes and decrease remedial action expenses. On the other hand it's important for an enterprises to adopt monitoring and measurement mechanisms in place so as to constantly evaluate performance and output and be able to take the necessary preventive or corrective actions. By identifying non conformities or flaws in a process time and money could be saved by correcting that process and avoiding reoccurrence.

Tourism SMEs were described as small often family run businesses committed to quality but with limitations that sometimes restrict their success or level of development due to their nature. Quality was reviewed with reference to the quality expert Juran who has contributed to this field for seventy years and described quality as fitness for use. Quality is the basis for reviewing Total Quality Management (TQM) and Quality Management Systems (QMS).

Users of ISO 9001 should obtain measurable benefits within a short period of time of adopting the requirements into their operations which should reflect on an increase in quality and a reduction in costs. Companies in the first place are often customer driven towards a recognized QMS accreditation that will offer assurance and certify the element of quality.

The one advantage is the improvement of management and operation practices that will improve processes and lower costs due to decreased rework provided that problems are identified and dealt with according to the requirements of ISO 9001. The second advantage is that the company will benefit from the international recognition of the quality standards that an ISO certification offers to its users. This marketing advantage is thought to enhance a company's competitive advantage which should reflect on its performance.

The review of ISO 9000 systems revealed the international aspect of the certification, the characteristics and the benefits of the system. Amongst the benefits discussed were: consistency, improved problem solving, cost reduction through decreased rework costs and the marketing benefit of an internationally recognized system.

Finally, it should be noted that due to Casadesus et al. (2010), it is apparent that there will be a continuous increase in quality management systems standardisation in tourism industry during the following years as a result of both external and internal factors.

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The Concept of the Innovative Tourism Enterprises Assessment Capability

Leszek Koziol, Anna Wojtowicz and Anna Karas

Abstract The aim of this chapter is to present the concept of the innovative capability evaluation system of the company and to present the results of empirical research, that is, to determine the extent of the innovation capability of the two tourist enterprises. The basic problem which is presented in the chapter is the recognition of the innovative capacity gap, which is the difference between the desired innovation potential and the one that the company owns. A set of the innovative capability key determinants that constitute the basis for assessing this ability has been extracted during the two-phase own research. In the case discussed in the chapter, 13 evaluation criteria with appropriate weights and scales of assessment were adopted and then the evaluation model of the innovative capability of the tourist enterprise was presented. In the empirical part of the chapter we have verified the concept of innovative capability. We have also presented the results of empirical research in the innovative capability of hotels assessment Card. In conclusion, a sequence of actions aimed at leveling the gaps of innovation potential as well as stimulating the process of innovation in the hotels researched was added.

Keywords Innovation · Innovative capability · Evaluation of innovative capability · Tourism

JEL classification M00

1 Introduction

The issue of the innovative capability assessment, and more broadly, the innovative potential of the company has been for many years the subject of theoretical and practical applications, already described in numerous and extensive literature

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(Europejskie innowacje społeczne 2014; Maqsood and Finegan 2009; Dawson et al. 2014; Löfgren et al. 2014; Parmentier and Mangematin 2014; Baruk 2013; Hansen and Birkinshaw 2007; Koziol and Karas 2013; Gloet and Samson 2013; Arend and Bromiley 2009; Waiyawuththanapoom et al. 2013).

In the chapters by the authors mentioned above, there were presented the results of their in-depth analyzes of the innovative processes determinants which allow to clarify the rules and instruments of control and even the management of these processes. Their studies have mainly focused on the identification and prioritization of factors influencing innovation and establishing the sequence of actions using these factors in innovation processes, and thus to conscious stimulation of the enterprises innovativeness.

Innovation factors, that form the subject of the research, result from the broader, external and internal context, that is, the characteristics of the organization and its resources. The examined organization features, in contact with the innovation, will promote or hinder it, they may—as stated—increase or decrease its ability of innovation.

Significantly smaller number of researchers focus on the presentation of methods for assessing the innovative capability of the company. The assessment questionnaires presented, or dies of self-assessment, include the effects of innovative company activity, industry or country (outputs in innovation). However, other measurement tools, focused on the identification of determinants of innovation, may be useful for evaluating the factors of innovation in both the microeconomic and macroeconomic scale (inputs to innovation) (Tidd and Bessant 2013; Łunarski and Stadnicka 2007; Galvez et al. 2013; Diedrichs et al. 2006; PARP 2015; Oslo Manual 2005; Morris 2008; NESTA 2009; Ropre et al. 2008; Rose et al. 2009).

Due to the limited scope of the chapter, a detailed review of the innovation measurement methods was not carried out, just their general characteristics.

Most, presented in the literature methods for assessing innovative capability, are constructed from a highly aggregated criteria without giving their operationalization, i.e. establishing the metrics and indicators reflecting the essence of studied features, defining their function and significance, providing measures of their feature intensity degree, categorization of the surveyed companies, as well as a description of the pattern state and its proper presentation or indication of conclusions and recommendations. Many other, yet poorly solved, problems of the innovative companies assessment may be given that are difficult to be explained in this place.

On a point of order relating to the subject of research it should be noted that the concept of innovative potential and innovative capability are often treated as synonyms in the literature. The authors of this chapter have different views on this issue and they believe that the effectiveness of the company, in terms of innovation (innovation performance), is determined by the resources developed in the past, that is the innovative potential, as well as the appropriate methods, skills and abilities of the current use, i.e. the innovative capability. M.F. Hiliami, T. Ramayah, Mustapha Y., & S. Pavanchlik explain that this is the ability to create something

new, or to amend the action in a way that exploits the ability (Hiliami et al. 2010, p. 557).

The companies' ability to innovate (innovation capability) refers to the possibility of their significant modifications and improvements of existing technologies and to create new ones (Albaladejo and Romijn 2000; INSEAD 2007). It is seen as the basis for creating value from innovation (Hurmelinna-Laukkanen et al. 2008, pp. 278–289), and even as the driving force of economic growth. The innovative capability is the ability of implementing the act of creativity of new ideas, inventions, resulting in innovation, whose dissemination (diffusion) brings the benefits for the company (Lawson and Samson 2001).

In view of the above, it can be stated that the limitation of the innovation capability means, for the company, the stagnation manifested by the persistence in the state of inertia and lack of motivation for further development, and thereby to secure a competitive advantage in the long term perspectives. Therefore, it is reasonable to say that in the interest of the company there is the ability to assess its innovative capability. If an organization is able to estimate the degree of utilization/development of individual elements of the innovation capability, then the further development activities may become more conscious and focused on better use of these elements. It also means the possibility of a planned innovative potential building.

2 Concept Theses and Stages of Research

The aim of the chapter is to present the concept of the innovative capability of the evaluation system of the company and to present the results of empirical research, i.e. to determine the degree of innovation capability of the two tourist enterprises.

The basic problem which is presented in the chapter is the recognition of the innovative potential gap, which is the difference between the desired and owned by the company innovation potential. During the competence gap measuring it is defined, what is the status of discrepancies between the mentioned values. Leveling of the gap contributes to the transformation of the company from the traditional into the innovative.

In the concept presented, the following theses were considered:

Innovative capability is a function and also the criterion of innovation company system evaluation, as well as projection of capabilities of stimulating and control of innovation activities.

Innovative capability can be considered as partial forms (which correspond to the determinants of this ability), as well as it can be included in an aggregate form for the company or the whole industry.

The innovative capability is conditioned by some external factors (e.g. severity of competitiveness), which have a limited impact, and above all, by internal factors; as a subject of research the internal factors of the innovative capacity were adopted, while the reference is the activity of an innovative company.

The innovation is defined as any, of the assumptions beneficial, creative and original change in different areas of the organization which brings novelty and progress in relation to the existing condition of the company, assessed positively in the light of the organization effectiveness criteria.

The innovative activity was assessed with the number of implemented innovations.

The following stages were distinguished in the research procedure:

- Stage I Selection of the criteria for the assessment of the innovative capability
- Stage II Establishing the evaluation criteria weights
- Stage III Measuring innovation capability of enterprises
- Stage IV Categorization of companies.

The following research methods were used to realize the objectives and verification of work: analysis of the literature, analysis of the influence factors, the questionnaire method, expert research analysis of the case.

The assumptions of the proposed concept of assessing the innovative capability of tourism enterprises, to some extent, refer mentioned an OSLO Manual Innovation Measurement Framework method and to innoCERT Innovation Assessment, in which, the approach of output indicators and input indicators for measuring innovation was included.

3 Methodology of Assessing the Innovative Capability

3.1 The Selection of Criteria for Evaluating the Innovative Capability

The set of determinants of innovative capability, which constitutes the basis for this ability assessment system, was isolated during the two-phase own research. In the first phase, among many environment variables and the organization resources, with the help of the analysis of the impact factors, those factors were identified which may influence on innovation and make the assessment innovation potential. In the process of their identification, several different sources of information were used, e.g. statistical data, special reports, the predecessors' test results and the expert opinions also the opinions of the managers and professionals of the surveyed enterprises. Collected comments and statements were the basis for selecting 26 determinants of innovation potential of the company.

In the second phase of the study the factors of relevance and functionality, influencing the innovative capability of the company were analyzed. The ones which the relevant cause and effect relations with innovation has already been and still will be in the future were singled.

In order to assess the innovation capability of enterprises, a survey was conducted, which was attended by 316 business entities in the region of Malopolska.

Table 1 The summary of weigh assessment criteria functionality

	Criterion	Weigh
A	Knowledge of foreign languages	3
B	Training time	3
C	Knowledge of modern technology in organization	3
D	IT system	2
E	Types of IT systems	2
F	The use of e-learning	3
G	Infrastructure supporting the process of communication	2
H	Forms of work organization	2
I	Culture of innovation	3
K	Cooperation with other entities	3
L	Sources of knowledge	3
M	Protection of information and knowledge	1
N	Protection of values from innovation and knowledge	2

Source own

Among the respondents, there were 12 companies operating in the tourism industry were distinguished. The study was conducted in the years 2013–2015 (Kozioł and Karas 2015).

In this case, the evaluation criteria are essential, the key determinants of the innovative capability development of the company (see Table 1).

3.2 *Determining the Weights of Evaluation Criteria*

The multitude of distinguished evaluation criteria tends to weigh them because of their importance in achieving the objectives of the analysis. The weighs express the significance, importance, the relevance of the examined feature criterion.

The study assumed that the qualification criteria for the evaluation will be considered in the order of:

- A—dominant criteria
- B—significant criteria
- C—useful criteria.

In the presented solution, 3 levels of assessment were adopted together with the principle of linear formula of the evaluation key points growth from 1 to 3 (Table 2).

Weights were determined by the expert judgment method. The judgments of experts were the result of their individual opinions.

Table 2 Preferential system of evaluation criteria

Symbols of qualifying marks	Ranks
A	3
B	2
C	1

Source own

Table 3 The scale of current features' intensity assessment

Level	Score
Model level	3
Good level	2
Satisfactory level	1

Source own

3.3 The Innovative Capability Measurement

Measurement of the innovative capability has got the attribute of an assessment mark which verifies the actual state with the approved pattern. Mark patterns allow the assessment to determine the degree of features' intensity (intensity) which constitute the criteria for assessing the degree of compliance included in the given criteria requirements. (See Table 3). The description of the features' intensity are given in Table 4.

Measurement of the innovative capability of the company can be presented in the form of aggregate. The aggregate assessment involves linking together every single evaluation criteria into one integer. The overall rate of the company innovation capability, taking into account the weight coefficients expressed in a 1–3 scale, can be calculated from the formula:

$$OZI = \frac{3 * (A + B + C + F + I + K + L) + 2 * (D + E + G + H + N) + M}{32}$$

where:

OZI—value of innovation capability index (functionality)

A... N—criteria symbols

3.4 Categorization Company

The result of aggregate assessment of the company innovative capability creates the basis for categorization. The adopted compartments of hierarchical index OZI are given in Table 4. The next Table 5 presents a model of the innovative capability of a tourist company.

Table 4 Hierarchical ranges of the innovative capability index

Category	Scoring	
A	2.51–3.00	Model size
B	2.01–2.50	State of high usefulness
C	1.51–2.00	Useful state
D	1.00–1.50	Useless state

Source own

Table 5 Excerpt model for the innovative capability of a tourist company assessment

Category of innovative capability	Determinants	Innovative capability assessment	
		Pts.	Specification
1	2	3	4
Managerial and employee competence	Knowledge of foreign languages	1	Percentage of employees who speak foreign languages does not exceed 30% of total employment
		2	Percentage of employees who speak foreign languages ranges from 30 to 50% of total employment
		3	Percentage of employees with language skills exceeds 50% of the total employment
	Training time	1	Number of training days for 1 employee per year does not exceed 5 days
		2	Number of training days for 1 employee per year is 5–10 days
		3	Number of training days for 1 employee exceeds 10 days
	Knowledge of modern technology use in the organization	1	Little knowledge: 30% of all employees
		2	To a limited extent: 60% of all employees
		3	In full extent: 100% of all employees
Infrastructure modernity	IT system	1	Dispersed
		2	Mixed
		3	Integrated
	Types of IT systems	1	No system supporting knowledge and innovation management
		2	In the enterprise there are systems of sourcing, collection and processing of the information useful for the development of innovation capability
		3	The expert systems are used to generate ideas and team work support
	The use of e-learning	1	The company does not use e-learning
		2	The company partly uses e-learning
		3	The company uses e-learning

(continued)

Table 5 (continued)

Category of innovative capability	Determinants	Innovative capability assessment	
		Pts.	Specification
Work organization	Infrastructure supporting the internal communication process	1	No system supporting the process of internal communication
		2	In the company there is the internal IT network system supporting communication
		3	The communication systems are used in the internal IT network and there are databases
	Forms of work organizations	1	Organization of team work and collaborative problem solving does not exist
		2	Teamwork, participation of workers and quality programs exist
		3	The methods of teamwork support are used such as: case study, brainstorming, ideas fairs, expert networks, systems supporting the development of intellectual property
	Culture of innovation	1	No culture of innovation elements and innovation culture aspects (artifacts)
		2	The innovation culture artifacts are visible, low staff liquidity, rewarding and motivating for innovation, subjectivity and team work
		3	There is a concept of functional innovation culture implemented gradually, periodic culture audits are conducted
External cooperation on innovation	Cooperation with other entities	1	The company maintains contacts within the frames of knowledge with the customers, suppliers and cooperators
		2	The company works with customers, suppliers, competitors and cooperators
		3	The company makes “knowledge alliances” and creates a common database with selected stakeholders
	Sources of knowledge	1	No formal system of obtaining information and knowledge
		2	There is a system of collecting internal and external information, the company participates in exhibitions, fairs, seminars, conferences, etc.
		3	The company acquires knowledge from universities, scientific institutions, industry R&D units and other.

(continued)

Table 5 (continued)

Category of innovative capability	Determinants	Innovative capability assessment	
		Pts.	Specification
Protection of information resources and securing the knowledge	Protection of information and knowledge	1	Uses the existing legislative regulations for protecting of information resources
		2	Uses appropriate clauses and other internal standards for the protection of information and knowledge
		3	The company has an internal coherent system of data and implements the appropriate security policy
	Securing the value of innovation and knowledge	1	No action regarding the retention values of innovation and knowledge
		2	There are mechanisms of innovation profit retention in the form of legislation and industry, internal rules (e.g. the brand, business secrecy, confidentiality procedures, employment contract)
		3	There is a coherent set of instruments of complementary principles and methods included in the strategy of the retention of values of innovation and knowledge

Source own

Uselessness is a state of functions fulfillment i.e. the state of the innovative capability (OZI) not contributing to the development of innovative activities.

Useful state is such a degree of fulfillment function, that is greater than or equal to the contractually assumed, sufficient degree of compliance the innovative capability function.

The state high suitability (usefulness), goodness, this is the right quality of innovative capability features.

The model size is the ideal level of the innovative capability functions compliance.

4 Evaluation of the Tourist Enterprises Innovative Capability—A Case Study

The purpose of the analysis presented in this part of the chapter is to verify the concept of assessing the innovative capability of enterprises and presentation of the results of empirical research. In the course of research the cooperation has been established with the two hotels, which managements agreed to make available relevant data. The results of the analysis were presented in the innovative capacity of hotels assessment Card.

Table 6 The card of the innovative capability of the Hotel X assessment

	Criterion	Weigh	Rating
A	Knowledge of foreign languages	3	1
B	Training time	3	2
C	Knowledge of modern technology used in organization	3	2
D	IT system	2	1
E	Types of IT systems	2	2
F	The use of e-learning	2	1
G	Infrastructure supporting the process of communication	2	2
H	Forms of work organization	2	2
I	Culture of innovation	3	1
K	Cooperation with other entities	3	1
L	Sources of knowledge	3	2
M	Protection of information and knowledge	1	1
N	Protection of values from innovation and knowledge	2	1

Source own

Assessment of the innovative capability of Hotel X

Hotel X provides services to the regional market. It employs 50 workers. In the research period it has introduced 1 innovation (basic, from the scope of short-run motivation travels (incentive travel)). The results of the analysis and assessment of the innovative capability of the hotel are given in Table 6.

$$OZI = \frac{3 * (1 + 2 + 2 + 1 + 1 + 1 + 2) + 2 * (1 + 2 + 2 + 2 + 1) + 1}{32} = 1.47$$

Hotel employees have the opportunity to broaden their skills and competencies in the form of training, and the average training time per 1 employee is about 5 days. Among the employed, 20% speak a foreign language and know how to use modern technologies using the transaction programs. The vast majority of employees have secondary education. The company has got the internal distributed information system.

The hotel owned database relates primarily to customers and suppliers, and this database hasn't been to created together with cooperators. The company uses leading business transaction systems in customer service, human resources and accounting. The use of e-learning is low.

The most commonly used form of employment is a fixed-term employment contract and employment agreement or mandate contract. In the company there is a wide degree of jobs specialization and the creation of task teams is carried out only in emergency situations. The management style was considered inadequate, too centralized, however, every employee has got the access to information and the opportunity to exchange knowledge with other employees.

The company cooperates with customers and suppliers, and the obtained information is used to improve its offer. To protect the information resources and security expertise, the company applies the existing legal regulations concerning the protection of information resources, but it does not have its own system and tools aimed at securing knowledge and values resulting from innovation.

The established competence gaps, from the point of view of the innovative capability should be reduced by training, modernization of the IT system, supporting teamwork, acquisition and protection of knowledge.

The assessment of the innovative capability of the Hotel Y

The hotel operates on the international market, employs 19 employees. In the analyzed, 3 years period it has introduced two types of organizational innovation and marketing.

The results of the assessment of the innovative capability of the Hotel Y is presented in Table 7.

$$OZI = \frac{3 * (3 + 2 + 3 + 2 + 2 + 2 + 2) + 2 * (1 + 2 + 3 + 2 + 2) + 2}{32} = 2.19$$

In the company there is a competence development program including internal and external training or courses, which also include, among others, the use of newly purchased technologies or devices. The average training time per employee is more than 10 days and 80% of employees speak a foreign language and use modern technology in their work. The company has got its own, distributed information

Table 7 Data evaluation of the innovative capability of the Hotel Y

	Criterion	Weigh	Rating
A	Knowledge of foreign languages	3	3
B	Training time	3	2
C	Knowledge of modern technology used in organization	3	3
D	IT system	2	1
E	Types of IT systems	2	2
F	The use of e-learning	3	2
G	Infrastructure supporting the process of communication	2	3
H	Forms of work organization	2	2
I	Culture of innovation	3	2
K	Cooperation with other entities	3	2
L	Sources of knowledge	3	2
M	Protection of information and knowledge	1	2
N	Protection of values from innovation and knowledge	2	2

Source own

system, which requires the need to create separate databases for different departments of the organization. The company databases deal with the customers, products and competitors. The company uses the systems supporting the decision making, management information systems and transaction systems dealing with customer service, human resources and accounting. There is no system of rewards and bonuses for innovation. Workers are employed on the basis of an indefinite duration contract and the specialization of work is broad. For the purposes of the exchange of knowledge the task and multifunctional teams are used that are created according to the current needs of the company and relate primarily to customer service.

Employees are encouraged to collaborative problem solving and sharing knowledge with others, as well as to generate new ideas. In the Company it is allowed to make mistakes while implementing the new solutions. Each employee has the knowledge of where they should look for specific information in the organization and the company uses the wide dissemination of knowledge between employees through the simple-to-use information and communication systems. However, despite the exchange of information, including the hotel, there is no unitary system or procedures for gathering knowledge.

The company in the process of innovation also uses knowledge from the outside, by building relationships with customers, suppliers and even competitors. Apart from the contacts listed above, company acquires information from the trade fairs and exhibitions in which it participates and it cooperates with local government agencies. The protection of information resources and the security expertise makes use of existing laws and confidentiality clauses.

According to the adopted criteria Hotel Y belongs to a group of B companies, characterized by a high and good level of functionality. Its competence gaps could be reduced by modernizing the information system and improvement of forms of protection of information resources, as well as the retention of profits from innovation.

5 Final Remarks and Conclusions

Increasing innovative capability is one of the main, still current, but extremely complex tasks related to the operation and development of enterprises. In practice, the evaluation of innovative activity and therefore also the innovative capacity is carried out mainly through the prism of the number of deployed innovation, the type of innovation, scientific publications and the obtained values of innovation.

The evaluation of innovative activity based solely on the efficiency-criterion does not indicate the reasons for the results achieved. It does not adequately explain how these results are achieved. It should be emphasized that the innovative capability of the company and the efficiency of its innovative activities are decided at the

same time by a number of factors, not only on material, but also on non-material resources of the company (input indicator).

The system of the innovative capability evaluation concept of a tourist enterprise is presented in this chapter. The essential determinants and also the criteria for assessing the development of this capability are the managerial competence and employee innovation, collaboration with customers and co-operators in the field of knowledge, team work and pro-innovative organizational culture, modern IT infrastructure and protection of information resources and knowledge.

This method allows the identification of innovation ability determinants and the recognition of managers' pragmatics of a tourism enterprise in the area.

And most importantly—the use of this assessment methodology in the company practice, and more specifically collected by its means information, can provide the basis for modeling the innovation capability of the company.

In the light of the stated results of our own empirical research as well as the results of the predecessors research conclusions one can formulate a thesis that companies compete between each other with the created innovations, as well as the innovative capability. It is the development of this capability that grows to the level of the primary determinant of survival and development of the company. The evaluation of the innovation capability can be useful in determining the position of competitive and strategic position of enterprises of the sector.

Such an approach may be particularly useful for companies coming from the SME sector. However, it has a lot of limitations. In the model presented here, the innovative capability does not include external factors e.g. market or institutional, which also affect the innovation capability.

The barriers of the innovation development were not taken into account and thus the determinants counterproductive the innovation. It was also stated that the appropriate resources (determinants of innovation capability) stimulate innovations different sectors of economy in different ways. To account for this specificity, the assessment model an additional dependence existing between the circumstances and the level of innovation could be used, i.e. the concept of variable intermediaries (mediators) and regulating (moderators).

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Looking for Determinants of the Environmental Concern at the Hospitality Industry

Angel Peiro-Signes and Marival Segarra-Oña

Abstract This study uses the Community Innovation Survey 2010 (CIS 2010, Eurostat) database and data from 695 companies from three different countries to determine potential factors able to determine the environmental concern of the hospitality firms while innovating. The study demonstrates that the innovation orientation, the importance of external information sources for the innovation and the perception of barrier toward innovation are effective factors in predicting the environmental concern. Additionally, we uncovered that the innovation orientation is the most powerful predictor of the environmental concern while innovating, which suggests that innovation is a key driver to encourage companies at the hospitality industry towards the environment.

Keywords Eco-innovation · Hospitality · Environmental concern

JEL Classification Z32 tourism and development · O52 Europe

1 Introduction

The protection of the environment is been under the scope of society and business, in both service and manufacturing industries (Vargas-Vargas et al. 2010). Consumers are concern about how products are obtained and their environmental (Porter and Linde 1995). Although manufacturing industries have been pointed to be responsible for harming the environment, some services industries have been spotted lately and concerns about environmental aspects have emerged in areas such as hospitality.

Most companies move after the promotion of laws and regulations to control environmental damages, however, some companies see environmental concern as

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an opportunity to differentiate and gain competitive advantage (Esty and Winston 2009). This Proactive behavior in organizations is specially important in combination with another powerful promoter of companies' competitiveness, innovation. This behavior in organizations is complex and can be caused by multiple phenomena, and important consequences for personal and organizational development can be derived (Crant 2000).

Uncovering the determinants for this environmental concern is important in order to understand which behavior, relations or beliefs should be promoted or dismantled to achieve it.

The main objective of this study is to explore the capability of few factors to predict the environmental concern of the hospitality firms when they are innovating. The ability to predict will indicate the importance of these factors as drivers of the environmental concern and therefore, will allow us to perform further research on the cause-effect relation.

2 Literature Review

Eco-innovation considers those changes in production and consumption of products and services that reduce the environmental impact. Kemp and Pearson (2007) defined it as "the production, assimilation or exploitation of a product, production process, service or management or business method that is novel to the organization (developing or adopting it) and which results, throughout its life cycle, in a reduction of environmental risk, pollution and other negative impacts of resources use (including energy use) compared to relevant alternatives". This environmental concern while innovating can be driven by external forces, such as new regulation or stakeholders pressure, or by the perception of a competitive advantage which will improve firm's performance through cost reduction and/or improved reputation. The combination of these two sources of competitive advantage, innovation and environmental concern, plays a crucial role in moving toward a sustainable economy and society (Esty and Winston 2009).

Even most industries have been driven by the regulatory framework (Beise and Rennings 2005), new green technologies have led to an increase in new environmentally friendly processes and products (Sierzchula et al. 2012).

Previous studies have denoted the importance of market and other information sources and the key role of process and product orientation in other industries, such as the automotive industry (Mondejar-Jimenez et al. 2015). Furthermore, differences between industries and services (Segarra-Oña et al. 2014) or between industries attending to technological level (Peiró-Signes et al. 2011) have been pointed out. However, all these studies have been performed for Spanish industries, which limit the generalization of the conclusions.

In this study, we explore companies from three European countries, which will allow us to generalize previous findings, and we also add the perception of innovation barriers as a predictor, which hasn't been used till date.

Thus, the aim of this study is to determine if characteristics related to their behavior, such as, the actual orientation toward innovation (product or process), the dependence of external sources to develop the innovations or if they perceived barriers to the innovation, are able to predict whether companies in the hospitality industry consider the environment in some way when they are innovating.

We will expect that companies in the hospitality industry with higher orientation to innovation are also more concern about environment. Moreover, we think perception of barriers towards innovation will not help the innovation and therefore, the consideration of the environment when innovating. Finally, companies that rely on external information sources for the innovation are exposed to agents that develop innovations and, therefore, to environmental orientation.

3 Methodology

For this study we used data from the Community Innovation Survey (CIS) (2010). The CIS is a Eurostat tool to monitor the innovation activities of the European companies.

However, not all the European Union countries report data and only three, Spain, Norway and Croatia surveyed companies from the hospitality industry.

We used NACE code to extract data from 695 companies from the hospitality industry with available data on the variables of interest.

Our study wants to explore the ability of the perception of barriers to product and process innovations, the orientation to product and process innovation and the dependence from external information sources in the innovation activities are relevant in encouraging environmental orientation of the companies while innovating.

The perception of barriers to process and product innovations are factors preventing companies from innovating or hampering innovation activities, such as, cost, knowledge or market factors. These factors are related to uncertainty or lack of information or resources.

Product and process innovation relate to innovation aiming to increase the range or quality of goods or services, to increase the market share, to increase flexibility or capacity or to reduce cost through innovations.

Finally, the dependence of external information sources refers to the sources that provided information for new innovation projects or contributed to the completion of existing innovation projects from outside the sphere of the company market, such as, university, trade fairs, industry associations,... (Table 1).

We classified companies attending to their environmental orientation while innovating using the variable OREI from CIS survey. OREI represents how important was to reduce environmental impacts for your activities to develop product or process innovations during the 3 years 2008–2010. Although, the variable is reported as categorical attending to the degree of importance (high, medium, low and not important) we recoded it into a dummy to reflect if in any

Table 1 Variables of the study and factor analysis

Factor	Variable	Description	Factor loading
Factor 1 perception of barriers towards innovation (50.87%)	HFENT	Lack of funds within your enterprise or group	0.808
	HFOUT	Lack of finance from sources outside your enterprise	0.832
	HCOS	Innovation costs too high	0.803
	HPER	Lack of qualified personnel	0.791
	HTEC	Lack of information on technology	0.848
	HINF	Lack of information on markets	0.852
	HPAR	Difficulty in finding cooperation partners for innovation	0.804
	HDOM	Market dominated by established enterprises	0.726
Factor 2 process and product orientation (13.37%)	HDEM	Uncertain demand for innovative goods or services	0.799
	ORANGE	Increase range of goods or services	0.738
	OREPL	Replace outdated products or processes	0.760
	ONMOMS	Enter new markets or increase market share	0.784
	OQUA	Improve quality of goods or services	0.812
	OFLEX	Improve <i>flexibility</i> for producing goods or services	0.804
	OCAP	Increase <i>capacity</i> for producing goods or services	0.799
	OLBR	Reduce labour costs per unit output	0.743
Factor 3 importance of external information sources (7.57%)	ORME	Reduce material and energy costs per unit output	0.706
	SINS	Consultants, commercial labs, or private R&D institutes	0.619
	SUNI	Universities or other higher education institutions	0.850
	SGMT	Government or public research institutes	0.813
	SCON	Conferences, trade fairs, exhibitions	0.677
	SJOU	Scientific journals and trade/technical publications	0.733
SPRO	Professional and industry associations	0.728	

KMO (0.944) Bartlett's Test of Sphericity (Sig.0.000). Rotation Method: Varimax with Kaiser Normalization. Total Variance Explained 72.82%

sense environment is considered (high, medium and low) or not considered (not important).

We use Discriminant Analysis (DA) to classify the dependent variable, the consideration of environment in the innovation activities of the firm, which has two categories, using as predictors a number of factors. The discriminant analysis will indicate if the factors can predict if the hospitality firm's consider environmental orientation while they are innovating. The discriminant prediction equation will allow us to classify cases into two groups attending to their environmental orientation and to investigate differences between or among groups.

As we are dealing with 2 categories in the grouping variable, there will be only one function or dimensions in de DA. The discriminant scores tell us how closely a variable is related to each function.

4 Results

Our study states that we can classify hospitality firms in two groups, those that consider the environmental in developing their innovations and those that do not. To classify them we considered three factors that have been obtained from 23 observable variables.

We developed the discriminant model based on our three factors obtained from the previous factor analysis and considering that firms were originally classified into two groups, attending to their environmental concern. The coefficients for the discriminant function, Wilk's lambda and the mean scores are reported on 2(A) for each of the two groups (Hair, Black, Babin, Anderson, and Tatham 2006).

The discriminant function was statistically significant based on Wilk's lambda $p < 0.001$. Moreover the values of the coefficients denoted the relative importance of the factors on the discriminant function (see Table 2A). The coefficient for the innovation orientation (0.638) was the highest and substantially higher than the importance of external information sources (0.351) or the perception of barriers to innovation (0.164).

Coefficient signs indicate in which direction the factors are acting. As all the coefficients signs were positive, it indicates for example that the higher the innovation orientation the higher chance to be classify on group 1 (environmental concern). Unexpectedly, the perception of barriers had a positive value, which indicates that a higher perception of barriers will increase the environmental concern, however the impact much smaller than the other factors.

Group centroids indicate the mean value of the discriminant score for each of the groups and they differed substantially (Group 1 -1.032 and Group 2 1.675), which is an indicator differences of the scores of the companies in the two group. As the discriminant function scores were standardized (mean of 0.00 and a standard deviation of 1.00) we can say that groups means differ more than 2.5 standard deviations between each other, which indicates that the distribution from the two

Table 2 Discriminant analysis results for environmental orientation of the firms

<i>(A) Standardized canonical discriminant function coefficients and groups means</i>			
	Function		
Factor 1	0.164		
Factor 2	0.638		
Factor 3	0.351		
Wilks' lambda	0.366. $p < 0.001$		
	Mean Scores		
Group 1 (not oriented)	-1.032		
Group 2 (oriented)	1.675		
<i>(B) Classification results for original cases overall accuracy 89.1%</i>			
Actual/predicted	1	2	Total
1	396 (92.1%)	34 (7.9%)	430
2	42 (15.8%)	223 (84.2%)	265
Total	438	257	695

Maximum chance criterion = 61.9%; Proportional chance criterion = 52.8%; Hair et al. criterion = 77.34%

groups will overlap only in a few cases, pointing to a good power of the model to classify the companies.

Although it is important to have a statistically significant function, it is also very important that the discriminant functions perform well in classifying firms into their original groups for calibration and validation samples.

Table 2B presents the classification results based on the discriminant function shown in Table 2A for calibration sample. The rows of Table 2B show the actual classification based on Orientation variable value, while the columns show the predicted group based on the discriminant function. The companies in the main diagonal have correct predictions (shown in bold), while the other cells represent the misclassified firms.

To evaluate the accuracy of the function to classify the companies we reported three measures. If each group had the same amount of companies, without any additional prior information, the firms would be randomly assigned into one of the two groups and we will have a 50% chance of making a correct decision. However, in our sample, the group sizes are 430 and 265, thus, proportional chance criterion looks more appropriate to assess the predictive accuracy of the discriminant model (Hair et al. 2006). Then, if p_i represents the expected probability that a randomly chosen observation will be classified in group i , we can calculate the proportional chance criterion for a discriminant model as $\sum_{i=1,k}(p_i)^2$. p_i can be calculated as the ratio of number of observations group with respect to total sample size. Since our sample has 695 companies, the expected probabilities for the two groups are, 61.9% and 38.1%, and the proportional chance criterion 52.8%. For a good discriminant

model, Hair et al. (2006) suggested that classification accuracy should be at least 25% higher than the proportional chance criterion ($1.25 * 52.8\% = 66\%$). In Table 2B we report the classification accuracy for the estimated model as 89.1%, which is considerably higher than Hair et al. (2006) reported guideline. Additionally, the classification accuracy of the estimated discriminant model is also higher than the maximum chance criterion probability of being in the group with the largest sample size 61.9% chance of being in Group 1 (Hair et al. 2006).

We can validate the estimated discriminant models using either a split sample (e.g. holdout sample) or a cross-validation technique (e.g. U-Method and Jackknifing). Hair et al. (2006) prefer cross-validation techniques over a split sample approach because they repeat the procedure multiple times. In cross-validation, discriminant models are estimated by leaving one observation out and then the estimated models are used to predict the membership of the unselected observation, repeating this process for each observation in the sample. We used U-Method over Jackknifing. Even they are based on the same principle, Jackknifing focuses on the stability of discriminant functions and U-Method focuses on classification accuracy, which fits better to the aim of the study. The results from the cross-validated were exactly the same as the one reported in Table 2B and therefore show a fair accuracy exceeding the proportional chance criterion, maximum chance criterion and Hair et al. (2006) criterion.

5 Conclusion

The objective of this study was to empirically assess the capability of certain characteristics to predict the environmental orientation of the firms at the hospitality industry. Using data collected from CIS (2010) database, which includes 695 hospitality companies with available data from three different countries we got interesting insights about which characteristics have higher impact in determining environmental concern of these firms while innovating.

The results in this paper show that the orientation towards innovation, the importance of the external information sources and the perception of barriers to the innovation are good predictors of the environmental concern.

Additionally, the results also suggest that the innovation orientation is crucial in determining the environmental concern of the hospitality companies when innovating.

This might be because, those firms that understand innovation as an important factor for the future of the company also detect environmental concern as a way to assure the future. Nonetheless, some key actors in the industry, i.e. tripadvisor, has been promoting the use of specific labels to detect hotels that are working on reducing their environmental impact as a way to differentiate them.

The discriminant analysis we performed, validates the descriptive power of some characteristics in grouping firms attending to their environmental concern. Even though, classifying firms in the same industry which might have similar view of the environment is inherently a difficult task, our function could classify correctly about 89.1% of the cases, which is a good improvement than random classification for proportional chance criterion.

Although very encouraging, we consider this study to be only exploratory. Even there are a number of limitations in the study, such as, the number of variables considered, our research has incorporated data from different countries, which has been a limitation of other studies conducted in the past related to the environmental orientation or eco-innovation. Future studies should try to expand the analysis to a large number of variables.

Overall, we believe that we have managed to address a number of relevant and important issues, which should be of interest to policy makers, showing that they should pay close attention to the promotion of innovation and encouraging collaboration between stakeholders in the hospitality industry to increase environmental concern.

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The Importance of Human Resource Management for the Development of Effective Corporate Culture in Hotel Units

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Abstract This study attempts to shed light on the importance of human resources management for the development of effective corporate culture. In the beginning of the 20th century the foundation was set for the scientific approach of management theory. Theoretical researchers investigated the behavior managerial and executive staff, attempting to improve the scientific approach. From this point of view the actual mission of managerial and executive staff of hotel unit is to manage the corporate tasks in the most effective way, assisted by the corporate human resources in an optimum tourists service level. An approach of human resources management will be attempted taking into account the special characteristics of the hotel units sector as well as organizational issues. The methodology that will be followed is based on bibliographical research, the text analysis and the correlation of these results with the actual current status of the tourism sector. Research outcomes rise from the rank the need of undertaking measures for a quality upgrade in human resources management in the tourism sector, especially by the use of information and communication technologies, innovative processes and organizational restructures in order to improve effectiveness and quality of service. These findings contribute on the update and modern information for the current situation in the hotel units in this period of economic slowdown and the identification of causes due to the major deviations that often appear in the development of human resource.

Keywords Hotel units · HRM · Tourism sector · Development

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JEL Classification M12 · O15

1 Introduction

This study attempts to shed light on the importance of human resources management for the development of effective corporate culture focusing at the hotel sector. Business organization and management regarding Human Resources has to be part of corporate and strategic management. Careful scheduling, recruitment procedures, selection procedures and training plan are necessary components that should put high in the hierarchy of corporate targets.

2 Human Resources Management, Organization and Planning

It is a fact that the Human Resource Management accomplishes the administrative role to strengthen diligence in order to increase the efficiency of business (Bourandas and Papalexandri 2002: 18). Therefore, it is required, first, to achieve as much as possible the maximum attraction of Human Resources and then, through fair procedures, to make the best choices of candidates who could function effectively for the vacancy of company's executive staff. In addition, an important role the company will adopt in the future is the appropriate choice of personnel for the business, so as to limit any extension of the adjustment of the company's workforce with the intention to absorb quickly the staff in the production process. It is also crucial the development of human skills at work. The Human Resources management as an administrative function must support workers' rights, must maintain balance in the company and at the same time, must serve their business objectives (Bourandas and Papalexandri 2002: 18).

In spite of the hotel unit's expansion, the companies must have an autonomous department responsible for the management of Human Resources. In small companies the responsibilities of personnel management, is usually delegated to officials (Harris 2000: 4). Actions such as the coordination of administration and Human Resources management give usually preference to a hotel unit in both the creation of a viable and competitive company advantage, as far as the Human and physical capital are strategic business goals (Ferris et al. 1999; Langbert 2000).

Planning is one of the most important priorities of a hotel unit. It identifies the Human Resource's needs in relation to the volume of activities, organizational

design and the outline of each job (Xitiris 2001: 30). Indispensable tool for the planning of Human Resources are organization charts through which reflect the specialties, the detailed job description, the duties and obligations of each employee (Laloumis and Roupas 1996: 98).

3 Motivation of HR

One of the most important factors of the employees' behavior of a hotel unit is the stimulation of the personnel. A successful administration must orient employees towards achieving the company's objectives. This can be achieved by covering the human needs of employees. According to Maslow's theory, human needs are divided into the following categories (Fig. 1):

- Physiological needs; referring to the daily needs for survival.
- Safety Requirements; it concerns the feelings of self-preservation.
- Social needs; it refers to the need for love, connection with others, integration into the team, and friendship.
- The need for appreciation and recognition from others; it is related to the fame, prestige, and respect.
- The need for integration, self-motivation and self-development (Avramidou 2011: 85).

Maslow declared that the degree of human motivation is influenced by the fact that the needs are not satisfied, and these function as motivation. Therefore, the stimulation criteria is the unsatisfied need. He also supported that there is no absolute satisfaction of needs (Avramidou 2011: 85).

Fig. 1 Maslow's pyramid of needs. *Source* <http://www.shyentrepreneur.com/pre-business/maslow%E2%80%99s-hierarchy-of-needs-for-a-small-scale-business/> and Koukoubliakos (2013)



4 Training Employees

People working in a company, individually and collectively contribute to the objectives of the enterprise (Armstrong and Baron 2007; Mullins 1995). A key factor in achieving the objectives is also the training of personnel. The increasing use of technology at work, such as computers and the internet connection, the continuous transposition from production to supply services and the incessant globalization of the business world require necessary the employees' training and development. Consequently, in order to maintain the competitiveness in global level and the better offer of tourist products, education and Human Resources development are becoming determinative factors. It is therefore important to have constantly motivations from and to tourism companies so that they provide a lifelong training to their staff (Milic et al. 2011).

5 Health and Safety at Work

The safety-health conditions at work and compliance with the relevant requirements of the regulations and national law are the employer's responsibility and obligation. Every employer should show strong commitment to occupational safety and health issues for an effective management system. Such a system should contain the main elements of regulations, organization, planning and implementation, and evaluation having as a goal to self-regulate and to improve, as shown in the Fig. 2.

The hotel industry includes a large range of functions and respective occupational risks. The complexity of the sector makes it particularly difficult to determine completely the risks. Particular attention is usually given to activities such as work in kitchens, which are considered to be a high risk working places in relation to employees in the hotel's reception. However, there are several other support activities which may have specific risks such as the cleaning up operations, equipment maintenance, etc. (European Agency for Safety and Health at Work, Safety and health risks in HORECA, E-Facts no 22, 2004, στο <https://osha.europa.eu/en/tools-and-publications/publications/e-facts/efact22> and Cottica and Grignani 2014).

Nevertheless, even the supposed low-risk jobs according to recent researches are suffering from very high levels of psychosocial risks. These caused by the working environment, cost the US economy about 193 billion annually according to the American National Association of Mental Health (*Society for Industrial and Organizational Psychology*). So any economic activity of companies and consequently those of the hotel industry have to understand and take measures in order to face the phenomenon, which may have significant effects on corporate efficiency and profitability. More, the entire environment suffers from the consequences of



Fig. 2 Management system of occupational safety and health (ILO). *Source* www.ilo.org

the economic crisis, which makes many times the safety and health due to distortion, less important, since the fear of redundancy outweighs (Anyfantis et al. 2016).

6 Conclusions

Due to competitiveness and the uncertainty that exists regarding the survival and successful business operation, the application of technical motivation is the best solution to increase productivity and improve products and services, which in turn makes a hotel highly competitive. In this way there will be interest in quality tourism attracting high visitor levels and improve the level of services provision and products. It is also of particular importance for companies, since most of the need to continuously and more qualified personnel are required, the choice of competent managers and executive staff for Human Resources issues (Xyrotiri-Koufidou 2001: 62).

The achievement of operational objectives is the culmination of the effort of the Human Resources Department, since this is the genuine aspiration of the company; that is to be able to implement its objectives, to be resistant to its competitors but also friendly with its Human Resources. Additionally, companies must develop a

good working environment in order to avoid leaks of their personnel to other companies, mainly competitive and ultimately, achieve an increase in overall productivity and business profitability (Aspridis and Kyriakou 2012: 17–34).

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Human Resource Management, Strategic Leadership Development and the Greek Tourism Sector

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Abstract Human resources management and strategic leadership development are considered essential in all economic sectors, aiming at the design of recruitment, retention and professional development practices of employees and the effective implementation of the strategic planning process. During recent years, in Greece, there has been a shift within the tourism industry towards high quality services including competitive customer service with fairly high-ranking position globally. Several questions arise as regards whether or not the applied strategies—or lack of certain strategies—respond to high quality service needs of tourism organizations and to the overall development of the tourism sector in Greece. A profound understanding of the need to design high-quality human resource management practices is vital for a comprehensive tourism strategic planning. Initially, in order to answer to all issues raised, the relevant literature has been reviewed. Subsequently, the paper describes the current situation of the Greek tourism sector and elaborates on HRM and strategic management concepts. It also examines service quality as an important prerequisite for attracting customers and as an essential strategic tool boosting tourism business performance.

Keywords Tourism · Human resource management · Strategic leadership · Strategic planning · Greece

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1 Introduction

Tourism as a business has become very important and influential in the economy worldwide. Nowadays, tourism-related businesses, especially hotel businesses, are struggling to maintain a respectable position in the labor market pyramid. Hotels are the main element of a complex tourism package and their success mainly lies on service quality and the personal relationship between the workforce and clients. In other words, human capital is the leading factor in hotel product promotion and effectiveness. Human resources are the key foundations through which continuous renewal, improvement, change and organizational culture will be able to provide a sustainable competitive advantage (Dekoulou and Trivellas 2014; Koufidou-Xyrotyri 2010).

Hotels are predominantly companies that provide goods and services at all operating levels of the tourism industry (Jafari and Var 1994). Through effective staff management both business objectives and long-term survival can be achieved. In light of the above, specific procedures need to be implemented mainly focusing on obtaining skilled employees willing to contribute in achieving all business objectives Warech and Tracey (2004).

This paper describes the situation of the Greek hotel sector in light of the current socio-economic challenges elaborating on HRM concepts. It focuses on service quality as an important prerequisite for attracting customers and highlights skilled manpower as an essential strategic tool fostering tourism businesses operational efficiency and establishing a source of competitive advantage.

2 Methodology

The methodology used in the present paper is the critical review of the literature. The sources of relevant literature investigation derived from popular online **bibliographic databases**, such as Science Direct, Emerald, EBSCO host and **scientific search engines** such as Google Scholar and Scirus. General search engines such as Google have also been examined.

The types of bibliographic sources included in the research are articles published on scientific journals, books, conference proceedings, company papers and studies, white papers, online sites and online journals. The selection criteria of these literature sources were based on the relevance to the topic of the paper and this research is not exhaustive.

3 Literature Review

3.1 *Service Quality and Human Resources*

Hotel business survival depends on the satisfaction of the clientele needs, considering that the high level of customer satisfaction leads to higher loyalty (Lavlak and Right 2003). Increased customer expectations in recent decades, have led the hotel industry to continuously improve its services in order to adapt to market demands and maintain high levels of satisfaction (Pizam 2004). Hotel businesses create quality advantages, which are not easy to copy and shape and are considered as unique and integral elements and attributes of their name. Therefore, hotels' business strategy is focused on service quality as a primary criterion and a hub for creating competitive advantages (Kandampully et al. 2001; Naisbitt and Aburdene 1986; Hamel and Prahalad 1989).

Both service quality and human resources are considered to be the pillars of business operational efficiency and long-term viability (Theocharis 2008; Soteriades and Varvaressos 2006; Pearce 2009). The gradual shift from the price-based competition to quality-based competition indicates the growing trend among businesses of acknowledging the strategic importance of product and service quality (Sarmaniotis et al. 2011; Juran 1992). As a result, tourism competitiveness decrease in many countries has been attributed largely to lower quality products and services.

A quality-based company policy dictates the development of employee incentives (Riley 2014). In a face-to-face service business, high quality unquestionably likely coexists with high employment and employee satisfaction levels (Santouridis and Trivellas 2009). In other words, the emphasis is now given on how tourism enterprises can keep valuable employees and how to maintain a consistently high-performing workforce. Employee commitment requires equal dedication from managers who must apply a wide range of incentive-based techniques in human resources (Polychroniou 2008b, 2009b; Trivellas 2011; Trivellas and Kakkos 2015). Therefore, enterprises based on service quality, should pay attention to human capital and recruitment, make informed staff choices and continually aim at how to achieve maximum efficiency.

Service quality is a decisive factor for the overall business activity—from the production and allocation of goods and services, the management of human resources up to building a strong brand name (Santouridis and Trivellas 2010). It is a process involving the prompt and consistent response to the way services are delivered (Trivellas and Santouridis 2016). To put it briefly, every tourism business needs to attract and retain staff with the right skills and attributes to meet the needs and expectations of each client. It is therefore understood that the need for effective human resources management is a prerequisite for service quality.

3.2 *Strategic Management of Human Resources as a Competitive Advantage*

In the highly competitive tourism and hotel industry, competitive advantages can be drawn via diversification resulting from networking and marketing services, the human factor, physical properties and characteristics, location, prestige or even the culture of the company. Differentiation acts as the means of attracting customer interest by offering something perceived as new while creating a unique opportunity for effective public relations, business prestige development, relationships of trust and commitment and higher profitability rates (Kandampully et al. 2001).

Businesses emphasizing on service quality have a positive comparative degree of differentiation. For instance, customers evaluate in a positive way the friendly attitude and behavior of the staff. The *human factor* is indeed a decisive source of competitive advantage. It is important for a company to have staff highly trained in new techniques and innovative methods of providing services. Also, the personal characteristics of employees such as emotional intelligence, courtesy and friendliness is what leads to service delivery with consistency and accuracy meeting the needs and desires of customers.

Human capital is currently the most valuable asset of a company or organization. Undoubtedly, under the current climate of intense competition staff can make the difference (Polychroniou 2008a). According to HR professionals, the only source of sustainable competitive advantage that has endured during the last decade has been manpower quality (Workforce 1994; Hamel 1996). Therefore, the ability to attract, develop and maintain capable personnel is a factor of great importance to business performance (Polychroniou 2009a). The actual increase in productivity stems from the existence of enthusiastic, dedicated and suitably remunerated groups of employees. Guest (1987) confirms the above noting that people are the most valuable and less easy to control resource compared to all the other resources of a company. Human capital creates the vision, defines the scope of practices, guides work tasks, sets goals, develops strategic plans and implements them in accordance with the business values; hence, it should be an integral part of the strategic planning process (Trivellas and Reklitis 2014). According to Armstrong and Long (1994) people are the ones who create the added value.

Unique employee talents like high productivity, flexibility, innovation and the ability to offer superior customer service is what makes human capital a critical component in the development of competitive position of a business (ibid). HRM strategies, policies, and practices make up a unique blend of personalities, skills, styles, processes and organizational culture (Trivellas and Dargenidou 2008; Trivellas and Drimoussis 2013; EU Skills Panorama 2015). As a result, one of the evident benefits of competitive advantages based on the effective management of human capital is that such advantages are difficult to imitate by competing businesses. Surveys among companies seeking to develop innovative products and services show that those enterprises are practically based on staff skills and performance in order to

maintain or gain a competitive advantage (Barney and Wright 1998; Trivellas and Santouridis 2009).

In conclusion, modern companies should be particularly concerned with the strategic management of human resources due to the key role of employees in achieving business competitive advantages. Organisations tend to be involved in connecting human resource management with strategic goals in order to increase their performance and to develop a culture that fosters innovation and flexibility (Trivellas and Dargenidou 2008). The actual role of HRM is to productively transform the workforce to a competitive advantage when it comes to formulating and implementing the strategic planning.

3.3 The Role of Effective Recruitment

Currently business competition is getting tougher at both national and international levels. A period of economic crisis can act as an opportunity for businesses to reorganize and pursue a competitive strategy. Over and over human resources are not fully utilized, especially compared to the attention given to financial and technological resources. Indeed, business culture and successful leadership should inspire the people of innovation, autonomy and experimentation with new ideas (DDI n.d.).

Companies, in their attempt to differentiate should give special importance and significance in making the appropriate human capital selection. Several companies operating in Greece have acknowledged the contribution of human resources to corporate performance linking HR practices to firm growth (Vlachos 2011). Successful recruitment strategies aim for qualified individuals in line with relevant job vacancies that will eventually be able to implement and support the corporate strategy. For this to happen, the HR department should cautiously select any candidate, and then, take care of their education and development prospects. An efficient HRM strategy, also, properly rewards each company member; when the personal goals of each employee and the company's development goals are aligned, then optimum cooperation can be achieved. In this case, employees are motivated enough to develop skills and abilities to take on new tasks, while the company provides for the opportunities that the employee wishes for. When individual and business objectives do not converge, the cooperation is poor, leading to employee dissatisfaction and business ineffectiveness.

HRM therefore has a central and critical role to business success with both business strategy and HRM being closely associated (Sluijs and Kluytmans 1994; Trivellas et al. 2007). Although usually HRM is seen as dependent on corporate strategies, this relationship is essentially bidirectional. At a time when traditional competitive advantage acquisition modes can easily be imitated, comparative superiority is increasingly based on the awareness of HRM officers and on the extent of their contribution in making effective decisions.

3.4 Defining and Designing Effective Hotel Organization

Successful hotel management also involves the organization and the proper functioning of the various business divisions. The hospitality industry and the tourism sector in general entail a wide variety of professions. The product provided by a hotel company greatly depends on the qualifications and skills available in the workforce. The human potential is divided into sections based on its capacities, in accordance with the principles of business management. According to Kasavana (2014) the core competencies of hotel organizations encompass the following: (i) Explaining what a mission is, and describing how goals, strategies, and tactics are used to accomplish a hotel's mission, (ii) Describing how hotels are organized and explain the classification of functional areas within hotels, (iii) Describing the functions performed by departments and positions within the rooms division, (iv) Identifying the functions performed by other departments within a full-service hotel, (v) Describing the organization of the front office, including traditional work shifts, alternative scheduling practices, and the purpose of job descriptions.

4 Discussion

4.1 Pressures Affecting the Competitiveness of the Greek Hotel Industry

In terms of value—price relationship, Greece has lost its competitive advantage due to the rise of new competitors in the Eastern Mediterranean region which have much lower production costs and much lower prices in terms of the traditional mass seasonal tourism product offered by Greece. The shrinking of the tourism season, the reduction of the industry's bargaining power, the growing trend for all-inclusive packages and the steady deterioration of the economic and social profile of the average tourist are some of the evidence dictating a fundamental reassessment of the situation.

According to the Hotel Chamber of Greece, the image of Greece abroad and the financial problems have resulted in a decrease in bookings in recent years in almost all Greek destinations, and hence the reduction in accommodation prices. As shown by the Tourism Barometer survey in 2011 city hoteliers were particularly pessimistic about the prospects of the industry as a result of the economic crisis and the surge to the image of Athens (GBR 2011). An estimated total hotel revenue loss of the Athenian hotel sector amounts to €820 million over the period 2010–2013 (GBR 2014).

Furthermore, according to the UNHCR in Athens, Greece faced 850% increase in refugee arrivals in the period January–August 2015 compared to 2014. In 2015, 40% of the total arrivals by sea took place in August (more than 80,600 arrivals) (Dimitriadi 2015). By September 2015, 383,000 people arrived in Greece creating

general social and specific economic and tourism pressures on the tourism destinations of the Aegean Sea (YOYNT 2015). Indicatively, islands-destinations of mass refugee arrivals, Kos and Lesvos, had received 15% of all refugees and immigrants (36,533) causing turbulence in the tourism market and economy due to cancellations in hotel reservations and reductions in employment by the end of August (ibid).

This overall decline results in excess capacity and low occupancy in hotels (vacant beds), leading to intense competition due to price reduction. The continuing price decline implies significant risks as it can create a ‘cheap’ image for both hotels and destinations. Local hoteliers’ associations have announced discount packages and tempting offers, while hotels across the country have made significant reductions compared to previous years.

The phenomenon of seasonality is among the most prominent issues that the industry is facing. According to Eurostat data, in 2012, 63.72% of arrivals in tourist accommodation in Greece took place during June–September, a proportion which varies significantly between countries. Indeed, available data about competing countries show that the percentage reaches 49.44% in Italy, 48.8% in Cyprus, 48.38% in Portugal and 46.91% in Spain indicating that the seasonality of tourism in Greece is sharp. It is worth noticing that during the years before the economic crisis the seasonality of tourism was lower in Greece compared to competing countries—destinations (GBR 2014).

4.2 Categorization and Performance of the Greek Hotel Sector

According to a study by the Institute for Tourism Research and Forecasting (ITEP) there are four hotel categories in terms of room classification: Family hotels (1–20 rooms), small hotels (21–50 rooms), medium hotels (51–100), and large hotels (more than 100 rooms) (ITEP and HCH 2014). Family hotels represent 43% of the hotel capacity of the country, 37% accounts for small hotels, 13% for middle ones while large hotels represent only 7%. The European Union defines as small and large businesses those with fewer than 250 employees (European Union Commission 2003). Big hotel chains operating in Greece, due to their large operational scale and the financial resources available can adjust both their prices and products in such a way that it is virtually impossible for smaller businesses to compete. Such operational behaviors are typically encountered in traditional Greek tourist destinations, where due to the volume of tourists and the number of hotel businesses the competition is very high.

In the same study, hotel chains and non-hotel chains (average respondents) are compared for the first time in terms of performance. Results showed that 9% of hotels-respondents belonged to some kind of hotel chain which corresponds to approximately 26% in terms of room capacity. The occupancy of this group is

higher than the average of hotels both in May and in August. In May, the occupancy of hotels belonging to a chain is formed at 65.4% against 50.9% of average hotel respondents. Correspondingly, the occupancy of chain hotels in August was 87.1% versus 81.5%. Also, there are high average price ranges in chain hotels where room cost was at €88.4 in May and €141.4 in August while for the average hotel sample the price was €63.7 and €102.2 for the respective months (ibid).

In conclusion, it appears that high category and larger hotels belong to some form of chain and they tend to have higher performance rates than individual smaller hotels. These variations are the result of different market strategies followed between these two hotel groups.

4.3 Employment in the Greek Hotel Sector During the Economic Crisis

In the spiral of economic crisis, employees in the tourism sector are invited to negotiations for new contracts, as the tourism industry, particularly hotels, are seeking wage cuts following changes in labor relations and the labor law. The Panhellenic Federation of Hoteliers based on the impact of the economic crisis in the hotel industry, the collapse of domestic tourism and business difficulties to cover operating costs invited employee labor associations to negotiate basic salaries and to redefine paid allowances. At the same time hoteliers ask for the restatement of seasonal employees' layoff conditions and request flexible working hours and reduced compensation. All the above demonstrate that employees in the private sector, especially in the services sector, have paid the highest adjustment costs within the period of the Greek crisis.

The latest findings of the International Labour Organization-ILO highlight the resilience of the tourism sector to the economic crisis and its contribution in national economic growth and employment. Despite its contribution in employment there are major issues to be addressed including high seasonality, long working hours, low pay and lack of expertise (ibid).

According to estimates of the ITEP, the workforce in Greek hotels in May 2013 resulted in 93,523 people and 121,557 in August. Compared to 2012, employment in May appears reduced by 0.9% and in August increased by 1.3% (ITEP and HCH 2013). For the total of economic activity, in the third quarter of 2013, employment decreased by about 3% compared to the same quarter of 2012. From 2008 to 2013, in the accommodation industry a total of 20,400 jobs were lost, corresponding to a decrease in employment of 6.6%. This rate is the fourth lowest employment rate of decline among other economic sectors, which proves that the tourism industry demonstrates resistance to job reduction. The rate of change of employment shows that the hospitality industry could act as a means of combating unemployment (ITEP and HCH 2014).

4.4 Human Resources Management in Times of Economic Crisis

International and national economic changes are able to exercise primary influence on human resources management (Mello 2006). Indeed, an economic crisis is among the main external factors that could potentially set in motion a business strategy redesign. Under the circumstances, the role of employees seems to move into a contradictory dipole: they are considered the most valuable resource of any company, while, at the same time, they are often expendable due to mergers and personnel cuts. HRM is called upon to play a more demanding and challenging role.

Often, when a company faces a major economic crisis and it is not able to cover for staff costs, mass layoffs are seen as a solution; this practice entails negative consequences for the company, but also for the community in which it operates. A careful planning for such crises during a period that the company is still financially strong could include a range of policy options that would prevent the ultimate solution of layoffs.

In any case, in a constantly shrinking economy the concept of staffing is redefined. Evidently the need for experienced and capable personnel remains intense as today more than ever commitment, knowledge and experience are required to cope with the crisis. On the other hand, the ever-worsening financial situation and the lack of development initiatives not only diminishes the possibility of job creation (particularly for medium or small strains), but it also shrinks the existing ones.

All in all, the main element of the modern economic environment is uncertainty, which businesses today are intensely experiencing. According to Darwin's theory 'it is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change'. Under these data, employees must be flexible and vigilant, to stay within a relentless labor market. While unemployment thrives one would expect that recruiting suitable candidates would be simpler compared to the past. However exactly the opposite is true for two main reasons: First, the increasing number of unemployed has led to a large volume of resumes received by companies, creating significant management problems and huge workload in HRM departments. The publication of an advertisement, especially when not addressed to a targeted public, leads to mass mailing of resumes from people who in their majority do not meet the profile described in the vacancy note, but who are looking for any job to earn a living. Second, companies continue to encounter difficulties in finding talents, especially for managerial roles or positions that require specialized skills and technical knowledge, despite the plethora of resumes.

In addition, the European labor market is rapidly changing due to new technologies, the aging population and the transition to a low-pollutant production economy. It is still transitioning to a new labor format featuring employment based on advanced skills in the services sector. According to the EU Skills Panorama for Greece (2015) tourism and services are among the sectors that can boost economic recovery for Greece and are expected to grow in the next few years. Construction and tourism are expected to face 50% increases in new hires in the immediate

future. As per estimates of the International Monetary Fund, ‘sectors that should be targeted for growth and job creation in the future building on Greece’s comparative advantage include tourism’ while McKinsey estimates that medical tourism could become a niche growth area (ibid). Nevertheless, sectoral and occupational growth projections suggest that there are considerable needs for reskilling of the workforce with jobseekers in need to re-skill or up-skill to secure employment in growth sectors (ibid). Estimations also suggest that ‘there will be a shift away from the major urban centres to the Greek periphery to support growth in tourism’ (ibid).

The ability of employees to adapt to this new situation would be decisive for growth and social peace. According to an EU recent report for the future of the European labor market, most of the EU employees will be employed in the service sector in the near future (Commission of the European Communities 2009). In 2020, 75% of EU workers will be employed in sectors such as insurance, health-care, retail and education (ibid). More and more jobs will require tertiary education and other skills along with general knowledge, analysis and communication skills and electronic media know-how.

The executives in the human resources sector should be informed of the demographic movements that (will) occur in their areas of operation. Important skills may be lost at short intervals if antiquated policies are implemented resulting in unnecessary loss of talent. It is also evident that the new role to be played by HR managers requires continuous education and training to meet the constantly changing conditions and remain competitive. The Commission notes that economic crisis complicates forecasts on employment and that projections may change.

The key to increasing the influence of Human Resource Management is a philosophy change putting special emphasis on measurable results and a clear targeting of the HRM sector. The first step in its transformation is the review of past practices and the adaptation of new functions within the global environment like adjustment to the economic recession and its impact, transparency in personnel management, alignment with the specific needs of each industry, application of domestic, European and international legal framework plus incorporating social responsibility.

4.5 Effective Human Resource Management in Greece

In Greece the role of the Human Resources Department was until recently quite degraded, since it was not a part of the family management mode under which the majority of Greek tourism enterprises were operating. The entry of more and more multinational companies, which applied modern management methods, increased the pressure on Greek businesses. Increased competition changed the perspective for Greek companies, which in order to survive, they should exploit valuable human capital.

The tendency to enlarge the political power of the HR department and its increasing importance are visible not just in terms of strategy implementation, but also in the design of the corporate strategy. Certainly for some smaller companies,

the role of HRM is limited to staffing and pay-roll issues. However, the current competitive environment requires businesses that want to ensure their existence for many years to come, to operate at the maximum performance which essentially means that employees are the ones who will actually be performing the best they can. The increasingly greater necessity for more efficient management of human resources is also apparent in the light of high labor costs and intense competitiveness issues of the Greek tourism industry.

The success of the Greek hotel sector could be linked to a high performance employment system, according to which companies embracing a set of specific human resource management practices tend to achieve their objectives efficiently (DeNisi and Griffin 2001). The effectiveness of HRM in the Greek hotel industry can rely upon practices like:

- Attitude surveys in which employees anonymously communicate their views, either positive or negative, regarding the working environment.
- Information sharing for the smooth resolution of issues that may arise within the business (Trivellas et al. 2015).
- Rewards to create a feeling of satisfaction and recognition for the employee.
- Implementation of performance appraisal which helps in the effective management of human resources (Trivellas and Kakkos 2015).
- Organization of social events through which employees are better integrated into the environment and the philosophy of the firm.

According to Naisbitt and Aburdene (1985) the concept of human resource management was if anything urgent in the hotel industry. People as resources are the competitive section of both hotels and restaurants over time. The work quality and staff development compose the puzzle for the quality services offered to the customer (Rutherford and O'Fallon 2007).

4.6 Challenges for Human Resource Management in the Greek Hotel Sector

HRM in the hotel sector in Greece faces a number of challenges. The first challenge involves talent attraction. HRM is asked not only to choose competent people or high-potential individuals, but also to discover and develop employee potential from the talent pool of the hotel business. In an effort to attract and retain talented employees HR departments face another challenge; the management of the business image and the designation of the business as a preferred employer. Another challenge deals with increasing customer satisfaction and employee engagement through performance management and its connection with employee rewarding. The contribution and performance of each employee should be adequately rewarded as to establish a sense of justice and recognition of the efforts—something that admittedly becomes increasingly rare in businesses facing economic recession.

Moreover, the need for continuous training and development is a major challenge, especially in searching for more efficient practices for staff training in order for it to be aligned with the vision of the company and to contribute in the consolidation of a common culture. Research findings suggest that tourism and hotel enterprises in Greece must adjust their HRM practices towards enriching staff qualifications by constantly investing in personnel education and training, as a source of future competitive advantage (Stavrinoudis and Floras 2012).

Another key concern for organizations is leadership development, as leadership skills are considered key to the effectiveness of an enterprise. The future success and sustainability of a hotel business depends on the ability of managers to take long-term decisions that are based on a thorough scan of both external and internal environments (Pearce 2011; Polychroniou 2008b, 2009b; Trivellas and Reklitis 2014; Trivellas and Drimoussis 2013). To ensure that a hotel provides high quality services, managers need adequate skills in order to make the right decisions for the improvement of a given situation and adapt to changes.

In general, the results show that the Greek hotel sector should focus on penetration and stabilization by adding innovation based on external circumstances that would differentiate it from its competitors (Reklitis and Trivellas 2009). In any case, senior management executives should motivate employees and create interactions between different organizational levels leading to positive results based on the characteristics of Total Quality Management-TQM (Koutouzis 1999). Furthermore, this will strengthen relations between workers and managers creating a good working environment (Courtis and Mylonakis 2008).

Due to the situation in Greece tourism businesses can not reduce the impact of the circumstances that have eroded their competitive position and they should try to achieve a competitive advantage aiming at differentiation by providing a proposition of unique value to customers. Given the loss of revenue and the immediate need to respond to the circumstances the process of strategy formulation should be removed from the model based almost exclusively in summer mass tourism which has reached the maturity stage of its life cycle. New forms of tourism can hold a small market share for several regions at present, but they have great prospects (such as medical tourism).

Undoubtedly, the degraded financial health of the sector does not suffice to finance new investments and to exploit all the competitive advantages in an unstable external environment. HRM professionals will need to develop a strategy to overcome the weaknesses and avoid threats based on the pool of the unexploited human capital (Courtis and Mylonakis 2008; Aspridis 2004, 2007).

5 Conclusion

The Greek hotel industry has started to realize the importance of HRM and to recognize its key role in the development of a sustainable competitive strategy (Stavrinoudis and El Chanoun 2013; Giousmpasoglou 2011; Aspridis and Kyriakou

2012; Dekoulou and Trivellas 2014). Despite the uncertainty of the current economic and social context, the crisis has ‘allowed the re-establishment of the strategic importance of HRM in each organization and strengthened its status as the key in their survival’ (Staikou and Stergiou 2015). Indeed, international and national economic changes are able to exercise primary influence on HRM. Thus, an environment characterized by high unemployment, salary cuts and intense insecurity has shaped a new landscape in labor relations and HRM practices.

Job stability, clear work scope and the continuous presence of employees at work which characterized employment until recently, have given way to uncertainty, layoffs, frequent manpower transition to flexible forms of employment, alternation of work tasks and continuous replacements. In this context, the Greek employment landscape is under alteration while the role of employees seems to move towards a contradictory dipole; while manpower is considered the most valuable resource of any company, frequent mergers, bankruptcies and personnel reductions, often make staff disposable. As a result, the economic recession affects HRM strategies which need to adapt in order to respond to the conditions of an unstable external environment.

In the hotel business, as in any service business, the human factor determines service quality (Trivellas 2011; Trivellas and Santouridis 2016). Therefore, the hotel industry is directly dependent on the management of the personnel composition and capacity as to meet demand. The strategic importance of human capital lies in its capacity to develop characteristics that cannot be copied by the competition. Consequently, the focus must be given to the philosophy and strategy in addressing human factor issues, on how hotel businesses can keep valuable employees and how to motivate their highest level of performance through inspiring leaders (Trivellas and Dargenidou 2009).

The hospitality industry can increase its profitability chances when the degree of employee participation, satisfaction and empowerment is greater (Baumgartner 2014). HRM has the unique role of raising business performance through its capacity to affect employee behavior and ensure employee loyalty and commitment to business goals. The ability of HRM to effectively manage its workforce so that both employee and company interests are fulfilled depends upon taking into account the needs of employees and fostering harmonious relationships between individuals and groups. Companies must take into account that workforce reduction practices, like mass layoffs, lead to decreased employee participation—especially if combined with reduction in remuneration—implying decline in growth prospects. Salary adjustments need to be awarded based on employee performance as part of a rewarding system that makes employees more prone in supporting the business goals.

In conclusion, a firm’s ability to maintain, develop and make full use of the right people is a hidden value that cannot be copied by the competition. Simultaneously, the current competitive climate requires companies to be able to adapt to the economic downturn and its impact by selecting and utilizing the appropriate human capital. Therefore, HRM must have the strategic priority to convert human capital into a source of sustainable competitive advantage and each HRM practice should

be designed in a manner that complies with the corporate strategy, especially in cases of economic downturn.

Despite the difficulties, Greece is still one of the most popular tourist destinations worldwide. The dynamics of the tourism industry still offer great growth perspectives, despite the market recession and any unforeseen circumstances that have been created due to the current socio-economic context. Greek tourism initially needs to be repositioned within the international and domestic tourism market with a more complex and qualitatively upgraded tourist offer as well as skilled entrepreneurs who know the market, have the ability and knowledge to change strategies, and finally trained manpower, which acts as a catalyst for the upgrade of the service quality.

6 Suggestions for Further Research

Future studies can include quantitative analysis to draw conclusions on the basis of measurements in order to reflect a more detailed picture of the subject. In addition, it is important to investigate the views of the workforce in the context of a comparative study aimed at finding potential attitude differences between employees and management levels in the hotel and the tourism industry in Greece. The present paper adopted a rather holistic approach to the issue; studies that will focus on the different hotel capacity in different regions of the Greek periphery will be able to fill the gap to the Human Resources Management, hospitality and tourism academic—and business—literature.

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The Strategic Role of Information Technology in Tourism: The Case of Global Distribution Systems

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Abstract During the last two decades of the digital era millions of people are using web technologies to communicate with other people around the world. The development of Information Technology (IT) and particularly the use of web technologies has turned the world to a much smaller place and opens up the possibility of new forms of engagement and relationship. On the other hand, IT has a major role in every organisational aspect. Through the use of IT and the internet, it is likely that in the next years all the organisations will be reshaped and will come across new challenges. The aim of this paper is to study the idea of IT and especially the role of Global Distribution Systems in the tourist industry. IT is the lifeblood of travel and tourist industry. It connects travellers, travel industry and suppliers. IT is essential for the efficient and timely processing and distribution of that information, and has dramatically enhanced the efficiency and accessibility of travel industry organisations.

Keywords Global distribution systems · Internet · Information technology · Tourism

JEL Classification L83 · L86

1 Introduction

The subject of tourism and travel is exciting and fascinating. Tourism as a whole is one of the fastest growing industries in the world. The World Travel & Tourism Council (WTTC) defines Travel and Tourism as: “*the activities of persons travelling to and staying in places outside their usual environment for not more than one*

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consecutive year for leisure, business and other purposes not remunerated from within the place visited” (WTTC 2009).

In recent years, growth rates in tourism have been higher than those of the overall world economy (E-Business Watch 2006). Tourism industry has the potential to generate foreign exchange earnings, to create employment, to promote development in various parts of the countries, to reduce income and employment disparities among regions, to strengthen linkages among many sectors of the national economy and to help to poverty alleviation (Azhar Harun 2012).

Tourism industry is one of the biggest and most rapidly expanding industries, contributing almost 9.8% of global GDP (US\$ 7.2 trillion) and a facilitator for a workforce of more than 284 million employees, that’s 1 in 11 jobs on the planet. Tourism industry is set to face macroeconomic conditions and other challenges in 2016, but nevertheless expected to perform at a solid growth rate and outperform global economic growth once again. Travel and tourism forecasts over the next 10 years also look extremely favourable with predicted growth rates of 4% annually. Tourist market has a very complex structure where several stakeholders are involved. The next (Fig. 1), illustrates the structure of tourist market.

LTO, RTO and NTO acronyms concern local, regional and national tourist organisations such as tourist boards or convention and visitor bureaus (Werthner and Klein 1999). The links mark the relationships between the stakeholders as well

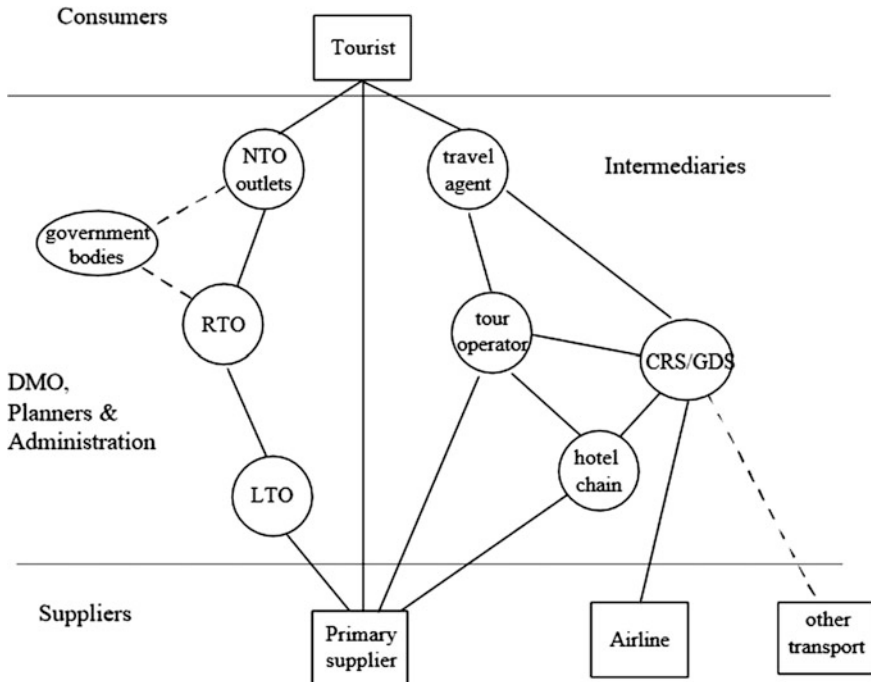


Fig. 1 The structure of tourism market. Source Werthner and Klein (1999)

as information flows; dotted lines indicate not well linkage to information systems (Werthner and Klein 1999). The figure above indicates that IT can contribute decisively tourism industry development. It is undisputed that already technology has played a major role in tourism industry and its development. From the improvement in transport infrastructure to information technology, internet and digital communication even holiday accessories; there is an endless list of contributions that technology has offered particularly since the 1950s.

As Chourides et al. (2003) noted, “*We are in information age*” in which organisations should identify the importance of knowledge asset and its management. In fact, there are also other factors that push the need for more information; Zack (1999) identifies them in the context of competition, globalisation and technological innovations.

On the other hand, Cooper et al. (2004), state that the development of the jet engine in the late 1950s was a breakthrough for international travel. It meant that increased demand for international travel could be met, the tourism industry could expand, go further, discover new destinations and play an important role in the economy as well as in society. Once again technology in this case is found to interact with other factors such as the economical and the social one.

Technology has contributed not only in air travel but also in a better road network, in access to cars which in the past was not taken for granted, in luxurious and fast cruise liners as well as in incredibly fast and comfortable trains. As virtual reality via the Internet becomes more of an everyday issue, technology will continue to progress beyond our imagination.

The rapid development of tourist supply and demand makes IT significant; thus it increasingly plays a more critical role in tourism marketing, distribution, promotion and co-ordination. IT influences the strategic management and marketing of contemporary organisations as a paradigm—shift is experienced transforming the best business practices globally.

Another innovation that has changed the way things were done for many years is mobile check in. Mobile check-in has landed in airports across the globe following the introduction of a paperless ticketing service now used by most airlines around the world. Paper boarding passes have been replaced by an electronic 2D barcode received via MMS and stored by the passengers’ mobile phones.

It is apparent that IT can transform the nature of tourism and hospitality products, processes, businesses, and competition. Major changes came along for the entire industry with the introduction of Online Travel Agents (OTAs) through the evolution of the internet.

The aim of this paper is to study the use of Information Technology and especially the role of Global Distribution System in tourism industry.

2 The Role of Information Technology in Tourism

Information Technology (IT) is one of the main key influencers of competitiveness in tourism and travel industry. Recently in the tourism industry, there has been a race to introduce new technology. The development of new technology directly affects price and thus competition through achieving cost savings. The tourism industry is one of the largest users of IT and has some of the largest computer installations in the business world (Drosos and Tsotsolas 2014).

IT has been defined as 'to the technological side of an information system. It includes hardware, databases, software networks, and other devices. As such, it can be viewed as a subsystem of an information system. Sometimes the term IT is also used interchangeably with information system or it may even be used as a broader concept that describes a collection of several information systems (Earl 1996).

The components of the System of IT in the tourism industry include applications such as: GDS, Teleconferencing, Management Information Systems, Electronic Information Systems, Electronic funds transfer systems, Digital telephone networks, Smart carts, Satellite printers, Satellite Telephones, Mobile telephone, Internet—Web site, Intranet, Extranet, File Transfer Protocol, E-mail, Virtual Reality, E-commerce and Multimedia applications.

IT increases a number of intra-organisational processes by supporting a certain level of integration between different functions within tourist organisations. A lot of the manual works is reduced in leading with the tasks of payroll, inventory control, and general ledger. This saves time and releases staff to provide a better personal service to the customers.

Front office and Back office are some of the systems, which are used from the travel agents. These systems enable travel agents to store private information, create client profile and itineraries. But the main target from the use of these systems is to increase efficiency and productivity, and of course to minimise the cost of services and maximise the profits. Front office systems usually incorporate reservations, registration and billing because a high proportion of common data links these elements.

In a Front office system it is able to support a large number of terminals and provide direct links to other automated facilities such as point of sales system. Front office is the part of business that customer sees. It is a type of sale operation, which passes the paperwork of a sale to the office in the back for processing.

A front office management system for a travel agency includes much information about: air ticket, cruises ticket, hotel allotment, rent a car, exchange. Back office systems basically perform the administration, accounting and ticketing function. Clerks and accountants who receive the sales receipts from the front office file than at the back of the store, by the front office (Table 1).

In tourism industry internet technologies enable consumers to communicate directly with tourism organisations in the order to request information and purchase products as well as to interact with principals. The rapid development of internet provides unprecedented and affordable opportunities for the global representation

Table 1 Front office—Back office services

Front office	Back office
Air tickets	Accounting
Cruises tickets	Finance
Railway tickets	Creditors
Vouchers	Debtors
Sales report	Clients
Tourist package	Pay
Hotel allotment	Economy reports
Hotel commitment	Evaluations
Rent a car	Stock
Exchange	Statistical report
Travel agents	Administrations
Excursion	Retail customers
Voucher check	Business customers
Passenger transportation	Suppliers
Cruises ticket	Accounting

and marketing of tourism (Buhalis 1998). The Internet, by general consent, is the way ahead for an increasing number of tourist companies/organisations, especially those who need to do business across international borders or in market where computer lines are not always easily accessible. And while the acceptance of the Internet gathers pace around the world, the variations of its possible application are also multiplying at incredible speed.

On the other hand web technology connects tour operators and other tourist companies to travel agency customers. Ferry tickets, rail tickets, cruise tickets, rent a car services, are advantages of the new systems, as well as tour operators, who can distribute their products through easy to use web technology to a wider or any agency through internet connection. Products found through Internet are a cost-effective solution, which allows agency customers to search for the cheapest fares and make their own bookings online. IT also works behind the scenes to find the best prices and alternative itineraries. Using real-time data, customers and the travel organisation have the opportunity to make reservations, purchase tickets, review and compare fares, search for preferred vendors, and search for the lowest airfare, find the hotel nearest to your meeting site, and review seat maps. Travel organisations can even request an upgrade and get information about travelers’ destinations as they plan their trips.

Passengers have direct links into ground—based Global Distribution Systems, which let them to book or to change tickets, hotel rooms, and rent a car services from their seats. The world’s largest telecommunications companies developed global satellite and fibred optic cable networks via new generations of progressive and more sophisticated computers.

The use of internet from tourist organisations reduces the travel and entertainment cost and streamline travel processes. Internet has been hailed as the solution to

a tourist organisation issue as far reaching as faster information system development, access to legacy system data, integration of incompatible system and progress towards the paperless office.

3 Business Strategy and Information Technology

While the use of new technology offers lots of opportunities, many companies/organisations must have leaped into the fray without a clear understanding of what they want to accomplish. If an organisation wants to make successful the most of this new medium, needs a strategy.

The relationship between business strategy and IT is not new. The integration of information systems and business strategy has been accepted as a very important aim for many years. The main emphasis in this relationship is directed towards reviewing the new opportunities that IT affords to do the organisation better.

In the beginning of the 1980 the Harvard Business School first identified the logic of integrating Information System and the effect this had on industry among two main lines:

- The rule of the competitive game and corporate strategies.
- The evolution of inter-organisation boundaries.

The relationship between business strategy and IT takes place in many different fields in a tourist company—organisation: Economic results, technical efficiency organisational outcomes, financial investment, marketing, sales, human resource, costing, and productivity. One of the main strategy models that use in the organisation is the three level strategies. This third level strategy is introduced (Earl 1996):

- The Information Technology (IT) strategy. The IT strategy is concerned primarily a with technology policy which is going to apply the organisation. It takes questions of architecture, including risk attitudes, vendor policies and technical standards. This strategy provides the framework within which the specialists provide applications and users use them.
- The Information Management (IM) strategy. This strategy aims to putting the management into IT. It comprises the policies, procedures aim and action. The IM strategy accordingly is concerned with the role and structure of IT activities in an organisation.
- The Information System (IS) technology. The IS defined as the long term, directional plan which decide what to do with IT. IS strategy seems to be business-led and demand-oriented and is concerned with exploiting IT either to support business strategies or to create new strategic options.

The IT infrastructure has to minor the business strategy and functions of the different departments of the organisation. These pinked by networking, which

supports the communication and facilitates interconnectivity between individual organisations.

Another type of strategy an organisation can adopt and again advantages from the use of IT and focuses on knowledge is the action/interaction strategy. Organisational knowledge creation, integration and management strategies leverage organisational intelligence. Moreover organisational knowledge creation requires interaction and conversion of tacit and explicit knowledge between individuals and groups in the organisation (Helms et al. 2008).

On the other hand, many organisations use web technology to distribute directly their products to their customers. The development of an internet strategy will be integrated with the organisational strategy. Today a similar process is needed to determine what an organisation wants to accomplish with the use of web technologies.

A tourist/travel organisation must treat internet as strategic business decisions, not just as a technology decision. Internet opportunities will make a variety of demands into organisation. Organisation must assess the ability to take advantage of those opportunities by evaluating the organisation's leadership.

The opportunities generated by internet technology are key subjects of discussion at conference and seminars' programmes, and the main thrust of new travel and tourism product promotion and advertising campaigns.

The real impact of IT is complex and in many aspects of daily life—both personal and at work—and not just travel. The new opportunities available to the travel industry as a result of internet technology—in all segments of travel and tourism whether suppliers, agents or buyers—are enormous (Poon 1993).

4 Benefits of Information Technology to Tourism Industry

IT seems to be a key contributor to the development of tourism industry. According to the published research, IT applications provide important knowledge leading to management and marketing performance improvement (Schertler and Berger-Koch 1999; Berné et al. 2015), may have a direct effect on cost reduction and service differentiation (Porter 2001; Buhalis and O'Connor 2005; Berné et al. 2015), improve activities coordination and control (Porter 2001; Berné et al. 2015) and, contribute to the globalization of the industry (Buhalis and Law 2008; Berné et al. 2015). In an attempt to categorise advantages of IT as the above mentioned ones, Poon (1993) stated that the rapid diffusion of IT systems throughout the travel and tourism industry has four key benefits:

- IT will improve the efficiency of production. A tourist organisation having greater and more efficiency access to information within the industry have meant

that a more flexible product can be made available to the customer. The customers have the opportunity to find easier and cheaper services, which they need through the use of IT. The IT may offer services to either individual, group of individuals or to a tourist corporation or organisation in much different ways. The use of IT in the tourist industry has enabled flexible production not to be costly more competitive with mass-produced holidays.

- IT will improve the quality of services provided to consumers. Usage of IT can result in a positive effect to the level of quality provided to the customer. With the use of IT higher living standards result for the customer. IT improves the service quality and contributes to higher quest/traveler satisfaction. Customer satisfaction depends highly on the assurance and comprehensiveness of specific information on destinations' accessibility, facilities and activities. IT enables customer to communicate directly with tourism organisation in order to request information and purchase products.
- IT will lead to the generation of new services. New technologies have resulted in other technologies developing and the further generation of new services. More flexible services are now available with access to more information and the capacity to gather, analyse and manipulate it. These consist of development such as satellite ticket printer, tele-entertainment, Tele-working. The development of new technologies should increase the interactivity between consumer and suppliers.
- IT will engineer the spread of whole new industry best practice. As a result of a whole system of information, technologies being diffused into the tourism industry, organisation and management are concerned with employing methods and best management in all the levels of organisation for best productivity and the most profitable practice for the industries. The main target for the entire organisation is to minimise the product or services cost and maximise the profits.

5 From Manually Reservation Systems to Global Distribution Systems

American Airlines' first pioneering effort with reservations was the "request and reply" system used in the 1930s. A reservations agent would telephone the central control point where inventory was maintained to inquire about space available on a flight, and a response would be returned via Teletype.

Through the mid-1940s reservations were recorded manually with a pencil on different coloured index cards, nicknamed "Tiffany" cards after the lamps with the coloured glass shades. These cards were arranged in a "lazy Susan" and half a dozen employees sitting around a table spinning the lazy Susan for index cards that

would correspond to particular flights controlled flights. By counting the pencil marks on each card, a clerk at the reservations centre could give a “yes” or “no” to a request for a seat (Drosos 1999).

By 1952, the airline added basic computer file technology—a random access memory drum and arithmetic capabilities to the Reservist. With the Magnetron Reservist a reservations agent could check seat availability and automatically sell or cancel seats on the electronic drum. As advanced as the Magnetron Reservist was for its time, the airline reservations process was still intensely manual (Drosos 1999).

In 1953, a chance meeting of two Mr. Smiths on an American Airlines Los Angeles—to—New York flight resulted in the development of a data processing system that would create a complete reservation and make all the data available to any location throughout American’s system. The outcome of the conversation between C.R. Smith, American Airlines’ president, and R. Blair Smith, a senior sales representative of IBM, was the 1959 announcement of a Semi-Automated Business Research Environment better known today as the SABRE system. American’s initial research, development and installation investment in this system was almost \$40 million (Drosos 1999).

At the beginning of the 1970s, Carter’s policy of air transport deregulation led to massive database requirements. These systems were then developed in Europe and Asia. Although the systems are regulated by anti—trust laws which insure that all transport companies are treated equally, there are frequent claims that the airlines controlling them display information on the screen in ways that favour their own services (Drosos 1999). Other air companies started to develop reservation system. So there are system APOLLO from United Airlines, PARS from TWA and Northwest, DATA II from Delta Airlines and system from Continental Airlines and Easter Airlines (Drosos 1999). In the 1980s big European airlines companies started to develop national computer reservation systems (Drosos 1999).

The growth of CRS in the 1980s and 1990s has been remarkable. Single access information system offered information in the first years on the product of the airlines companies. The first use of the systems was just a mere adaptation of general databank technology to meet the needs of the airlines. It has indeed been both of a stipulation and a consequence of deregulation and liberalisation.

Three main waves of technological developments established IT in tourism enterprises. In the 1970s Computer Reservation Systems (CRSs), in the 1980s Global Distribution System’s (GDSs) and in 1990s Internet. Although these technologies emerged of about 10 years each other. These systems currently operate both separately and jointly controlling different and target tourist markets (Buhalis 2003).

World information and distribution networks play a decisive role in the international tourist sector since they bring the buyers and producers of tourism products

into contract. Unlike goods, services are sold before the consumer has had a chance to appraise their various qualities and before he had travelled to the destination country. GDS and CRS are therefore indispensable and have a virtual monopoly in the sale of tourism package.

National airlines CRSs have emerged GDSs by gradually expanding their geographical coverage, as well as by integrating both horizontally with other airlines systems and vertically by incorporating the entire range of tourism product and services, such as, accommodation, rent a car, train and ferry ticketing, entertainment and other provisions.

The range of functions of the GDSs do not only include the airlines mode with information on tariff and seat availability, reservations, automatic pricing, ticketing, accounting travel information and internal links with the airlines flight operations, but also provide the agencies and tourism intermediaries with booking facilities for the tour operators for the whole range of tourism products like hotel, rail travel. Car ferries, cruises, travel insurance, car rentals and ticket for culture and events.

But the development of the GDSs the last years drive the use of Systems from simple inventories of available seats to global travel management system for the whole tourist industry. Travel—Tourist companies can now have access in travel information like health and vaccination requirements, travel documents foreign exchange rates and meteorological information, on all tourist carriers and related tourism services, which distribute their products through a global distribution system network. Additionally the use of GDSs produce the necessary data for yield management programmes that allow effective control of the passenger mix for each single flight as a new management tool. Tools, which will help the tourist, company to reach their target of maximising the profit.

It is obvious that the adoption of web based technologies and IT applications has significantly changed the tourism distribution channels. Figures 2 and 3 show the differences in the structure of tourism distribution channels before and after the adoption of IT application and web based technologies.

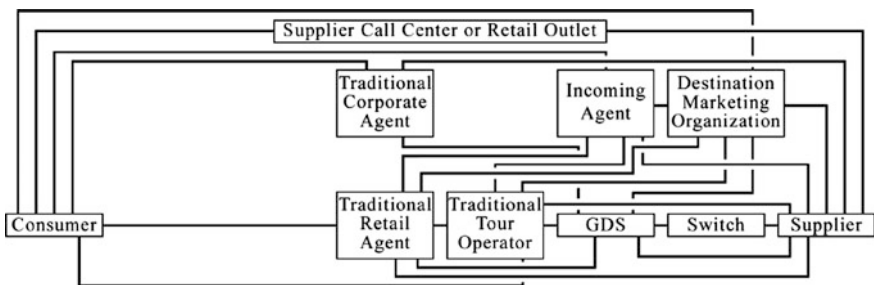


Fig. 2 Structure of tourism distribution channels before the adoption of IT application and web based technologies. *Source* Kracht and Wang (2010)

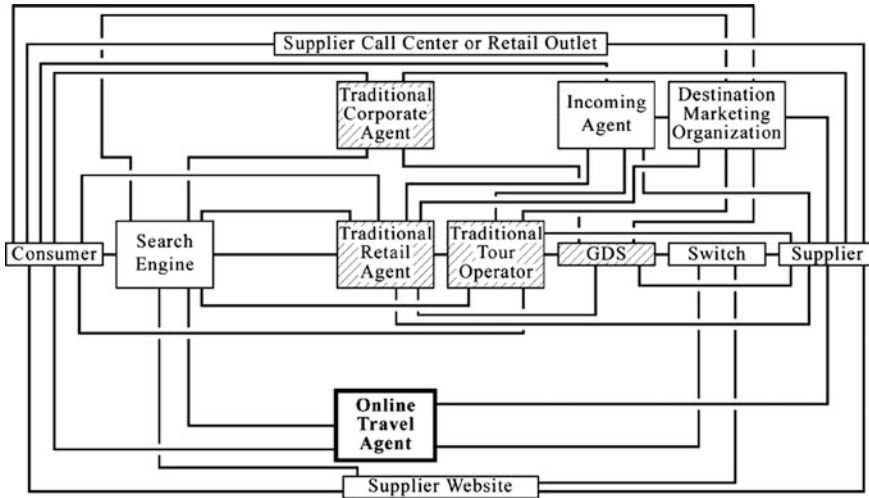


Fig. 3 Structure of tourism distribution channels after the adoption of IT application and web based technologies. *Source* Kracht and Wang (2010)

6 Conclusion

IT and GDSs specifically, have had a remarkable effect on the competitive structure of travel industry and will continue to play an important role in its evolution. GDSs vendors are providing additional features, such as logical system language, time-saving transaction codes and consistent, easy to use and understand displays which, combined with productivity and information tools, allow the travel agent to concentrate on enhancing services to the customer.

However, it is also clear that further gains in market penetration by the GDSs vendors will become increasingly hard and costly to achieve. Gains from penetrating the market of the smaller, often independent travel agents will, by definition, tend to be small in terms of the increments to the volume of bookings which will have.

The costs of penetrating these smaller market units are likely to be high, and the process of attempting to secure new contracts with these agencies may bring the GDSs into conflict with their owners unless adequate returns can be guaranteed. The advent of global computerised reservation systems is one area that is currently concentrating the minds of most of those concerned with decisions making at the highest level.

Although travel organisations can benefit in terms of cost, speed and efficiency from the use of GDSs, which enable them to search, select and obtain virtually instant written confirmations of booking, the majority of the staff still lacks confidence in the new Information Technology.

The choices currently involve several vendors offering electronic communications interfaces with a selection of potential business partners with diverse technological systems. Therefore for tourist—travel, these will ultimately have to be linked with internal management systems if maximum efficiency is to be achieved. The future of GDSs development will revolve four aspects: Regulation, Rationalisation and Reorganization and Diversification.

Regulation is important in that the power through which the CRSs have to control the international airline industry's sales and distribution process presents great opportunities but also poses serious problems for major airlines, marketing intermediaries and policymakers.

Rationalisation will be required in order to address issues such as fair competition and equal opportunities for small and medium tourist enterprises (SMTEs) companies. Perhaps SMTEs can gain more advantages by using IT as bargaining power is gradually relocated from institutional buyers and wholesalers to suppliers. Due to the more effective and interactive communication they can achieve better results with their target market. Small size in combination with innovation and effective networking by using IT also enable them to develop "virtual size" and empower their competitiveness. Small firms can therefore develop and deliver the right product, to the right customer, at the right price and place, without over-dependence on intermediaries. This would enable small firms to enhance their position and increase their profit margin (Buhalis 1998).

Finally, changes will occur through the reorganisation of both the CRS industry and the airline industry in terms of international alliances. The battle to convert international agencies to a particular CRS is now a key aspect of the strategic development of the tourism industry. A firm can achieve several strategic benefits by using it.

Hence IT offers new management and business opportunities and can be applied strategically in at least four different ways: gain a competitive advantage, improve productivity and performance, facilitate new ways of managing and organising, and develop new business (Buhalis 1998).

The concept of diversification applies when a firm undertakes the provision of a new product, without ceasing the production of existing lines. The line into which the tourist organisation has diversified need not be related to its former activity. IT provides the new wave of goods and services, and it is sufficient that these diversified investments provide a good return (Poon 1993). Virgin Atlantic provides an interesting example of a company that has diversified into the airline business. The founder of Virgin Atlantic, Richard Branson, was involved in the retailing and recording businesses before forming the airline.

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A Theoretical Model of Weighting and Evaluating the Elements Defining the Change of Organizational Culture

Theodoros Stavrinoudis and Christos Kakarougas

Abstract The objective of this manuscript is to create a new theoretical model of weighting and evaluating specific elements that determine the change of organizational culture at: individual, group, organizational, industry and national level. Through the processing of the results of the theoretical review it became clear that the process of organizational culture change can be directed through three alternative directions. Each direction has unique characteristics but share the common objective of transforming the old organizational culture into a new one. The first direction is based on a specific change program imposed by the management of an organization, so it is named “formal/revolutionary”. The second direction is not based on a specific program, but on long-term changes based on development, competition and conflict of opposing forces and it is named “informal/evolutionary”. The third direction is a combination of the previous two thus named “hybrid”. The scientific and empirical contribution of this manuscript is the creation of a new theoretical model that summarizes and presents in a convenient way the elements that compose the three directions of cultural change in organizations.

Keywords Organizational culture · Cultural change · Change levels · Change dimensions · Change models

JEL Classification M140 corporate culture · Diversity · Social responsibility

1 Introduction

According to Kilmann et al. (1985), Dyer (1985), Handy (1993), Brown (1998), Schein (2010), Buch and Wetzel (2001), Smith (2003), Mead (2004), Hofstede et al. (2010), Argyris (2010) and Cameron and Quinn (2011), organizational culture

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covers an entire organization since it consists of a complex combination of formal and informal systems, processes and interactions between individuals, groups and organizations. This manuscript focuses on the study of cultural change theories, dimensions and models in order to create a new innovative model that will be able to identify, weigh and evaluate specific elements that determine the direction of cultural change.

2 The Individual Elements of Organizational Culture

Johnson et al. (2007) through the “Cultural web” reflected both the elements that constitute organizational culture and the interconnection between each other. They supported that culture consists of an outer shell which includes elements such as: symbols, power etc., and a core (the paradigm) that includes elements such as: underlying assumptions, human nature, etc. This way they divided organizational culture in two interdependent levels: the exterior and the interior. On a similar way Kilmann et al. (1985), Schein (2010) and Kotter and Heskett (2011), argue that the elements that make up organizational culture appear in different interdependent levels of depth and degree of visibility to the observer. The first level lays on the surface of organizational culture, is visible and may have a tangible or intangible form, while the next levels are approaching the core of the organizational culture having an intangible form and are invisible to the observer. Both Schein (2010) and Kilmann et al. (1985) agree that organizational culture consists of three levels of depth and degree of visibility to the observer but disagree as to the content of each level. Kotter and Heskett (2011) support the existence of only two levels, while the content of each level is similar to that of Kilmann et al. (1985) and Schein (2010).

The above findings are analyzed, combined and presented by the authors in Fig. 1.

3 The Levels of Cultural Study, Expression and Change

Organizational culture develops over time as a result of the effort of the organization to meet the challenges of both the interior and the exterior to the organization environment, thus culture can be studied and expressed in five interdependent levels: individual, group, organizational, industry and national (Martin 1985; Martin and Meyerson 1988; Hickman and Silva 1989; Handy 1993; Baron and Walters 1994; Scholz 1995; Bainbridge 1997; Berrio 2003; Gerald and Brenton 2010; Schein 2010; Cameron and Quinn 2011; Rajnish 2011; Weber and Yedidia Tarba 2012). Mohanty and Yadav (1996), Osteraker (1999), Jorgensen (2004), Cameron and Green (2015) and Kuntz and Gomes (2012) argued that if organizational culture can be studied and expressed in five interdependent levels the same can happen in the case of cultural change. These considerations enabled the

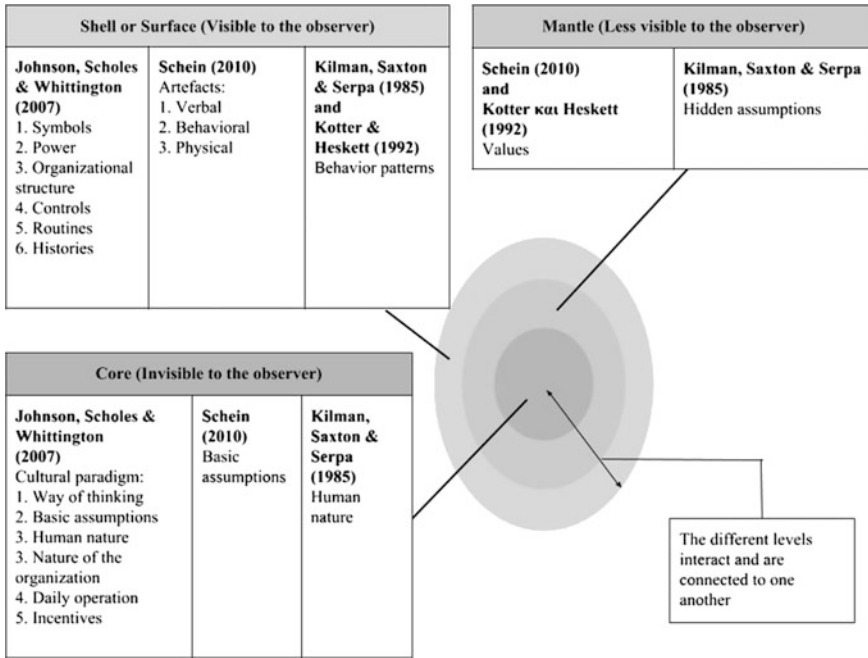


Fig. 1 Integration of theories regarding the elements of organizational culture

formation of “Fig. 2, levels of change” by the authors, that presents and summarizes the levels of change of the organizational culture.

Based on the above, within an organization one can study culture and its change on three levels: organizational, team (group) and individual. Furthermore, each level affects and is affected by the surrounding level. For example, the culture of the individual influences the culture of the group and vice versa, the same can happen with all the other levels.

4 The Directions of Change

The literature review revealed the existence of a number of different theoretical approaches that formulate a range of alternative dimensions of cultural change. These dimensions are largely based firstly on the components of organizational culture and secondly to the extent that the change of culture is considered feasible. Specifically, Schultz (1995) via “Symbolism” supported an end view whereby culture is a chart of different concepts and symbols that every individual perceives in a different way, for that reason culture cannot be an organizational variable. He explained that anything that exists within an organization is considered as both a source and a manifestation of organizational culture, therefore culture cannot be

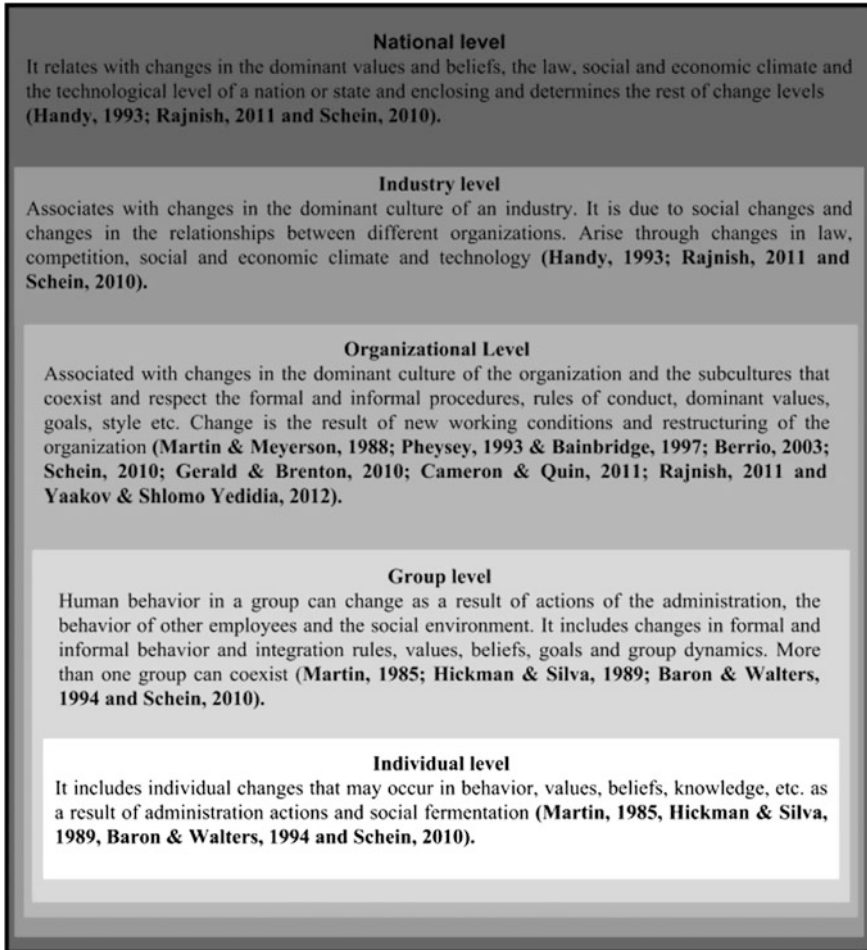


Fig. 2 Levels of change

changed. In contrast to this view, comes the school of “interpretivist studies” (Smircich 1983; Chen 2010), the “integration perspective” (Meyerson and Martin 1987; Harris and Ogbonna 1998, 2002; Martin 2002 and Schein 2010) and the “symbolic—interpretative” prospect (Hatch and Cunliffe 2012). These theoretical approaches come to the common conclusion that, clear common values and assumptions exists within organizations in order to give emphasis on consensus and stability. Each organization has a monolithic universal organizational culture where it is considered the basic organizational integration mechanism. It contains values, assumptions and beliefs, shared by all organization’s members, and is difficult to change but in the end it can be changed to suit the prevailing conditions on both the internal and the external to the organization environment. Almqvist and Skoog

(2006) argue that the change of organizational culture revolves around four dimensions: formal, informal, revolutionary and evolutionary, the combination of which makes up the three directions of change that will be analyzed below.

4.1 The Formal/Revolutionary Direction of Change

The formal dimension of change is based on the school of “functionalist studies” (Smircich 1983), on the differentiation perspective (Meyerson and Martin 1987; Martin 2002; Bogićević 2007), on the “modern” perspective (Hatch 1997) and on the rationalism (Schultz 1995). According to the above, organizational culture consists of subcultures, and is treated as a variable that significantly influence the organizational effectiveness and performance both internally and externally to the organizational environment. Burnes (2009) in accordance with the model of change of Lewin (1958), argued that the formal direction of change is caused by an organizational shock or crisis that helps the development of a perception that the current culture no longer works, resulting the reaction of the administration. Following this, Thurley (1973) and Burnes (1996) argued that since culture is an organizational variable it can be changed and adapted according to the wishes of the administration. Thus the exclusive “head of planning and implementation” of the formal change is the organization’s management or upper management, experts and specialists. In this pattern Werkman (2009) supports the “systematical approaches” and Van de Ven and Sun (2011) support the “action” strategies. According to which, formal change is a “type of change” that keeps a unilateral character because it is believed that organizations and people can only be changed through the use of a specific program. This program must have a beginning, middle and an end, as well as specific and measurable objectives expressed solely by the management of the organization.

The “application scope” of the formal change occurs through the theory of Lewin (1958), which supports that the development of new behaviors, values and attitudes, comes through changes in organizational structures and processes. And the theory of Burnes (2009) and Cameron and Green (2012) who claimed that the stabilization of organizational culture in its new form is achieved through the use of infrastructures, systems, procedures and job responsibilities. The above finding on the “application scope” in conjunction with Fig. 1, suggest that the changing patterns of the formal dimension whilst it holds as “main purpose” the change in the overall organizational culture, it start from and emphasize on organizational elements such as structures, processes, infrastructure, rules, methods, responsibilities, etc. located in the shell/surface of organizational culture. This result that the formal change has a “direction” that starts from the surface of organizational culture in order to influence the mantle and the core at all levels.

Beckhard (1969), Chin and Benne (1969), Bridges (1986), Kanter et al. (1992), Rouda and Kusy (1995), de Caluwé and Vermaak (2002), Armstrong (2006), Burnes (2009), Brisson-Banks (2010), Schein (2010), Carlström (2012), Newman

(2007) and Cameron and Green (2012) argue that, in order to the formal cultural change have effect should specifically hold the following “supporting elements for change”: fixed procedures and methods, rational decisions, timeliness, knowledge of experts, specialists and top executives incentives to overcome obstacles to cultural change, planned interventions, significant and rapid initiatives, rewarding the desired behavior and punishing the undesirable behavior.

In relation to the “time range”, Almqvist and Skoog (2006) suggested the existence of “revolutionary” and “evolutionary” change dimensions which reflect the dipole of application time in relation to the magnitude of the change. In accordance with the above features of formal change Kanter et al. (1992) argued that a formal cultural change in order to have success must come in the form of “bold strokes”. In other words formal change must impose short-term and immediate effect large-scale change in order to achieve rapid formation of the new culture and adaptation to it. From the above stems the conclusion that formal cultural change approximates the revolutionary dimension of change. This does not exclude that formal change can approach the evolutionary change dimensions, but in this case, according to Kanter et al. (1992), the chances of a successful change are limited. In detail, the revolutionary dimension of change results in fundamental changes to existing organizational culture in a short time. It includes profound and transformational changes on the values of an organization, while the majority of people in the organization need to change their behavior (Kofoed et al. 2002; Johnson 2004; Almqvist and Skoog 2006; Carlström 2012).

Summarizing the above, the formal direction of change is based on a set schedule and plan that begins and ends at a specific time. Imposed from the top down, it has a beginning, middle and end and is trying to influence the entire organization. This is achieved through the correction and change of people or procedures that prevent the new desired state to develop and unfold in a short time (Burke et al. 2008), resulting that the “core values” of formal change include rationality and respect to the hierarchy. Burnes (2009) argued that the formal direction of change usually takes a negative complexion since the cultural change is imposed and arises through an organizational shock or crisis (Lewin 1958) thus facing strong resistance to change. The above can be illustrated by the authors in Fig. 3 in conjunction with Figs. 1 and 2.

4.2 The Informal/Evolutionary Direction of Change

The informal dimension of change is based on the fragmentation perspective (Meyerson and Martin 1987; Martin 2002), the post-modern perspective (Hatch 1997), the Functionalism (Schultz 1995) and the emerging approach (Burnes 1996) according to which any culture has an ambiguous and dynamic character. The above, combined with the theory of Lewin et al. (1960) about the “force field”, the change model of Cooperrider and Whitney (2005) which is based on the theory of “appreciative inquiry”, the “bargained model” and the model of “hearts and minds”

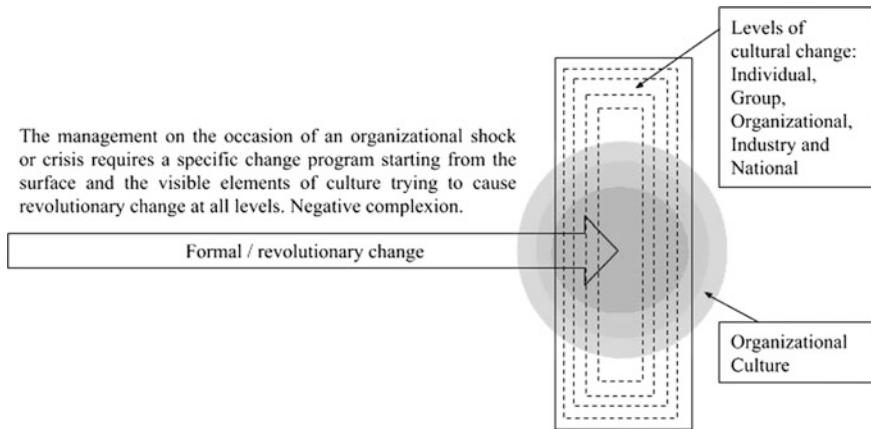


Fig. 3 The formal/revolutionary direction of change

by Thurley (1973), leads to the conclusion that the “cause” of informal change stems from social constructivism and the evolutionary process of groups and organizations, the collision of different groups or individuals, the competition and the effort to achieve a desired and positive future or vision.

Considering the type of change, it is concluded that culture mutates constantly through an open and continuous process, which is associated with the function of survival. The lack of a specific program in accordance with Thurley (1973), Weick (2011) and Fortado and Fadil (2012), implies that there is no certain “head of planning and implementation” but the power is shared between employer and employee, individuals and groups. Werkman (2009) through “programmatically change” and Van de Ven and Sun (2011) through “strategies of reflection” defined the “application scope” of the informal direction. They argued that in order to achieve change of the organizational culture, the old patterns should be affected and the mental model of each member of the organization should be revised. This is achieved only through continuous learning processes that support change and help the organization to adapt to the new situation. At the same time, the “core values” of innovation, risk and the trial of novelty should be supported (Werkman 2009; Van de Ven and Sun 2011). Lewin et al. (1960), Thurley (1973), Kanter et al. (1992), Hill and Collins (2000), Cooperrider and Whitney (2005) and Arnold (2010) pointed out that for achieving the above, informal change must be based on organizational elements such as: voluntary participation, strategic orientation, dominant management style and factors affecting the relations between individuals and groups.

The above considerations relating to the “application scope” and the “supporting elements for change” in conjunction with Fig. 1 suggest that the informal dimension of change have a “main purpose” which is the continuous adjustment of the organizational culture. In order to accomplish that, informal change starts from the deepest levels of the organizational culture and emphasize on organizational

elements like old patterns and mental model of the organization's members. Resulting that, informal change have a "direction" which starts from the core of the organizational culture in order to affect the mantle and the surface at all levels.

In relation to the application's "time range", according to Kanter et al. (1992), the informal change is characterized by "long marches". In other words, informal change moves in a long-term and long-term timeframe, where the change initiatives include a series of small-scale, local (elementary) changes that have little effect in the short term, but in the long term can change an organization. Thereby an organizational environment is created where change, innovation and knowledge is considered a natural extension of everyday life and flows free like water (Thurley 1973; Hill and Collins 2000; Arnold 2010). From this stems the conclusion that informal change approximates the evolutionary dimension of change. However, this does not exclude that the informal change can approach the revolutionary dimension, but in that case, according to Kanter et al. (1992), the chances of a successful change is limited. In detail, the "evolutionary dimension of change" takes place gradually and affects existing routines and institutions to a small degree, but continuously, leading over time to major changes. The evolutionary change is also called gradual and discontinuous for the reason that every corporation passes through phases of continuous, steady and gradual change however sometimes due to internal or external pressures that change is interrupted. This interruption is temporary and the evolutionary direction of change will restart due to internal or external pressures (Kofoed et al. 2002; Johnson 2004; Almqvist and Skoog 2006; Carlström 2012).

In conclusion, the core values of the informal dimension are: innovation, risk and trial of the novelty. It is not based on a specific plan of the administration and change comes through competition and the evolution of groups and organizations. This dimension of change is not based on a specific plan and never stops since it is based on competition and development (Weick 2011). Fortado and Fadil (2012) supported the theory of "appreciative inquiry" whereby people visualize a better future and by themselves are trying to promote innovation, creativity and hope, free from fear and denial to change. Resulting that, the informal change holds a positive complexion thus is affected by a small degree of resistance to change (Cooperrider and Whitney 2005). The above are illustrated by the authors in Fig. 4 in conjunction with Figs. 1 and 2.

4.3 The Hybrid Direction of Change

The above theoretical frameworks support that the management of cultural change on organizations as well as the course of an organization over time is affected simultaneously by both the formal/revolutionary change and the informal/evolutionary change. This leads to the suggestion that a third alternative direction of cultural change can be created. This change direction can be called "hybrid" since its main characteristic is the combination of elements from the two aforementioned dimensions of

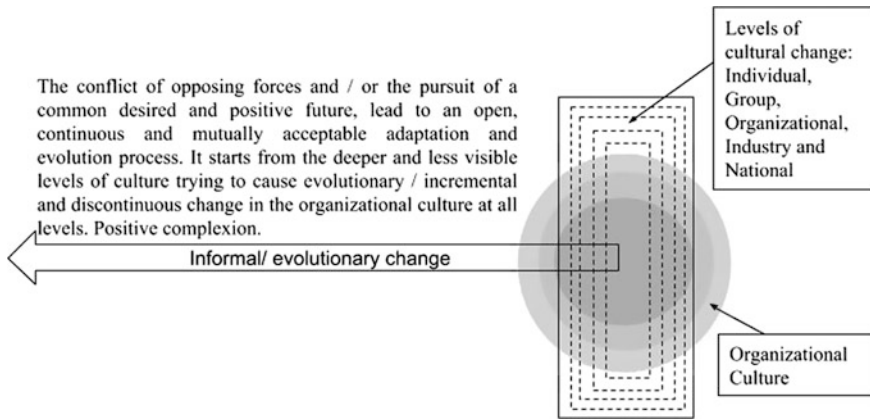


Fig. 4 The informal/evolutionary direction of change

change. The hybrid direction of change is a unique mixed type of change that is based on a specific program according to the formal dimension of cultural change that holds important qualitative elements from the informal dimension of change. As it can be seen in Table 1, in Sect. 6. Findings and Conclusions, sector “cause” of the hybrid direction arises through the analysis of the changing models of Hinings and Malhotra (2008), Carlström (2012) and Kotter (2012) where it is found that the need for change comes in two forms. The first one includes the natural pressure that people and groups feel because of stagnation and routine. The second one includes the sense of urgency created by the analysis of the market and the competition. The sector “head of planning and implementation” is based on the change model of Mohanty and Yadav (1996) according to which workers must play the role of agents of change, of Hinings and Malhotra (2008) and Carlström (2012) where during the diffusion phase the administration of an organization draw inspiration from various new models and import them to the organization, of Marks and Mirvis (2011) where change is designed and imposed by the administration in accordance to the change of model, of Lewin et al. (1960) and Kotter (2012) who supports the creation of a leading coalition in order to lead change. The content of the sectors “application scope” and “elements that support change” emerged through the study of the change models of Lewin et al. (1960), Weisbord (1976), Burke and Litwin (1992), Mohanty and Yadav (1996), Hinings and Malhotra (2008), Marks and Mirvis (2011), Carlström (2012) and Kotter (2012). In the case of hybrid direction of change, sector “application scope” depending on the application’s “time range”, “main purpose” and “desired outcomes” of change can focus on the formal/revolutionary direction of change or informal/evolutionary direction of change. In other words, if hybrid change has as purpose the imposition of immediate large-scale change it emphasizes on the models of change of the formal/revolutionary direction. On the other hand, when it aims on a long-term gradual change it emphasizes on the models of change of the informal/evolutionary direction. The above in conjunction with Fig. 1 leads to the

Table 1 The three alternative directions of change

Sectors	Formal/revolutionary change	Informal/evolutionary change	Hybrid change
Fundamental characteristic	Culture is an organizational variable	Culture is ambiguous and dynamic	A combination of the formal/revolutionary and the informal/evolutionary directions
Core values	Hierarchy respect and rationalism	Innovation and risk	Hierarchy respect, rationalism, innovation and risk
Cause	An organizational shock or crisis	Social evolution, conflict, competition, desired future	Stagnation pressure, market analysis and competition
Head of planning and implementation	The administration or upper management, experts and specialists	Individuals and groups, employer and employees	The administration introduces and employees apply, leading coalition
Type of change	A specific program with measurable targets	An open and continuous process aiming survival	A specific program with quality features of the informal change
Application scope	Structures, systems, procedures and responsibilities	Revision of old standards and mental models	Depending on the main purpose, the time of application and the desired results; can be turned to the one and/or the other direction of change
Main purpose	The overall change of the organizational culture at all levels	Continuous adaptation and survival at all levels	Continuous flexibility and adaptability at the level of values and attitudes as well as in structures and processes level
Direction	Single direction, from the culture's surface it affects the mantle and the core	Single direction, from the culture's core it affects the mantle and the surface	Dual direction, from the culture's surface it affects the mantle and the core, and vice versa
Supporting elements for change	Fixed procedures, deadlines, substantial and rapid initiatives, reward and punishment	Continuous learning, voluntary participation, strategic orientation, management style and people/groups relations	Mechanisms of transformation and transaction, learning, rewards and exchange of views
Time range	Short term	Long term	Depending on the cause, short term or/and long term

(continued)

Table 1 (continued)

Sectors	Formal/revolutionary change	Informal/evolutionary change	Hybrid change
Desired outcomes	Imposed change of significant level, with immediate organizational adaptation	Evolutionary/discontinuous change of minimal level, with gradual organizational adaptation	Continuous flexibility and adaptability through revolutionary and evolutionary change
Degree of resistance to change	Possible strong resistance due to the negative complexion of change	Possible minimal resistance due to the positive complexion of change	Possible minimal resistance due to the positive complexion of change. Without sacrificing the immediacy and efficiency of the formal/revolutionary direction

finding that hybrid’s change “main purpose” is the continuous flexibility and adaptability throughout the organization both at the level of values and attitudes as well as at the level of structures and procedures. Resulting, hybrid change has double “direction” which may start from the core of the organizational culture in order to affect the mantle and the surface at all levels and/or the surface of the organizational culture in order to influence the mantle and the core at all levels.

The “supporting elements for change” are arising from Weisbord’s (1976) six boxes model of change. According to this the administration coordinates change relying on both the external and the internal environment of the organization. The external organization’s environment includes the social structures and the competition. The internal environment includes transformational and transactional mechanisms (Burke and Litwin 1992; Alexander Di Pofi 2002). The transformational mechanism is based on the administration, the employees, the mechanisms, the goals and other elements of the organization. The transactional mechanism is based on motivation, remuneration, to individual and collective factors and needs. In the same context Marks and Mirvis (2011) emphasize that change must be based on learning processes, rewards and views exchange. The sector “time range” arises from the finding that hybrid change is based on the sum of the dimensions of change, making it possible to achieve continuous flexibility and adaptability to modern needs both through the revolutionary and evolutionary dimensions of change (Kofoed et al. 2002; Johnson 2004; Almqvist and Skoog 2006; Carlström 2012).

The hybrid direction of change through a combination of the formal/revolutionary change with the informal/evolutionary change keeps positive elements in both directions and at the same time is eliminating any negative factors that hinder the transition to the new organizational culture. In this way hybrid change keeps the organization in a constant state of transformation where change is welcome without sacrificing the immediacy and effectiveness of the formal/revolutionary direction. The above are illustrated by the authors in Fig. 5 in conjunction with Figs. 1 and 2.

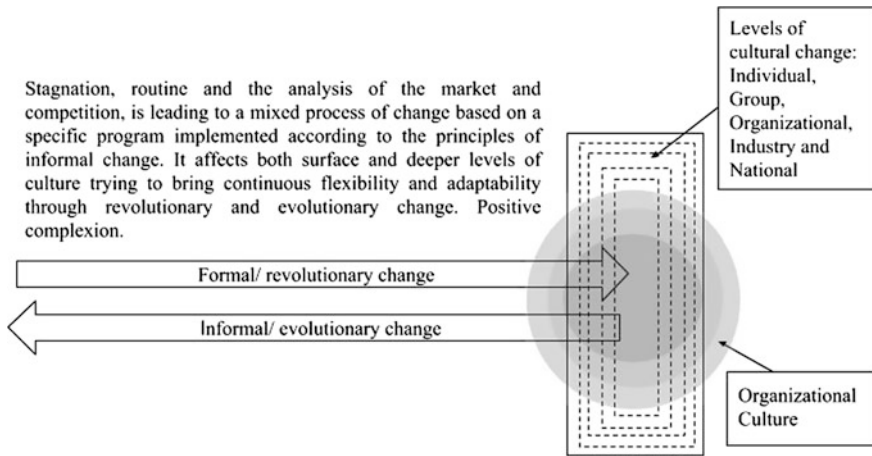


Fig. 5 The hybrid direction of change

5 Methodology

The main objective of this manuscript is to create a theoretical model of weighting and evaluating specific elements that determine culture change at: individual, group, organizational, industry and national level. To achieve this goal, an extensive literature review of recent scientific research—publications was conducted. At the same time, the use of older scientific papers and books was considered necessary, as they include ideas and findings by leading authors and researchers in their original form, providing in-depth understanding of the core question.

Thereafter the theoretical framework analyzed and used in this manuscript along with some key theoretical references is presented. Specifically, the elements that make up organizational culture were studied and analyzed (Kilmann et al. 1985; Kotter and Heskett 1992; Johnson et al. 2007; Schein 2010), the levels of study, expression and change of culture (Cameron and Green 2012; Kuntz and Gomes 2012), the schools of study and the theoretical approaches of organizational culture (Bogićević 2007; Chen 2010; Burnes 2009; Fortado and Fadil 2012), the dimensions of change (Van de Ven and Sun 2011; Carlström 2012) and the elements that compose the various cultural change models (Lewin et al. 1960; Arnold 2010; Marks and Mirvis 2011; Kotter 2012).

6 Findings and Conclusions

The review of the international literature showed that cultural change in organizations can follow three different directions: formal/revolutionary, informal/evolutionary and hybrid. Those three different directions although they share a common core purpose,

which is the adaption of the organizational culture to contemporary data, they choose a different way to achieve this. This finding made the authors to split each direction of change into its constituent elements which were joined in different sectors in order to identify similarities and differences in each direction. These sectors emerged by studying three different theoretical frameworks that can be named as: schools of study and the theoretical approaches of organizational culture, dimensions of change and change models. Subsequently, Table 1 presents the findings on the different sectors that compose the three alternative directions of change.

From the establishment of the theoretical model and the sectors that compose the directions of change, further conclusions can be expressed:

1. The organizational culture tends to remain stable according to the interpretivist studies the integration perspective and the symbolic—interpretative prospect. Prolonged stagnation implies decline due to lack of adaption to the demands of the modern environment.
2. Any change of organizational culture is framed by periods of stability; this is based on the following findings. The formal/revolutionary direction of change set specific targets and when those targets are achieved it stops. The informal/evolutionary change which aims discontinuous change, namely the change that in the flow of time naturally it starts and it stops again and again. The hybrid direction is a mix of the other two directions thus adopts characteristics from both of them.
3. Sector application scope indicates that through the process of change the components of the old culture will take a new form, resulting that the old organizational culture needs to wrestle with herself in order to change.
4. The cause of change of the organizational culture largely determines the direction of change and consequently the special characteristics that the process of change will eventually hold.
5. Based on the cause of change the formal/revolutionary direction of change acts retrospectively after the crisis and the shock have broken out. On the contrary, directions informal/evolutionary and hybrid act in advance since they are not based on a crisis or a shock. Instead they respond to the market/competition needs and to a timely study of the market respectively.
6. Since the informal/evolutionary change in its own nature is continuous, this leads to the conclusion that it will always coexist with both the formal/revolutionary change and the hybrid change.
7. Based on the finding 3 and 6, the authors conclude that the informal/evolutionary change, depending on the way it evolves, can act supportive and/or as a deterrent to both the formal/revolutionary change and the hybrid change.

Finally the scientific and empirical contribution of this manuscript is a new theoretical model that summarizes and presents in a useful way elements/sectors that make up the three directions of change. The exclusive use of theoretical sources does not allow the generalization of the findings, but it constitutes a strong foundation for later study and research. In the near future, the authors will attempt to

verify this theoretical-research model in the Greek hospitality industry through a primary research, in order to identify the predominant features of any effort to change the culture at: individual, group and organizational level. Due to the economic crisis that characterizes the modern Greek reality, the subject of the future research will focus on the hypothesis that the change of organizational culture will consist mainly of elements of the formal/revolutionary direction at the expense of the other two directions.

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Entrepreneurship and Innovation: Current Aspects

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Abstract Many researchers mention that, in developed economies, the key to the enterprises' development is innovation. The aim of the present study is to investigate this association. In order to do so, the authors first approach conceptually the term entrepreneurship and then review the relevant data that examine its association to innovation. Finally, the role of the European Union in the implementation of innovation in small and medium sized enterprises is also examined.

Keywords Entrepreneurship · Innovation · Small and medium sized enterprises

JEL Classification L83 · L86

1 Introduction

It now is well known that in human history the contribution of the inventors and the entrepreneurs to the economic and social development has been of great importance. The first business activity described is the agricultural occupation and the development of farming techniques. Through this procedure, the nomadic life, which was based on food hunting, was developed and the societies were slowly shaped into their current form. Furthermore, these persons have helped so that the exploitation of the natural resources would not only aim at the coverage of each household's needs for food but, also, at the foods exchange among the households, depending on their needs.

Then, with the adoption of money and the understanding of the meaning of profit, the entrepreneurship gradually started to approach its current form. It should be noted that these first societies started to understand that the entrepreneurial

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growth plays an important role in the economic and social development, as well as in the improvement of their members' standard of living.

The development of the entrepreneurship has been related to new products' development and the improvement of already existing products. The humans' perpetual search for knowledge, methods and techniques that facilitate their activities and improve their lives, as well as the scientific progress, have led to inventions, many of which were introduced to the market. In conclusion, it should be mentioned that the inventions made, their introduction to the market as well as the systematic investments made by the entrepreneurs in Research and Development of new products and the improvement of the already existing ones, have significantly contributed to the innovation's and the innovative entrepreneurship's development.

2 Entrepreneurship—Conceptual Approaches

Many definitions of entrepreneurship have been expressed. The importance of entrepreneurship, detailed information on its content, the procedures applied and its results have been described in the Green Paper referring to entrepreneurship in Europe. Based on it, the entrepreneurship is, within the company, multidimensional. In practice, the term is used to describe a person's mentality and its ability to recognize the opportunities presenting and to utilize them in such a way, so that economic profit occurs or added value is created.

According to Drucker (1985), entrepreneurship is an innovative action, which leads to the strengthening of the already existing resources with new potentials. Stevenson and Jarillo (1990) suggest that entrepreneurship is, in fact, the pursuit of a chance, but without paying any particular attention to the resources and the possibilities. According to Rumelt (1987), entrepreneurship is the creation of new companies, which present novelty features and are not a carbon copy of an already existing enterprise.

Low and MacMilan (1988) express the view that entrepreneurship is, in fact, the generation of a new enterprise. Similarly, Gartner (1988) suggests that entrepreneurship is the generation of enterprises and that this term practically describes the procedure, through which, the new enterprises are generated. Finally, Jimmons stresses that entrepreneurship should be approached as a holistic way of thinking and acting which focuses on the opportunities' exploitation and is balanced by the leadership policy.

From the information given above, it comes up that entrepreneurship is, initially, related to the new enterprises' development and, accordingly, to their innovative orientation.

Furthermore, according to Morris (1998), entrepreneurship is being practiced by either individuals alone or groups of individuals, who gather different input resources in order to exploit the opportunities found in the environment and to produce value. This procedure's different outcomes can be found in new entrepreneurial efforts, products, processes, technologies and markets. Sharma and Chrisman (1999) stress

that entrepreneurship may include actions of organizational creativity, renewal and innovation which may develop either within or outside an already existing organization.

The Green Paper on entrepreneurship in Europe mentions that one of the most important developmental strategies of the countries-members of the European Union is the understanding, the deepening and, mainly, the encouraging of the creation of those conditions that will finally lead to the development of innovation and entrepreneurship. Besides, the European Council of Lisbon (2000) clearly defined its targets at employment, economic reform and social cohesion level.

According to the Green Paper, in order to achieve the targets mentioned above and to finally attain a successful entrepreneurial idea, entrepreneurship and innovation must be jointly utilized. This way, the entrepreneurs are given a chance to enter the market, to improve their competitive position in it and, further, to change the market or, even, to create a new one.

In any case and, in order to attain a successful entrepreneurial idea, correct management must exist and, further, the enterprise must have the ability to adjust during all the stages of its life cycle. The entrepreneur’s role in the economic development is of great importance, since the former is the core of the enterprise, especially when it comes to small and medium sized enterprises. The importance of the entrepreneur’s role in the economic development has only very recently been recognized, since the researchers’ attention seem to be more and more focused on the small and medium sized enterprises. This situation leads to the thorough examination of the entrepreneurship’s theories, namely the important contribution of the entrepreneur to the economic development and the jobs creation.

The following Table presents, in brief, the main theories’ (Deakins and Freel 2007) basic ascertainments.

Author	Main role of the entrepreneur	Additional ascertainments
Say	Factors of production organization	Catalyst of the economic change
Cantillon	Factors of production organization	Catalyst of the economic change
Kirzner	Opportunity spotting	The entrepreneur’s key-ability is the creativity awareness
Schumpeter	Innovation	The entrepreneur as an “heroic” figure
Knight	Risks taking	Profit is the reward for risk taking
Casson	Resources organization	Key-factor influencing the environment
Shackle	Creativity	Uncertainty creates profit opportunities

In fact, when examining the individual theories referring to the entrepreneur’s role, the researcher forms a view about the degree in which the entrepreneurs help the development through the provision of wealth and jobs for the community and a variety of choices for the consumers.

Many researchers mention that the entrepreneurs play an important role in the economic development. In particular, Cantillon (1931) supports that, among the entrepreneurs, the landlords and the workers, the first ones are the most important class. Besides, this was the reason why he was the first to mention the entrepreneur's role in the economic development. Furthermore, Say (1971) expresses the view that entrepreneurs are able to cause economic changes and play an important role in the development. Kirzner (1973) says that the person who is in readiness in order to spot profitable transaction opportunities is an entrepreneur. Also, Kirzner was the first who emphasized the importance of the information in the market.

Schumpeter (1936), on the other hand, identifies the meaning of the entrepreneur with that of innovation. So, he expresses the view that the entrepreneur is the one to cause the change in the market, either by developing new products or by adopting new processes. So, according to Schumpeter, the entrepreneur is the one who develops new technology, while Kirzner expresses the view that the entrepreneur operates exploiting the opportunities arising from the new technology. According to Knight (1921), the entrepreneur operates at his own risk in order to gain profit for his enterprise. Finally, according to Shackle (1970), the entrepreneur is ought to be inventive and creative, since, in fact, he is the one who must invent the opportunities.

Casson (1982) seems to be closer to Knight's views, since he suggests that the entrepreneurs are ought to function within a certain technological framework and to make difficult decisions, enjoying, though, the profit that comes from their implementation. Finally, Baumol (1990), mentions that the entrepreneurs can be divided into three classes which are the productive, the non productive and the destructive. His clarification, according to which the persons that present entrepreneurial abilities can be productive, non productive or destructive entrepreneurs with the same ease, is of great importance.

From the information given above, and taking into consideration the information given in the Green Paper about the entrepreneurship in Europe, it can be concluded that, despite the oppositions, the importance of the entrepreneurship's role in the development and the jobs creation is, generally, recognized. At this point, it should be mentioned that in the countries where the entrepreneurship thrives, a decrease in the unemployment rates is observed. Another finding that should be mentioned is that the new and small enterprises create more jobs compared to the big ones. Finally, it should be noted that through the entrepreneurial activity, people can be led to the independency and their self actualization. Besides, the view that has been expressed about the entrepreneurs is that they are the driving force of the economy and the market (Stoey and Greene 2011).

Finally, it is mentioned that another feature of the entrepreneurship, especially of the innovative one, is that it is a competitor factor. The new enterprises' development or the change in the direction of an already existing enterprise leads to increased productivity as well as to increased pressure put on the competitors. This way, the latter are urged to innovate in order to improve their performance.

In the next section, a detailed description of the effect of innovation on entrepreneurship is given.

3 The Effects of Innovation on Entrepreneurship

It has already been mentioned that in the developed, mainly, economies innovation is the key to the enterprises' development and progress, since it significantly affects entrepreneurship, as it leads to either the development of new enterprises or to the improved performance of the ones that already exist.

It now is accepted that innovation induces technological changes in the enterprises. According to Schumpeter (1934) the enterprises seek new profits. It is also known that the utilization of a technological instrument brings advantages to the user. Consequently, Schumpeter suggests that, when the enterprises innovate in their processes and improve, that way, their productivity, they gain, regarding to the cost, a competitive advantage, which gives them the possibility to increase their market share and to seek new economic benefits. This can be achieved because the innovative processes may either increase the profit margin or, according to the elasticity of the demand, help the enterprise to combine lower prices and increased profit margin in comparison with its competitors. In the case that the innovation in the product is examined, it should be mentioned that the former is the one that can lead the enterprise to enjoy a monopoly market position, either by granting a patent or by gaining time before the competitive enterprises copy the innovation. In these cases, the enterprise is being given the chance to increase the prices and, consequently, to ensure bigger profits. Therefore, Schumpeter's arguments seem to support the view that innovation is the main focus of the economic changes.

Additionally, the findings of an important study conducted by the OECD (The OECD Jobs Strategy, 1996) show that, in the knowledge intensive economies, innovation has an important place. So, the view that, at the enterprise's micro-level, innovation helps the latter to absorb and, further, to use any knowledge to its benefit is confirmed. What should also be noted is that, due to the large number of technological developments, the great competition and the observed changes in the consumers' preferences, the enterprises' survival is finally defined by their ability to adopt or develop innovations (Buhalis and Law 2008), (Damanpour and Wischnevsky 2006), (Wang and Ahmed 2004).

Furthermore, Dosi (1988) mentions that the processes innovation ensures the enterprises' ability to preserve their products' quality, but without lowering their prices, since its use may lead to reduced production cost. In other words, it seems that the processes innovation may ensure an increased share of the enterprise that adopts or develops it in the market, since it is clear that the compressed prices during specific periods of time or in high competition markets give the enterprise the ability to claim higher share of the market (Johnes 1999).

Finally, Rosenberg and Steinmueller (1988) support the idea that important to the enterprise are the improving innovations, too. This term is used to describe frequent, limited improvements made in either the techniques used in the production process or the products. These improvements may finally lead to energy saving, reduced amount of the raw materials used and improved quality of the products. Namely, it seems that the improving innovation's results are as important

are the ones of the innovation in the classic sense of the word, which is the development of new products.

Galindo and Mendez (2014) conducted a research in order to investigate the relation among the innovation, the entrepreneurship and the economic development. For the needs of their study they examined the entrepreneurial activities in 13 developed countries during the period between 2002 and 2007. This study's findings show that certain factors like, for example, the monetary policy and the social climate affect both the entrepreneurship and the innovation. Also, with the use of three equations they showed the direct as well as the indirect positive interaction among the entrepreneurship, the innovations and the economic development. Specifically, they suggested that the economic activity promotes the entrepreneurship and the innovation. However, they did not omit to mention that innovation was shown to promote the economic activity.

Also, Radosevic and Yoruk (2011) have analyzed empirical and theoretical evidence regarding the effect of innovative systems on entrepreneurship, incorporating the meaning of the intensity of the entrepreneurial knowledge. In relation to the methodology they used it is noted that, initially, they used a complex indicator in order to define the intensity of the entrepreneurial knowledge and the opportunities at national level. Next, and still with the use of complex indexes, they performed an analysis of clumps, in order to be able to group the countries of the European Union based on their entrepreneurial opportunities.

Additionally, they investigated the effect of a system of complementary activities on the intensity of the entrepreneurial knowledge using the PLS-PM method. The findings suggested that it is safe to statistically calculate the innovative systems' entrepreneurial trend, as well as that the entrepreneurial knowledge intensity is affected by technological and institutional opportunities. In particular, as long as it concerns the market, it was found that the interactions between the market and the technological and institutional opportunities and not the opportunities of the market itself, are the ones that guide the intensity of the entrepreneurial knowledge. In conclusion, the researchers express the view that innovation and entrepreneurship both are parts of a dynamic innovative system within which they always coexist.

Claude Marcotte (2013) reviewed the views of Schumpeter and Kirzner, in order to compare their positions on entrepreneurship and innovation within the emerging economies' economic and institutional development. For this reason, he performed an analysis of clumps on economically emerging countries. The following variables were used:

- i. **Innovation, Schumpeter Mark I (I-1):** The percentage of the newly entered entrepreneurs introducing new products' combinations is examined.
- ii. **Innovation, Schumpeter Mark II (I-2):** The research and technology cost was examined.
- iii. **Opportunities Discovered, Entrepreneurship according to Kirzner:** The percentage of the newly entered entrepreneurs who aim at an entrepreneurial opportunity's exploitation is examined.

- iv. **The Innovation's Framework:** The national policy and the scientific and technological framework within which the companies operate are examined. Individual factors defined in relation to the variable are, for example, the scientific adequacy, the research centers' quality and the patenting.
- v. **Institutional Framework:** Issues related to the maintenance of political stability, the effectiveness of the governmental policy, the correct application of the law rules and the efforts made to effectively combat corruption are examined.
- vi. **Economic Framework.**

Furthermore, he categorized the 16 studied countries into four groups. The findings showed the need the theory of the methods and the general framework to comply with the research conducted on entrepreneurship, as well as to emphasize the relevant to each country's entrepreneurial activities dynamic aspects.

Velmurugan et al. (2013) stress that, in the modern era, the meaning of the terms entrepreneurship and innovation have, at international level, changed. Practically, they examined what is now implemented and what not in relation to the entrepreneurship and the innovation in the international market and they compared their findings to the Drucker's position. So, they expressed the view that they are not systemic terms, like Drucker (1985) supports and that, based on the current data, innovation and entrepreneurship will continue to widen in the future, since they seem to be strongly influenced by the conditions that prevail in the international market, the entrepreneurial mentality, the lack of trust in the institutions, the environmental change, the international change, the international collaborations and the technological developments.

It seems that, in the future, innovation and entrepreneurship will be formed, at international scale, in order to meet requirements related to the improvement of the standard of living, the planet's protection and the revenue increase. Consequently, while Drucker supports the view that innovation and entrepreneurship are related to information, Velmurugan et al. suggest that they both finally aim at a better quality of life in a more protected environment.

Dobni (2008) conducted an empirical research on an integrated instrument used to define the innovative culture within an enterprise's framework. In his research he used the available bibliographic information, as well as information coming from interviews he conducted with 282 employees of the financial service sector. Based on his findings, he finally concludes that an enterprise's innovative culture scale can be determined by the definition of the following factors:

- i. innovation's trend
- ii. regional organization
- iii. organizational learning
- iv. creativity and strengthening
- v. orientation to the market
- vi. orientation value
- vii. implementation framework.

This seven-factor model presents a practical way to determine an organization's innovative culture. However, it can also be used, initially, in the development of the first level of innovative culture. After that, it can be used in order to generally evaluate the enterprise's efforts to innovate.

Damanpour et al. (2009) investigated the consequences of the adoption of three different types of innovation by service provider organizations. In particular, they studied innovation in services, technology and management. The base of their study was the observation that from the research already conducted on innovation it had come up that different types of innovation presented different features, were determined by different factors and they also presented different effects on the enterprises that had adopted them.

The basic finding of the research is that the synthesis of the individual types of the adopted by the enterprise innovation is the one that defines the effect of the latter on the enterprise's performance. For the needs of the research the innovative activity of 428 service provider organizations in the United Kingdom was studied for more than four years. The findings of the study suggest that the annual adoption of a particular type of innovation by an organization proves to be harmful to the latter. Furthermore, the over the longer term adoption of the same types of innovation seems to present no effect on the organizations that adopt them, while, finally, the adoption of different types of innovation by the organizations according to the industrial rules, could be beneficial to their performance.

Okpara (2006) particularly emphasizes the importance of creativity and innovation to the enterprises, since he considers that they are the base of the entrepreneurial spirit. In particular, based on his theory, entrepreneurship is the one that allows the innovation and creativity transfer. So, he supports that the demand is attributed to the innovation, but entrepreneurship is the basic prerequisite for the development of innovation. However, on the other hand, innovation can ensure the competitive advantage of the enterprises, so innovation can also be viewed as the key of entrepreneurship.

Innovation presupposes the ability to predict the market's needs, while it seems to help the enterprise that adopt it to improve the quality of either its products or the services provided by it, to be more effectively organized and to keep operating costs under control. Given that the current economic environment is uncertain while, in some cases, it may also be violent, it seems that creativity and innovation can help the entrepreneurs to keep their business young, flexible and effective at covering their clients' needs.

In conclusion, from the information given above, it comes up that innovation is a factor that significantly influences the entrepreneurship's strengthening. Besides, within this framework is the reinforcement, at least during the last decade, of the innovative small and medium sized enterprises, mainly by the European Union through the latter's developmental programs.

4 Innovation, Small and Medium Sized Enterprises and the European Union

In Europe, there is a total of 23.000.000 small and medium sized enterprises in which 100.000.000 people work. In particular, in the Information and Communication Technologies sector there are almost 700.000 small and medium sized enterprises, which introduce to the market innovative products and services. It also is estimated that 50.000 of these significantly contribute to the economic development, since they invest more than 10% of their turnover in Research and Development.

The purpose of the European Union is, through these enterprises, to emerge the entrepreneurial giants related to high technology. This way the European Union wants to surpass the European paradox, according to which, while innovation is being developed in Europe, it is converted to a profitable entrepreneurial scheme in the USA. However, it should be stressed that, in comparison with the developed economies of the planet, Europe handicaps as long as it concerns the investments' intensity in research and innovation.

Within the European Union's strategic framework for the innovation's reinforcement, a number of activities that aim the innovation's diffusion and the development of the innovative enterprises have been adopted. The most important of them are the following:

- funding and organization of entrepreneurship and innovation exhibitions
- enterprises' awards in regard to the outcomes of their innovative actions, like, for example, new products or new practices and
- economic and other incentives provision in order to help the enterprises innovate.

However, apart from the European Union, relative initiatives have been taken by other bodies, too, which either take action within the European union or they collaborate with the latter. A striking example is the adoption of a resolution by the Meeting of the Working Parties regarding the small and medium sized enterprises of the Organization of the Black Sea Economic Cooperation (BSEC) about the creation of an Innovation Data of the countries-members of the Organization and, of course, its implementation under the name "GENESIS".

Also, the Directorate of International Relations of the Hellenic Organization of Small and Medium sized Enterprises and Handicraft suggested the representatives of the BSEC's countries-members the construction and operation of an Innovation Data Bank (BSEC Innovation Data Bank). This suggestion was accepted by the latter and the necessary information is already being collected from the countries-members, in order to create the Bank. It is thought that, through this Bank, the interconnection between the Greek Innovative Small and Medium sized Enterprises, the Universities, the Technological Education Institutes, the research centers and entities specialized in technological innovation and the corresponding organizations of the BSEC will be promoted.

It should be stressed that the European Union systematically promotes and supports the collaboration between Academy and Research Foundations and the promoters. Finally, it is mentioned that, during the last years, innovative entrepreneurship seems to relate to the sustainable development. So, a great number of new enterprises adopt methods of sustainable developments, since it has been shown that the latter improve, in long terms, the enterprises' performance.

5 Conclusions

Many definitions of entrepreneurship have been expressed. According to the Green Paper referring to entrepreneurship in Europe, the term is used to describe a person's mentality and its ability to recognize the opportunities presenting and to utilize them in such a way, so that economic profit occurs or added value is created. In general, it should be told that entrepreneurship is, initially, related to the new enterprises' development and, accordingly, to their innovative orientation. According to the Green Paper, in order to finally attain a successful entrepreneurial idea, entrepreneurship and innovation must be jointly utilized. This way, the entrepreneurs are given a chance to enter the market, improve their competitive position in it, change it or, even, create a new one.

In conclusion, innovation is a factor that significantly influences the entrepreneurship's strengthening, as it seems to help the enterprise that adopt it to improve the quality of either its products or the services provided by it, to be more effectively organized and to keep operating costs under control. Given that the current unstable economic environment, it seems that creativity and innovation can help the entrepreneurs to keep their business young, flexible and effective at covering their clients' needs. Generally put, it seems that, in the future, innovation and entrepreneurship will be formed, at international scale, in order to meet requirements related to the improvement of the standard of living, the planet's protection and the revenue increase.

Finally, it is mentioned that the purpose of the European Union is, through the small and medium sized enterprises, to surpass the European paradox, according to which, while innovation is being developed in Europe, it is converted into a profitable entrepreneurial scheme in the USA.

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Social Media Tools and (E)Destination: An Italian Case Study

Anna Paola Paiano, Lara Valente, Valentina Ndou and Pasquale Del Vecchio

Abstract Social networks have a significant role in the tourism sector: both on the demand and on the supply. They are an important information source for travelers, allowing destination makers to ‘socialize’ and share information and comments with users and possible visitors. Leveraging off social media to market destinations has proven to be an excellent strategy as largely recognized in several studies focused on the comprehension of importance of social media in the online tourism market (Chung and Buhalis, 2008; Inversini and Buhalis 2009; Xiang and Gretzel 2010). Following these developments, tourism managers have started to put in practice new strategies that exploit social media tools in order to promote and incentive tourism in the area. Therefore, the primary purpose of the study is to show how digital strategies and, especially, the use of social media tools, may be critical to enable tourism destination competitiveness. The main objective is to analyse a destination digital strategy aimed to define the best features to perform a winning digital strategy that allows to promote and market a tourist destination on the web. Framed in the above premises, a benchmark of some Italian e-destinations best practice examples [ENIT 2015 Blogmeter 2015 have been conducted with the aim to comprehend trends and main features of the use of technologies and applications. The chosen cases are, then, analysed more in depth, through a qualitative online exploratory survey. The results obtained from a contemporary and successful Italian DMO, evidence the criteria enabling a competitive 2.0 tourism strategy.

Keywords Tourism 2.0 · DMO · 2.0 tourism strategy · Social media tools · Consumer behavior

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1 The Advent of Tourism 2.0 and the Consumer Revolution

Over the last few years, the digital revolution, particularly since the advent of mobile devices (like tablets and smartphones) and the proliferation of Web 2.0, has radically impacted on the configuration of the society and market. In July 2014, there were 3.17 billion of internet users worldwide (July, 2014). The process of digitalization is cross-sectorial one, but it results mainly evident in tourism. Almost 60% of leisure and 41% of business travelers are making their own travel arrangements, generally via Internet (Amadeus 2015).² So, the percentage of persons using online media exclusively to book their vacations shows how online booking has become the principle sales route for holidays.

Due to its collaborative dimension, Web 2.0 is changing the way companies search and interact with customers, by providing a dynamic engagement of different participants; enabling open knowledge sharing processes as well as by enhancing collaborative innovation paths on the web (Ndou and Del Vecchio 2014). The collaborative dimensions of the Web 2.0 is the establishment of a new organizational phenomenon in which the competitiveness is defined as the resulting process of knowledge sharing among users; in other words, a proposed solution to deal with complexity, characterizing typically the communication of ideas and the process of value creation (Tapscott 2006).

Following the lead of Web 2.0 came Tourism 2.0, which can be defined as “the business revolution in the tourism and leisure industry caused by the move to the tourist ecosystem as platform, and an attempt to understand the rules for success on that new platform”. Chief among those rules is this: “build business and destinations that harness network effects to get more productive the more people and business participate in them, thus harnessing collective intelligence” (William and Perez 2008, pp 113–147).

Tourism 2.0 have **changed the field of tourism: the traveler’s decision-making processes, the consumer behaviour and the ability to operate and buy on-line services** offered by the tourism industry (Sigala 2010). Furthermore through the explosion of social media tools it is possible to create real virtual communities such as social networks which **may influence other travelers, by sharing information and opinions about places, structures and services.**

In fact, through the travel social networking sites user generated content that have a positive effect on travelers likelihood of booking (Compete Inc 2007). They

²<https://www.rezdy.com/resource/travel-statistics-for-tour-operators/>—accessed on: March 24, 2016.

also impact the booking conversions by 10% (Eyefortravel 2006) as well as impact significantly on various stages of travelers itinerary planning process (Ricci and Witsma 2006).

Furthermore, tourism 2.0 enable firms to extend their traditional boundaries, promoting the establishment of knowledge sharing across ecosystem' boundaries, exploiting ideas, knowledge, expertise and opportunities shared among different actors. The content, information and knowledge that customers create in social platforms could be highly used for understanding their needs, wants and specific suggestions for the products/services they consume (Ndou and Del Vecchio 2014). In this way, firms could tap now directly in the preferences, information, and the social dimension of customer knowledge (Sawhney et al. 2005) which are being considered as the most valuable source for gaining direct and reliable market intelligence (von Hippel 2001; Sigala and Chalkiti 2007).

Therefore, social networking sites offer different mechanisms to facilitate innovation process by harvesting the knowledge and talents that could be found outside firm's boundaries, enlarging so, the physical boundaries of the organizations and reconfiguring their structures and strategies (Ndou and Del Vecchio 2014). Hence, contents and information generated by 2.0 users are having not only an outstanding impact on their profile, expectations and decision making behaviour, but they have induced also a shift in the tourism sector, known as e-tourism (Buhalis and Jun 2011; as cited in Neuhofer et al. 2013, p. 548; see also Katsoni and Venetsanopoulou 2013), which means a redefinition of business models themselves.

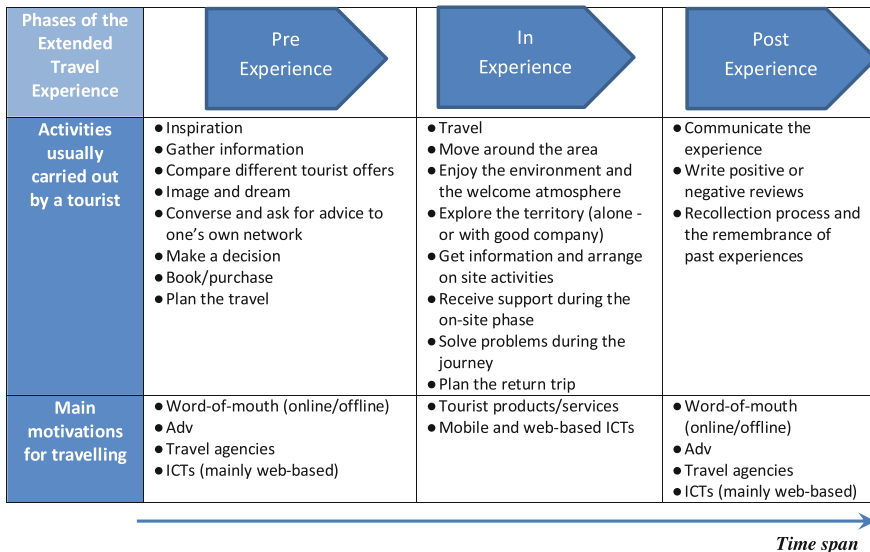
2 The Impact of 2.0 Strategies on Consumer Behavior and Destination Promotion

The topic of **consumer behavior** is one of the massively studied topics by the researchers and marketers in the past and still being studied. Considering, on the one hand, the interactive nature of social media platforms—which has changed the way tourists share and retrieve information, opinions and experiences about tourism destinations (Lebrecque 2014:1; Sotiriadis and van Zyl 2013:109; Munar, 2011:291),—and, on the other hand, the growing importance of the experiential aspect of travel consumption, the concept of experience becomes a key element in understanding tourist' consumption behaviors (Carù and Cova 2003). The consumer experience rather involves actions that influence consumer decision-making process and so their future deeds (Carù and Cova 2003). Thus, as stated by

Tussyadiah and Fesenmaier (2009), the tourist experience becomes “a socially constructed term whereby the meaning of the tourist experience is associated with multiple interpretations from social, environmental, and activity components of the overall experience”.

During the travel planning process, social media—giving access to other travelers’ experience (Chung and Buhalis 2008; Yoo and Gretzel 2011)—are influencing the way people consume and contribute to the creation of information/data: they become the “media” themselves for creating, collaborating, sharing and disseminating information (Buhalis and Law 2008; Gretzel et al. 2000; Senecal and Nantel 2004; Xiang and Gretzel 2010; Li and Wang 2011; Thevenot 2007).

In light of this, **the tourist experience becomes an extended travel experience:** a complex process that develops well before consuming the tourist offer on-site and continues after it. In order to provide a deep description of both the stages of consumers’ behavior and the travel planning process—in the perspective of interpreting the tourist experience beyond a mere chronological dimension—, we have borrowed Rossi and Goetz’s description (Fig. 1) of the three main phases of an extended travel experience: *pre-experience (pre-trip)*, *in-experience (in-trip)*, *post-experience (post-trip)* (Engel et al. 1990; Rossi and Goetz 2011), throughout which consuming tourism experiences becomes an activity that involves a production of meaning as well as a field of symbolic exchanges.



Web (especially Social Media) and Mobile are key players throughout the process

Fig. 1 Rossi A., Goetz M. extended travel experience and experiential points

In this vein, consuming tourism experiences becomes an activity that involves a production of meaning as well as a field of symbolic exchanges. Therefore, instead of simply consuming products and/or services, during their holistic process, tourists consume products'/services' meanings and images, influencing memories, routine daily life as well as post-travel and future travel experiences, that marketers/DMOs should take into consideration in order to co-create both *experiencescape and servicescape with the tourists* (Mossberg 2007), as they go hand in hand in ensuring success in destination marketing strategies. Interaction is essential to the process, as the intensity and the quality of the tourist experience is affected by interaction either with other tourists, host communities, tourism suppliers as well as the other stakeholders or others out of the tourism system. Consumers imitate each other, following a social or vicarious learning paradigm (Hawkins et al. 2004), but perhaps more importantly, they also talk to each other. Described as eWord of mouth, (eWOM) communication, the process allows consumers to share information and opinions in digital settings—particularly social media and mobile—that direct buyers towards and away from specific products, brands, and services (Hawkins et al. 2004).

The eWOM had emerged as the most important role being played by these technologies. It involves informal communications directed at consumers through the internet based technologies related to the usage or attributes of particular goods and services (Litvin et al. 2008; Ndou and Del Vecchio 2014). In a recent report Nielsen point out as the social word of mouth are increasingly driving consumers decisions and behaviors by the opinions, tastes and preferences of an exponentially larger, global pool of friends, peers, and influencers. The evidences found that 70% of social media user's hear other experiences, 65% learn more about brands, products and services (Ndou and Del Vecchio 2014). While, Gretzel and Yoo (2008) point out, that three-quarters of travelers have considered online consumer reviews as an information source when planning their trips.

So, given the dynamic and fast-changing of the digital environments, where consumers interact with brands and each other, tourism marketers, have replied to such a critical phenomenon by increasing their use of digital marketing channels (Stephen 2016). However, due to the complex relationships of their diverse public and private audiences (i.e. visitors, stakeholders, influencers), it's quite difficult to manage and market tourism destinations (Buhalis 2000; Sautter and Leisen 1999) considering that they (Cooper et al. 2005):

- consist on a mix of different elements (attractions, accommodation, access, catering, auxiliary services);
- are a kind of appealing cultural images that attract people;
- are consumed even before leaving;
- do not only exist simply for tourists but also for the inhabitants;
- are also something that is perceived to exist, that is an image in the minds of potentials and actual tourists, and so, it is a very important variable for tourism marketing, especially during the later stages of the digital age.

Furthermore, there are some other issues that add complexity to destination strategies and which are often beyond the control of planners, such as: communication strategies addressed either to visitors (both current and targeted) or to the stakeholders involved in the tourism industry; the accessibility of the destination and its attractions; and last but not least, the atmosphere of the places (Garrod and Fyall 2000).

However, strategic marketing efforts are important for destinations to foster positive consequences of tourism, particularly given the range of opportunities and challenges created by the emergence of social media that destinations can use advantageously. In fact, as already displayed above, in the Web 2.0 society, **the boundaries between information producers and users is blurred**, and the usual concepts of authority and control are radically changed.

Practically, the new role of user from passive reader to active content contributor has brought a relevant change in the web: users are content providers and value co-creator, by now. Such a change in tourism means that the users' opinion that is expressed online can result into more bookings or bookings cancellation.

Indeed, contents generated by users (UGCs) have an acknowledged importance in all fields, and in tourism in particular (Akehurst 2009). Their positive effects have recognized repercussions on quantifiable phenomena such as e-commerce, but also on intangible matters such as those related to the image or the informational side of specific products and/or services. On the other hand, the continuing growth of UGCs' influence, even in the tourism domain, due to their wideness and deepness, makes them perceived as even more reliable than official sources for a tourist.

Examples in the tourism sector include Travel review websites such as Tripadvisor, Lonely Planet Thorn Tree, IgoUgo, etc. that enable customers to create content and knowledge as well as to share insights, opinions and experiences to help each other travel smarter (Ndou and Del Vecchio 2014). While these knowledge generator websites provide sources for value creation, firms are challenged to find appropriate approaches, tools and mechanisms to tap into this knowledge and harvest it for the competitiveness (Ndou and Del Vecchio 2014).

As such, social media websites provide a real opportunity for DMOs to engage and interact with potential and current visitors, to encourage an increased sense of intimacy of the tourist relationship, and build important and meaningful relationships with tourists (Mersey et al. 2010).

In light of this, destination organisations as well as regions are beginning to take notice of the power of social media, to develop strategy, accept their roles in managing others' strategy or follow others' directions (Williams and Williams 2008). A few institutional websites already allow consumers to not only exchange information about products or services, but also to engage in co-creating value in online experiences with offline outcomes, with both current and potential consumers. The new decision making models, supported by user generated content and social networking websites, force DMOs to implement new technologies and procedures, in order to develop suitable 2.0 strategies and let social media pros lead them to success.

3 Research Methodology

With the aim to find out the best features to perform a winning digital strategy that allows to promote and market a tourist (e)Destination on the web, the research methodology used consists in a qualitative research method focusing on benchmarking among best practices, interviews and qualitative online exploratory surveys.

First of all, we performed a benchmark of Italian best practices that use digital strategies for the promotion and competitiveness of their destinations. The cases identified as best practices were retrieved by secondary data sources and in particular from report published by ENIT (National Organization for Tourism) and Blogmeter studies.

This process allowed us to identify 4 best practice cases: Toscana, Marche, Trieste, Venezia. The cases were benchmarked and analysed according to the following criteria:

1. Digital Content (Website 'Tourism' section):
 - 1.1 check for the availability of practical and detailed information regarding the tourism experience in the destination;
 - 1.2 use of ecommerce/ebooking to **sell the destination**;
2. Extent of Social Media Presence: presence on Social network channels.
3. Typology and modality of Engagement tools:
 - 3.1 Via Mobile Device (i.e. Optimization: technical aspects of official websites and blogs);
 - 3.2 Via Mobile Apps And Augmented Reality;
 - 3.3 Via UGC (user generated content approach encourages additional interaction with the brand/destination);
 - 3.4 Via Promotional Campaign (Raising a destination awareness, helps 'sell' it to visitors/prospects).

4 Multi-language Usage: The Number of Languages Used in the Website and Social Network Channels

The benchmarking and evaluation of each of these criteria in the 4 cases identified is performed and depicted in Table 2.

Afterwards, the best practice example was selected for a deeper analysis aimed to identify the most salient features that should be put in place for a winning digital strategy for destination promotion. By this means, new and innovative ideas can be found (Fuchs and Weiermair 2001).

The cases selected on the first phase were Toscana, Friuli Venezia Giulia (focus on Trieste), Marche and Veneto (focus on Venezia).³ The choice of this cases is done based on the aforementioned ENIT study and Blogmeter surveys.

Afterwards, in order to obtain more detailed information regarding the Marche case that emerges to be one of the best practices regarding the digital strategy for promotion of the tourism as well as one of the first online destination that has an institutional campaign built mainly on user-generated content, we performed a detailed analysis by interviewing two key persons involved in the definition and execution of the strategy.

Myers (2008) states that interviews offer an excellent ‘window’ of achieving the research objectives, either to know the informant’s perspective on the issue or to know whether the informant can confirm insights and information the researchers already hold.

Interview procedures were developed to guide interviews. The interview involved two key persons of Regione Marche and specifically the destination **Marketing and Communications Manager at Regione Marche (for understanding the strategic aspects of the regional plan) and the Social Media Manager, Coordinator and Responsible of the Social Media Team of Regione Marche (to obtain information regarding the digital destination branding)**. Interviews were performed via Skype in the month of March (22 and 24).

Interview was structured on two main parts: the first part, was aimed to collect general information about the project; the second one was focused mostly on understanding the key features of the case study *#destinazionemarche* (Appendix 1).

We choose open-ended questions as they give interviewers the freedom and space to answer in as much details (Stoop and Harrison 2012).

1.1 Research findings: Sample description

A short description of each of the 4 cases analysed for benchmarking is provided in the Table 1.

The benchmarking allows us to identify as the best practice case—the Marche digital tourism strategy *#destinazionemarche* (Table 2). In fact, as it could be evinced by the table, Regione Marche is extensively applying and using different tools for the realization of a digital strategy, with its: 10 official Social networks channels; 6 native apps; high user involvement in co-creation of tourism services; the provision of information in 9 different languages.

For each destination, the benchmark analysis of e-destinations examined n. 13 factors clustered around the 4 criteria above described (Table 2, their existence is noted with ‘X’; their non-existence is noted with ‘/’):

³If Toscana and Marche boost a widespread 2.0 strategy in tourism over the whole territory, playing as real DMOs, both Veneto and Friuli Venezia Giulia, respectively with Venice and Trieste, reveal just some local attempts to apply and use different tools for the realization of a digital strategy.

5 DESTINAZIONEMARCHE Digital Strategy

The Strategic Plan for Tourism Promotion 2016–2018 of Marche region, called ‘*DMO Marche Tourism*’,—strongly emphasises the importance of the collaboration among all the stakeholders of the regional system (i.e., Ministry of Cultural Heritage and Activities and Tourism, the Marchigian Incoming Operators, Municipalities, Associations, Chambers of Commerce, Operating and Functional Bodies).

This results into the development of a series of actions, interventions and relationships through which reaching on the one hand the market objectives, and, on the other hand, to provide the regional operators with benefits and suitable tools useful to the development of their business, the land system as well as the Marchigian tourism image and its identity.

In this perspective, the *DMO Marche Tourism* is geared to tourists and supports the tourism sector and operators using mainly online systems through destination management and destination marketing activities aimed at increasing the flow of tourists in the Marche. In fact, the ultimate goal of the *DMO Marche Tourism* is to increase the profitability of the tourism industry in the region to be achieved through products and/or services able to attract tourists; communication strategies and the Marchigian brand appeal.⁴

First and foremost, the market approach of the Marche—whose local communities, quality of life, slow life, sustainability criteria, knowledge and well-being are the reference assets of the region to achieve a long term vision for the tourism development—grounds in two patterns:

- B2C2B: the institutional website www.turismo.marche.it gathers some proposals (both offerings and packages) submitted by the operators registered to the databases (OTIM, CATIM, DMS). Such proposals are available through various tools and the transaction can be carried out directly on the channels made available by the operators;
- B2B: DMO Marche Tourism is a partner of the territory and supports the Marchigian destination sales marketing, encouraging the cooperation among the Marchigian, the domestic and international operators.

Since 2014, the Marche tourism offers six tourism products/clusters, performing its top attractions, as depicted in Fig. 2:

The *DMO Marche Tourism* manages its activities mainly through two bodies. On the one hand, the Communication Office of the Marche Region is responsible

⁴Thus, the DOM can guarantee the necessary support for the implementation of some objectives of the region, shaping economic outcomes in the tourism sector, such as the promotion of the destination and the provision of tourist services in the Adriatic and Ionian macro-region, as well, in compliance with the EU Program 2014–2020.



Fig. 2 www.turismo.marche.it, Section ‘Turismi’ (Tourisms)

for the overall strategy for the tourism sector, including off-line actions. With regards to on-line activities, the Office managers: the official website www.turismo.marche.it (tourism promotion), the portal <http://eventi.turismo.marche.it/> focusing on events and, in the end, the portal www.advisor.marche.it, aimed to create a customized travel itinerary.

On the other hand, within the Marche Culture Foundation (formerly Marche, Cinema and Multimedia Foundation), an in-house subject of the Marche Region, with all values and trappings of a public entity, there are several areas related to the Film Commission, the Mediatheque, the Catalogue of Cultural heritage, the management of Museums and Historical Archives and Social Media Team.

The Social Media Team, managed by Sandro Giorgetti, autonomously runs all Social Media Marketing activities of the Marche Region, among which: 10 social network, with more than 20 online activities—Fig. 3); the official blog www.destinazionemarche.it/, aiming to promote the Marche Region: its final purpose is to tell the territory through what makes it unique and, above all, through the eyes of those who visit it.

The strategy carried out by the Marchigian Social Media Team on each handled digital activity is based on the enhancement of the users/visitors living their experience in the Marche, who, in the shoes of media consumers, become media producers and so extraordinary testimonials of and influencers within the

ACTIVITY	SOCIAL NETWORK PLATFORM & LANGUAGE USAGE									
	FACEBOOK	TWITTER	YOUTUBE	PINTEREST	GOOGLE+	PANORAMIO	FLICKR	INSTAGRAM	FOURSQUARE	ISSUU
MARCHE TOURISM	ita	ita	X	X	X	X	X	X	X	X
DISCOVERY MARCHE	eng / de	eng								
MARCHE DI GUSTO	ita									
DISTRETTO CULTURALE EVOLUTO (ADVANCED CULTURAL DISTRICT)	ita									
MARCHE PER MACRO REGIONE ADRIATICO IONICA	ita									
URBINO 2019	ita	ita	X	X						

Fig. 3 Social media team activities, Regione Marche



Fig. 4 Regione Marche, Official blog: #destinazionemarche

communication strategy itself. Based on these values, the blog aims to tell the territory through different types of (non-traditional) communication, deepening users' contents become the real key players, thanks to their non-institutional but empathetic and emotional nature⁵ (Fig. 4).

The goal of the regional strategy is to convert listening reached through social networks as well as the reference websites, until the final booking (on the official website). Albeit important, the social media marketing activities are always a part of a larger digital system, and will be never self-sufficient. The selected social networks are able to interact with each other, through the published material (text, photos, video etc.) and the target audience, as well.⁶

A web and social survey was conducted (time lapse: Nov 2014–Jan 2015) by the Marche Region, on EXTREME⁷ data, aimed at monitoring and analyzing both web contents and social conversations⁸ (in Italian, English and German) to collect either quantitative or qualitative records related to Key Performance Indicators (KPIs) referred to travel experience to the Marche. In order to allow a more effective

⁵Giorgetti points out that it is in their interest that the numbers that are stoned on several occasions are at the service of the two major objectives of their strategy, that is “increasing the brand reputation of the Marche and facilitate arrivals and presences. In this sense, the data provided by the most important subjects of monitoring and analysis at national and international level are clear and are the ones of which we are most proud”—retrieved on: <http://polcom.it/2015/10/comunicare-le-marche-nella-macroregione-adriatico-ionica/>.

⁶For example, a photo on Flickr is exploited on Facebook, so as to bring the volume to both, but more importantly is sharing a photo of one user posted, for example on Instagram, which becomes the image of a post prepared and published by the Social Media Team. In short, it is a network within a network.

⁷<http://www.web-live.it/>.

⁸Le Marche Sul Web—Analisi E Report Della Presenza Delle Marche Sul Web. Monitoraggio Novembre 2014/Gennaio 2015—Regione Marche Pf Turismo E Tutela Dei Consumatori.



Fig. 5 Facebook insight: monthly visits (March 23, 2016)

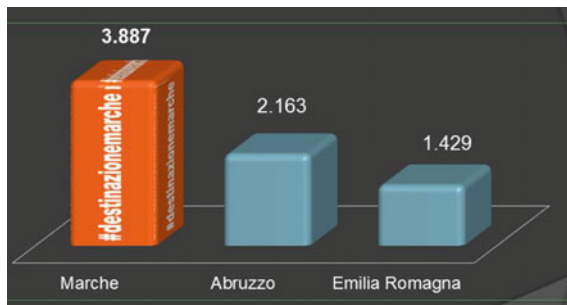


Fig. 6 Data show the rank per fan of the italian regions' official Death version Facebook pages on tourism

visualization of the data, hereby presented in a summarized way in the following images regarding the Facebook Insights of the official Accounts in Italian (Fig. 5):

#destinazionemarche Facebook Fanpage in deutch version is displayed from a huge number of users, more than Abruzzo and Emilia Romagna. All the Facebook data are dated on March, 3 2016 (Fig. 6).

The Figs. 7, 8, 9 show the volume of users as for the #destinazionemarche official accounts for Google+, Flickr and Pinterest.

The Figs. 10, 11 perform Twitter data for the Italian and English version accounts:

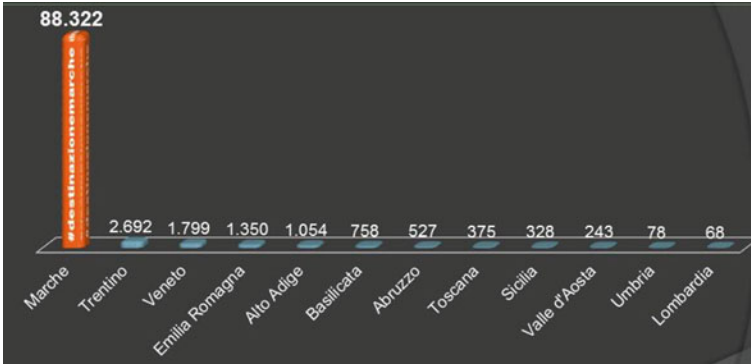


Fig. 7 Data show the rank per follower of the Italian Regions' Tourism official Google+ accounts

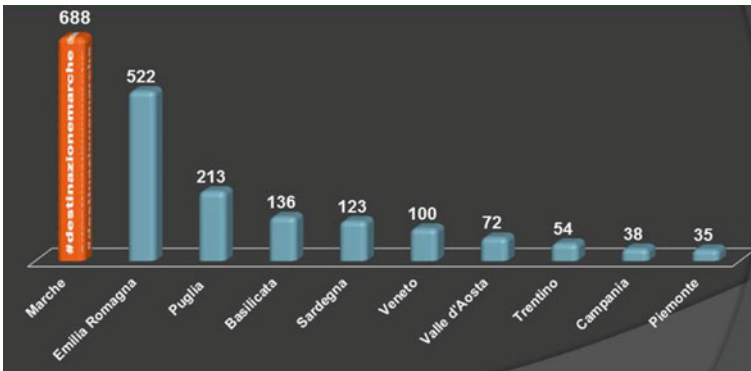


Fig. 8 Data show the rank per follower of the Italian Regions' Tourism official Flickr accounts

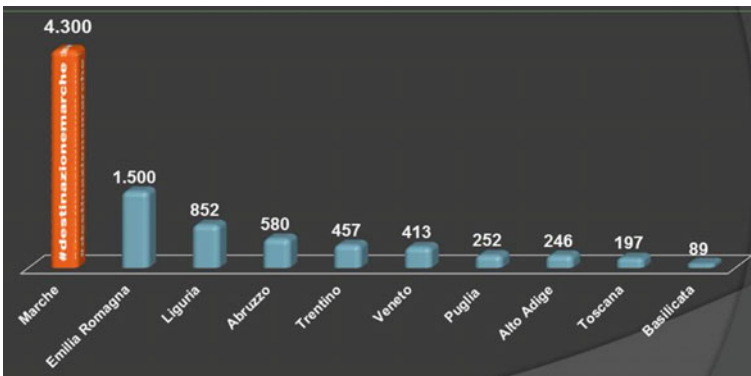


Fig. 9 Data show the rank per follower of the Italian Regions' Tourism official Pinterest accounts

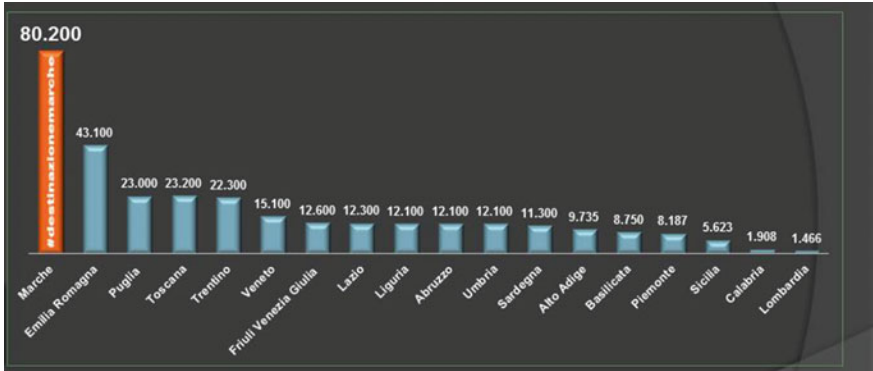


Fig. 10 Data show the rank per follower of the Italian Regions' Tourism official Twitter accounts

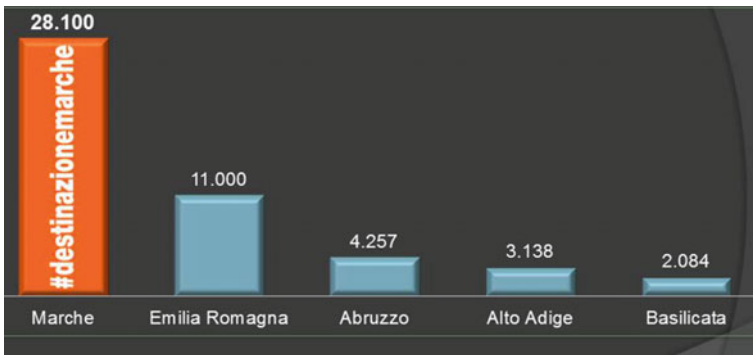


Fig. 11 Data show the rank per follower of the Italian Regions' Tourism official Twitter accounts (English version)

6 Conclusions

The aim of this paper was **to assess whether and how digital strategies**, and chiefly the use of social media tools, may empower an (e)destination competitiveness. By focusing on the Regione Marche as a prime example of winning 2.0 strategy, this paper demonstrates that a DMO should rethink the use of emerging technologies in terms of different and interactive tools to be implemented. The identification of *#destinazionemarche* as best practice arose from a comparative analysis of recognized Italian e-destination based on a set of 4 criterias aimed to comprehend the digital content dimension, the user's engagement, the plurality of digital channels adopted, the multi-languages availability of communications tools.

The selected case study and particularly its official blog *#destinazionemarche* is representative of an interesting and successful destination 2.0 strategy. Moreover, both the analysis of Marche Region web presence/strategy and the statements of the two people interviewed have been particularly illuminating, since, as Laroche et al. (2012) pointed out, in an online environment, people like the idea of contributing, creating, and joining communities to fulfill needs of belongingness, being socially connected and recognized or simply enjoying interactions with other like-minded members. This is one of the key to success of *#destinazionemarche*, which means not only the tout-court engagement of end-users, but also of all the stakeholders involved in such a process.

In fact, *#destinazionemarche* got huge benefits from social media, since their usage contribute to develop a broader regional strategy (Williams and Williams 2008). Furthermore, they also allow visitors/prospects to exchange information, and what is more to engage them in co-creating value (Prahalad and Ramaswamy 2004) in online experiences with offline outcomes.

Destination marketing organizations and tourists should be oriented to the satisfaction of visitors' 'wish' (i.e. before, during, and after the visit), and they will determine the image of the destination with and through an aware usage of social media.

Appendix 1

QUESTIONS ON THE PROJECT (Digital Content - Tourism section and Social media presence, Language usage):

Here are some questions about your project, the digital campaign and your 'users/ tourists'
 When the digital strategy #destinazione marche was born? To which need does it reply?
 How is organized?
 Which are the main aims?
 And the targets? Which are the places more visited? And in which period?
 Which channels and tools do you use?
 Which are the HR engaged in the project?
 Which social networks do you use more? And, which of them are responding better, over time, to your goals?
 Do you have any current initiatives, regular appointments/dates with your followers?
 In terms of economic consequences, what is the impact of the project?
 How do you monitor your social activities? (Sentiment, social network analysis and by what means? Free or pro Versions?)

QUESTIONS ON TOURIST-ORIENTED APPROACH (Engagement and Tourist Experience Design)

This marketing campaign is characterized by a close collaboration with the user. Talking about tourist destination, the focus is about the creation of a strong brand aimed to represent the territory and your hashtag campaign... does really work. In this regard, the academy refers to a "new" marketing, "collaborative marketing" consisting of the participation of all stakeholders aimed to a widespread promotion of the territory.
 In your case, as did you involve, from an operational point of view, both stakeholders and end-users? (I.e. tools, channels, events, actions)
 Do you have benchmarks?
 How did you encourage the use hashtag by all stakeholders?

QUESTIONS ON USER GENERATED CONTENT (UGC approach encourages additional interaction with the brand/destination)

The presence of user generated content (UGC) has added value to your project.
 They turned their travel experiences into a narrative (storytelling) through the use of social networks. Keywords are: authenticity, personalization and participation. How have you used and integrated content created by users within your strategy?
 Italian tourism fails to seasonally, which strategies are to be implemented (in your project) to create a destination 365 year round?
 Which is the way of planning to meet the needs of the new model of travelers who increasingly realizes the 'journey' experience (during pre - after) on social networks? Which is your experience?

Appendix 2—Sentiment Analysis Schemes

See Figs 12, 13, 14, 15.

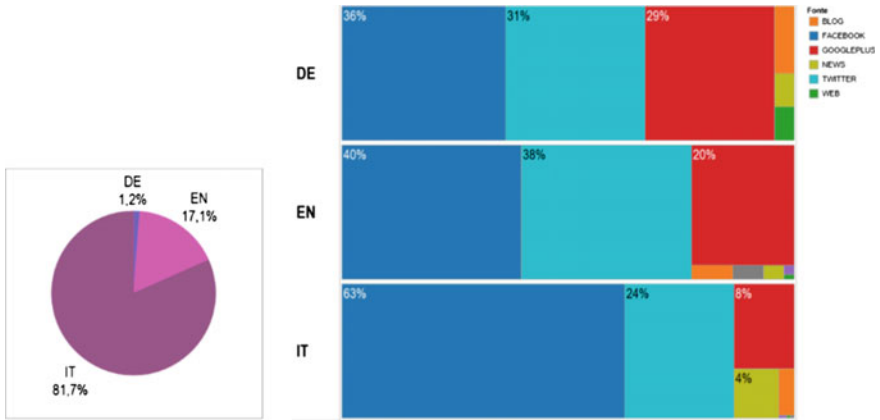


Fig. 12 Results 'Languages and Sources'

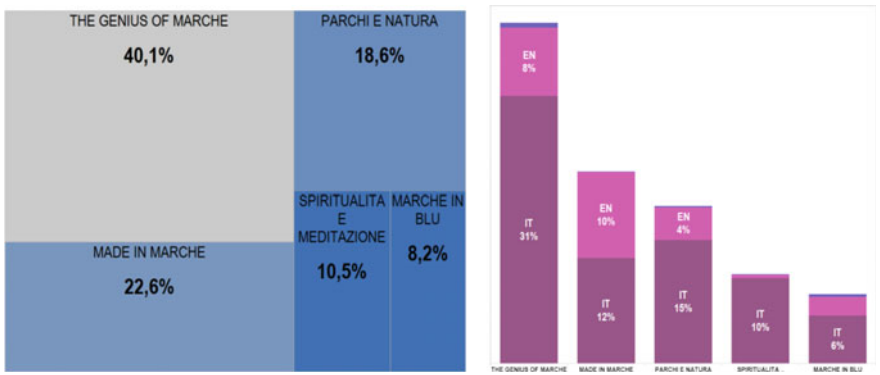


Fig. 13 Cluster 'Distribution and Distribution per Language'

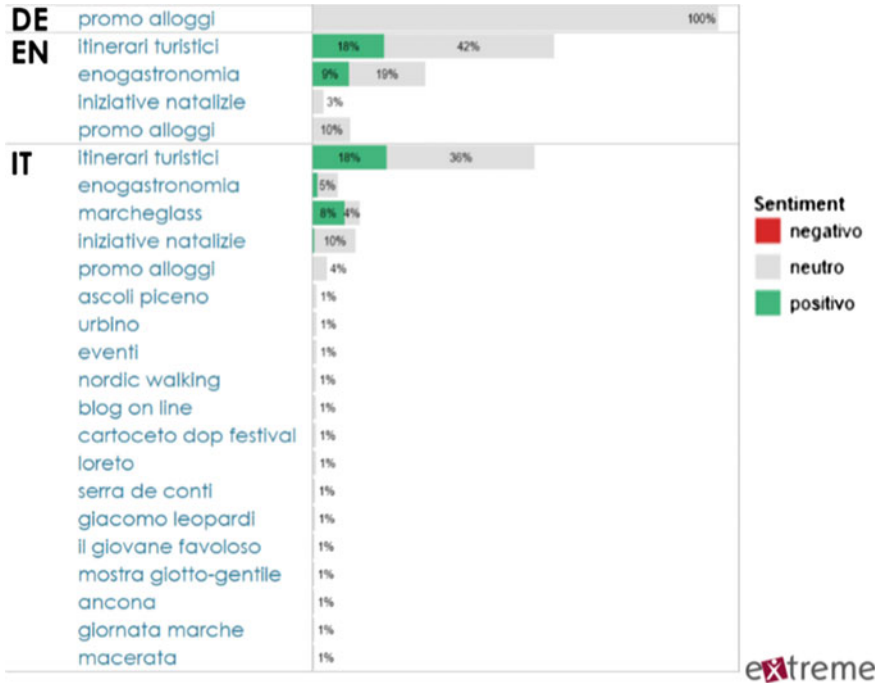


Fig. 14 Sentiment ‘Total and per Language and Theme’

#DestinazioneMarche Project results in a nutshell



Fig. 15 Economic forecast

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Part III
Methodological Frameworks, Tools
and Approaches for Sustainable Tourism
Management

PM4SD as a Methodological Framework for Sustainable Tourism

Giusy Cardia and Andrew Jones

Abstract The paper begins with a review of key sustainable tourism policies at European and global level adopted over the last two decades. From a first analysis, it transpires that sustainable tourism can be interpreted in different ways depending on the stakeholder perspective, and these ways can generate conflicting definitions. In any case, it is widely accepted that sustainable tourism derives from the sustainable development concept which has started to spread in the 1980s, even before tourism policies had been seriously taken into consideration at European and international level. However, since 1995 the concept of sustainable tourism has inspired the adoption of a considerable number of recommendations, communications, set of indicators and criteria which have been developed at a European and International level. Despite the worldwide interest and awareness on sustainable tourism, concrete progress has been weak due to the inability to transform policies into action. Indeed, sustainable tourism remains a relatively niche sector of the market, and it is not yet been included in some destinations planning and management, especially in some developing countries. In order to maximize the benefits of applying sustainable principles and criteria in tourism, the study looks at the need for key tourism stakeholders to apply a solid framework such as PM4SD in the daily management of projects related to cultural sites, destinations, enterprises and locally centred initiatives. In order to highlight the benefits of PM4SD, the CoLeadTourism Project, where the methodology has been applied, is looked into.

Keywords Sustainability · Policies · Indicators · Methodology · Capacity building · Project management

JEL Classification Z32 tourism and development

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1 Introduction

The concept of sustainability is corroborated by many traditional cultures as the desire to find balance and harmony between human beings and their environments. Indeed, as Butler (1991) argues, the challenge of preservation for the future dates back to thousands of years ago, and specifically to Mesopotamia, where the elites were granted exclusive access to animals and grasslands in protected nature reserves.

These ideas were taken up by Alexander the Great and successively by others, and then put into practice in Europe, as well as in other continents, like Australia due to European colonisation. At the end of 19th Century, when the Royal National Park was established near Sidney, it was specified that the “areas should be preserved for future generations to use” (Hardy et al. 2002, p. 476).

Nowadays, the modern concept of sustainability is strictly linked to the Brundtland Report which was issued in 1987 by the World Commission on Environment and Development (WCED). The report refers to sustainability not only to a state of harmony but rather to “dynamic process of changes”, as pointed out by Liu (2003, p. 460).

Moreover, in the last 25 years, the concept of sustainability became so widely accepted that its principles have been applied to other sectors and human activities like tourism, especially due to its negative impacts on local communities, and their cultural and natural resources.

From 1995, when the Charter for Sustainable Tourism was promulgated in Lanzarote (Spain), to the World Summit on Sustainable Tourism (ST + 20) celebrated in Vitoria-Spain in 2015, when the validity of the Charter was reiterated by UNWTO (2015b), sustainable tourism is widely recognised as a European and global priority. This recognition has been highlighted through the policies, and criteria and indicators, respectively described in the second and third headings of this study.

The main objective of this research is focused on the exploration of the opportunities that a solid framework for sustainable tourism can bring for the sustainable management of destinations, tourism businesses, heritage sites, events and tourism itineraries.

This framework, named Project Management for Sustainable Development (PM4SD), is directed to build leadership and vocational capacity of people who work, or aim to work in tourism as the *conditio sine qua non* to improve the ability of an institution, a destination, a region, or a country to follow sustainable development paths. In other words, sustainable tourism development is strictly dependent on the enhancement of vocational capacity and skills which should lead to an improvement on the management of destinations and businesses, and therefore, to the enhancement of job opportunities for locals, and a better tourism experience for visitors.

Recently, the relevance of sustainable tourism has been reiterated by the United Nations which has declared 2017 as the International Year of Sustainable Tourism for

Development. The declaration, which represents a further contribution of the tourism sector to the three pillars of sustainability, follows the recognition by global leaders at the UN Conference on Sustainable Development (Rio + 20) that “well-designed and well-managed tourism” can contribute to the three dimensions of sustainable development, to job creation and to trade.

This study begins with a review of the main policies on sustainable tourism developed at European and global level. The review highlights that the concept of sustainable tourism is quite extensive and complex due to the several definitions in existence (Garrod and Fyall, 1998). As Buckley (2012) suggests, the difficulty on defining sustainable tourism is one of the reasons sustainable tourism still remains elusive.

In the third heading the roles of indicators and criteria for sustainable tourism are described. The amount of criteria, indicators, and other tools, related to sustainable tourism that have developed over the last two decades, shows that sustainable tourism has a political and social importance.

Although the recent policy developments have increased the awareness of the importance of sustainability of tourism, concrete progress has been weak due to the inability to transform policies into action. For this reason, it is very difficult to implement sustainability without a concrete methodology which is able to implement sustainable development in projects and activities. As a result, the fourth heading describes the methodology PM4SD which may contribute to combine competitiveness with sustainability and implement a solid framework to the key actors of the tourism value chain in the daily management of projects related to cultural sites, destinations, enterprises and locally centred initiatives. In order to understand better how this methodology works, and its benefits, the Co-Operating for Leadership in Tourism EU funded Project has been utilised as the case study.

The last paragraph concludes the study highlighting the benefits of the PM4SD methodology for the transfer of sustainable tourism from theory into practice, especially at project management level.

2 Sustainable Tourism in the EU and International Policies

Since the end of Second World War, tourism has represented one of the most important and stable economic sectors, particularly for regions with limited industrial or agriculture opportunities. However, it was not taken seriously into consideration at international level until the decade of the 1990s, and by the European Institutions until 2007 when the treaties which reformed the EU, were finally implemented.

Indeed, it is only in 2007 when a European tourism policy, was adopted by the European Commission through the Communication entitled “Agenda for a sustainable and competitive European Tourism”. Before 2007, a series of EC initiatives

were taken especially in the form of communications, but more rarely the regulatory initiatives have consisted in directives, decisions, resolutions and recommendations, except for some directives and recommendations protecting consumers. Among the most relevant steps taken in the 1990s to build up a common European Tourism Policy, one may consider the European Year of Tourism (EYT) which was proposed by the European Parliament and approved by the Council of Ministers in 1990. The EYT was geared towards the preparation for the establishment of the large area without frontiers, where tourism played the integrating role of the creation of people's Europe, and to the social and economic recognition of tourism for regional policy and job creation (Article 2 89/46/EEC).

Besides the EYT, one may mention the Tourism Action Plan of 1992 (92/421/EEC), and the Green Paper on the role of the European Union in the field of Tourism (COM(95) 97) as a document published by the European Commission to stimulate discussion at European Level on the intervention of the European Union in the field of tourism.

Tourism was also included in the Maastricht Treaty (1992) envisaging that the activities of the Community shall include measures in the sphere of tourism in order to achieve the overall aims of the aforementioned treaty. Fifteen years later, the Treaty of Lisbon (2007) in its Article 195, mandates that the European Union shall take actions to ensure the competitiveness of tourism by creating a favourable environment and promoting cooperation among stakeholders and sharing best practices, while respecting the attitude and the areas of competences of the member states. By promoting cooperation between the member states, particularly by the exchange of good practice, the tourism industry can indirectly contribute to the strategy "Europe 2020—A European strategy for smart, sustainable, and inclusive growth" (2010b) and towards strengthening the concept of European citizenship.

It the meantime, starting from the decade of the 1980s, the concept of sustainable development has started to spread through the UN sponsored World Commission on Environment and Development Report, *Our Common Future*, more known as the "Brundtland Report" which defined "sustainable development" as the "development that seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future" (WCED, 1987, p. 43). It proposed a holistic view of economic, environmental, social and cultural development.

Just a few years after the publication of this report, a conference was held in Rio de Janeiro in 1992, and it is known as the United Nations Conference on Environment and Development. The Rio Summit Conference focused on providing for assistance to governments to rethink economic development, and find solutions for avoiding the destruction of natural resources and pollution of the planet.

Among the most relevant outcomes of the Rio Summit Conference, one may mention the Rio Declaration on Environment and Development (UNEP) based upon 27 principles on which "nations can base their future decisions and policies considering the environmental implications of socio-economic development"; and the AGENDA 21, a document of 700 pages which includes all areas of sustainable development, identifying key areas of social responsibility, and offering preliminary estimated costs for success.

The concept of sustainable tourism development rises from that of sustainable development, and it expresses the indispensable need to undertake efforts to make tourism more sustainable especially because it represents one of the major threats to cultural and natural resources worldwide.

It is in 1995 that the Charter for Sustainable Tourism was adopted during the World Conference on Sustainable Tourism of Lanzarote (Spain), and the concept of sustainable tourism was coined for supporting and guiding tourism industry, and tourism decision-makers to integrate sustainability in destinations and industry operations.

In the same year, the World Travel and Tourism Council (WTTC), convinced that uncontrolled tourism development could provoke negative impacts on the local environment and society, launched an action plan entitled “Agenda 21 for the Travel and Tourism Industry: Towards Environmentally Sustainable Development” (WTTC, 1995).

Two years later, in 1997 the Berlin Declaration related to Biological Diversity and Sustainable Tourism, was adopted as one of the outcomes of the International Conference on Biodiversity and Tourism. Among other principles, the Declaration recognised that “All stakeholders should cooperate locally, nationally and internationally to achieve a common understanding on the requirements of sustainable tourism” (no. 6), and “Concepts and criteria of sustainable tourism should be developed and incorporated in education and training programs for tourism professionals. The general public should be informed and educated about the benefits of protecting nature and conserving biodiversity through sustainable forms of tourism. Results of research and concepts of sustainable tourism should be increasingly disseminated and implemented” (no. 7).

The year 1997 is also associated with the Malé Declaration on Sustainable Development of Tourism, adopted during the Conference of Asia-Pacific Ministers’ on tourism and Environment, organised by UNWTO in Malé, Republic of Maldives. The conference dedicated to the theme “Tourism 2000: Building a sustainable future for Asia-Pacific”, aims to clarify and define the linkage between tourism and environment, as well as to consider the responsibility of States and private sector for achieving a sustainable tourism development”.

In the following year, the UNWTO (1998, p. 19) coined the following definition of sustainable development of tourism as one that “meets the needs of present tourists and host regions while protecting and enhancing opportunity 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 system.”

In its 7th session held in New York in 1999, the Commission for Sustainable Development has adopted the Decision 7/3 on tourism and sustainable development which includes the adoption of an international work programme on sustainable tourism development.

The importance of promoting sustainable tourism development, in order to increase the benefits from tourism resources for the population in host communities,

was highlighted in the Plan of Implementation of the World Summit on Sustainable Development (UNCED) celebrated in Johannesburg in 2002. Besides the need of maintaining the cultural and environmental integrity of the host communities, the Plan refers to the promotion of the capacity-building in order to contribute to the strengthening of rural and local communities. The reference to capacity building for sustainable tourism is very relevant for this study considering that the methodology proposed in this study is directed to develop capacity building training and tools to train a team of professionals and trainers with appropriate skills and expertise.

During the World Ecotourism Summit celebrated in May of the same year in Canada, the Québec Declaration on Ecotourism was adopted. The summit spelt out the potential and challenges of ecotourism in contributing to sustainable development, and made recommendations to governments, the private sector, NGOs, international agencies and local and Indigenous communities.

The World Summit on Sustainable Development in Johannesburg was also held in 2002, and in its Plan of Implementation has addressed sustainable tourism, and launched the initiative Sustainable Tourism-Eliminating Poverty, as inaugurated by the World Tourism Organization, in collaboration with UNCTAD in order to develop sustainable tourism as a force for poverty alleviation.

Three years later, the Declaration entitled “Harnessing Tourism for the Millennium Development Goals” UNWTO (2005) reiterates the effective contribution of tourism to the achievement of several Millennium Development Goals, especially those relating to poverty alleviation, environmental conservation and creation of employment opportunities for women, indigenous communities, and young people.

In that same year, the UNEP and UNWTO published “Making Tourism More Sustainable” (2005), according to which, “sustainable tourism should: (1) make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural resources and biodiversity; (2) respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance; (3) ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation”.

Sustainable tourism was also handled by the Davos Declaration on Climate Change and Tourism—Responding to Global Challenges, which was promulgated during the Second International Conference on Climate Change and Tourism held in Switzerland in 2007. In particular, the Declaration recognised that for the importance of tourism in the global challenges of climate change and poverty reduction, it is urgently necessary to adopt a range of policies which encourages truly sustainable tourism that reflects a “quadruple bottom line” of environmental, social, economic and climate responsiveness.

In 2010, four other relevant documents related to sustainable tourism, came out.

The European Commission Communication entitled “Europe, the world’s no. 1 tourist destination—a new political framework for Tourism in Europe” (2010) which defines an ambitious framework for making European tourism a competitive, modern, sustainable and responsible industry, and it envisages a number of specific initiatives to give the European tourism sector the means to adapt and develop.

In the opinion of the European Economic and Social Committee on the “Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions—Europe, the world’s No 1 tourist destination—a new political framework for tourism in Europe” (2010a), tourism is confirmed as a key sector with a very positive effect on economic growth, sustainable development and employment in Europe. Among the goals that constitute the “backbone of the new framework”, there are: competitiveness, sustainability, and promotion of tourism.

The Madrid Declaration has been adopted during the Tourism Ministers meeting in Madrid. In its Communication, the Commission (European Commission 2010c) has been invited to take into consideration the need to put into practice a consolidated framework for the EU Tourism policy, according to the provisions of the Lisbon Treaty.

The recommendations on tourism and biodiversity “Achieving Common goals Towards Sustainability” published by UNWTO, directed to actions on biodiversity and tourism for governments at national and destination level, the tourism private sector, international organizations and NGOs. These recommendations are connected with the Convention Guidelines on Biodiversity and Tourism Development related to all the activities related to sustainable tourism development in vulnerable terrestrial, marine and coastal ecosystems and habitats of major importance for biological diversity and protected areas, including fragile mountain ecosystems.

The Joint Communication “Tourism in the Green Economy” published by the United Nations Environment Programme (UNEP), and World Tourism Organization, in 2012 defines sustainable tourism as it “takes full account of current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities. It is not a special form of tourism; rather, all forms of tourism may strive to be more sustainable”.

One of the main outcomes of the Conference held in Rio de Janeiro in 2012 by the United Nations, is the report the “Future we want” which in its paragraph no. 130 defines sustainable tourism as a significant contributor “to the three dimensions of sustainable development” due its linkages with other sectors, its ability to create decent jobs, and generate trade opportunities. Therefore, Member States recognise “the need to support sustainable tourism activities and relevant capacity-building that promote environmental awareness, conserve and protect the environment, respect wildlife, flora, biodiversity, ecosystems and cultural diversity, and improve the welfare and livelihoods of local communities”.

In 2015 other two important events related to sustainable tourism took place.

On the one hand, the World Summit on Sustainable Tourism (ST + 20) was held in Vitoria-Spain. The main issue has moved from the question whether sustainable

tourism is a viable solution, to how far can it take to realize tourism's full potential to bring benefits to local communities, support green growth and economies, foster innovation, safeguard cultural and natural heritage, and protect the environment.

On the other hand, the 2030 Agenda for Sustainable Development was promulgated by UN, committing member States, through Sustainable Development Goal Target. In particular target 8.9 recognises: "devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products". Sustainable tourism is also a driver for jobs creation and the promotion of local culture and products, as it is highlighted in the Development goal target 12.b. Tourism is also identified as one of the tools to increase by 2030 the economic benefits to Small Island developing States and least developed countries as stated in the Sustainable Development Goals Target 14.7.

In line with new Agenda 2030 and the Sustainable Development Goals (SDGs), UNWTO (2015a) has designated 2017 as the international year of sustainable tourism for development. This designation has a special value not only for the importance of the sector in itself, but also for increasing awareness of the several benefits it brings. Among them, one may consider the protection of cultural heritage and the appreciation of the inherent values of different cultures.

Despite the fact that sustainable tourism has generated different definitions which, often, compete one with each other, a revision of these policies has allowed the authors to confirm that there are some common components as identified by the Encyclopedia of Sustainable Tourism (2015). They are:

A temporal dimension which recognises that tourism has impacts that are generated today but they will be experienced in the future (Cohen and Higham, 2011);

A spatial dimension which recognises that the impacts of tourism may bring benefits to some people at the cost of others, as for example, when tourists are given priority over the locals at tourist destinations (Mbaiwa, 2011);

A fairness dimension which recognises that the impacts of tourism are often unfair (Schellhorn, 2010);

An impact media dimension which recognizes that the benefits and costs of tourism may be represented by economic, environmental, and socio-cultural media impacts (Miller et al. 2010);

An intervention dimension which recognises that governments should intervene in these situations which will not resolve itself without an external intervention (Dinica, 2009);

A stakeholder dimension which recognises that sustainable tourism is impossible to implement without the cooperation of various stakeholders such as residents, tourists, tourism businesses, etc. (Jamal and Stronza, 2009).

3 Analysis of the Main Set of Indicators in Sustainable Tourism

The sustainability principles can be transferred to programmes and projects through the use of indicators which according to the UNWTO are an essential instrument for policy making, planning and management processes and destinations. The use of sustainable tourism indicators in assisting tourism planners and decision makers in the evaluation of performances and identification of future scenarios is widely acknowledged by scholars like Butler (1998a), and Gahin et al. (2003).

UNWTO (2004) defined indicators as: “measures of the existence or severity of current issues, signals of upcoming situations or problems, measures of risk and potential need for action, and means to identify and measure the results of our actions. Indicators are information sets which are formally selected to be used on a regular basis to measure changes that are of importance for tourism development or management.”

Among the most known indicators and criteria for implementing sustainable tourism developed at European and International level, one may mention those adopted by UNWTO (2004) and EUROSTAT (2006); the Global Sustainable Tourism Criteria (GSTC); and the European Tourism Indicators System (ETIS). In this study we will focus more on the analysis of ETIS and GSTC as the European and international recognised set of indicators for achieving sustainable objectives that have inspired more the methodology PM4SD which has been applied in our case study.

Since the early 1990s, UNWTO has been promoting the use of sustainable tourism indicators as an essential instrument for policy making, planning and management processes at destinations.

In particular, in its *Guidebook on Indicators of Sustainable Development for Tourism Destinations* (2004), UNWTO presents a 12 steps procedure to identify indicators aimed to support tourism sector decision makers at planning and management level. The guidebook provides a long list of indicators addressing environmental, socio-economic and managerial issues, and a shorter list of baseline indicators.

The EUROSTAT Manual (2006) is a methodological work on measuring the sustainable development of tourism which proposes a set of 20 core indicators grouped into five main categories which jointly constitute the DPSIR framework, namely driving forces; pressure; state; impact; and response.

GSTC is a set of global guiding tourism principles, and they represent the minimum requirements that have to be reached by any travel and tourism business in order to protect and sustain the world's natural and cultural resources while ensuring tourism as a tool for conservation and poverty alleviation. GSTC have been developed by the Global Sustainable Tourism Council as part of a broad initiative managed by the Partnership for Global Sustainable Tourism Criteria, which is a coalition of over 80 organizations working together for the adoption of sustainable tourism standards and the dissemination of sustainable best practice. The Partnership was initiated by the

Rainforest Alliance, the United Nations Environment Programme (UNEP), the United Nations Foundation, and the World Tourism Organization (UNWTO). The GSTC was created with the support of experts, groups and companies from around the world and they can be adapted to specific conditions of each region and area, namely urban, rural, and natural ones, and to any industry sector. However two specific set of criteria have been developed for hotels and tour operators, and for destinations. The latter was created to guide destination managers, communities, and businesses to sustain the cultural and natural attractions while benefitting local communities and businesses from an economic perspective (GSTC, 2013). The GSTC criteria are constantly evaluated and disseminates through the International Social and Environmental Accreditation and Labelling Alliance (ISEAL) standard setting process. ISEAL is a non-governmental organization focused on the safeguard of procedures through standard systems used over the world which represent effective tools for achieving sustainability targets.

ETIS has been developed as a result of lessons learnt from existing indicator system initiatives such as Tourism Sustainability Group (TGS indicators) and testing their feasibility in the Network of European Region for Sustainable and Competitive tourism (NECSTour) and the European Destinations of Excellence (EDEN). It is an instrument that any destination can implement in order to track its own performance and make better management decisions, as well as address policies. The system is made up of a set of 27 core and 40 optional indicators which are grouped in four main areas of analysis: destination management; economic value; social and cultural impact; and environmental impact. The system was developed by the University of Surrey, in England, Sustainable Travel International, and the INTASAVE Partnership, which is one of the partners of the CoLeadTourism EU funded project which represents the case study of this research, as it has described in the next heading. ETIS is a deliverable of the European Commission's "Study on feasibility of a European Tourism Indicator System for Sustainable Management at Destination Level" (2010d) which aims to provide a tourism system of indicators for destinations to use on a voluntary basis, and a guide for policy makers and other destination stakeholders for the improved management of tourism destinations.

It occurs to say that in addition to these indicators, there are several attempts to build, classify, and use sustainable indicators in tourism destinations but most of them fail due to the complex nature of tourism, and to the underestimation of the integrated effects of its economic, social, environmental, technological and political impacts on the destination. Some authors like Blancas et al. (2010) have proposed composite indicators for sustainable tourism in Spanish coastal destinations which aim to simplify the measurement of sustainability and the comparison among countries. Other authors like Castellani and Sala (2010) proposed the "sustainable performance index" based upon the application of the European Charter for Sustainable Tourism in Protected Areas (1995) to northern Italian region.

Despite the existence of these indicators, and their validity, the main challenge continues to be at tourist destinations level which should push the experts groups to

focus more on the real needs of the destinations rather than developing detailed indicators lists. Therefore, it is useless to adopt a full set of indicators, but rather it is recommendable to select those indicators and criteria related to a specific product and geopolitical context.

4 PM4SD as a Solid Framework for Sustainable Tourism

Although the recent policy developments have increased the awareness of the importance of sustainability of tourism, concrete progress has been weak due to the inability to transform policies into action. Sustainable tourism still remains a relatively niche sector of the market, and it has not yet been substantially factored into the planning of new destinations particularly in Eastern Europe.

This study explores the methodology PM4SD as a tool for the implementation of the sustainability principles which have been defined at European and International level. In particular, PM4SD addresses the need to apply a project management approach to tourism and cultural sector, which can be used by local authorities and various tourism stakeholders, primarily, the local communities.

PM4SD could contribute to combine competitiveness with sustainability, and implementing it by offering a solid framework and a methodology to the key actors of the tourism value chain in the daily management of projects related to cultural sites, destinations, enterprises and locally centred initiatives.

PM4SD is the first specialised certification for Project Managers working in the tourism and culture sector that represents an important benchmark for the competitiveness and growth of the tourism industry. The scheme was developed by APMG-International in partnership with the Foundation for Sustainable Tourism (FEST), an organisation dedicated to supporting governments, academies and organisations, to plan, deliver and manage tourism programs and projects with sustainability. The certification has been already delivered by JLAG which has tested the methodology and certified around 200 people so far in Europe.

PM4SD is a project management system specifically tailored for the implementation of sustainable tourism development initiatives. It consists of two qualification system, namely the Foundation stage, and the Practitioner stage, and it is based upon the PRINCE2 (Projects in Controlled Environment) methodology, which has been created for effective project management, widely recognised and used in the public and private sector, and part of the Managing Successful Programme, to the sustainable tourism.

PM4SD recognises the need to build solid and efficient practices in project management in order to achieve and ensure sustainability in tourism projects. The PM4SD approach establishes some factors about which a Project Manager should be aware of when embarking on a project. The factors refer to: the objectives of a project which must have to be attainable and realistic, and must be kept under control in order to ensure a successful final delivery and essential sustainable outcomes and benefits; the lessons learnt from previous experiences which can

support the Project Manager to improve the management activity; any applicable best practices; and a set of principles which cover all aspects of the project management activities.

Other success factors include: the ownership of a project which implies that the project management team, and the manager, have a clear understanding of the reason of the project; the support and participation of the major stakeholders to ensure a controlled development of the project; a feasible planning of the management stages which is very important for avoiding or at least reducing the risks and a scope-creep; the communication amongst all interested parties to control the project and manage adverse events; the correct choice of the people for the team to ensure that the skills are available to delivery of the project's products; and the motivation in order to foster a better collaboration and awareness of the responsibilities.

4.1 The Case Study of Co-Operating for Leadership in Tourism

It is widely recognised that sustainable tourism cannot be reach if people and destinations are not sufficiently prepared, competent and own professional skills. The improvement of professional skills within European tourism falls into the European Reference Framework "Key Competences for Lifelong Learning". In particular, as has been highlighted by the European Parliament and the Council in the Recommendation 2006/962/EC, "knowledge, skills and aptitudes of the European Workforce are a major factor in the EU's innovation, productivity and competitiveness". One of the eight competences outlined in the framework is related to proactive project management which implies the ability to turn ideas into action which involves creativity, innovation and risk-taking, as well as the ability to plan and manage projects in order to achieve objectives.

Starting from this premise, PM4SD has been the applied to the case study of the EU funded project entitled Co-Operating for Leadership in Tourism, (in short CoLeadTourism) which has been granted under the ERASMUS + programme in 2015. The project establishes a "Strategic Partnership for Innovative Leadership in Tourism" to develop and test capacity building trainings and tools to train team of professionals and trainers with appropriate skills and expertise who can directly assist destinations and enterprises to support their strategies, plans, and actions for their sustainable tourism growth.

The consortium is a multi-disciplinary partnership which includes five partners: 2 Universities, of Malta which leads the Project and acts as a core pilot destination for the Euro-Mediterranean area, and of Cardiff which provide the intellectual outputs and monitor their quality; JLAG-UK, as a small-medium sized enterprise which works within the area of vocational education, professional skills training and capacity building, and it will act as the training provider; the Bulgarian

Economic Forum (BEF) which is a business public-private association and it acts as the core pilot destination for Eastern Europe bringing experience of promoting business environment of Bulgaria and South Eastern Europe to potential foreign investors; and INTASAVE Partnership as a non-governmental organisation which has great experience in managing complex donor funded projects on sustainable development on a global level.

CoLeadTourism Project is directed to establish innovative training practices in sustainable tourism to be included within the European VET System. The capacity building trainings developed through the project are based upon PM4SD, and other tools described in the previous paragraphs such as the Sustainable Tourism for Development Guidebook edited by UNWTO; ETIS; and the World Heritage Sustainable Tourism Toolkit edited by UNESCO which brings best practice knowledge to site managers, tourism professionals, conservation professionals, and communities of the world heritage, in order to understand the possibilities of sustainable tourism and what key issues have already been achieved.

The necessity of training people is linked to that sustainable tourism and sustainable development depend to a large extent by the capacity of people and institutions. Indeed the training activities are addressed to build talents and capacity, even beyond the regions involved in the project, by bringing together key players in view of a greater collaboration between businesses, knowledge bodies, education and training sector, and governments.

The project aims to build the first European framework for management and tourism in VET in order to respond to the need of professionals, civil servants, entrepreneurs, students, planners, site managers, trainers, who work or aim to work for local authorities and other organizations in managing tourism destinations, heritage sites, events, and tourism businesses.

The selection of an EU funded project as the case study would like to highlight the importance of the existence of a standard project management methodology in order to make project management the vehicle of the transfer from sustainable tourism theories to action. Indeed, although the CoLeadTourism is still ongoing, the implementation of a structured methodology like PM4SD in the reality has already shown some wrong patterns on the management of previous projects.

5 Conclusions

Through the analysis of the different policies adopted so far in sustainable tourism, we agree that it is an “overloaded concept”, as Sharpley recognised (2012) and an “essentially contested concept” as Hall (1998) argued. This means that on one side, it is flexible enough to be interpreted in a number of different ways, according to the use to which the interpreter requires it to be (Hughes, 1995); on the other side, this flexibility has provoked conflicting interpretations of the term, which, sometimes are diametrically opposed.

Besides the issues related to the conceptualization of sustainability, one may consider other aspects that affect the implementation of sustainability in tourism.

Primarily, there is the complexity of both sustainability and tourism in the sense that tourism is connected to other activities, while so far it has often been considered in isolation from them. However, tourism cannot be considered alone, and this is evident if one looks at the growth of interdisciplinary initiatives that have characterised tourism in the last decade. This aspect enhances the need of adopting a holistic approach in the construction of sustainable tourism which takes into consideration issues connected to ethics, responsibility and justice, besides matters related to the integration of environmental, economic, political, cultural and social considerations.

Another concern for the management of sustainability in tourism is represented by the aforementioned temporal dimension which recognises that tourism has impacts that are generated today but they will be experienced in the future (Cohen and Higham, *ibid*). Indeed an assessment of sustainability factors over months and years is necessary, but this goes against the tourism system which is extremely dynamic and is bound to change quickly. Moreover, the community involvement in tourism development, which is the centre of the sustainability debate (Taylor, 1995), takes years to be implemented due to the long period of consultation and capacity building prior to its implementation.

The recognition of the three dimensions of sustainability, and the need to involve local communities in the process of sustainable tourism management, are two other relevant aspects of the sustainability in tourism.

The sustainable principles “refer to the environmental, economic and socio-cultural aspects of tourism development, and a suitable balance must be established between the three dimensions to guarantee its long-term sustainability”.

Communities have become central to a holistic concept of sustainability, in the sense that in order to be truly sustainable, the preservation of natural and cultural resources should be grounded in the communities which hold the keys to their survival or destruction.

However, it is not enough to leave this preservation into the hands of the local communities if these are not well prepared and trained to manage their resources in a sustainable way. Indeed, it is very important to bring competence, skills, qualifications, not only to the communities but also to those professionals and people who work in tourism and culture sectors, who should assist the destinations and the communities towards their sustainable tourism growth.

In order to do that, it is necessary to transfer knowledge and share best practice through a well structured methodology like PM4SD specifically tailored for management of projects in cultural and tourism sectors. Indeed, PM4SD can bring several benefits to individuals and organisations, which include among others: understanding and learning how to design and implement tourism projects in line with sustainable tourism policies and practices; learning a range of tools and techniques to be used for managing projects and workloads with sustainability; increase the productivity and reduce costs; managing the team and projects effectively and efficiently; use sustainable tourism indicators and criteria internationally

recognised by organisations which are committed to sustainable tourism; build sustainable public-private partnerships; learn how to design innovative tourism projects; and use international best practices to encourage sustainability of tourism projects and build communities of professional project managers.

The CoLeadTourism Project has been chosen as a practical case study in order to better understand the potentialities of the methodology PM4SD. This methodology has been implemented in the project in order to show the transfer, development, and innovation of tourism knowledge-based practices into new and innovative vocational teaching and training materials and methods. The benefits of this methodology are addressed both internally to the project partners, even in view of improving the management of future projects, and externally to communities, professional and trainers who can directly assist destinations, organisations and businesses towards their sustainable growth, as recognised by the Europe 2020 Strategy.

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Project Cultour+: Building Professional Skills on Religious and Thermal Tourism

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Abstract Pilgrims going on a pilgrimage tour or tourists seeking healing and relaxation at thermal springs and spas are special categories of travelers, involving a certain level of spirituality, interest in the cultural ambience and, sometimes, special needs. They constitute, thus, special clientele and need quite a good support on the information and services' level. The project CULTOUR+ (2015-1-ES01-KA203-016142) is a European Erasmus+ project aiming at enhancing the professional capacities and at upgrading the tourist services regarding pilgrims' routes and thermal springs in several European countries, namely Portugal, Spain, Italy, Greece, Bulgaria and Poland. It follows an innovative practice by bridging the gap between entrepreneurship and cultural tourism management, VET learning and the implementation of information technologies. The paper aims at presenting the philosophy and preliminary phases of the project at an international audience. The main issues addressed are: researching cultural routes management, investigating and understanding the needs of these special categories of tourists, pinpointing their places of interest, monitoring the infrastructure (notably the accommodation facilities) and training young entrepreneurs into improving and diversifying the services offered.

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The final aim is to create an instrument for presenting a cultural map for religious and thermal tourism in a large part of Europe as well as for training the future generations of tourism specialists in expanding their calibre of services and in anticipating the needs of the future generations of tourists.

Keywords Tourism · Thermal · Pilgrimage · Sustainable · Entrepreneur · Cultural

JEL Classification Y

1 Introduction: The Philosophy Underlying Cultour+

Religious and healing purposes have urged people to travel since antiquity. In fact, after trade and relocation in quest for better land, the need to visit sanctuaries (often famous for their healing practices as well) has been the second most important reason for people's engagement in travel (Elsner and Rutherford 2006; Maraval 1985). Until now, both religious and thermal tourism (a major form of tourism for therapeutic purposes) aim at people's well-being, spiritual and corporal, and remain, therefore, quite popular.

Despite the fact that both types of tourism attract large numbers of travelers, they often lack official monitoring and coaching in order to enhance their potential to the fullest. Deficiencies in infrastructure, a narrow scope (solely religious in the first case, solely therapeutic in the second one) and lack of information often turn a pilgrimage tour or thermal spa visit into an exhausting or even disappointing experience.

The project Cultour+ (Erasmus+ 2015-1-ES01-KA203-016142) aims at enhancing these two types of tourism by augmenting and deepening their cultural dimension not only through carrying out a meticulous research on the infrastructure and the facilities offered (thus pinpointing the deficiencies) but, mainly, through mentoring a new generation of entrepreneurs on how to incorporate innovative programs and practices into these two types of tourism.

Cultour+ is founded on the belief that both pilgrimage and thermal tourism fall primarily within the "cultural tourism" category: their scope should, therefore, be broadened with the introduction of cultural activities and a deeper sense of understanding of the local surroundings—thus turning the trip into a unique cultural experience challenging all senses.

Pilgrimage and thermalism also converge in the Declaration of Cultural Routes by the European Institute of Cultural Routes. In fact, pilgrimage routes are the ones most represented in the Council of Europe list with several examples that could fall within this category (The Santiago de Compostela Pilgrim Routes declared in 1987, consequently inspiring The Via Francigena in 1994 and The Route of Saint Olav Ways in 2010). Thermalism is recognized and managed under the European Route of Historical Thermal Towns declared in 2010.

Though under the same label, pilgrimage routes are completely different as they are normally walking routes and they suppose a continuous slow motion interaction

with the landscape and with the local people, and more important with the pilgrim/tourist him or herself. They are also different in their design and management because a potential failure of one part of the route could endanger the appeal and visitability of the entire route. This is actually happening nowadays in the Via de la Plata, a St. James way crossing western Spain from South to North, from Seville to Santiago. As some of the pilgrims' hostels were closed, a local journal alerted that pilgrims ended choosing a Portuguese alternative.¹

In this respect, the starting point of Cultour+ is "understanding". As a European, multi-national project, it involves countries with specific features, common aspects as well as differences: Spain, Portugal, Italy, Poland, Greece and Bulgaria. In some of them, namely in the first four, pilgrim routes have been trodden for centuries. In others, namely in Bulgaria and Greece, although pilgrimage is very strong, pilgrims' routes as such are very limited, thus highlighting the differences between the Catholic and the Orthodox tradition. Thermal tourism, on the other hand, has been inherent in most of the participant countries since antiquity and it is these historical roots that the project aims at enhancing, among other things. The next step of the project is "nurturing". The project aims at forming a bridge not only between countries, but also between the academic world and the entrepreneurial world. Given the fact that tourism relies on infrastructure and that it is a generator of income for local societies, Cultour+ on the one hand studies the way this is achieved with the present-day standards and on the other hand it attempts at proposing ways of improvement, based on the international comparative research that academics have already undertaken. The final step of the project is "enhancing". Enhancement is a complex process, involving education, information, use of modern technological means, formation of enlarged networks... Cultour+ intends to use all these media for changing attitudes both of the professionals in tourism and of the tourists themselves. The final result that we aim at is on the field, as already existing and newly created local businesses will be able to offer high-standard (but not necessarily high-cost) hospitality, by making use of all existing cultural resources from history and archaeology to local gastronomy, and where tourists will be able to develop a deeper sense of "meaning" throughout their journey.

2 Literature Review

The emergence of tourism has been linked since antiquity with religious and health matters (Chalmers, 2011). Despite the fact that Cultural Tourism has been the focus of study for a number of years, religious and thermal tourism have recently attracted academic attention, not only in terms of context, but also in the field of management and organization. It has been thus realized that, if monitored properly and enhanced accordingly, pilgrimage and thermal tourism can develop into a lever for development of local societies (Raj and Griffin 2015; Cerutti and Piva 2015). Cultour+, led on the academic level by acclaimed scholars, hopes to contribute to the series of books and articles in the field.

3 Methodology

3.1 Mapping the Routes, Pinpointing the Infrastructure

Mapping the itineraries has always been a major quest for pilgrimage (Elsner and Rutherford, 2006). Some of the earliest attempts include the 6th century Madaba mosaic map (Donner, 1992), whereas travel logs such as that of Etheria/Hegeria (Maraval 1982) aimed at sharing experiences and aiding fellow pilgrims find their way already since the beginning of the 4th century AD (Maraval 1985) (Fig. 1).

The routes under consideration within Cultour+ are the Santiago de Compostela pilgrimage routes in Spain and Portugal (centering in emerging ways as the Roman Via de la Plata and the Caminho Interior Portugues), the Via Francigena in Italy, the pilgrimage of the Black Madonna in Czestochowa, Poland, and, finally, the route following the footsteps of St. Paul, in Greece (Nieminen 2012; Stourton 2005), part of a larger pilgrimage itinerary, including the coast of Asia Minor and parts of Italy as well.²

Therefore, Cultour+ started through a meticulous interdisciplinary study on the itineraries, the information offered on them, the infrastructure available on-the-route and, most importantly, the information offered on-line so that the prospect traveler can plan the trip ahead in a secure manner, customizing it to one's own personal needs. An assessment of hospitality units along parts of the selected pilgrimage ways (hotels, hostels, B&Bs etc.) was carried out in all participant countries, based



Fig. 1 The Madaba map: a 6th-century pilgrims' itinerary in the Holy Land. Source Wikimedia commons: http://www.mcah.columbia.edu/db_courses/index.html

on their internet sites. Finally, the existing infrastructure was pinpointed on Google Maps, in order to facilitate the creation of an interactive platform for the enhancement of informed cultural routes, which is one of the project's final aims.

3.2 *Mentoring*

Apart from creating a best-practices' guide for web sites, Cultour+ envisages also a "hands-on" approach. The target is to involve a number of entrepreneurs from the participant countries into taking the big step from idea to action and implement projects related to the creation of new services or the innovation of old ones. A call for entrepreneurs has been issued in the 6 member countries and a special on-line platform was created for the project proposals. Several entrepreneurs submitted their ideas in brief and a selection was made based on a series of criteria, including originality, commitment to final implementation, expected impact and the CVs of the entrepreneurs. There will be two ways to involve and support entrepreneurs in a mentoring process till the final implementation of their idea: (a) through specialized workshops, bringing together academics, experts and entrepreneurs, and (b) through an e-platform for training and education.

Entrepreneurs and their project ideas are in fact the Cultour+ leitmotif, and complementary desk and field research as well as the learning-by-doing methodology and project-based training program are conditioned by the content of each of the entrepreneurs' project ideas and the place where they will be put to work. Among the entrepreneurial ideas submitted to Cultour+ that stand out and will receive full mentoring for their further development are: (a) BETRIVIUS: an online system of "bidding" for prices in hotels etc. (Italy), (b) UTREYA SUSEYA: creation of a multi-faceted platform within a social network for enabling pilgrims on pilgrimage routes all over Europe resolve problems that might occur during their journey (Italy); (c) SHELTER FOR PILGRIM: opening of an agriculture and spa farm suitable for accommodation of pilgrims (Poland); (d) "EARTH AND HAVEN" travel agency: A comprehensive offer of services for organizing religious and thermal touristic tours (Poland); (e) Experiences in the world of conventual sweets combining in one shop the selling of conventual sweets with tourist services (Portugal); (f) COMBINED TOURISM INFO AND GOURMET BOUTIQUE: in the basement of a local hotel, a selling point for quality tourism activities and registered regional products will be created (Portugal); (g) PLATA TERMAL: organized services for thermal tourism along the Via de la Plata, with a seasonal differentiation (Spain); (h) THE MOVIE OF YOUR ROUTE: a production of short films related to pilgrimage by pilgrims themselves, to be uploaded on the internet (Spain); (i) APOLLONIAN KATHARSIS: touristic services for and by people with mild psychological and social problems; (j) CULTURAL AND EXPERIENTIAL TOURS IN GREECE: organization of specialized tours on religious tourism, both in a purely Christian context and along the ancient sanctuaries of Asclepius, which combined religious and thermal purposes; (k) NEW ROUTES FOR NEW TOURISTS: tracing and information of (mostly walking) experiential tours in

places with religious and thermal interest (Bulgaria), (l) A 3D virtual walk (Bulgaria).

The main aspects of the training will include ways to optimize one's idea at the planning level and transforming it into a business plan, thus securing as much as possible that the outcome will be positive and long-lasting, just as ways to engage new technologies into the enhancement process. Trainees will also get access to practical information including national or international funding sources for various activities. The CULTOUR+ budget only allows two entrepreneurs per country to physically participate in the workshops of the project, of which the first one will be held in Spain (Extremadura) and the second one in Portugal. All the other trainees, however, will be able to profit from the online courses. Meanwhile they will be testing the efficacy of the e-platforms that will be used, as the digital component forms part of the sustainability plan of the project. The best platform(s) will remain available for students to use in the future.

Mentoring is an important phase of the project, as it constitutes the essential link between theory and practice. With the addition of this dimension to the project, a knowledge triangle is achieved, combining research, education and business. In this construction, both workshops play an essential role, as they are the ideal environment to exchange ideas and to collect feedback about the success rate of the entire project.

3.3 Implementing Technology

Throughout the implementation of the project, a team of IT experts are gradually building the e-platform which will form a hub of information, education, communication and exchange of good practices on religious and thermal tourism at a European level.

Using the latest technology as a medium for communication is a need for a successful project management. Technology is important in our Internal communication because it makes possible the process of exchanging information among participants within the project. On the other hand, the technology makes possible the external communication as an informal exchange of information and messages between our consortium and other organizations, groups or individuals outside its formal structure.

Taking into account the importance of internal communication in project management, our team decided to use few freeware tools available in Internet like: skype, pbworks, trello and Adobe connect. The home page of the project and e-learning platform are for external communication.

Such tools are a long-standing "desideratum" in the field, as it is designed not just for the enhancement of sites, but also as a multi-functional tool.³ Through a certain level of interactivity, information will be retrieved on the main pilgrimage routes (Fig. 2).

An important aspect of this research is to assess the degree in which information on these hospitality units is communicated via the Internet. Results have shown, so far,



Fig. 2 Pilgrimage routes in Spain and Portugal. Source <http://www.elcaminoasantiago.com/mapas/CaminoPortuguesyPlata1500x924.jpg>

that in many cases the units' internet sites do not convey upon the users a representative picture, as they either don't contain enough information or the information they contain is somewhat misleading. A team of experts will therefore attempt at forming a list of suggestions and best practices' guide for the improvement of on-line presentation of infrastructure, aiming at facilitating prospective tourists plan their trip more accurately and feel more secure regarding their options. Furthermore, these suggestions will invite owners of the hospitality units to promote cultural tourism, i.e. by incorporating in their web sites information on monuments, sites of historical or natural importance, cultural events etc. that could be included in one's itinerary in order to enjoy a more comprehensive touristic experience.

4 Results

Presenting the project Cultour+ is not the sole aim of this paper. The project comes to fill a need in two touristic fields with enormous potential but little visibility so far. It is high time religious tourism ceases to be envisaged as *stricto sensu* pilgrimage and is offered the potential to develop into a deeper spiritual and cultural journey. In fact, the term itself, is only relatively recently adopted by religious authorities in Spain and Portugal as well as in the rest of Europe.⁴ Under careful planning and a general upgrade of services, religious tourism can develop into a sustainable source of income for local small businesses, while contributing to the cultural regeneration of countryside locations. Local culinary habits, local customs and traditions can be significantly enhanced if related to this.

Thermal tourism, on the other hand, has been for long destined mainly for the elderly and the people with special needs. In many countries little towns with thermal springs remind of dormant little kingdoms, with a dominant odour of sulphur and inertia. Recently, the spa fashion has offered a new twist to them, with the construction of luxurious infrastructure, however local societies rarely become stakeholders of the income generated by these (usually all-inclusive) hotels.

In Portugal the "new" law (*Decreto-Lei n° 142/2004*) permits thermal spas to choose whether they give therapeutic or wellness treatments. In the latter case, spa goers avoid the high additional cost of a medical consult. In the North of this country, for example, within less than 150 km radius (between Chaves and São Pedro do Sul) we find excellent balneary infrastructures attending all profiles of thermal tourists. Greece, on the other hand, although it is a country with well-known thermal springs since antiquity, fails to attract significant numbers of foreign tourists interested in thermal tourism, both due to conditions similar to those of Portugal a decade ago: medical offer overtone and a lack of adequate infrastructure that can be advertised abroad (Τᾶσιός 2010).

The next step in the process of development of thermal tourism is to make it accessible to all, to help the broader public realize that it can be a source of well-being not only for the suffering but also for those in need for a deeply relaxing experience. In this respect spa treatments have not only to be detached from their



Fig. 3 The Asclepieion in Epidauros, Argolis, Greece, one of the most famous ancient pilgrimage and healing centers. *Source* <http://www.fourakis-kea.com/forum/viewtopic.php?f=40&t=1603>

purely “medicinal” character, but also linked to other types of tourism. Religious tourism is its first obvious counterpart, as it has been in Hellenistic and Roman Antiquity, when the cult places of the god Asclepius gathered large numbers of pilgrims seeking healing from corporeal or mental disease. The therapeutic process in the Asclepieia always involved contact with water, quite often proper thermal spa installations. Late antique and medieval Christian pilgrimage sites have also assumed the quality of healing centers, while the spirituality of a Christian holy man, the evidence of his or her authenticity as a saint, has too often been associated with his or her healing power (Fig. 3).

By indicating routes of religious and thermal tourism close to one another one facilitates linking these types of tourism during the same journey. Another strong potential asset is cultural tourism, which will add a precious third dimension, offering much more to do, see and experience to the informed tourist.

5 Conclusion

Although Cultour+ is pretty much still work-in-progress and no evaluation of the outcomes is yet possible, one has to stress that it’s an initiative which can bring change in the field of Heritage Management and Sectoral Tourism. The main innovation is the aspect of mentoring. Cultour+ will train 30 young entrepreneurs to

empower the local resources in the place they live in. Some of them will have the opportunity to create new tourism services which combine religious, thermal and cultural tourism in order to promote local development in the surroundings of traditional pilgrimage routes. Furthermore, much more young entrepreneurs and students will be able to profit from incubation and education implemented through the e-platform, which will be launched in a few months. In this way, we can ensure that large number of tourism services in the field of religious and thermal tourism can develop in alignment with local possibilities and features. Thus, innovation can ensue from tradition, and a chain linking the two can lead to interest formations and alliances, to the profit of tourists.

Endnotes

1. See <http://www.hoy.es/extremadura/201603/21/compostela-merida-20160321005210-v.html>.
2. The latter itinerary, however, is different from the former ones, as it is not traveled on foot but rather by organized groups transported by coach or boat.
3. For sites enhancing the existing infrastructure see: (a) Via de la Plata (<http://www.rutadelaplata.com/en/pages/index/4444-ruta-via-de-la-plata-the-ruta-de-la-plata>) (b) Hellenic Association of Municipalities with Thermal Springs (<http://www.thermalsprings.gr/index.php/el/>), (c) European Historic Thermal Towns Association (<http://www.ehtta.eu/>), (d) On St. James Ways, <http://www.elcaminoasantiago.com/>, www.episantiago.pt/.
4. Religious tourism as a term was adopted by the Spanish church about 50 years ago. In Portugal the term was accepted only in the past decade, as the term “tourism” seemed incompatible with the pilgrimage process.

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The Model Do-Di: An Emerging Methodology for the Management of the Relation Between Tourism, Culture and Development

Giusy Cardia and J.I. Pulido Fernández

Abstract The study traces the scientific literature and the policies connected to the relation between tourism, culture, and sustainable development at international level. Three main trends emerge from this review, and they are focused on mutual impacts, culture as a form of tourism, namely cultural tourism, and the common objective of sustainable development. In order to maximize the benefits that the relation between tourism and culture may bring to the development of destinations and communities, this study highlights a need for a change of paradigm in tourism. The paradigm of integration adopted in this study comes from the application of Mode 2 to tourism by J. Tribe in the 1990s, and reinforced through the integrative frameworks created by Pearce (2012), as an instrument to improve the research of tourism in the future. The purpose of the study is to explain the application from theory to practice of the paradigm of integration. This has been carried out through the adaptation of the dimensions of integration of sustainability, created by Dovers (2005), to a case study where the relation between tourism and culture has a strong significance for the local development, such as in the capitals of culture. Through the identification of domains, which are common to the European Capital of Culture (EcoC), the Matrix Do-Di (Domains-Dimensions) composed by 111 indicators, has been created. The matrix, which has been tested in Valletta as European Capital of Culture 2018, is a tool for the assessment of the process of development that an EcoC, an EcoC candidate, or any city, can bring to its community, starting from the integration between tourism and culture.

Keywords Tourism · Culture · Model · Development · Indicators · Integration

JEL classification Z32 tourism and development

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1 Introduction

The construction of a model of development based upon the integration between culture, tourism and development is the main objective of this study. This objective emerges from the approach of the Organization for the Economic Cooperation and Development (OECD) which in its publication entitled “Impacts of culture on Tourism” (2009) recognizes the need that tourism and culture stakeholders should integrate their job in order to transform destinations in places where one can live, invest, work and travel.

However, the OECD does not single out the tourism and cultural stakeholders neither does it qualify the meaning of the concept “integration”, nor how it is possible to achieve integration. In its publication, the OECD only includes some best practices at international level but the perception it provides of integration between tourism and culture is restricted to cultural tourism.

For this reason, the objective of this study is to overcome the OECD approach starting from the construction of a model that allows integration between tourism and culture within a local process of development such as the one of Valletta 2018. The choice of a European Capital of Culture as a case study is related to the fact that this action should be directed towards the implementation of a process of local development where tourism plays a very important role if it assumes that the human being is the protagonist of the development as stated by Max Neef et al. (1986). In this process, culture is the essence of the human being, and not simply a form of tourism such as occurs within cultural tourism, since, as Panosso Netto (2007) argues, the human being should be the protagonist of tourism independently of his role as tourist, resident, manager, receptionist, academic, and so on.

The model Do-Di is built upon a new vision of the relation between tourism, culture and development, which intends to overcome the fragmentation of tourism by integrating its scientific and non-scientific knowledge. The integration of tourism knowledge depends on culture which should be considered as a common denominator or “hidden third” as one of the axioms of transdisciplinary methodology which has inspired this study.

Before the Do-Di model is explained in detail, it has been necessary to investigate the relation between tourism, culture and development reviewing the scientific literature, and the development policies focused on culture and tourism. As described further in the second paragraph, this relation is often limited, on one hand, to both positive and negative impacts of tourism on culture, and on the other, to consider culture only as a form of tourism. These tendencies, detected in the scientific literature, reflect the platforms for the study of tourism coined by Jafari (2001). More specifically, they reflect the *Advocacy* and *Cautionary* platforms developed in the sixties and seventies which were respectively focused on the positive and negative impacts of tourism, while the *Adaptancy* platform of the eighties has recognized the possibility that some kinds of tourism may cause less negative impacts than others. Among these forms, cultural tourism has gained an

important role especially as a reaction to massive tourism provoked by the model “sun and sea” particularly widespread in the Mediterranean area.

The idea of integration that emerges in this study is not limited to the impacts of tourism but rather, in the process that leads to these impacts. Indeed, having the opportunity to change the direction of a process when it is still in progress is more effective than the evaluation of those impacts when the process is already concluded. The model Do-Di is built upon 111 indicators of process that allows taking the necessary actions in order to improve the management of the relation between tourism, culture and development.

The construction of these indicators, in turn, is built upon the definition of the conceptual framework of integration, which is linked to the general theory of systems, and calls into question the sustainable paradigm initiated with the Bruntland Report (WCED 1987). Starting from the integrative studies of the nineties, and considering the integrative frameworks of Douglas Pearce (2012), as a way to reduce the fragmentation and lack of coherence of tourism in the future, it is possible to define integration as a process of building a common language between the different perspectives, visions and knowledge of tourism in order to achieve a common objective such as human development. In order to build a common language it is necessary to consider several perspectives, and not only the one of scientific knowledge as the *Knowledge-based* platform has being recognized since the beginning of the twenty-first century.

In contrast to this platform, Jafari and Tribe have recently coined a fifth platform called “public outreach” where tourism knowledge is not only disciplinary but derives from the extra-academic world.

For this reason, the model Do-Di is also built upon the integration of perspectives of locals, visitors, internal stakeholders who are relevant for culture, tourism and local development, and experts-academic and non academic- of the European Capitals of Culture.

1.1 Structure of the Study

The study starts with a review of the literature and policies development related to the relation between tourism, culture and development. Once the tendencies have been analysed, the third paragraph focuses on the methodology which has led to the matrix of indicators divided in four domains of application, and six dimensions of integration, starting from the case study of Valletta 2018. This methodology is applicable to any candidate and awarded city, both current and future, as well as to the European, to the United States, to Brazil, to Italy, to Catalonia and to the Arab world.

Among the methods applied in this study, the focus group with the research experts of Valletta 2018, emerges. Indeed they have validated the indicators of

integration that have permitted to create the surveys for the locals and visitors, and the interviews for the relevant actors, both internal and external, of the process. The data collected have been analysed separately and jointly through SPSS, and then compared with the results obtained through the interviews with the external experts considered as benchmark. The comparison of these intermediate results has given rise to the final results which have been summarised in the fourth paragraph. These results have highlighted some important issues that should be improved in the Valletta 2018 process in order to guarantee minimum levels of integration between tourism, culture and development.

The conclusions have emphasized the importance of the model Do-Di for its capacity of being replicable in several EcoCs contributing to the construction of a common and robust framework of research for the EcoC. This framework recognizes the role of culture and tourism towards the local development, as the main objective of the future EcoCs, as has been pointed out by the European Commission in 2014.

2 The Relation Between Tourism and Culture in the Scientific Literature and Development Policies

From the review of the scientific literature, and the policies of development, the relation between tourism and culture is characterized by the following tendencies:

- The first reduces the relation to the positive and negative impacts of tourism on culture and vice-versa.
- The second reduces the relation to cultural tourism as the sum of culture and tourism, as two different parts of a system.
- The third finds common aspects between tourism and culture such as their common contribution to sustainable development.

2.1 Positive and Negative Impacts between Tourism and Culture

The first tendency which has been detected in the scientific literature is focused on the mutual impacts between tourism and culture. In order to understand these impacts, it has been necessary to look into the anthropology of tourism which emerges from common problems between tourism and anthropology (Santana Talavera 1997). Among the anthropologists who emphasise the positive effects of culture on tourism, Barretto (2007) refers to:

- Pi-Sunyer (1989) who describes a community in Costa Brava, Spain, where the population complain against the fisherman for having polluted the sea thus affecting the relationship with tourists.
- Zarkia (1996) who refers to the sense of pride of women of the island of Skyros showing the cleanness of their houses to the tourists.

On the other side, there are authors like Valene Smith (2001) who refer to the commodification of tourists, namely when tourists are considered only as “rich people” that deserve to be stolen or receive bad services by the host population.

With regards to the Impacts of tourism on culture, there are some authors who describe the opportunities that tourism brings to the local culture. Among these one can mention:

Van Broeck (2001), who in his study in Turkey related to the local population, considers tourism as a changing factor as well as migration, means of communication, trade contacts, urbanisation, industrialisation, and the educational system. Tourism also allows women to become more independent.

Haley et al. (2005) in their studies in Bath (England), affirm that tourism boosts the image of the city, improves the number of tourists which encourage the economy, improves the entertainment opportunities, and the quality of life, as well as job opportunities.

On the other side, there are authors who consider tourism as a threat for the local culture. Among these authors, one may include:

Brown (1998), who quotes Tucker in his study in a small village in Turkey describing the negative impacts such as prostitution, crime and linkages with dictatorship.

Smith (ibid.) refers to the *Cocalization* as a model that follows the United States model; the deterioration of historical culture due to a lack of respect of the carrying capacity, the mercantilisation of culture, loss of cultural identity, and the increase of consumption of drugs and alcohol.

2.2 Cultural Tourism

The second trend detected in the scientific literature reduces the relation uniquely to cultural tourism whose definitions have abounded in the last 40 years. Among these definitions, one may take into account the ones coined by the International Council of Monuments and Sites (ICOMOS), World Travel Organization (WTO), the *Association for Tourism and Leisure Education* (ATLAS), and European Commission.

The ICOMOS Charter 1976 defines cultural tourism as a kind of tourism whose object is the knowledge of monuments and historical-artistic sites, and it contributes to their maintenance and protection.

This Charter has been revised in 1999, and its major change refers to the relation between tourism and conservation. Indeed in 1976 tourists were considered as a threat for the integrity of a destination and its cultural heritage, while in 1999 tourism was viewed as way to boost the importance of heritage and its preservation.

In 1970, WTO defined cultural tourism as the movement of people that satisfy the human need of diversity, with a tendency to elevate the cultural level of a person, providing new knowledge, experience and encounters (Pereiro Pérez 2009).

In 1985, WTO reviewed this definition including motivations and cultural practices (Pereiro, *ibid.*). Therefore, cultural tourism is considered as the movement of people with cultural motivations such as trip study, cultural studies, theatre attendance, events, festivals, visits to spaces and monuments, trips to study nature, folklore, art and pilgrimages.

Another definition of cultural tourism comes from ATLAS which in 1992 started a research project to analyse the cultural market in Europe. ATLAS has proposed two definitions. The first one, which is technical, considers cultural tourism as all the movements of people outside the place of residence towards cultural attractions such as heritage sites, artistic and cultural manifestations, arts and representations. The second definition, which is conceptual, defines cultural tourism as the temporary movement of people towards a cultural attraction outside the place of reference, with the intention to satisfy cultural needs (Richards 1996).

Richards (1998) proposed another definition of cultural tourism as all the movements of people towards cultural attractions, like heritage sites, artistic manifestations, arts and theatre expositions, in cities located in countries different than their place of residence.

In the early nineties, Ortuño Martínez (1998) argued that the European Commission pointed out that in order to speak about cultural tourism, it is necessary that tourism packages include three conditions:

1. A wish to know and understand the objects and works, and the relationship with other human beings.
2. The consumption of a product that includes a cultural meaning such as a monument, a work piece, a show, or an exchange of ideas.
3. The intervention of an intermediary, like a person, or a document, that plays the role of underlining the value of a cultural product and its explanation.

2.3 Sustainable Tourism as Common Objective

The third tendency recognizes the role of culture as well as of tourism, for sustainable development.

With regards to culture, it is important to start from the principle that sustainable development and culture mutually depend on each other, as recognized by the

Intergovernmental Conference on Cultural Policies for development, held in Stockholm in 1998.

The principle is reiterated in several documents and scientific papers. Among these, one may mention “The power of culture for development”, which has been published by UNESCO in 2010. This publication defines the conceptual framework of culture reiterating its value and dimensions, and more importantly, its contribution to economic development, social equity, and environmental conservation.

With regards to economic development, culture is a strong engine which generates jobs and income. Through the conservation of traditions, even in agriculture, and management of natural resources, it is possible to generate jobs that contribute to the local economic development.

With regards to social equity, culture and the appreciation of cultural diversity, encourage positive actions. The dialogue boosts the comprehension and mutual understanding, reconciliation and peace which are all condition for social stability, especially in case of conflicts and catastrophes.

With regards to environment, cultural diversity is strictly linked to the ecological diversity, especially for the interactions between the human being and his nature which are interdependent and they mutually enrich each other. For this reason it is necessary that the local communities are involved with the conservation initiatives, especially in a context where urbanisation is growing enormously.

With regards to the relation between tourism and development, its recognition dates back to the seventies/eighties. At the beginning this concept focused on the importance of the ecological consciousness in order to conserve the limited resources of our planet, but then it moved to the protection of the cultural diversity and consciousness.

Currently the idea of development has moved from an ecological consciousness to a complex concept which includes the four dimensions of sustainability: economic, social, cultural and environmental.

In order to allow tourism to promote sustainable development, tourism development should be sustainable, namely it has to respect the axis of environment-landscape, economic-entrepreneurial; socio-cultural, and the collaboration between the relevant stakeholders in order to establish a consensus between the private and the public sector. In other words, tourism is sustainable if it is able to optimally use environmental resources, protecting the ecosystems and the ecological processes, and supporting the conservation and protection of natural resources and biological diversity.

These tendencies, which have been represented in the Fig. 1, are the results of a mono, multi and inter-disciplinary vision of tourism while the transdisciplinary vision that supports this study, is more ambitious in terms of integration because the boundaries between the involved knowledge disappear. The human being, and his culture are the fulcrum of knowledge, both scientific and non-scientific, and the human being is the protagonist of his development.

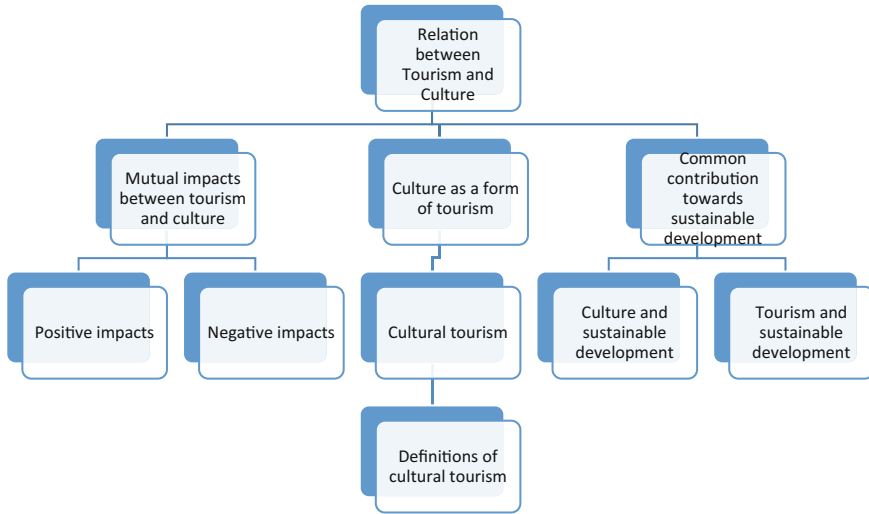


Fig. 1 Structure of the scientific literature and policies development consulted for the analysis of the relation between culture, Tourism and sustainable development

3 The Paradigm of Integration Applied to the Methodology

The paradigm of integration that supports this study has been applied to its methodology. This means that the methodology employed in this study is the result of the integration between the qualitative and quantitative methodologies.

Although it is not simple to integrate these methodologies, due to their different epistemological and ontological visions, it is worth to apply integration in tourism research in order to face its complexity which, in turn, cannot be dealt with one of these methodologies at a time.

Moreover the choice of one of the methodologies may have affected the object of the study, and the comprehension of the research problems, while the integration of methodologies could have contributed to achieve the research objectives.

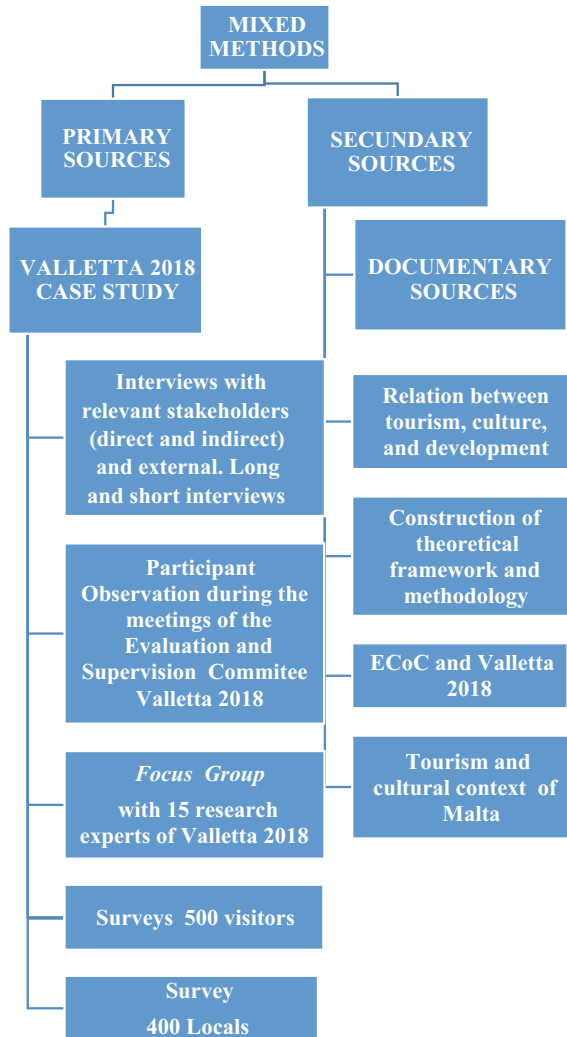
Among these objectives, a matrix of indicators for the integration between tourism and culture in the process of implementation of Valletta 2018, has been created. This matrix, called Do-Di, is replicable in other ECoCs awarded cities and candidates. Considering that the data collected have been analysed through the SPSS system, and part of the results have been defined using mathematical formulas and numerical values, it is possible to affirm that the study has followed a quantitative methodology.

However, the final results have been interpreted starting from the evaluation of external stakeholders, and this implies that the study also follows a qualitative methodology.

The idea of applying the paradigm of integration does not refer only to the methodologies but even to the methods used in this study. The integration of methods, more known as mixed methods, could be applicable throughout the research path, or in some of its phases such as in the collection, analysis, or interpretation of data.

The methods, as represented in the Fig. 2, are classified according to the source employed for the collection, analysis and interpretation of data. Among the secondary sources, one may mention the documentary sources related to the relation between tourism, culture and development; those related to the construction of theoretical framework as well as those related to the EcoCs in general, those of

Fig. 2 Map of the methods employed in the study



Valetta 2018 in particular, and those related to the cultural and tourism context of Malta.

The primary sources include those related to the case study of Valletta 2018; the interviews with the 21 internal relevant actors, both direct and indirect, who are employed in Valletta 2018 Foundation, and those people who play a relevant role for culture, tourism and development in Malta; the participant observation which has allowed the researcher to collect relevant information during the meetings of the evaluation and supervision committee of Valletta 2018; the focus group organized with the 15 experts of research of Valletta 2018 for the validation of the indicators of integration; the surveys created ad hoc and disseminated among 500 visitors and 400 locals; the interviews with 9 external actors who have allowed to define some benchmark in order to compare the results obtained among the visitors, locals and internal stakeholders with the results of the external experts. This comparison has allowed the definition of several levels of integration between tourism and culture in the process of development of Valletta 2018.

4 The Model Do-Di

It would not be possible to understand the case study of Valletta 2018 without considering the tourism and cultural context of Malta, as well as the general context of the European Capitals of Culture. Through a deeper analysis of the application and implementation process of the ECoCs, including that of Valletta 2018, it has been possible to detect some common aspects which have been grouped into four categories of analysis named Domains of application (Do).

4.1 Domains of Application (Do)

The domains are: actors, objectives, infrastructural projects and events.

Actors refer to those parties interested in the process, namely locals and visitors, and internal actors, both directly and indirectly, involved in the process of Valletta 2018.

Objectives are inspired by the national policies of tourism, culture, environment and development, and they are connected to the principal objectives that the European Commission attributes to the ECoCs, namely the European dimension, and cities and citizens.

Infrastructural projects refer to works that have been implemented through Valletta 2018. However, in the case of the majority of ECoCs, the works have been planned before the submission of the application as EcoC, but the title has played the role of catalyst to realize the projects.

Among the projects, there are works of restoration of building with a high historical, artistic, social and cultural value, as well as the rehabilitation of

infrastructures and new constructions to improve their use, and the experience of residents and visitors.

Events represent the fourth domain of application. In the first bidbook submitted in 2011, the Foundation Valletta 2018 has limited itself to recommend the organisation of events and activities, while in the second bidbook submitted in 2012, it has defined 64 events divided in four principal themes: generations (18 events); routes (16 events); cities (15 events); and island (15 events). During the interview with the cultural programme coordinator in July 2015, 31 events out of 64 were approved, and currently they are following their process of implementation.

4.2 *Dimensions of Integration (Di)*

Through the review of the theories of development, the paradigm of sustainability has been questioned. However, the dimensions of integration applied to sustainability have been adapted and they have supported the creation of six dimensions of integration between tourism, culture and development for the case study of Valletta 2018.

The first dimension is the spatial one, and it refers to the fact that although the title is recognized to one city, the ECoC should benefit the whole area or region which surrounds the city, or, as in the case of Valletta 2018, the whole national territory.

The second dimension is the temporal one, and it aims to evaluate the relation between tourism and culture in the process of Valletta 2018 since before the official designation, until 2020. The ideal time-frame of analysis should consider at least from 5 to 10 years after the year of the title when another Maltese city should submit its bidbook and implement the process to host the title of EcoC2031 (jointly with a Spanish city).

The third dimension is the disciplinary one because it considers tourism and culture as disciplines. It is necessary to measure the relation between them, and the other disciplines that are taken into account in the research process of Valletta 2018. In order to measure this dimension, the centres and faculties of the University of Malta which actively participate in the research, and the number of BA and MA dissertations produced by the students of the University, have been taken in consideration.

The last three dimensions respectively refer to social, information, and knowledge systems. This reinforces the idea that integration and the General Theory of Systems are strictly connected to each other because they look at the whole as larger than the sum of its parts.

The social systems refer to the construction of human development based upon the satisfaction of human needs. In order to satisfy these human needs, it is necessary to implement inclusive policies that integrate social and individual development (Max Neef et al. 1993). The human needs cannot be imposed according to a

top down approach, and for this reason they are strictly linked to the components of bottom-up development.

The systems of information refer to the quality of life which should be guaranteed through the process of Valletta 2018. The components of quality of life have been extrapolated from the human development reports published by United Nations since 1990. These reports are directed towards human development as a paradigm focused on the options and capabilities of persons at economic, social, cultural and political level.

The systems of knowledge recognise the role of the local communities in the management of economic, natural and cultural resources, and in the establishment of relationship between the private, public, and community sector. In order to measure the development of the local community, the plans of endogenous development of Boisier (1999) have been taken into account.

4.3 Matrix Do-Di

The matrix, as well as the model is named Do-Di since it refers to the application of the dimensions of integration to the four domains. The matrix represents a system of 111 indicators of integration between tourism and culture, which are divided in 24 groups, identified by a letter from A to X, as indicated in Fig. 3.

These indicators have been object of an empirical validation conducted with the research experts of Valletta 2018. Each expert has the opportunity to choose among three possible answers: valid, partially valid, and not valid. Out of 1665 possible answers, as the results of multiplying 111 indicators with 15 experts, we have obtained: 960 valid, 516 partially valid, and 113 non valid. The remaining 76 are without answer but they come from the same expert who probably did not fully understand the exercise.

The empirical validation has given rise to a self-evaluation system of the indicators based upon real values (number of valid answers obtained), and effective

DOMAINS OF APPLICATION	DIMENSIONS OF INTEGRATION					
	SPACE	TIME	DISCIPLINARY	SOCIAL SYSTEMS	OF INFORMATION	OF KNOWLEDGE
ACTORS	A	B	C	D	E	F
OBJECTIVES	G	H	I	J	K	L
PROJECTS	M	N	O	P	Q	R
EVENTS	S	T	U	V	W	Z

Fig. 3 Matrix Do-Di

values (real values compared to the number of possible answers by group, domain, and dimension).

The data collected have been analysed separately and jointly according to the SPSS, and then compared with the results obtained through the interviews with the external actors. The comparison of the results has allowed the definition of some levels of integration which have shown some aspects that need to be improved in the process of Valletta 2018 in order to guarantee the integration between culture, tourism and development.

5 Results

With regards to the actors' domain, which is the most complex one, it seems that Valletta 2018 should improve its promotion and marketing capacity, especially in the most relevant tourism markets for Malta, such as the UK, Italy, and Germany. In this way, the visitors should plan to reach or return to Malta during 2018, and attend the events and activities organized by Valletta 2018. It should be advisable to improve the effectiveness of means of communication that have enabled visitors to learn about Valletta 2018 so far, and to work on new ones. Among the most relevant means of communication, there are: social networks, friend and relatives, the official website of Valletta 2018, and street signs.

Besides a more specialized and careful promotion, as a way to boost the percentages of participation of locals and visitors, the Valletta 2018 Foundation should increase the number of activities and events, and distribute them more equally until 2018 and beyond. Indeed the EcoC should not be considered as a big event but rather as a development process of the destinations and their communities, and for this reason it should not be concentrated only in the year of the title but produce its positive effects from the designation phase and beyond. This is also very important in order to educate the communities and the relevant actors to be prepared to a very important change such as the one represented by a title like EcoC.

The level of participation of locals, visitors, and relevant stakeholders has taken into consideration even the number of surveys that Valletta 2018 and other research entities have distributed between locals and visitors, the number of people surveyed, and the number of meetings and workshops that have been organised with other relevant actors and the number of participants. The distribution of these surveys, as well as the organisation of these meetings, aims to satisfy research needs, and represent another way to disseminate and promote Valletta 2018 in particular, and the ECoCs in general. Indeed the majority of visitors have learnt about Valletta 2018 through the survey of the Maltese authority of Tourism.

The temporal distribution, as well as the quality of the contents of the surveys for locals and visitors, should be improved.

The number of meetings and workshops and the number of the relevant stakeholders involved in the different phases of the process of Valletta 2018, have

reached satisfying levels although their organization should be extended beyond 2 years after 2018.

The level of participation in Valletta 2018 is also expressed by the research carried out by academics and students. Although the EcoC title has been awarded officially in 2013, the attention of the academia towards Valletta 2018 is still very low and limited to a few BA and MA dissertations in some disciplines. For this reason, the Evaluation and Supervision Committee of Valletta 2018 should organize more meetings to improve the awareness of lecturers, researchers, and students at different level of study, and include various disciplines. The University of Malta, and other education entities, such as the Ministry of Education, should be more proactive in this sense.

With regards to the human needs, it is possible to appreciate that the internal and external actors agree on recognising the synergy that tourism and culture can generate. The level of synergy corresponds to the capacity of satisfying at least two human needs at a time. In this case, tourism and culture could be considered as “satisfactors” of human needs.

With regards to the objectives as the second domain of application, Valletta 2018 should have distributed them in a more equal way. Indeed, the objectives are all focused on the year of the title and on Valletta itself. In order to increase the benefits even in the short and medium term, and extend them throughout the national territory, the Valletta 2018 Foundation should have planned these objectives in a different way from a spatial and temporal perspective.

The level of mono-disciplinarity as well as the level of contribution to the plans of development of the local community, shows that Valletta 2018 neglects tourism. In the former case, it should be advisable to reduce the number of objectives focused only on culture, and at least increase the number of objectives jointly focused on tourism and culture. In the latter case, it is advisable that the internal actors understand more the role played by tourism for the development of the local community.

However, the objectives jointly focused on tourism and culture achieved levels of contribution to the bottom-up development higher than the objectives focused only on culture. For the other levels of contribution, the sum of the objectives focused on tourism and culture achieves the benchmark results of the external actors, and in this case integration is considered as an “added value” rather than “a necessary condition”.

The domain of the infrastructural projects also shows disregard for tourism. Indeed, the internal actors did not identify any project focused only on tourism, and this has affected the levels of contribution towards components of bottom-up development, of human development, of quality of life and plans of local development. In the case of projects jointly focused on tourism and culture, their levels have achieved the benchmark as established by the external actors, and even in this case, integration is considered as an “added value” rather than “a necessary condition”.

As it occurs for the objectives, the interviewed actors are more inclined to concentrate the projects from a spatial and temporal perspective. Indeed, they are

concentrated in Valletta and in the long term. It should be recommendable to avoid any form of concentration because this may affect the opportunities of development for all the Maltese national territory. Moreover, the definition of milestones projects allows to assess whether the direction of the development process is the correct one, and, eventually, take the necessary measures to address it in the right direction.

With reference to the dimensions related to the components of bottom-up development, the projects have achieved the levels required by the external actors, only through the sum of the levels of contribution of the projects focused on culture, and of culture and tourism.

With regards to the events, the level of concentration and exclusion are deemed as acceptable. However, they should be interpreted in line with the level of distribution which, on the contrary, is lower than the values established by the external actors. This means that out of the 64 events, it should have been necessary to organize more events in different localities. This lack of distribution could be solved by organizing the 31 events approved as itinerary events in several localities, including Valletta.

The contribution of the events to the development does not obtain sufficient levels compared to the values established by the external actors. This result could be related to the fact that for the events, it has been possible to interview only an internal and direct actor, and this person did not see any link between the events and the components of development. In the future it should be advisable to involve more stakeholders in the evaluation of the events, preferably the same project leaders of the events, who should receive an appropriate training in order to address the events towards the contribution of the several components of development.

6 Conclusions

The model Do-Di raises from the idea that is necessary to review the relation between tourism and culture according to the OCDE approach. This approach considers that the job of tourism and culture stakeholders should be integrated in order to transform destinations in places to live, invest, travel and work.

However, the Model Do-Di tries to overcome the OECD approach gap. Indeed the OECD does not define the concept of integration neither is it possible to implement it in order to achieve the development of destinations and communities. On the contrary, OECD reiterates an approach which is common in the scientific literature, namely that the relation between tourism and culture is limited to cultural tourism. This dependency on cultural tourism, or any kind of tourism, is very dangerous because it may conduct to a massive tourism as it happened with the sun and sea model widespread from the sixties onwards. Moreover, by concentrating all the efforts on cultural tourism may reduce culture value only as a form of tourism and not as it deserves to be.

The Model Do-Di has grown through the revision of the scientific literature on the key research themes, and the identification of supporting theories such as the

theory of human development, of systems and the integrative studies and frameworks. However, it is through the election of a case study like Valletta which will be European capital of culture 2018, that it has been possible to test the model in a real case-study.

The Model Do-Di is still an emerging methodology, and for this reason its testing should not be limited to 2018 neither should it be extended to only a few years after the hosting of the title as highlighted in the evaluation reports published by the European Commission on the ECoCs. This methodology should be tested in time and space, which are the main dimensions of integration.

The temporal dimension conducts to the extension of a longitudinal work which should include the period of the pre-selection and selection of the next capital of culture in Malta which will host the next title in 2031.

The spatial dimension allows us to apply the model Do-Di apart from Valletta 2018, including candidate and awarded EcoCs. In the former cases, the model Do-Di could contribute to increase the opportunities of obtaining the title while in the latter case, the model could support a concrete process of development where residents, visitors, and other local stakeholders are the real protagonists of their development. Moreover, this spatial extension could include capitals of culture different than the European such as the American, Brazilian, Italian, Catalan and those of the Arab world.

However, the most ambitious objective of this model is that it has tried to contribute to the building of the basis for the construction of a common framework of research among the ECoCs as suggested by Garcia (2013). This common framework is built upon the recognition of the relevance of the relation between culture, which is the essence of the EcoC action since 1985, tourism, as the means of revitalization of the awarded cities, and the development in the long term which represents one of the most ambitious objectives for the future ECoCs, as it has been pointed out by the European Commission (2014).

The literature review, as well as the reports of the European Commission which have been published over a span of thirty one years of EcoC, recognise the role of tourism for the majority of the European capitals of culture, and the consequent need of monitoring the tourism flows which have characterised the cities since their application, have encouraged the author to elaborate a model for the management of tourism and culture into the process of ECoCs.

Although the relation between tourism and culture is deeper and complex, the statistical interest of the ECoCs studies and reports has been limited to some quantitative indicators such as the increase of tourists, both national and international, number of arrivals, and the level of expenditure.

As it has been pointed out by the OECD, the relation between tourism and culture in the ECoCs has been affected by a lack of alliances between their stakeholders due to a lack of mutual communication, comprehension and collaboration. This aspect is even clearer if one considers the process of selection and implementation of the ECoCs where rarely tourism stakeholders and local communities have been consulted.

For this reason, the model Do-Di is built through indicators that are not limited to underline the numbers of arrivals, neither the level of expenditure, but rather to balance the relation between tourism and culture through the integration of knowledge of stakeholders involved in tourism and culture, and connected to the local development, including visitors and residents, and from the pre-designation phase to the period beyond the hosting of the title.

The indicators of the model Do-Di are not indicators of result or of impact, as some initiatives related to the ECoCs proposed so far. Among them, one may mention the *Impact08* and *Policy group 2009–2010*. The indicators of the model Do-Di are indicators of process. Namely, they focus on the realization of some activities such as, among other, the number of meetings organised with the relevant actors, the number of surveys distributed between residents and visitors, and the number of the dissertations related to Valletta 2018 produced by the BA and MA students at the University of Malta.

These indicators allow for the first time in the EcoC research to evaluate this process as long as it is implemented from the pre-selection to the post-title phase. So far, there are no longitudinal studies related to tourism and culture in any of the 54 ECoCs awarded until 2016, which methodology is replicable in others. The literature is limited to produce reports of pre-selection and selection (a priori) and analysis of impacts (a posteriori) but there is a gap in the evaluation of the process of development as long as it is implemented.

Finally, it is also true that the EU Commission publishes monitoring reports but these are the results of a partisan dialogue with the organizers of the EcoCs which does not take into consideration the opinion of the other relevant actors, nor the opinion of the local community. Moreover, this evaluation is limited to offer general recommendations without considering the role of tourism, especially if it is integrated to culture, towards the local development.

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Participatory Decision-Making for Sustainable Tourism Development in Tunisia

Salma Halioui and Michael Schmidt

Abstract Planning for the tourism sector is a challenging task, given that tourism is a complex system of diverse and deeply connected components, engaging a variety of stakeholders with conflicting goals. This study develops a participatory model for the tourism sector in Tunisia based upon system dynamics to analyse the potential problems and understand the causal interactions within the tourism sector in Tunisia. The model investigates the complex feedbacks between three sustainability modules, namely economic, environmental and socio-cultural sectors. A literature review and interviews among 36 stakeholders from different areas related to the tourism sector helped to identify the elements of the system and the different feedback. The main result of this study is the development of a system dynamic-based tourism model for Tunisia that can be used by policy-makers to achieve sustainable tourism development.

Keywords Sustainable tourism · System dynamics · Tourism planning · Feedbacks

JEL Classification O2 · O21

1 Introduction

Tourism has become the fastest-growing and largest economic sector worldwide (Naisbitt 1993; Neto 2003; Mili and Acharjee 2014). It creates employment, encourages local industries, and provides gross income as well as both direct and indirect revenue. Therefore, it contributes to poverty reduction, mainly in developing countries (Mason 2015).

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Tunisia represents a wonderful tourist destination with its very diverse landscapes (beaches, Sahara, forests, etc.), a very rich and important cultural heritage and a mild and sunny climate. These assets represent a competitive advantage for the development of tourism in Tunisia, making it one of the most dynamic sectors in the country (Caffyn and Jobbins 2003; Cortés-Jiménez et al. 2011).

However, tourism development has caused several negative environmental impacts, such as the degradation of natural resources (water, energy), coastal degradation due to the increased urbanisation in coastal urban areas, pollution mainly resulting from wastewater and the increased traffic and changes in marine ecosystems, etc. Furthermore, tourism development has caused important socio-cultural impacts, resulting in a change or loss of values and native identities, ethical problems (child labour and child exploitation) and unbalanced economic tourism revenues, etc. (Soumaya Hergli et al. 2012).

Sustainable tourism planning not only prevents social pressures and reduces environmental degradation, but also contributes to persistent and long-term economic benefits. However, implementing sustainable practices while planning for tourism development is not an easy task, given that tourism is a complex system including multiple related activities such as accommodation, transportation, waste management, natural resources management, etc. These aspects are not from the same sector but also cannot be analysed separately, reflecting a variety of interests and values (Hall et al. 1994).

Policy-makers have recently devoted increasing importance to the sustainability of their strategies and policies. Consequently, sets of methods and tools that help to evaluate the environmental, economic and social impacts of tourism developments have emerged. Several researchers have attempted to assess the economic, environmental and socio-cultural impacts of the tourism sector in a fragmented way; however, a holistic approach is required to deal with the complex and dynamic nature of the industry. This research aims to demonstrate the role of using system dynamics for analysing the interactions between the different elements of the system, helping policy-makers to analyse the impacts of their policies towards promoting sustainable tourism.

To promote sustainable tourism, it is important to analyse the different feedback and integrate stakeholders' interests that may influence tourism development. Based upon semi-structured interviews among 36 stakeholders from different areas related to the tourism sector, a generic sustainable tourism model has been developed. The model helps to analyse the tourism sector in Tunisia, as well as providing information about the possible impacts of the different tourism policies.

The remainder of this paper is organised as follow. The first section analyses the tourism sector in Tunisia and provides insights into tourism development from the proliferation of the sector as an economic choice to date. The second section discusses some current and potential impacts of tourism activities on the three sustainability pillars. The third section highlights the need for a system dynamic

approach to deal with the complexity and dynamic nature of the sector. The fourth section provides an overall view of the model and analyses the different sub-models, representing the economic, socio-cultural and environmental modules.

2 Tourism Development in Tunisia

After the independence of the country, the Tunisian government sought to make the country the number one destination in Africa. Since the 1960s, policy-makers have encouraged the private sector to develop tourism facilities in Tunis, Sousse, Djerba, Nabeul and Hammamet (Souissi 2008). As a result, as shown in Table 1, lodging capacity has more than tripled in a short time from 1970 to 1990 (Poirier and Wright 1993).

The tourism sector is labour-intensive, having created several tourism-related areas of employment in hotels, handicrafts, souvenirs and restaurants, etc. (Poirier and Wright 1993).

In addition, it is the leading industry in the country in the export of services and products, making it a major contributor to the reduction of trade deficit (Poirier and Wright 1993). Since the beginning, Tunisia has promoted the tourism industry as an all-inclusive package including flights, accommodation, transport services, cultural sites and museum entrance fees. In the 1990s, 80% of tourists visited the country via tour operators (Poirier and Wright 1993). Thereby, Tunisia has attracted tourists interested in beach tourism along the Mediterranean coast. According to Caffyn and Jobbins (2003), “the coastal resorts of Sousse and Hamamet in Tunisia are well established for masse tourism”.

In 2014, Tunisia faced a 3.2% decline in total tourism revenues compared to 2013 and 12% compared to 2010 (according to the National Office of Tunisian Tourism). This decline can be justified by the poor quality of products, the degradation of the environment, pressure from tour operators, the seasonality of the

Table 1 Tourism development in Tunisia

Year	1963	1972	1987	2000	2010
Bed capacity	5 743	35 297	100 456	197 453	206 000
Tourist entry	104 731	410 749	1 874 734	5 057 193	6 902 749
Overnights	540 759	4 114 983	18 556 793	35 423 862	35 565 104
Direct employment	2 997	14 119	40 182	78 981	96 611
Receipt (million dinars)	3 700	31 600	568 900	2 095 100	3 522 500

Source Office National du Tourisme Tunisien (ONTT)

sector, financial benefits, poor management, declining political and social instability and the debt that remains a serious structural handicap for the sector, etc. Accordingly, some of these problems are analysed in the following section.

3 Impacts of Tourism Development in Tunisia

Tourism development helps to achieve economic growth and improve social well-being worldwide, although it often creates environmental and sometimes socio-cultural problems. The impacts of the tourism industry not only depend on the number of tourists but also the historical, social, cultural, economic and political background of the host country. Negative impacts of the tourism sector are typically more severe in developing rather than developed countries with a mature and stable economy.

3.1 Economic Impacts

The geographic location of Tunisia and its proximity to Europe has played an important role in promoting Tunisia as an attractive tourism destination especially for European tourists.

Generally, the tourism sector contributes to positive economic development; in fact, it creates employment and income for the host population, especially in rural areas that are deeply dependent on the tourism sector (Simpson 2008). However, tourism development is also a source of environmental degradation, social disturbance and cultural collapse (Ran 2015).

Despite the contribution of the tourism sector to economic development, the negative impacts of the sector on the economy are undeniable. The accommodation industry is highly indebted. Despite the increasing number of tourists coming to Tunisia in the last three decades, hotels still face several challenges (lack of profitability and high debts that cannot be reimbursed). According to Aissa and Goaid (2016), “out of 548 classified hotel facilities, 333 facilities are listed at the information centre as being in debt to bank institutions” as being in debt to bank institutions. Despite the government’s strategies to improve hotels’ profitability and reduce their debt, many hotels have filed for bankruptcy. Furthermore, the increasing competition in the market following the emergence of alternative destinations such as Morocco, Turkey and Greece has worsened the situation. Moreover, tourism is a highly seasonal activity, which results in the strong concentration of tourists during the summer period (July, August and September)

(Ouerfelli 2008). Seasonality affects the financial benefits, employment, causes some environmental problems such as pollution and social pressure, etc.

Tourism growth also often comes to the detriment of other sectors, termed as “the crowding out effect” (El Bekri 2011); for instance, in Tunisia, tourism is consuming water resources to the detriment of the agriculture sector. Furthermore, the tourism sector is very sensitive to external factors such as political instability, economic crises, etc. In fact, tourism is in a continuous interaction with several events and crises, which lead to the fluctuation of revenues, constituting an economic risk (Sinclair 1998). Tourism in Tunisia showed a negative trend during the Gulf War, while tourist numbers also decreased after the terrorist attacks of 11th September 2001 in the United States. Moreover, the Jasmine revolution has reduced the number of tourist arrivals and recently the terrorism attack in Sousse has deeply affected the sector.

3.2 Environmental Impacts

Tourism activities in Tunisia are mainly concentrated in the coastal areas which leads to serious environmental problems. In fact, congestion, coastal degradation and the deterioration of the quality of bathing water threaten sustainability and long-term tourism competitiveness. It is also important to know that water and energy consumption is increasing over time. The scarcity and over exploitation of natural resources could affect the tourism development in Tunisia. In addition, the increased rate of greenhouse gas emissions due to the increased air and land travel caused by the sector lead to climate change problems, engendering rising sea levels and increased temperatures, which affect the decisions of tourists to visit Tunisia.

The main environmental issues are related to resource availability (mainly water resources) and pollution. Tunisia suffers from a limited and unequally distribution of water resources. It receives an average of 230 mm/year, which varies according to the year (drought/wet year). Ground water is only 2,000 million cubic metres, unequally allocated and with a variable quality according to the salinity (Benabdallah 2007). At present, the scarcity of water resources is becoming increasingly critical. Water resources are mainly used for irrigation, while domestic uses, tourism and industrial uses continue to increase. Given the rare water resources, protecting hydraulic resources is an urgent need. Another environmental problem that has recently increased is related to pollution. Garbage disposal and waste management problems—from which Tunisia has been suffering since the revolution—affect the country’s attractiveness and lead to declining tourist numbers.

3.3 *Socio-cultural Impacts*

The tourism sector contributes to several positive impacts on the host population. In fact, creating jobs, improving infrastructure, increasing tourism revenues, etc. lead to improved social well-being, an increased quality of education and reducing poverty (Seckelmann 2002).

However, the development of the tourism sector causes more socio-cultural problems, including a change of local identity due to the standardisation and commercialisation of local culture, physical influences leading to cultural deterioration and social stress in addition to the rise of child labour, crime rates, etc. (Mbaiwa 2005).

The tourism sector in Tunisia suffers from socio-cultural problems. It is important to mention that this research does not cover the political instability aspects nor tourism activity recession related to terrorism problems. Tourism development leads to social problems, with Honggang (2003) stating that “the level of tourism development influence residents’ perceptions of the tourism development and thus lead to potential conflicts”. An important issue related to socio-economic impact is the deterioration of culture: according to Poirier and Wright (1993), the European tourists’ culture influences Arab culture in Tunisia, which can be noticed in their way of life, clothing and lifestyle choices (night life, semi-nude beaches, etc.).

Recognising the severity of the Tunisian problems faced by the tourism industry, the sector requires a long-term reflection to overcome the crisis (increased debts, bankruptcy, seasonality of the industry, poor quality tourist services, excessive use of natural resources, water waste problem, etc.), whereby implementing sustainable tourism practices is urgently needed.

Thus, the question emerges how to help policy-makers to plan for sustainable tourism that maximises tourism’s positive impacts in terms of economic growth while preserving the natural environment and social well being.

To achieve this goal, a model used to assess the different tourism parameters that constitute the tourism industry in Tunisia as well as examining the different interactions between them has been developed using Vensim software. The model can be used by policy-makers to boost the competitiveness of the sector and promote responsible tourism activities that offer high quality services for tourism developers.

4 System Dynamic Model and Methodology

4.1 *The Need for a System Dynamics Modelling Approach*

Several theoretical and empirical studies have proven that tourism planning is a complex and dynamic activity; indeed, it includes a variety of economic, social, environmental and political issues (Ran 2015).

The conventional tourism model as expressed by (Xing 2006) is as follows:

$$Q = F(Y, TP, ER)$$

with Q = tourist arrivals, Y = income, TP = tour price and ER = exchange rate.

Although this model is widely used by tourism experts, this conventional demand function does not consider some important qualitative variables that represent important motives for the choice of a destination (Xing 2006). Other demand functions contain a residual term capturing (dummy variables) other non-economic variables that can influence the tourist decisions (see the model developed by Choyakh (2009) in his research entitled “Modelling Tourism Demand in Tunisia using cointegration and error correction models”; where he identified tourism demand as a function of income per capita, prices of tourism goods, substitute prices, non-economic factors (qualitative factors)).

Including non-economic factors can provide more rigorous results, although this model is not the most accurate. In fact, according to Xing (2006), the conventional tourism models ignore the consequences of tourism development and thus fail to promote sustainable tourism. In addition, the conventional tourism regression does not provide a holistic vision of one of the most complex and dynamic economic sectors.

The use of system dynamics reflects a proper methodology to analyse the overall pattern of tourism development in Tunisia, including the non-linearity and the feedback structure to improve the strategic planning for the tourism sector in the long term.

System dynamics has been used in several complex-modelling domains for decades (Forrester 1997). Feedback analysis for tourism studies has been used to solve management problems (Richardson 1999), helping the communicate feedback and supporting decision-making within the tourism sector.

4.2 *System Dynamics for Tourism Research*

A system dynamics methodology is rarely employed for the tourism sector. This section reviews some of the most important research using system dynamics for tourism studies.

Among the first research using system dynamics for the tourism industry is Fritz (1989), who developed a structural system dynamics model for the tourism sector to provide a decision strategic tool aiding tourism policy-makers in strategic planning with a system dynamics model for regional tourism site development. Furthermore, Georgantzas (2003) used a system dynamics approach to test hotel value chain profitability in Cyprus. System dynamics simulation has been used to analyse the effects of tourism’s policy on cyprus’s tourism industry over 40 years. In the same context, Elrefaie and Herrmann (2003) developed a system dynamic model called

Shasimo for Sharm El-Sheik, which combines the economic, ecological and social aspects. Lewis (2007) developed a generic model that captures the dynamic feedback between the tourism sector, labour market and manufacturing sector, aiming to propose policy-oriented recommendations to promote sustainable tourism and enhance economic growth. In addition, Provenzano (2009) developed a system dynamics model that provides a full understanding of the tourism development to investigate the determinants of tourism demand in Sicily. Dumar (2009) demonstrated the role of system dynamics in analysing a policy before any policy implementation for Alanya's tourism sector. More recently, Van Mai and Maani (2011) elaborated a framework for system dynamics in the tourism sector that helps to assess the policies of different stakeholders in terms of sustainable tourism.

According to the literature, no system dynamics model for the tourism sector in Tunisia has been developed to date, whereby this research proposes one that combines the economic, environmental and social aspects of tourism developments, aiming to help policy-makers to develop more sustainable tourism strategies. In addition, the model integrates the non-economic determinants of tourism demand in Tunisia, which will help tourism professionals to improve the economic efficiency of the industry.

4.3 Conceptual Model of the Tourism System

This study aims to develop an innovative model for the tourism sector in Tunisia that can be used to evaluate the different impacts of policy options. In addition to the literature review, semi structured interviews represents the basis upon which to collect the different elements of the model. The model was developed with a qualitative method based upon semi-structured interviews. After preparing a priority list of variables, six groups of stakeholders were interviewed to select the appropriate elements that should be included in the model according to the issues and challenges related to tourism development in Tunisia. The total number of interviewed stakeholders was 36, including local community representatives, travel agents, hotel/restaurants managers, representatives from the ministry of tourism, the ministry of environment and NGOs focusing on tourism and environmental issues.

In addition to the economic aspects, the environmental situation and socio-cultural aspects, the main identified issues that represent challenges related to the tourism development are terrorism and political instability (which are not considered for this study).

The final overall structure of the model is presented in Fig. 1. It provides an idea about the mental model, illustrating the integrated view of the stakeholders about the tourism development. The model can be used by several tourism planners for a variety of countries, whereby they can add or remove some variables to adapt the model to their specific needs.

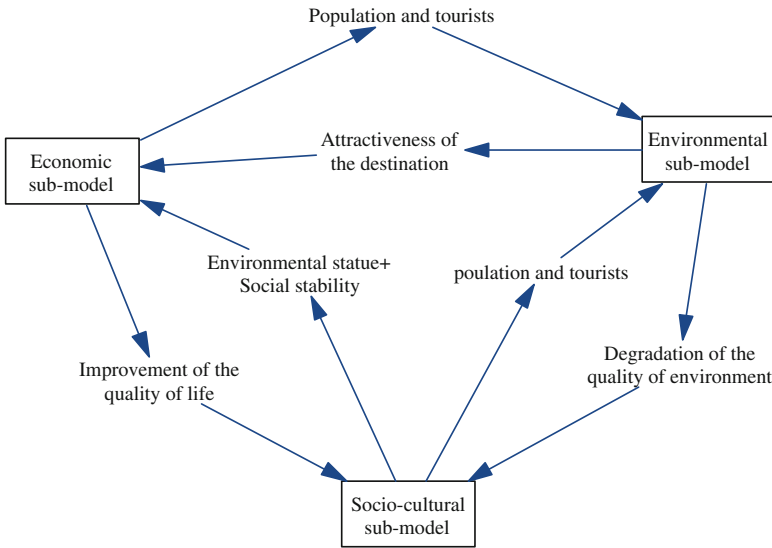


Fig. 1 Overall structure of the model

5 Results and Model Development

5.1 Overall Structure of the Model

This section provides a simplified model to gain an overall idea about the tourism sector in Tunisia. The model comprises several components concerning each of the tourism sustainability aspects. It shows that the elements that shape the tourism sector are inter-related and cannot be studied in isolation. Accordingly, the different factors of the system cause the growth or decline of the other elements. The different elements that present the tourism-related aspects can be grouped into three major categories, namely economic, environmental and socio-cultural.

The environmental sector (sub-model) illustrates the natural and built environment elements including waste generation, fresh water consumption, natural resource allocation, etc. that affect the attractiveness of the country, in turn influencing the economic performance of the sector. Furthermore, the graph shows that the increased population size and number of tourists contribute to more environmental problems.

The socio-cultural sector includes job creation, living costs, cultural attractiveness, etc., which also affect the attractiveness of the destination as well as the social well-being of the host population. The socio-cultural situation is in turn affected by

the environmental situation and the improved quality of life prompted by the economic revenues coming from the tourism sector.

The economic sector illustrates the extent of tourist activities as well as resources coming from the development of tourism activities, namely profitability, GDP, investment, etc. A detailed description of the three sectors is provided in the next section.

The overall structure of the model includes three sub-models, which will be analysed and discussed in the following sub-sections. Before starting to discuss the sub-models and the corresponding feedbacks, it is important to know that positive polarities indicate a positive relationship, whereby the two variables move in the same direction. By contrast, a negative causal link implies that the two variables vary in opposite directions (Forrester and Forrester 1971).

5.2 *Economic Module*

The tourism sector is a complex economic sector, encompassing lodging, crafts, transportation, restoration, animation and other cultural activities. Therefore, identifying the contribution of the tourism industry to the economic development is not an easy exercise. The economic sub-model shows the complexity and non-linearity between the different economic components of the tourism industry. The economic module illustrates the economic aspect of the tourism sector in Tunisia. Tourism is an important source of profitability and income to the country, which increases following an increase in tourist expenditure. In addition, this sub-model focuses on the number of tourists, which affects tourist investments and thus contributes to the creation of new employment. The economic sub-model comprises nine different loops, namely six reinforcing loops (R1-R6) and three balancing loops (B1-B3), as shown in Fig. 2. Some examples of these loops will be analysed in this section.

A. Tourism expenditure feedback loop (R1)

This loop links the variables of tourism expenditure, tourism market value (GDP), infrastructure facilities and hotels and restaurants. The starting point to analyse this loop could be tourism expenditure. The importance of this loop is emphasised by illustrating how increasing tourism expenditure can lead to increasing tourism investments. Since the 1960s, the Tunisian government has encouraged tourism investments and supported the private sector to invest in tourism infrastructure (hotels, restaurants, etc.) (Mabrouk et al. 2008). The proliferation of more and better quality tourism infrastructure facilities will encourage tourists to stay more and spend more, resulting in the increased contribution of tourism to GDP. Again, to meet these needs, the government and private businesses invest increasingly more in restaurants, hotels, etc.

B. Tour price feedback loop (B1)

This balancing loop links the variables of average tour price, number of trips, total visit, wealth for local population, attractiveness and national income. Starting

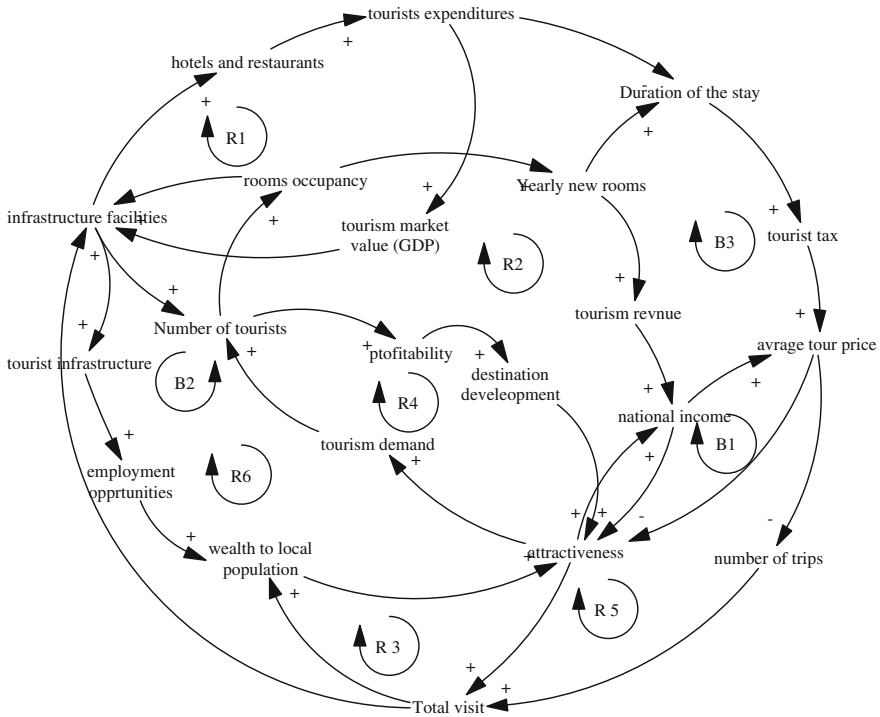


Fig. 2 Economic module

with the average tour price, this balancing loop highlights the long-term impact of the average tour price on the number of visitors and consequently the national income and the wealth to the local population.

If only the reinforcing loops exist, the tourism industry will briskly grow to reach an important number of tourists that exceeds the current capacity of the country. However, several balancing loops would contribute to limiting this growth, namely the tour price feedback loop (B1), the room occupancy feedback loop (B2) and the tourist tax feedback loop (B3). In addition to these balancing loops, the environmental module shows the negative effects of long-term tourism developments.

5.3 Environmental Module

Tourism is one of the most dynamic sectors in Tunisia, contributing 7.4% of the total GDP (2014), providing around 450,000 jobs (2014) and accounting for more than 12.9% of total exports (according to Wttc Travel and Tourism Economic Impact 2015 Tunisia).

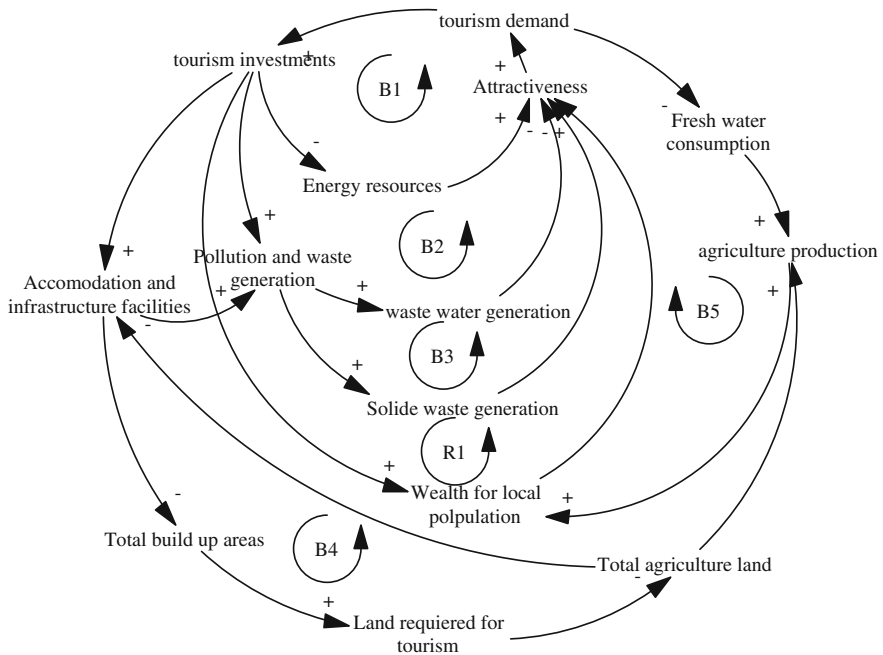


Fig. 3 Environmental module

Despite its contribution to the economic development, tourism sector has caused enormous stress in the physical environment, creating considerable environmental challenges, including all kinds of pollution, the degradation of natural resources, coastal erosion and degradation of the marine ecosystem, etc. (Soumaya Hergli et al. 2012).

Therefore, it is important to take into account the ecological impacts of tourism development while planning for sustainable tourism. The environmental module includes many components such as pollution, fresh water consumption, tourism investments, agriculture land, etc.

As shown in Fig. 3, the environmental sub-model comprises six loops, one reinforcing loop (R1) and five balancing loops (B1-B5). Balancing loops reduce the growth of the tourism activity to avoid exceeding the caring capacity of the country. The only reinforcing loop that exists in the sub-model system is the tourism investment feedback loop R1. This section analyses some examples of these feedback loops.

A. Tourism investments feedback loop R1

This loop links the variables of tourism demand, tourism investment, wealth for local population and attractiveness. The starting point of this reinforcing loop is tourism demand.

This loop supports the economic and socio-cultural sub-models. Tourism demand creates the need for more tourism investment. Such investments will not

only increase the attractiveness of Tunisia, but also create a comfortable environment and social well-being among the local community.

Balancing loops limit the growth of infrastructure facilities that may damage the environment. Five balancing loops have been used for this sub-model: energy resources feedback loop (B1), wastewater generation feedback loop (B2), solid waste feedback loop (B3), land availability feedback loop (B4) and fresh water consumption feedback loop (B5). One of these loops is discussed in the following sub-section.

B. Solid waste feedback loop (B3)

This loop includes the variables of tourism investments, pollution and waste generation, solid waste generation, attractiveness and tourism demand. The starting point of this loop is tourism investments. The increased tourism infrastructure leads to more waste generation. In fact, the increased number of hotels and restaurants will increase the amount of pollution, usually generating their waste in the environment. In addition, more tourists means more waste generated during their recreational activities, which in turn reduces the attractiveness of the destination.

Since 2011, Tunisia has been facing severe problems related to municipal governance, waste management and institutional framework, leading to the accumulation of waste in both rural areas and tourism regions.

The rapid development of the tourism sector in Tunisia has caused several negative environmental problems, as well as a wide range of both positive and negative socio-cultural problems such as employment opportunities, wealth for the local population, increased living costs, social pressures, etc. Details about the socio-cultural sub-model are presented in the following section.

5.4 Socio-Cultural Module

The assessment of social impacts is a complex activity, given that it is not easy to quantify social impacts or subtract costs from benefits, while it is also sometimes difficult to distinguish between social and economic costs and benefits. In addition, the nature and intensity of social impacts differ between cities. System dynamics is a perfect tool to analyse the social and cultural impacts of tourism developments.

As shown in Fig. 4, the socio-cultural module comprises four reinforcing loops (R1-R4) and six balancing loops (B1-B6).

A. Poverty reduction feedback loop (R2)

This reinforcing loop comprises the variables of tourism demand, tourism investment, job creation, wealth to local population, poverty reduction and cultural attraction.

The increased tourism demand will boost tourist investments, which will increase employment opportunities, thus creating wealth for the local population and contributing to poverty reduction. The population's well-being will positively influence the culture, which will increase the cultural attractiveness and attract more tourists.

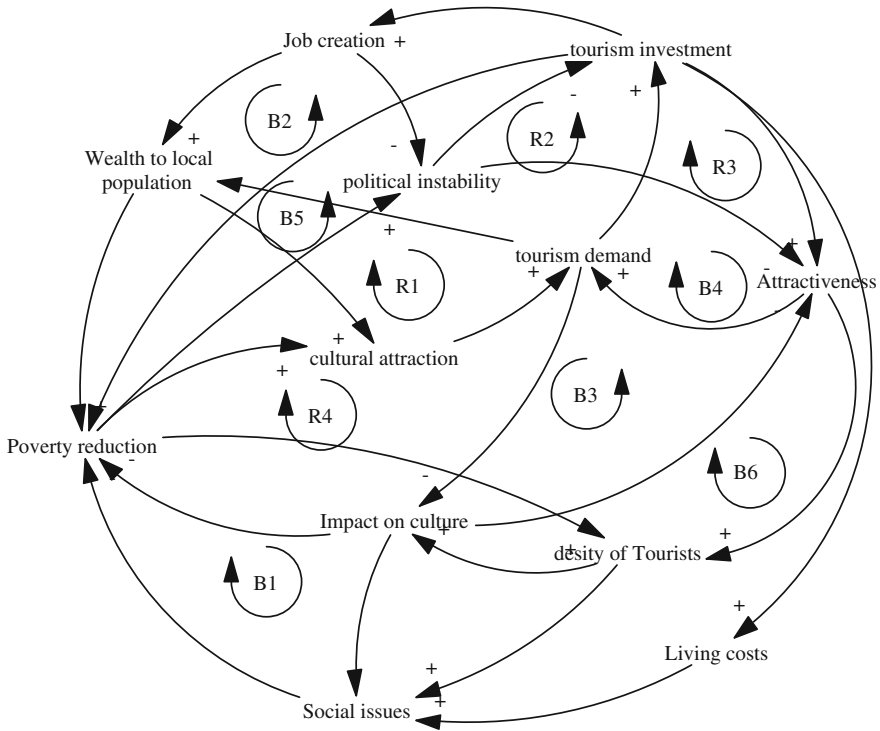


Fig. 4 Socio-cultural module

B. Social issue feedback loop (B1)

This balancing loop includes the variables of poverty reduction, density of tourists and social issues. The loop shows that social issues caused by the huge number of tourists are oppositely linked to poverty reduction.

6 Conclusion

Tourism sector is a complex system, involving several components and engaging a variety of stakeholders who have conflicting goals, which can make planning a challenging task for the tourism sector. Using system dynamic modelling for the tourism sector in Tunisia helps to illustrate almost the entire image of the sector, including the dependencies between the different elements shaping the sector, which are dynamically linked. This paper proposes a system dynamics-based tourism model to analyse the potential problems and understand the causal interactions within the tourism sector in Tunisia, focusing on the complex interactions between three sustainability pillars. Furthermore, the model can help stakeholders

to better understand the complexity of the industry and understand the long-term effects of their decisions on the sustainability of the tourism sector.

The power of system dynamics lies in developing a model that offer a holistic analysis of the sector, although more importantly the model allows simulating the different scenarios that may represent the different policy alternatives. Using this model to simulate the tourism strategy alternatives for Tunisia will be investigated in further research.

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In Search of Participatory Sustainable Cultural Paths at the Local Level—The Case of Kissamos Province-Crete

Maria Panagiotopoulou, Giorgos Somarakis, Anastasia Stratigea and Vicky Katsoni

Abstract Sustainable cultural heritage management is nowadays considered as a key driver for regions' development and flourish, lying at the heart of planning and decision-making exercises in many peripheral and insular communities around the globe. These planning efforts and related policies are focusing on building integrated cultural development paths by taking advantage of local natural and cultural resources' availability; while engaging citizens and stakeholders in order for local views, visions, perceptions, expectations etc. to be effectively embedded in the final planning outcome. Along these lines, the present paper focuses on the development and implementation of a participatory methodological framework for setting strategic guidelines for the sustainable cultural development of a specific area, the Province of Kissamos-Crete. The particular framework is actively engaging local stakeholders' groups throughout the steps of the planning process. GIS-mapping of natural and cultural resources sets the ground of this participatory planning exercise, upon which the structuring of two scenarios, regarding the sustainable exploitation of cultural reserve, is based, presenting discrete options for successfully linking cultural preservation and alternative tourism development. Stakeholders' analysis reveals potential conflicts between local views and planning objectives as well as opposing interests among local groups that need to be properly managed through the planning process; while engagement of various interest groups strengthens insight into the value and diversity of this heritage; and properly directs the process of scenario building and evaluation towards widely acceptable cultural management outcomes.

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JEL Classification O21 · Planning models—planning policy

1 Introduction

Culture is considered as an important sector for sustainable development, cutting horizontally all three pillars of sustainability, i.e. environment, society and economy. Actually, the view that culture constitutes a sector that has unifying, creative and multiplying effects on local and regional development is nowadays largely recognized.

Europe, as a place of rich and highly valuable cultural diversity, has placed cultural development as a top priority in its policy agenda. This has been sketched in a number of policy documents, among which are:

- The European Agenda for Culture [COM (2007) 242 final], considering culture as a catalyst for creativity along the lines of Lisbon strategy for development and employment.
- The Agenda 21 for culture and sustainable development [Agenda 21 for Culture (2009)], perceiving culture as a pillar of sustainability, closely linked to the societal one.
- The Work Plan for Culture 2011–2014 (2010) elaborating on issues regarding cultural diversity, intercultural dialogue and accessible and inclusive culture; and the potential role of culture for strengthening cultural economy at the European level.
- The Communication of the European Commission [COM (2010) 2020 final] on “EUROPE 2020—A Strategy for Smart, Sustainable and Inclusive Growth” stressing, among others, the importance of cultural wealth and diversity for the future development of Europe.
- The “Conclusions on Cultural Heritage as a Strategic Resource for a Sustainable Europe” adopted by the Council of the European Union in 2014 (European Commission 2014), which sets the ground for a strategic approach for the preservation and promotion of European heritage.
- The Communication of the European Commission [COM (2014) 477 final], which recognizes the role of culture as an irreplaceable repository of knowledge and a valuable resource for economic growth, employment and social cohesion; and sets the stage for an integrated approach in managing cultural heritage in Europe, etc.

According to the above policy documents, the role of cultural resources as a basic pillar for economic development and wealth, but also social development and heritage protection, since development and culture are linked in many different

ways, is widely acknowledged. The latter has been further appreciated by taking into consideration the tolerance exhibited by the cultural sector in the economic recession era, which affected numerous regions around the globe (Lazaretou 2014). Cultural resources, in this respect, constitute a core element in planning the future perspective of many regions worldwide, with the integrated management of cultural resources of a place supporting its development perspective that is built upon its distinct cultural identity. Indeed, the role of the cultural sector in local development has been stressed by various researchers, shedding light on its peculiar attributes, such as (Pachaki et al. 2000):

- it is based on local resources that can be detected in any different society and level of development;
- it is labour—and resource-intensive, which implies that it can flourish in small spatial scales;
- it is largely characterized by the peculiarity and uniqueness of each specific place;
- it is highly flexible in its organization and marketing, an element that shows signs of tolerance in times of economic recession;
- it can offer aesthetic and spiritual experiences to both the local population and the visitors of a place, thus creating added value for the region at hand;
- it generally affects the level of public life as a producer of common goods; while upgrades the aesthetics of a society;
- it increases its value with time, as a cultural capital.

Based on the above discussion and the role of culture in local development, cultural resources' management constitutes nowadays a great *challenge* for policy makers and planners. At the same time, such a task has to take into account that local communities have the right but also the responsibility to get involved, as local heritage actually reflects a scarce, valuable, sensitive and non-renewable resource for these communities, tracking their path in time and space.

Along these lines, the present paper undertakes an effort to conduct a cultural planning participatory exercise, aiming at managing the cultural heritage of a very special area of the Crete Region, the Province of Kissamos. The *focus* of the paper is on the development and implementation of a participatory methodological framework for setting strategic guidelines for the sustainable cultural development of the study area, which is actively engaging various local community stakeholders' groups throughout the steps of the planning process. The *structure* of the paper has as follows: firstly the methodological approach developed and implemented in this work is presented; the paper proceeds with a brief description of the external environment that sets the ground where policy decisions are taken; then the exploration of the study area (the internal environment) follows, by means of delineating the current state of the area's attributes, combined with a thorough analysis and mapping of its natural and cultural resources; next the results of the stakeholders' analysis are sketched, aiming at feeding the spatial planning exercise with information on the potential stakeholders' convergence and divergence, as

well as the conflicts of their interests with the objectives set by this exercise; based on this analysis and the mapping of natural and cultural resources, a scenario planning process is carried out, focusing on the sustainable exploitation of cultural resources that can support future development perspective of the study area; finally, certain conclusions are drawn as to the experience gained from this spatial planning exercise.

2 Participatory Methodological Framework

The participatory methodological framework developed during this particular planning exercise consists of four discrete stages, which have as follows (Fig. 1):

- *Stage 1:* aims to the exploration of the dominant trends, as to the cultural sector, observed in the *external environment*, which set the ground on which decision-making regarding the management of cultural resources of the study region is based.
- *Stage 2:* refers to the setting of the planning *goal*—sustainable management of cultural resources—, which is further analyzed into a number of *objectives*; the exploration and evaluation of the current state of the area under study (social attributes, local economic structure, infrastructures, natural characteristics etc.); and the GIS-mapping and assessment of local cultural and natural resources.

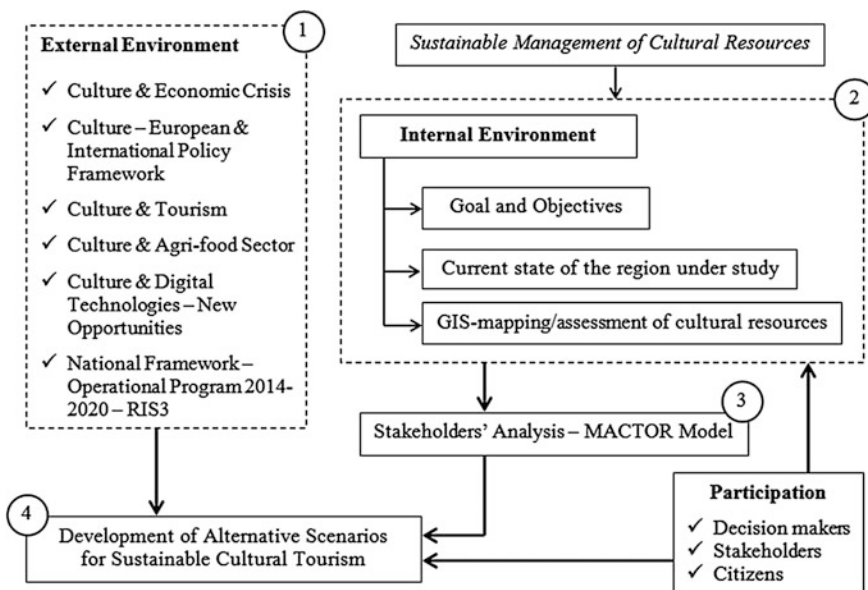


Fig. 1 The methodological approach

- *Stage 3*: focuses on the implementation of stakeholders' analysis, by use of the MACTOR model, in order for the influence—dependence relationships among the stakeholders as well as their *position* regarding the goal and objectives set by the particular spatial planning exercise (convergence or divergence) to be explored.
- *Stage 4*: elaborates on the *development of two alternative scenarios* that are focusing on the sustainable management of cultural resources of Kissamos Province. During this process, particular emphasis is placed on the spatial pattern of natural and cultural resources as well as on the level of integration they exhibit. Moreover, the scenario building process is placing effort on the mild exploitation of these valuable local assets, seeking to compromise their role as a vehicle for local economic and social development on the one hand and their protection on the other hand. Finally, special care is also taken for ending up with a more spatially balanced pattern of exploitation, serving regional development objectives in the study region.

3 The External Environment

The main aspects of the external, to the region, environment that are delineating the context where decision-making on the exploitation of cultural resources is taking place, are briefly sketched in the following. More specifically these refer to the:

- *Culture and economic recession*: Culture holds a prominent position in the Strategy of Europe for 2020. Taking into consideration that the specific sector is perceived as a key sector regarding its contribution to socio-economic development, employment and social cohesion, especially during the current recession period, a range of financial instruments and programmes are put forward. Of great importance is the new European Programme “Creative Europe 2014–2020” (<http://ec.europa.eu/programmes/creative-europe/>), targeting old but also new aspects of sustainable exploitation of cultural heritage.
- *Cultural policies at the European and national level*: the role of culture is stressed at both the European and national level. Strategic directions enhancing the influence of culture in local economic development are put forward to implement these policies, combined with financial support drawn upon the Structural Fund and national resources. Based on this support, new perspectives for cultural development and extraversion of respective regions are coming to the forefront. Moreover, based on the latest resolution of the European Parliament of September 8, 2015, towards an integrated approach to the management of cultural heritage [Committee on Culture and Education 2014/2149 (INI)], the range of financial instruments will be broadened, including resources from the Horizon 2020, the Erasmus+, the “Europe for Citizens” Programme etc., thus further reinforcing financial opportunities.
- *Culture and tourism*: as various empirical studies show, the cultural and tourist sectors are effectively linking recreation with culture as a contemporary request

of modern travelers. Moreover, both sectors have shown signs of tolerance within the turbulent economic recession of the recent times. In this respect, they can build up sustainable culture-oriented tourist products, closely related to the cultural identity of each specific place. Remarkable demand for such products during the last years has affected tourist destinations' decision-making in the effort to design multiple-theme, complex, and flexible tourist products that are drawn on local natural and cultural resources; are tolerant to external challenges and crises; and can serve the requests of a mature, demanding and well informed clientele (Stratigea and Katsoni 2015; Stratigea et al. 2016).

- *Culture and agri-food sector*: these constitute two largely interacting and interlinked sectors, with the agri-food one being largely affected by social and cultural elements of a specific place; while these elements are embedding traditional paths of local agri-food production and processing. Gastronomy of a place, as a specific attribute of local culture and agri-food production, can nowadays become an integral part of its identity; while, as empirical evidence shows, it remains one of the main factor for tourists' inclination towards selecting a specific destination. Linking the agri-food sector with culture and tourism is nowadays one of the strategic priorities in many national policy agendas for creating the dynamic complex of "agri-food-culture-tourism", a complex that has been set as a high priority in the Greek policy agenda as well, in alignment with the Research and Innovation Strategy for Smart and Sustainable Specialization (RIS3 Greece 2015).
- *Culture and digital technology*: Information and Communication Technologies (ICTs) and their applications are nowadays offering a tremendous potential for the digitization of cultural heritage, thus largely affecting the way cultural products are produced, evaluated, managed and promoted (Stratigea et al. 2016). Creation and proper management of cultural content, but also further developments in the field of digital technologies targeting the modeling, analysis, understanding and preservation of cultural heritage are nowadays at the forefront of technological research and innovation. Developments in the field are expected to widely affect the marketing potential of cultural destinations and their ability to strengthen their attractiveness, based on a well-planned strategy and the use of ICTs for its implementation.

4 The Internal Environment

This particular section elaborates on the internal environment of the study area by shedding light on the goal and objectives set in the participatory planning exercise: the key attributes of the area under study, as well as the GIS-mapping of its cultural and natural assets.

4.1 Goal and Objectives

The *goal* set in this participatory planning exercise refers to the sustainable management of natural and cultural resources and their mild exploitation as a vehicle for local development. This goal is further analyzed into a set of *objectives* (see Table 1).

4.2 The Study Area

The area under study regards the region around the northwest edge of Crete (see Fig. 2), known as Kissamos Province. Due to its strategic geopolitical location, the area has a long history starting since Neolithic period and holds also significant role through other periods of time (Minoan, Roman occupation, Byzantium and Venetian domination period). The above mentioned historical phases have been shaping area’s culture for thousands of years resulting in the current situation, as part of a continuing evolution.

Kissamos area is both coastal (covering the coast between Elafonisi beach and Tavronitis river) and inland and its total surface is about 559 km² (about 7% of Crete’s surface). Regarding topography, there is an intense alternation between

Table 1 Planning objectives of Kissamos participatory planning exercise. *Source* Stratigea et al., 2016

Planning objectives	
Objective 1 (O-1)	Mapping/promoting of local cultural identity
Objective 2 (O-2)	Linking of natural and cultural heritage—integration of local resources
Objective 3 (O-3)	Spatially balanced development of cultural products, based on cultural and natural resource availability
Objective 4 (O-4)	Integration of the cultural and tourist sectors—Creation of the “complex culture—tourism”—Sustainable exploitation of cultural resources
Objective 5 (O-5)	Use of ICTs for a more effective marketing of cultural tourist products
Objective 6 (O-6)	Promotion of local entrepreneurship, placing at the epicenter the cultural heritage of Kissamos
Objective 7 (O-7)	Improvement of infrastructures for unimpeded accessibility to areas of natural and cultural interest
Objective 8 (O-8)	Increasing awareness of local population on the value of natural and cultural resources—training—experiential learning—voluntarism
Objective 9 (O-9)	Activation of local cultural associations—coordinated actions
Objective 10 (O-10)	Placing of culture as a pillar of social cohesion and community development



Fig. 2 GIS-mapping of material cultural resources. *Source* Stratigea et al. 2016

hills/mountains (mainly at the central and southern part) and gorges/confined valleys (mainly at the northern part). Additionally, there are two quite imposing hilly peninsulas (Rodopos and Gramvousa) at the northern part and some small uninhabited islands and islets. Unsurprisingly, the area's topography substantially influences land covers, because cultivated land is prevailing at the northern part and natural pastures and vegetation at the central and southern part. It is worth mentioning that area's natural environment is of great interest, as there are numerous species of flora and fauna (many of them are endemic) and unique landscapes. Due to this fact, natural protection areas have been established, where certain human activities are forbidden. On the other hand, built environment is scattered across the area, with the exception of some settlements' concentrations at the northern part, close to the coast. Nowadays, the area is administratively constituted by Kissamos (Kissamos, Mythimna and Innachori Municipal Units) and a part of Platanias (Kolymbari and Voukolies Municipal Units) Municipality. Area's population is 18.363 residents (about 3% of Crete's population) and the majority of them (about 23%) resides in Kissamos settlement (northern coast); while most of the settlements and especially inland settlements present population decrease during last decades, owing to urbanization. Other key features of local society are the ageing population, the Greek citizenship (over 85% of total population) and the restricted economically

active population (under 40% of total population). Regarding local economy, traditional economic activities, as cultivation of olive trees and vineyards, are enough preserved over the years, but also services sector and more specifically tourist sector has significantly developed due to famous beaches and various cultural elements. As a result, over the half of workforce is employed in the tertiary sector and about one third of it in primary. Furthermore, the access to the study area is accomplished through land (northern road axis of Crete) and sea (limited use of Kissamos port); while the road network of the area is sufficient only at the northern part and unable to serve the summer period traffic.

4.3 Mapping Cultural and Natural Resources

Kissamos area is a place with rich cultural and natural heritage, affording a special multidimensional identity to its culture, combining tangible and intangible elements. The most significant *tangible heritage elements* are (see Fig. 2):

- Prehistoric and classical antiquities. The most remarkable of them are the archaeological sites of Kissamos settlement (settlement), Mythimna (settlement and other residues), Rokka (settlement and necropolis), Polirrinia (settlement and necropolis), Sellitis (residues), Falasarna (settlement) and Diktina (sanctuary and other residues).
- Coastal and underwater antiquities, including ports and other harbor facilities, buildings residues and shipwrecks.
- Byzantine and post-Byzantine monuments and sites, comprising religious places and special architectural features of them (e.g. murals) and castles (Malathiros, Kissamos and Gramvousa), towers and buildings.
- Newer monuments and structures, such as private property buildings and other structures (bridges, watermills, windmills, irrigation networks etc.), which are considered of great historical interest and must be preserved.
- Religious sites, revealing the influence of Orthodox Christianity in the area marked by the presence of numerous monasteries and churches, many of which have been recorded as Byzantine or post-Byzantine monuments.
- Remarkable and interesting settlements due to their picturesqueness and special architectural attributes.
- Museums e.g. Kissamos archaeological museum, Cretan herbs museum, fishing museum, olive museum, modern art museum, Skalidis museum and Cretan music museum; and other cultural facilities e.g. multipurpose venues, event halls, theaters and libraries.

- Natural resources e.g. areas of ‘Natura 2000’ network, wildlife shelters, landscapes of special natural beauty, caves, gorges, monumental trees, thermal sources, waterfalls, beaches, part of ‘E4’ European pathway and other naturalist paths.

Regarding *intangible cultural heritage*, the role of cultural associations is very crucial, as their activation often preserves endangered elements of this heritage. In Kissamos area, there are significant customs and traditions, many of which are part of local everyday life. Traditional music and dance are probably the most significant elements of this kind of heritage for local people (famous way of entertainment) and usually accompanies cultural, social and rural (e.g. distillation process of local drink ‘raki’) activities and events taking place all over the year. In fact, Cretan music and dance have their origins in Kissamos area and some of the most popular Cretan musicians come from this area. Moreover, important part of area’s cultural heritage is diet, which includes large consumption of wild herbs and some special pastries and sweets. Additionally, local wine, olive oil and chestnuts are ‘landmarks’ of the area and of high quality. Finally, various traditional occupations (e.g. musical instruments, traditional clothing and ceramics manufacturers) have been recorded, but most of them have ceased to exist.

4.4 Engaging Local Community to the Exploration of the Current State of Kissamos Region

While exploring the internal environment of the study region and setting objectives for serving the goal of sustainable cultural management, a range of participatory workshops were carried out. The aim of these workshops was twofold, namely to:

- establish communication between the research team and the local community from the very early stages of the participatory planning process; and
- enrich the team’s background knowledge as to the peculiarities of the specific region by gaining good insight into both: the region and its natural and cultural resources; and the value of these resources to the local community.

Good insight of natural and cultural resources was further enriched by means of a web questionnaire addressed to the large number of cultural associations activated in the area. Elaboration of data gathered has revealed local specificities relating to tangible and mainly intangible cultural heritage aspects.

Finally, participatory SWOT analysis was conducted during these workshops in order to engage local stakeholders so as to cooperatively assess strengths, weaknesses, opportunities and threats of both the current state and the cultural and natural resources of the region under study.

5 Stakeholders' Analysis

At this step, a stakeholders' analysis is carried out. This is accomplished by use of the MACTOR model, part of the LIPSOR approach (Godet et al. 2004), focusing on the study of the *actors' games*.¹ More precisely, the actors involved in the particular study, are explored on the basis of their attributes, power relationships, goals and objectives, projects in progress, preferences, motivations, internal means of action (coherence), past strategic behaviour, constraints, etc. The scope of the analysis is to both: *get insights* into the influence—dependence relationships among the stakeholders in the study region; and study the *stakeholders' position* as to the objectives pursued in the study area (convergence or divergence).

In the following, data input and results of stakeholders' analysis are presented.

5.1 Data Input

Stakeholders engaged in the present study (see Table 2) are all those who are affected or can affect the planning outcome or have a certain interest/experience or share knowledge that can be useful to the planning exercise (European Commission 2003).

The set of *objectives*, as defined in the Kissamos planning exercise, are presented in Table 2 (see Sect. 3).

The influence-dependence relationships among stakeholders and their attitude with regard to the objectives of the study are described through two cross-impact matrices (Tables 3a, b). The two matrices present the *input data* to the MACTOR model. The Matrix of Direct Influences (MDI) (Table 3a) is a square matrix—actor by actor—describing the direct influences actors exert on each other. The matrix of valued positions (2MAO) (Table 3b)—actor by objective—provides information on the actors' stance regarding each objective (pro, against, neutral or indifferent) and the hierarchy of their objectives. Data presented in these two matrices constitute the outcome of the *research group's appreciation* as to: (a) the stakeholders' influence-dependence relationships in the study region; and (b) their position as to the objectives set in the Kissamos planning exercise. This appreciation has emanated from the decoding of qualitative outcomes, which were produced in a number of workshops, engaging various stakeholders' groups.

¹Actor's games: seek to gauge the balance of power among actors and study their convergences and divergences with a certain number of associated stakes and objectives (Godet et al. 2004).

Table 2 Stakeholders’ groups engaged in Kissamos participatory planning exercise

Stakeholder	Description
St1	Regional authority Region of Crete—Regional Entity of Chania, responsible for setting the strategic objectives and funding relating projects in the study area
St2	Local government The two municipal authorities responsible for decision-making at the municipality level
St3	Local councils Having a recommending role to the local government
St4	Farmers Stakeholders coming from the agricultural sector e.g. olive-oil and cheese producers, fresh vegetables and other local agricultural products
St5	Manufacturing Various associations relating to primary products processing (oil association, local products manufacturers, etc.)
St6	Cultural associations A large number of local cultural associations activated in the region
St7	Commercial associations Local commerce representatives
St8	Tourist businesses (offices, food services etc.) Local representatives from tourist business apart from hospitality businesses
St9	Tourist accommodation associations Hospitality businesses
St10	Archaeological Service Responsible for the management of archaeological heritage in the study region
St11	Environmental agencies Representatives from environmental agencies supporting environmental integrity of the study region
St12	Citizens Local communities of the settlements located in the study region
St13	Women associations Associations focusing on the active role of women in the study area

Table 3 Data input of the MACTOR model

a. Matrix of direct influences (MDI)													b. Valued position matrix (2MAO)											
MDI	St-1	St-2	St-3	St-4	St-5	St-6	St-7	St-8	St-9	St-10	St-11	St-12	St-13	2MAO	O-1	O-2	O-3	O-4	O-5	O-6	O-7	O-8	O-9	O-10
St-1	0	3	3	2	2	2	1	1	1	0	0	0	2	St-1	3	3	3	3	3	3	2	2	3	3
St-2	2	0	3	2	1	2	1	2	1	0	0	0	2	St-2	3	3	3	3	3	3	2	2	3	3
St-3	2	2	0	0	0	3	0	0	0	0	2	3	4	St-3	3	3	3	3	3	3	2	2	3	3
St-4	0	0	0	0	4	3	4	2	3	0	0	4	3	St-4	4	0	3	3	2	2	2	3	2	3
St-5	0	0	0	2	0	2	3	2	2	0	0	4	3	St-5	3	0	3	3	2	2	2	3	2	3
St-6	2	2	2	2	2	0	2	3	2	0	2	3	3	St-6	4	4	4	4	3	3	3	4	4	4
St-7	0	0	2	4	4	2	0	3	3	0	0	4	2	St-7	3	2	3	3	3	2	3	3	2	3
St-8	2	2	2	2	2	2	0	3	0	0	2	2	2	St-8	3	3	3	3	4	2	3	-2	2	3
St-9	2	2	2	2	2	2	2	0	0	0	0	2	2	St-9	3	3	3	3	3	2	3	-2	2	3
St-10	2	2	2	0	0	2	0	3	2	0	0	1	0	St-10	3	0	-2	-2	-2	-2	-3	3	-2	3
St-11	2	2	2	2	2	0	0	2	0	0	0	2	0	St-11	3	3	-3	-3	-3	-2	-3	3	-1	3
St-12	2	2	3	2	2	3	0	0	0	0	2	0	2	St-12	4	4	4	4	4	4	4	4	4	4
St-13	2	2	2	2	2	3	2	2	2	0	0	0	0	St-13	4	3	4	4	4	4	4	4	4	4

Values of Table 3a have the following meaning:

- 0: no influence of actor i on actor j
- 1: actor i influences the operating procedures of actor j
- 2: actor i influences the projects in progress of actor j
- 3: actor i influences the accomplishment of the mission of actor j
- 4: actor i influences the existence of actor j

Values of Table 3b have the following meaning:

- 0: neutral case
- (+1/-1): vital/jeopardizes actor’s operational procedures
- (+2/-2): vital/jeopardizes actor’s projects in progress
- (+3/-3): vital/jeopardizes actor’s mission
- (+4/-4): vital/jeopardizes actor’s existence

5.2 Stakeholders’ Analysis—MACTOR Results

From the MDI matrix the MDII—Matrix of Direct and Indirect Influence-Dependence is calculated. In this matrix a more complete and clear picture of influence—dependence relationship is provided, by taking into consideration not only direct but also indirect relationships i.e. an actor can reduce the number of choices of another by influencing him through an intermediary actor.

In this respect, new scale of *intensities* among stakeholders is produced in MDII, calculating:

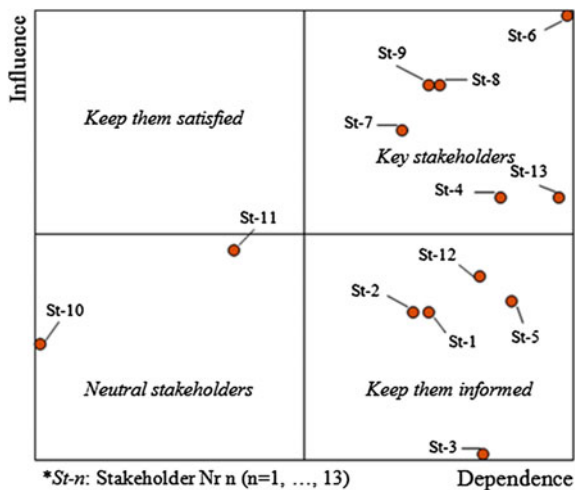
- The degree of direct and indirect influence of each actor.
- The degree of direct and indirect dependence of each actor.

The above relationships are illustrated in Fig. 3.

According to Fig. 3, the following *remarks* can be made:

- Stakeholder-10 (Archaeological service) and Stakeholder-11 (Environmental associations) are considered ‘neutral’ stakeholders in the study region, as their influence-dependence relationship with other stakeholders is rather low (lower left rectangle of Fig. 3). More specifically, Stakeholder-10 (Archaeological service), apart from safeguarding the rules set by the national legislative framework for the exploitation of the archaeological sites, has no actual involvement in the whole exercise; while the influence of Stakeholder-11 (Environmental associations) is much higher, mainly relating to the preservation of cultural and natural heritage.
- No powerful stakeholders, i.e. with high influence and low dependence, exist in the study area (emptiness of upper left rectangle).
- Stakeholders with high influence but also dependence—key stakeholders—are: St-4 (Farmers), St-6 (Cultural associations), St-7 (Commercial associations),

Fig. 3 Map of influence—dependence relationships among stakeholders



St-8 (Tourist businesses), St-9 (Tourist accommodation) and St-13 (Women associations). This remark reflects the prevalence of the agricultural and tourist sector in the local economy, while it also highlights the important role of culture and related actions undertaken by cultural and women associations in the study region. Moreover it exhibits high interdependence of the agricultural, cultural and tourist sectors, forming the proposed “agri-food—culture—tourism” complex that is considered as the main developmental vehicle for the region under study.

- Finally, stakeholders St-1 (Regional government), St-2 (Local government), St-5 (Manufacturing) and St-12 (Citizens) seem to be less influential and highly dependent, in the sense that their decisions and projects are highly driven by decisions made by the three pillars of the local economy and related to them actors, i.e. the agri-food, cultural and tourist sectors.

Regarding the stakeholders’ attitude as to the planning objectives set in the Kissamos planning exercise, the following can be noted (see Table 4):

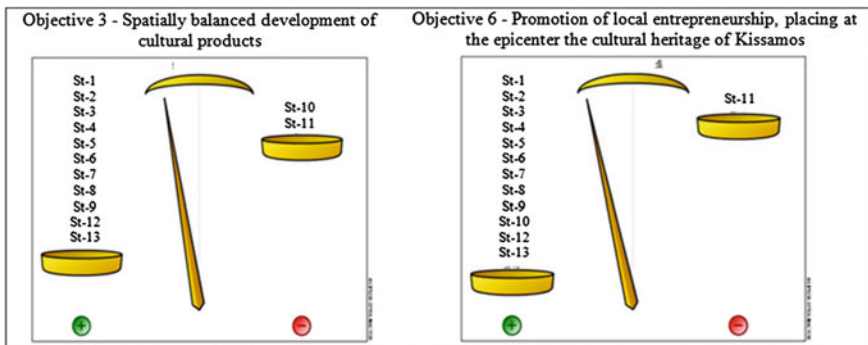
Table 4 Stakeholders’ attitude as to the Kissamos planning exercise objectives

Objectives	Stakeholders’ position
<ul style="list-style-type: none"> • Objective 1—Mapping/promoting of local cultural identity • Objective 2: Linking of natural and cultural heritage—integration of local resources • Objective 10: Placing of culture as a pillar of social cohesion and community development 	Full agreement of all stakeholders regarding Objectives 1, 2 and 10
<ul style="list-style-type: none"> • Objective 3: Spatially balanced development of cultural products, based on cultural and natural resource availability • Objective 4: Integration of cultural and tourist sectors—Creation of the “complex culture—tourism”—Sustainable exploitation of cultural resources • Objective 5: Use of ICTs for a more effective marketing of cultural tourist products • Objective 7: Improvement of infrastructures for unimpeded accessibility to areas of natural and cultural interest • Objective 9: Activation of local cultural associations—coordinated actions 	Full agreement of all stakeholders regarding Objectives 3, 4, 5, 7 and 9 apart from Stakeholders 10 (Archaeological service) and 11 (environmental associations) <u>who disagree</u>
<ul style="list-style-type: none"> • Objective 6: Promotion of local entrepreneurship placing at the epicenter the Kissamos cultural and natural heritage 	Full agreement of all stakeholders regarding Objective 6 apart from Stakeholder 11 (environmental associations) <u>who disagrees</u>
<ul style="list-style-type: none"> • Objective 8: Increasing awareness of local population on the value of natural and cultural resources—training—experiential learning—voluntarism 	Full agreement of all stakeholders regarding Objective 8 apart from Stakeholders 8 (tourist businesses) and 9 (tourist accommodation) <u>who disagree</u>

- General remark: certain consensus in respect of the objectives has been reached, as illustrated in Table 4, where most of stakeholders’ groups share the same view concerning the majority of the objectives (objectives 1, 2 10—full agreement and Objectives 3, 4, 5, 7 and 9—partial agreement, with the exception of stakeholders 10 and 11).
- Disagreement is clearly evident as to the objectives that directly or indirectly imply some kind of interventions, serving tourist development purposes in natural or cultural sites, resisting in a way to the further annoyance of these sites. As such are considered objectives 3, 4, 5, 7 and 9, with two stakeholders’ groups—St-10-archaeological service and St-11-environmental associations—disagreeing.
- Moreover, consensus is also reached as to objective 6, apart from Stakeholder 11-environmental associations, which holds the opinion that an entrepreneurial view of cultural resources is not consistent with their effective preservation.
- Finally, a certain disagreement is expressed by tourist agents (Stakeholders 8 and 9) as to the increase of awareness on the value of local natural and cultural resources and training of local population, implying a certain concern about the potential implications on the unimpeded tourist development of the region.

Indicative depiction of agreements—disagreements of stakeholders as to certain planning objectives (namely Objectives 3 and 4) are presented in Fig. 4. Moreover, based on the stakeholders’ attitude concerning the case study objectives (Table 4), potential alliances among them, taking into account convergences and divergences as to the objectives set, are illustrated in Fig. 5, which actually maps net distances among stakeholders as to the set of planning objectives.

In Fig. 6, the objectives on which stakeholders hold the same position (either pro or against) are identified. The particular Figure also enables the detection of groups of objectives on which there is a strong convergence of stakeholders’ views (when objectives are close together) or divergence (when objectives are far apart). It also portrays objectives with respect to the net scale (the difference between the valued



* The (-) sign indicates stakeholders that are against the objective, the (+) sign indicates stakeholders that are in favour of the objective.

Fig. 4 Indicative results as to stakeholders’ position regarding the planning objectives

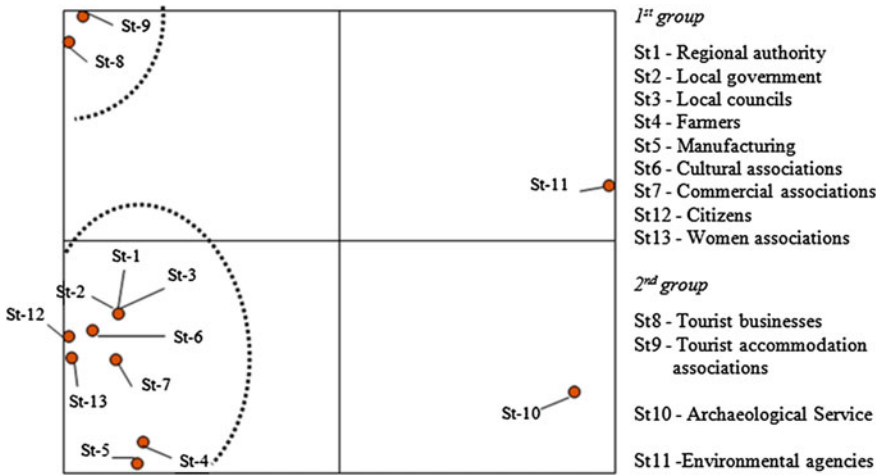
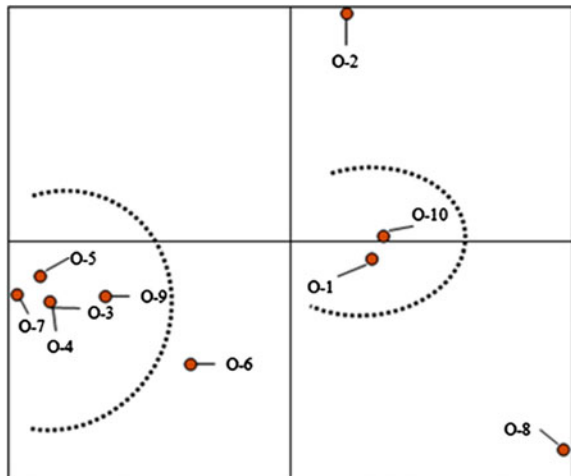


Fig. 5 Map of net distances among stakeholders—potential alliances based on convergences and divergences

Fig. 6 Net distances among objectives



convergence matrix and the valued divergence matrix of stakeholders’ views calculated by the MACTOR model). According to this figure, the *proximity* of the following objectives is depicted:

- O-3: Spatially balanced development of cultural products, based on cultural and natural resource availability;
- O-4: Integration of cultural and tourism sectors—Creation of the “complex culture—tourism”—Sustainable exploitation of cultural resources;
- O-5: Use of ICTs for a more effective marketing of cultural tourist products;

- O-7: Improvement of infrastructures for unimpeded accessibility to areas of natural and cultural interest; and
- O-9: Activation of local cultural associations—coordinated actions.

Moreover, O-1 (Mapping/promoting of local cultural identity) and O-10 (Placing of culture as a pillar of social cohesion and community development) seem to be close together; while objectives O-2 (Linking of natural and cultural heritage—integration of local resources), O-6 (Promotion of local entrepreneurship placing at the epicenter the cultural heritage of Kissamos) and O-8 (Increasing awareness of local population on the value of natural and cultural resources—training—experiential learning—voluntarism) seem to be somehow isolated, taking into consideration both convergence and divergence of stakeholders' opinions.

6 Building Scenarios for Sustainable Cultural Management

The scenario approach constitutes a foresight technique used for medium to long-term strategic analysis and planning, aiming at exploring possible alternative futures (Puglisi 2001). Scenarios, in this respect, intend to represent future states that are plausible, internally consistent, based on rigorous analysis, engaging and compelling (Stratigea and Katsoni 2015). They set the ground, upon which robust, resilient, flexible and innovative strategic policies are sought (Rhydderch 2009), turned thus into useful '*management tools*' for both private and public institutions (Sardar 2010).

In order for scenarios to be structured, a range of *alternative methodologies* can be adopted, whose selection depends on the particular context of the study. It is important to keep in mind the need to explore a range of *plausible futures*, which can fulfill goals and objectives and present a portfolio of possible future states of the region at hand within different decision environments (Lindgren and Bandhold 2003), thus complementing and informing decision-making and planning processes (Olsmats and Kaivo-Oja 2014). Moreover, such an exploration can also contribute to the identification of risks, and provide a more robust way of testing strategies (Rhydderch 2009), while it can also be a powerful tool for the anticipation of wild cards and adoption of proactive approaches for effectively coping with them (Cornish 2004).

6.1 The Scenario Building Process

From the set of available methodologies, the '*two uncertainty axes*' scenario building process is applied to the particular planning exercise (see Jäger et al. 2007; Stratigea and Katsoni 2015). Such an approach is built upon two uncertainty axes, which reflect two specific objectives of the study, exhibiting the highest degree of

uncertainty. In the present case study, this uncertainty is mainly due to policy priorities. More particularly, the horizontal axis refers to the spatial pattern that each scenario adopts (concentrated vs. de-concentrated spatial pattern); and the vertical axis regards the level of integration of cultural resources (high vs low level of integration) (Fig. 7). These two axes result in the delineation of four qualitative, normative, contrasting, well differentiated future images, which can further be enriched by fleshing them out with lower level details to complete each specific future ‘image’ and properly communicate it to local stakeholders (Stratigea and Katsoni 2015).

Based on these uncertainties, *four alternative scenarios* are structured, which have as follows (see Fig. 7 and also Table 5):

- Scenario I: seeks a high level of integration of cultural resources that are rationally exploited, based on a concentrated spatial pattern.
- Scenario II: pursues a high level of integration of cultural resources, on the basis of a de-concentrated model, which seeks to develop smaller territorial “cultural hubs” with particular and distinct identity.

Fig. 7 Alternative scenarios’ building process. *Source* Stratigea et al. 2016

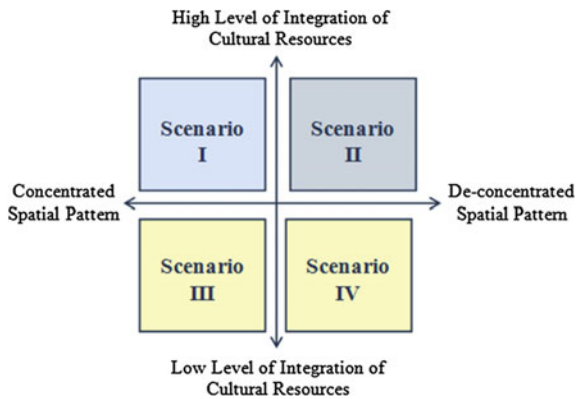


Table 5 Key attributes of the four scenarios. *Source* Stratigea et al., 2016

Scenarios	Uncertainty Axe 1 Spatial Pattern		Uncertainty Axe 2 Level of Integration of Cultural Resources	
	Concentrated	De-concentrated	Low	High
Scenario I				
Scenario II				
Scenario III				
Scenario IV				

- Scenario III: adopts the philosophy of scenario I as far as the spatial pattern is concerned—concentrated spatial pattern—but seeks a lower level of integration of cultural resources.
- Scenario IV: adopts a de-concentrated spatial pattern but also seeks a lower level of integration of cultural resources.

A preliminary *qualitative assessment* of these four scenarios, driven by the:

- in depth analysis of the internal environment, which results in the conclusion that cultural resources are tightly interwoven, while natural resources significantly affect the region’s intangible cultural heritage (traditions, customs, life-style, agricultural pattern etc.);
- spatial dispersion of these resources;
- potential of synergies’ creation that can set the ground for the development of various cultural complexes;
- current developments observed in the external environment and the requirements they set regarding the integrated and sustainable exploitation of cultural resources, taking into account both resources of natural and man-made environment;
- global trends of the tourist sector and the need for developing complex and high-quality cultural products through the mild exploitation of the cultural and natural environment;
- modern trends with respect to the adoption of integrated approaches for the sustainable exploitation of cultural resources, by taking into consideration the natural, social, cultural, economic, political, technological, etc. dimensions;

leads to the *exclusion of scenarios III and IV* that seek a low level of integration of cultural resources; and to the selection, for further exploration, of *alternative scenarios I and II*.

6.2 Description of Alternative Scenarios

The particular section delineates the two selected alternative scenarios—Scenario I and II—, which are structured on the basis of the methodology previously described.

Scenario I—“Development of Thematic Cultural Routes” (Fig. 8), is built upon a concentrated spatial pattern of cultural resources, by placing emphasis on the development of four region-wide thematic cultural routes that comprise the most significant cultural resources of similar nature of the study area and constitute an integrated network of cultural routes that are interconnected in specific nodes.

The *thematic cultural routes* created in the context of Scenario I are (see Fig. 8):

- Archaeological route;
- Route of rural heritage museums;
- Natural heritage route; and
- Route of religious monuments.



Fig. 8 Scenario I—development of thematic cultural routes. *Source* Stratigea et al. 2016

Scenario II—“Polycentric Developmental Model of Cultural Resources” (Fig. 9), focuses on a de-concentrated spatial pattern of cultural resources, seeking the polycentric cultural development of the study area, through the sustainable exploitation and efficient integration of different resources (of local/supralocal importance, and different thematic interest) for the creation of evenly distributed cultural hubs. In this respect, the region under study is divided into 9 sub-regions, while each of them has its own discrete cultural identity, forming this way small scale integrated multi-cultural routes, which operate as “vehicles” for local development.

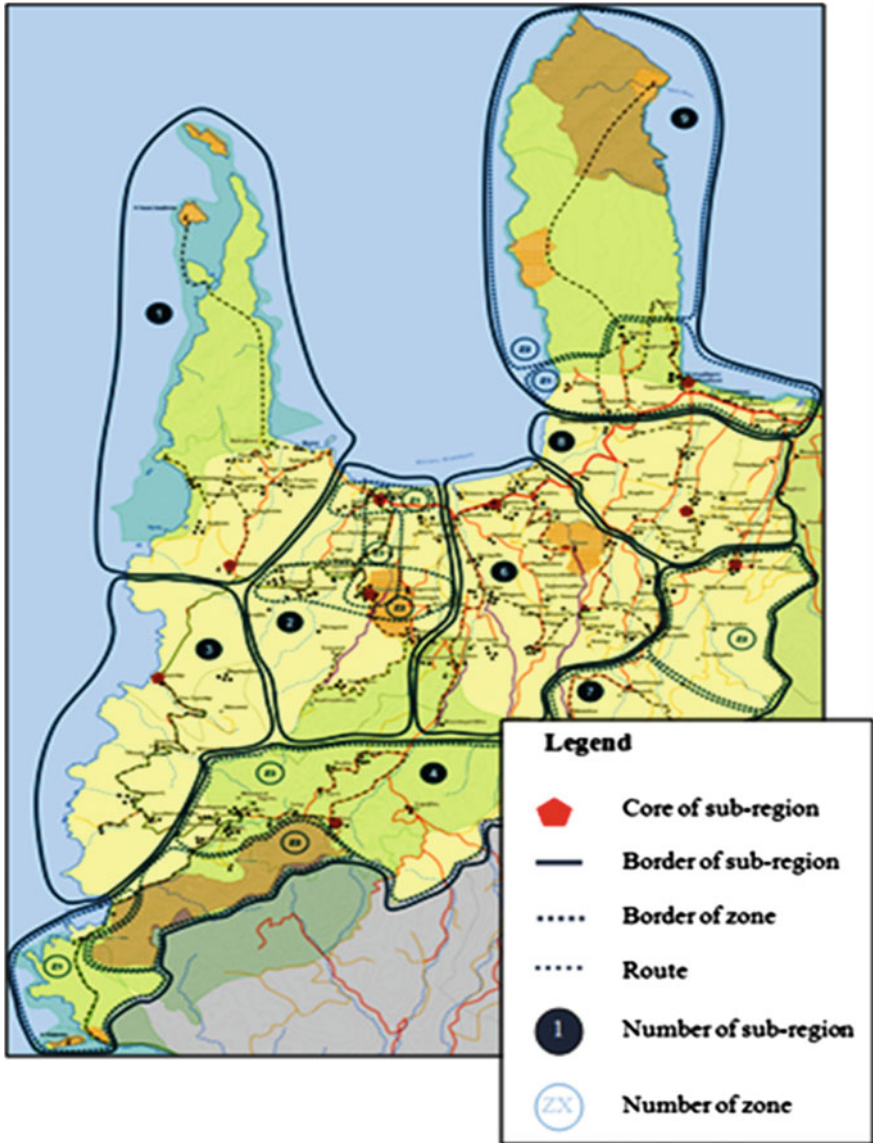


Fig. 9 Scenario II—polycentric development of cultural resources. Source Stratigea et al. 2016

6.3 Participatory Evaluation of Scenarios I and II

The two scenarios were evaluated by the research team in order to end up with a final proposal. The outcome of this evaluation has proved that the two scenarios had, more or less, similar performance with respect to the evaluation criteria

selected. As a result, the research team has come to the decision to propose a combination of these scenarios, following a certain hierarchical order as to their implementation. In such a context, Scenario I is of first priority, establishing a cross-regional network of thematic cultural routes, in which qualitative and authentic cultural experiences, offered by local scale spatial entities, as these are delineated by Scenario II (of second priority), are integrated.

The whole scenario building and evaluation process was subjected to a range of participatory processes in order citizens and stakeholders to be engaged in the final decision. More specifically, participatory evaluation has adopted both:

- *Face-to-face interaction*, through numerous workshops as well as public consultations; and
- *Web-based interaction*, through the upload of the research proposal on the municipalities' websites for further commenting and proposing by the local community.

Data collected through the above participatory context were further elaborated and incorporated in the final proposal, embedding thus views and expectations of the local community into it.

7 Conclusions

Cultural heritage is a non-renewable resource that needs to be protected

The value of cultural resources as an escape from the economic recession era has been greatly acknowledged by researchers, policy makers but also local communities. By using cultural assets as a valuable resource for 're-booting' local economies, it should be kept in mind that these resources are not only valuable, but also vulnerable and non-renewable. These embrace memories that need to be respected and preserved. They also reveal the long way of a society through time and space; the historical paths and traditions; but also the way of living, cultivating, entertaining, socializing, communicating, etc.

Sustainable exploitation of these resources is, in this respect, a necessity, but also a tool for:

- supporting local economies and adding value to them;
- preserving quality and diversity of this heritage;
- serving social and economic cohesion objectives of local societies; and
- contributing to the upgrading of competencies and quality of life of local population.

The effort to manage cultural resources has to take into consideration the right but also the responsibility of local societies to engage and define the outcome, i.e. the way these resources will be managed, embedding into this effort, expectations, empirical knowledge, visions, etc.

Along these lines, the present paper attempts to implement *contemporary planning approaches and tools* in a participatory exercise that aims at engaging local communities and stakeholders from the very early stages of the spatial planning process in an effort to *co-design and co-decide* the way these resources will ‘seal’ their cultural identity; and will be used for branding and marketing their land. Given the above, face-to-face participatory tools as well as web-based interaction is pursued between the research team and the local community.

These participatory tools are used from the very early stages of the planning process, i.e. the setting of *goal and objectives* and the exploration of the current state of the region under study, in order for effectiveness and ownership of the planning process to be increased. Crowdsourcing techniques (Web-based questionnaire) are implemented for gaining better insight into the current state of both the region and the cultural resources, assigning local community the role of information provider.

The *stakeholders’ analysis* constitutes a significant step of the whole exercise, an important tool for planners targeting the identification of convergence and divergence of local stakeholders’ views with respect to planning goals and objectives, but also a tool for detecting coalitions at the local level that are for or against planning objectives, feeding thus the planning effort with vital information for properly adjusting or re-orienting this effort.

Cooperative effort is also undertaken during the *scenario building and evaluation stages*, where a range of different stakes are represented by a variety of local groups. The adding value of this approach is mainly emanating from the prioritization of the planning proposals according to local peculiarities and the ending up with final planning outcomes that can reach consensus and assure successful implementation.

One critical also aspect is the communication and interaction with a variety of agencies that although they hold a rather neutral role in the whole planning exercise (e.g. archaeological agency, see Sect. 5—Fig. 3), they are considered of decisive importance for setting and/or safeguarding the rules for cultural assets’ preservation, as these are sketched by the national legislative framework.

The experience gained from this participatory planning exercise reveals most of the difficulties that are usually faced by planners in similar conditions, such as the: engagement of stakeholders, which was proved a rather challenging task, mainly due to the heavy everyday work schedule of the lay people involved; establishment of trust between the participants and the research team, a continuous concern and a duty that had to be properly handled throughout the whole process; dealing with conflicting interests and effectively managing relating tensions; coping with politics but also political priorities and ability to adjust to current financial constraints of relevant administrative agencies; frustration and suspicion as general feelings generated by the currently unpleasant economic situation and the lack of faith towards the political and scientific community; low level of participatory culture and at the same time a rather low understanding of the whole process and their role in it; etc.

On the other hand, the general impression shaped from the whole participatory experiment relates to the deep roots of culture and heritage in the specific

community and the huge effort undertaken, mostly by ordinary people, to keep them alive, communicate them to the future generations and pave a way for the future that keeps track of the past and adjusts to contemporary needs of the local society. This effort shows to planners and local decision makers the ‘way to go’, leading to more sound policy decisions that fully respect the value cultural resources have for local communities.

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Digital Strategies to a Local Cultural Tourism Development: Project e-Carnide

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Abstract Digital humanities and smart economy strategies are being seen as an important link between tourism and cultural heritage, as they may contribute to differentiate the audiences and to provide different approaches. Carnide is a peripheral neighbourhood of Lisbon with an elderly population, visible traces of rurality, and strong cultural and religious traditions. The academic project e-Carnide concerns its tangible and intangible cultural heritage and the data dissemination through a website and a mobile app, with textual and visual information. The project aims to analyse the impact of technological solutions on cultural tourism development in a sub-region, involving interdisciplinary research in heritage, history of art, ethnography, design communication and software engineering and the collaboration between the university and local residents in a dynamic and innovative way. Framed by a theoretical approach about the role of smart economy for the cultural tourism development in peripheral areas, this paper focuses on a case study, dealing with documents, interviews and observations, in order to understand how the e-Carnide project evolves. The study comprises an analysis about the strengths, weaknesses, opportunities and threats (SWOT analysis) of the project in view to realize its social and cultural implications and to appreciate how it can be applied in other similar and enlarged projects. Results of the research indicates that the new technological strategies can promote the involvement of the population in the knowledge of its own heritage as a factor of cultural and creative tourism development centred on an authentic and immersive experience of the places.

Keywords Cultural tourism · Heritage · Peripheral area · Smart tourism · Digital humanities

JEL Classification Z320 tourism and development

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1 Introduction

Tourism development towards destinations where heritage is a decisive factor implies technological features, smart strategies and the support of digital humanities to provide knowledge and experiences about its cultural values and meanings. In turn, places where the tourism is increasing also needs to provide data about their identity using new communication models. Digital technology may present the modularity advantages to differentiate the audiences and to provide them with different approaches to the local cultures.

The relationship between tourism and heritage (Benton 2010; Waterton and Watson 2015; West 2010), even if described as a tension (Nuryanti 1996), requires a continuous reflection about its features and effects, both in the tangible integrity and the intangible authenticity.

The growth of cultural tourism in the last decades (Smith and Richards 2013; UNWTO 2015) and its impacts in destination places (Page and Hall 2003; Weaver 2005) and in peripheral areas (Blomgren and Sørensen 1998; Hall et al. 2013; Turner and Ash 1976) allows further reflections, contributing to the constant updating of these subjects, accompanying the technological progress and the emergence of new projects.

Smart economy, which “has become a buzzword and a strategic priority for tourism development” (Gretzel et al. 2015, p. 41), broadens the universe of data dissemination, by providing information to all, personalized by everyone, wherever they are, becoming an important tool to deliver knowledge about heritage and to increase tourists’ experience (Buhalis and Amaranggana 2014; Neuhofer et al. 2015; Xiang et al. 2015).

The connections between the three axes of tourism, heritage and digital technology will be studied through the description and analysis of the academic project e-Carnide which intends to stablish connections between the Europeia University and its neighbourhood. Carnide is a peripheral area at the Northern end of Lisbon, marked by aging residents, a remaining rurality confronting the urban surroundings and a remarkable heritage, both tangible and intangible with strong cultural and religious traditions.

The project consists in the heritage inventory and its dissemination trough a website and a mobile app, involving wireless and mobile technologies that are accessible to everyone. The goals are: (1) to analyse the impact of technological solutions on cultural tourism development in a sub-region, involving interdisciplinary research in heritage, history of art, ethnography, design communication and software engineering; (2) to reinforce the relationship between the university and its local communities in a dynamic and innovative way; (3) to allow students an opportunity to apply theoretical knowledge in an empirical activity, developing research skills and critical analysis and collaborative work. After a synthesis of the theoretical frame of these issues, we’ll present a description of the case study and an analysis SWOT of the project (Fig. 1).



Fig. 1 Location of Carnide and the Europeia University in the Map of Lisbon. *Photo* Project e-Carnide, 2016

2 Literature Review

The relation “centre-periphery”, or “core-periphery” is defined in the *Encyclopedia of tourism* as “such as an urban concentration of demand, and more distant, less powerful areas which are often suppliers of wilderness, rural and dispersed tourism opportunities (Wall, 2000 p. 76).

The peripheral areas definition might be made in opposition to the central areas, according to the central place theory designed by Walter Christaller (Christaller and Baskin 1966), however updated (e.g. White et al. 2015). According to this theory, the urban centres, as decision centres too, while providing a range of services, implies asymmetric urban-periphery interactions. A collection of case studies of tourism in several peripheral regions in Europe (Brown and Hall 2000) characterizes them as having poor amenities, aging infrastructures and old or decreasing population, in a frame of a low level of economic activity.

Related issues are framed in the wider context of the studies on tourism and tourism geography far from the second half of the twentieth century (Brown and Hall 2000; Hall and Page 2002; Müller and Jansson 2007a; Pearce 2002; Plog 1974, 2001; Wachowiak 2006; Williams 1998). Dear and Flusty (1999) intended to deal this issue within a postmodern urban process, as well as Evans (1998), Page and Hall (2003), or Weaver (2005) have done, while stressing the fact that relevant tourism activities occurs outside metropolitan areas.

The questions about the relationship tourism and outlying areas were analysed by, among others, Turner et al. (1975) who distinguished central metropole and periphery, labelled as an ever-changing “pleasure periphery”, and Blomgren and Sørensen (1998) who studied the peripherality through objective characteristics of destinations and tourists’ perceptions. Otherwise, some authors (e.g. Arp 1990; Besculides et al. 2002; King et al. 1993; Mazón et al. 2009; Williams and Lawson 2001) have been focused on the residents’ perceptions on tourism effects. Other authors, such as Lundgren (1982), Hohl and Tisdell (1995) and Wanhill (1997), studied the economic features of tourism in peripheral areas.

More recently, the case studies presented at Müller and Jansson (2007b) adverted that tourism development differs from northern to southern peripheries, recognizing a “tension between an often recognized lack of tourism development and a rejuvenated interest in peripheral tourism” (p. 4). These studies, even considering that tourism has an important role in peripheral areas economic growth, allowed the perception that, in general, only few positive accounts are available in this context, so the phenomenon could be alleged as a threat.

Hall et al. (2013), reflecting Hall previous approaches (Hall 2007; Hall and Boyd 2005; Hall and Page 2002) recognized the negative context associated with the concept of ‘periphery’ related to the urban-rural interface or peripheral urban areas, but assumed that “tourism has become used as a means to provide value to lands that are otherwise perceived as waste and unproductive” (Hall et al. 2013, p. 77). So, they conclude that peripheral areas must be regarded as a special concept with economic and social attributes (cf. id., p. 87), which are singular and changeable according to the type of tourism sheltered.

Researchers now tend to evaluate positively the circumstances of tourism in peripheral areas. Barbini and Presutti (2014) points the activation of a tourism destination in these areas as an informal process stimulated and driven by tourists, despite references to tangible and intangible heritage or other marketing approaches. Moreover, heritage can move tourists to peripheral territories, seduced by the promise of authenticity in unspoilt places (Staiff et al. 2013). “As more people travel to remote places in search of unique high-quality experiences, seeking unspoilt environments and places, heritage tourism good returns to those capable of providing a quality destination and exceptional visitor experience.” (Salazar and Bushell 2013, p. 193) So the relationship between heritage places and tourism seems as or more complex in peripheral than in central touristic points, imposing, as observed by Jenkins (2015) an analyse about the role of tourism in developing areas, identifying its critical issues, both internal and external, and verifying its opportunities and threats.

The relationship between tourism and heritage is assumed as inevitable, despite its implicit opportunities and threats (Benton 2010; Boniface and Fowler 1993; Kirshenblatt-Gimblett 1998; Nuryanti 1996; Timothy and Boyd 2003; Waterton and Watson 2015; West 2010). Due to its potential to generate income, tourism may provide heritage preservation, but mass also involves recognizable risks (Harrison 2010; Messenger and Smith 2010; Nuryanti 1996), in both tangible and intangible values.

The heritage perception and management are a lively process, conjoining the promotion of their resources and cultural values with a suitable offer according the expectations (Smith et al. 2013). Nuryanti (1996) pointed the relationship of heritage and tourism as a tension between tradition and modernity, which defines how the past is perceived by the tourist. The heritage presentation for tourist consumption is viewed as a “staged authenticity” (MacCannell 1999), or a “commodified heritage” (Timothy and Boyd 2003, p. 240), which means a modernisation of antiquity affecting its genuineness.

To some extent, tourism generates a risk of inauthenticity, requiring a balanced curatorship between an accurate presentation of heritage and tourism development goals. Similarly, MacCannell (1999) also notes the tourism effects in heritage authenticity, describing tourist attractions as “differentiations” or “elements dislodged from their original natural, historical and cultural contexts” (p. 13), while “the displacement of actual human adaptations by manufactured ‘tradition’ and fictionalized ‘heritage’ now extends into every detail of life” (p. 198). Heritage may be settled to correspond to an idealised past and to accommodate to the tourist tastes, desires or expectations (Burnett 2001; Timothy et al. 2003). As well as it can play a political role to create or to underline a pretended social or cultural identity. “Promoting the heritage if the core society is the main instrument of socialisation, assimilating ‘outsiders’ into the values of the core while continually reasserting and reinforcing it to insiders and outsiders alike.” (Ashworth et al. 2007, p. 91).

Beyond the uniqueness of each site, reporting to a singular fact or phenomena of the past, its meanings and significances are reinterpreted in different ways, not necessarily contradictory, but complementary (Prats 1997). As Lazzarotti (2003) had observed, “le tourisme se nourrit, même en partie, des singularités locales, il ne s’oppose donc pas au patrimoine qui, lui, les entretient et qui favorise ainsi en retour le tourisme” (p. 101) and “loin de s’opposer [...], tourisme et patrimoine se valorisent et se renforcent réciproquement et, de plus en plus, inséparablement” (id., *ibid.*). As viewed about tourism in peripheral areas, also Lazzarotti (2003, 2011) evaluate positively the bond that involves both tourism and heritage.

One of the most relevant gains that tourism brings to the heritage sites is its musealization. In fact, heritage sites need a museographic display with textual and visual data (Karp and Lavine 1991), used to decode places’ functions and meanings and to provide connections between their different components (Hede and Thyne 2010; Olick et al. 2011).

The tourist relation to heritage is as cognitive, as affective or associate (McIntosh and Prentice 1999), or there are different modes of tourist concern with inheritance representations, such as amusement, change, interest, rapture, or dedication (Lengkeek 2008). Besides the inheritance representations, Lengkeek (2008) also considers its significance and “the degree of connection visitors to the object expressed in modes of experience” (p. 17). Somehow, these authors confirm the statement that all tourists claim authenticity, but point to different conceptualisations about what is an authentic, or real or genuine, experience.

Cultural heritage decoding uses digital technology to a more operational efficiency in data dissemination, as data exchange from the analogical to a digital support enables new specific affordances: reactive, interactive and performative capacities; multimedia and networking capabilities; volatile signs; and modularity (Ryan 2004, p. 416). Benefits of digitization in heritage promotion was recognized and mainly analysed from the 2000s: “Digitization contributes to the conservation and preservation of heritage and scientific resources; it creates new educational opportunities; it can be used to encourage tourism; and it provides ways of improving access by citizens to their patrimony.” (DigiCULT 2003, n.p.) Then, it was pointed out that the cultural industries, as cultural tourism, should maximize the impact of the heritage digitization investment (cf. European Commission, Directorate-General Information Society 2002, p. 72). A relevant literature about the relationships between digital technology, heritage and tourism has been produced since then (e.g. Cameron and Kenderdine 2007; Cipolla et al. 2011; Kalay et al. 2008; Labadi and Long 2010; Logan et al. 2015; Rusalić 2009; Stanco et al. 2011). Digital inventories are to be applied beyond the academic threshold, in promoting knowledge and tourism purposes, namely, in tourist experiences, as mobile devices do.

Once the use of mobile devices has been rapidly growing and are remarkably increasing its capabilities, the inventories dissemination through wireless phones and tablet seems appropriate. In 2015, *Journal of Tourism* dedicated a special issue to smart tourism, where it is defined as “tourism supported by integrated efforts at a destination to find innovative ways to collect and aggregate/harness data [...] in combination with the use of advanced technologies to transform that data into enhanced experiences” (Gretzel et al. 2015, p. 41). However, bucking those who consider that smart tourism automatically enhances the tourism experience, these authors report the gap of digital exclusion even if considering that “the focus on co-creation and meaningful experiences simultaneously suggests that smart tourists will have a high motivation to process the information” (Gretzel et al. 2015, p. 45). Smart tourism experiences are based on technology that incorporates the network benefits of ubiquitous wireless connectivity.

The potential of smart economy on tourism development has been studied, in particular, about destinations infrastructures and services (Buhalis and Amaranggana 2014; Tussyadiah and Inversini 2015; Xiang et al. 2015), but other studies demonstrate these tools’ capacity to increase heritage tourism experience (e.g. Neuhofer et al. 2015). Other more specific issues, as mobile apps, have been approached by Wang and Xiang (2012), who found that travellers combine different apps for different travel purposes, and Lombardo and Damiano (2012), while Dickinson et al. (2014) organize travel apps and their capabilities into various functional categories, including information and context awareness. Xiang et al. (2015) had identified, in traditional online travellers, a new trend of them who are using internet in a creative way for trip planning and to find more authentic experiences. In fact, digital supplementary tools, combining various forms, such as

text, sound, video, graphics, or georeferenced contribute to enhance users' perception of their surrounding (Economou, 2015, p. 218) and to locals' identity awareness. So, smart or connected tourist products, combining data aggregation and real time synchronization, offer expanding opportunities for new functionalities, like the co-creation and personalization of tourism experiences (Neuhofer et al. 2015). Even if the use of smart technology is still limited in practice, its growing implementation in everyday life allows to consider it an appropriate tool connecting heritage and tourism.

3 Methodology

The project e-Carnide was conceived as an exploratory activity to attempt the groundwork and redefine methodologies and instruments that will be applied in upcoming multidisciplinary projects, also involving several schools, or departments, of the Europeia University and the surrounding communities. The exploratory analysis aims to revise the proceedings and the flow of activities between the involved sectors, identifying the strengths and weaknesses of each of them in all the process.

The research has been designed as qualitative and descriptive, which allows "observations about physical aspects of behaviour, descriptions of settings, and other characteristics of the environment" (Gorman and Clayton 2005, p. 5) about the case in study. Research components to data collection were literature review, participant observation and informal interviews, following a methodological *triangulation* (Berg 2001, p. 4).

The literature review, conducted to form the basis of the conceptual framework, had two central approaches: analysis and synthesis of theoretical and empirical results in the different fields of heritage, history, ethnography and tourism in peripheral areas; search and evaluation of primary and secondary historical sources, determining their level of credibility and reliability.

Participant observation, allowing an insider's perspective (Jorgensen 1989; Schensul et al. 1999), was applied to obtain data about two correlated intangible occurrences: a fair and a Catholic procession in honour of Our Lady of the Light. Informal interviews, not requiring a structured guide or predetermined questions (Berg 2001, p. 70), were held with signalled informants: local authorities, the owners or the Persons responsible for of inventoried spaces and neighbourhood inhabitants. As informal conversations, the interviews weren't recorded, but the interviewers took notes of provided data, increasing the achievements of fieldwork observation (Cohen and Crabtree 2006).

This initial stage of the research allowed a preliminary identification of cultural heritage resources: architectural and archaeological heritage structures; ethnological objects; historical objects; objects of art; spiritual cultural elements. In addition, the research collected complementary data, such as archive, library and audio-visual material. An analysis of available heritage inventories related to the case study was

conducted as a basis for the further work. The inventory of intangible and tangible cultural heritage followed the guidelines defined by the Council of Europe (2012) and the national standards delivered by the Direção-Geral do Património [Directorate-General for Heritage] (2015), from which the inventory-form was designed.

The students in modules Cultural Heritage, Ethnography and History in the Tourism course are in charge of the inventory fieldwork (data collection) and filling up the inventory-form (data organization). Data will be organized in a digital database to feed a website and a mobile app, in construction by the students in module Mobile Interfaces and Usability *in the* Informatics Engineering course. The students of the modules Communication and Multimedia Design in the Design course, who defined the concept with a headline, a logo and an icon to the store and wireframe, are working on the layouts and the interactive mockup. During the test and validation of the digital product, an analytic report shall be prepared providing support for future multidisciplinary research projects. As this project is conceived as a background research engaged in a strategic planning for a long term action, the SWOT analyses (Pahl and Richter 2007) is used as a methodological tool to evaluate and fix its objectives and to align internal activities with the external reality.

4 Results

Data collected through documentary research, participant observation and informal interviews, endorsed a description of the historical context and the tangible and intangible heritage, which underlies the inventory constructing and its application on a website and app.

4.1 *Carnide historical context*

The human presence in Carnide is registered far from Neolithic. During the Romanisation (1st century), pre-existing settlements developed into rustic *villas*. The decline of the Roman empire and the Germanic tribes' invasions didn't disrupt the agricultural development, which, during the Muslim domain (8th–12th centuries), have been increased with the introduction of new crops and products that supplied the city. By the time of the foundation of the Kingdom of Portugal and the conquest of Lisbon from the Moors (1147), Carnide had reinforced its agricultural character. At the end of the 12th century, a religious and administrative organization was created, with the formation of a large rural parish. The toponym Carnide appears on a document dated from 1308, although suggesting an older use.

Besides the smallholders and local tenants, the King and the Cistercian Order owned large properties in Carnide. The rural agglomerates and tracks expanded and consolidated its structure, which determined the location of the church of Saint Lawrence, founded in 1342. The hermitage of the Holy Spirit is also mentioned, together with an attached small leprosarium. The cult of the Holy Spirit, widespread during the 13th century, originated an important pilgrimage and an annual procession. In the surroundings, there was the Machada diving fountain, whose waters were renowned for its healing properties. The first systematic settlement was made along the road between the Machada fountain and the church of Saint Lawrence, defining what is now known as the old Carnide.

The area was recognized in Lisbon by the waters and the quality of the air, with strong and healthy winds, so the court and the noble families moved here, particularly, when major epidemics struck the capital. In the 16th century, beside the Machada fountain, the Princess D. Maria, daughter of king D. Manuel, ordered the construction of a new church dedicated to Our Lady of the Light and, adjacent to it, a large building to house the brotherhood, who provided support to the residents and managed the pilgrimages. Next to the church and replacing the old hermitage. D. Maria also commanded an hospital, for which maintenance she willed goods and incomes.

The urban core was being transferred to the nucleus church/hospital, setting the distinction with the surrounding areas remaining rural, conducive to setting up convents of cloisters and contemplatives orders, as the Carmelites, and manor farms. Nearby, there grew an urban cluster, organized by parallel streets intersected by small alleys traced almost orthogonally, as was usually the case with Portuguese settlements from the 16th to 17th centuries. Lately, at one end of the core, taking advantage of the ground, a small rural market has been held, beginning a new social central point which was being converted into a square provided with a bandstand. Farms were being set up near the urban cores or—as the Quinta do Bom-Nome where the university is installed—dispersed far from the centre.

The bandstand square (Fig. 2), with small restaurants and terraces, is the centre of the historical site and the most dynamic point of Carnide, attracting foreign visitors, also seduced by the authenticity of the surrounds: the old urban clusters, with its secular popular houses; rural farms along the walled lanes (*azinhas*); remaining traces of this rurality, like the public washhouse. Carnide is now a neighbourhood where the hints of the past and the new gated condos are mixed, and a new type of inhabitants emerge in the midst of a predominantly aging population. In this process, the old Carnide is being progressively demarked of its surroundings, becoming fragile under the pressure of the urban development in the area.



Fig. 2 Bandstand in Carnide's main square. *Photo* Project e-Carnide, 2016

4.2 *Carnide tangible heritage*

The tangible heritage inventory includes mostly architecture and addorsed elements, like Portuguese tiles. It may be organized into three global sets: religious, secular and vernacular architecture.

In religious architecture, churches and convents were inventoried.

The primitive church of Saint Lawrence, with an attached cemetery, was ruined by the 1755 earthquake, only a few medieval traces remaining, integrated in the actual building which only preserves the original plan. Sets of tiles from the church, now dispersed in museums or public spaces in Lisbon, were also inventoried.

The church of the Light (Fig. 3), built between 1575 and 1596, was designed by João de Ruão. Only the main chapel, with its monumental mannerist reredos, and the transept remains of the original building, also strongly hit in 1755. The south façade integrates the Machada fountain.

Two of the most relevant architectural complexes are the convents of the Order of Discalced Carmelite: the Convent of Saint Teresa, founded in 1642, on the outskirts of the old Carnide, to the female branch; the Convent of Saint John of the Cross, founded in 1681, which could accommodate about 600 friars.



Fig. 3 Church of Our Lady of the Light, in Carnide. *Photo* Project e-Camide, 2016

In secular architecture, two neoclassical palaces are inventoried, one of them built over the ancient hospital, and five manor farm houses, some of them with remarkable decorative figurative tiles sets.

In vernacular architecture, the inventory lists such item as the bandstand or the public washhouse, and façades with particular elements, like reliefs or tiles. Also, toponymical items are inventoried, whose designation provides micro-narratives about the place.

4.3 Carnide intangible heritage

The intangible heritage inventory focusses on two moments where the participant observation was applied: the procession and the fair. Both of them are linked to the secular pilgrimage related to a miraculous legend dated from the 1463, held annually in September and with great projection in the region since the 17th–18th centuries.

The procession (Fig. 4) occurs on the last Sunday of September, culminating a month of local festivities. It opens with the cross, backed by the brotherhood banners, the stretcher of Saint Lawrence, the Carnide's patron saint, the Host under the canopy and, behind, at the end, the stretcher of Our Lady of the Light, on a fire



Fig. 4 Procession of Our Lady of the Light through the streets of Carnide. *Photo* Project e-Carnide, 2016

engine, and the firemen brass band. The cortege begins after a solemn mass in the church of the Light and runs through the old Carnide. Along the ceremonial walk, there are more or less explicit marks that create a demarcation from daily life, understood as profane time. One of those marks is the people's appropriation of the procession: those who participate, integrated in the wards, praying the Rosary or carrying lighted candles; those who oversee, imposing silence and fulfilling known standards; those who watch, looking at who practices the ritual. Another mark is the bedspreads hanging over the windows and balconies along the route. As this is a Lisbon parish, on the outskirts, but near the city centre, it's difficult to distinguish outsiders and residents, although these later are scarce.

The fair, throughout September, occupies the space adjacent to the church of the Light (Fig. 5). There are about a hundred stallholders selling knick-knacks, pottery, basketry, clothing, fritters, sweets, pork and chicken barbecued and wine. The procession day is the best attended, but there is a border between the fair and the church, or between the noise from the multiple tents and the silence or the religious choirs. Mixed with the population, there are the Marchers of Carnide (which are part of a popular marches festival held in Lisbon), dressed in theatrical and festive costumes, raising funds and being an expression of the sense of belonging towards the visitors.



Fig. 5 Fair near the church of Our Lady of the Light, in Carnide. *Photo* Project e-Carnide, 2016

5 Conclusion

Carnide reflects the features presented by the literature about the peripheral areas (Brown and Hall 2000), even considered as a “pleasure periphery” (Turner and Ash 1976), unspoilt by tourism, but in a recognizable process of changing, by the arriving of a new population around the old core and by the local restaurants’ advertising traditional Portuguese gastronomy. The project e-Carnide included a reflection about the impact of tourism development in the neighbourhood, considering the possibilities of a positive economic growth (Hall et al. 2013; Staiff et al. 2013), but also the threats, as learned through several studies (vd. Müller and Jansson 2007b).

While the literature underlines an ever increasing pressure on the heritage destinations, transforming them into a commercial consumer good, which may threaten their preservation, and the re-enacting of heritage goods for commercial and not identity motives, it’s recognized that this mechanism has direct consequences on the population who, feeling pressurized, tends to recreate the image expected by visitors. Both tangible and intangible heritage, are ready to serve the tourist who very often sees in them his own past, and not that of the natives (Prats 1997).

E-Carnide project is about heritage, assuming its unavoidable relationship with tourism (Timothy et al. 2003; Waterton and Watson 2015), analysing its

opportunities and threats, in order to avoid adverse effects or tensions (Nuryanti 1996) and to preserve local authenticity. The work achieved until now strengthened the link between the university and the community surrounding in an outdoor research return policy. The inventory that has been done increased residents' curiosity and awareness about their own heritage. Implicit in the spelled objectives, the purpose of this project was focused not only on the tourists, but also on residents as cultural mediators of their cultures towards foreigners, delivering them their memories about the place, framed by the inventory results. It is thus intended to provide a tourist relation to heritage as cognitive as affective (McIntosh and Prentice 1999), enhancing the visit experience.

It's expected that data dissemination through digital technologies, providing a bigger visibility and above all a deeper knowledge of the cultural heritage, would create or reinforce the sense of belonging, especially concerning the residents. In Carnide, the strengthening of these links, that can be tied and untied in temporal and social dynamics, could contribute to the preservation of some still rural structures by exerting pressure against the economic groups who see them basically as plots for further building. In a more immediate perspective, the project development, having created a link between the community and the university, will establish a stimulating exchange between the two. In addition, among all the benefits that have been described about the impact of the heritage digitization investment (Cameron and Kenderdine 2007; Kalay et al. 2008; Logan et al. 2015), the provision of information will provide a virtual, non-invasive, musealization of the heritage.

The SWOT analysis/(Table 1) enables an evaluation of the project. Its assets and implications are classified into four evaluation categories for the purposes of the SWOT analysis: Strength and Weakness, addressing internal factors of the project; Opportunity and Threat, related to external influencing variables. With this analysis, it's expected to minimize the effect of weaknesses and maximize the strengths in posterior replications.

Table 1 e-Carnide SWOT analysis

<p><i>Strengths</i></p> <ul style="list-style-type: none"> • Multidisciplinarity—the several schools at the Europeia University may provide abilities in the scientific domains implied • Data organization—the project organizes textual and visual data dispersed on several sources • Reliability—the university certifies the information on the website and on the mobile app • No production costs 	<p><i>Weaknesses</i></p> <ul style="list-style-type: none"> • Difficulties in articulation the work of the several schools • Difficulties in standardizing the students' contributions
<p><i>Opportunities</i></p> <ul style="list-style-type: none"> • Affordability—the project will be affordable to all with a smartphone or a tablet • Innovation—there isn't any similar product in the community • Social return—the project includes interaction and social exchange with the community 	<p><i>Threats</i></p> <ul style="list-style-type: none"> • People who are digitally excluded • Poor dissemination of the digital products

The strengths related to the academic tasks are related to the multidisciplinary character, with the contributions of several disciplines and abilities in the domain of tourism and heritage studies, communication design and informatics engineering. As the project has been developed using current academic activities, there were no production costs in data organization, concentrating textual and visual documentation dispersed on several sources, and in its dissemination through a website and mobile apps. In addition, the research is credited by the University, which offers a higher level of reliability. Nevertheless, the multidisciplinary character implied some difficulties in articulating tasks and schedules of the several schools. Also, the different skills and competences of the students had hindered the required text standardizing.

The advantages of using smart technologies and, in particular, mobile apps in heritage data dissemination are one of the strengths of this project, which will be available, with no extra charge, to all residents and visitors, as well as to whoever will be interested, who have access to the net and commonly use devices such as smartphones and tablets. Since there isn't any similar product in the community, innovation and community return also are considerable opportunities of this project. However, the old residents are mainly digital excluded, which is a threat, along with the eventual poor advertising of the project.

The project e-Carnide had completed the stages related to data collect, inventory and layout design, which permits to recognize a positive impact in the local community, reinforcing and enhancing its sense of place and identity, and the importance of the residents' commitment to the research, contributing to increasing knowledge with their memories and life narratives. When the current and further stages involving the test and validation of the digital product and data dissemination through a website and a mobile app is accomplished, we expect to strengthen the relationship between the university and its surrounding community. We also hope to promote local tourism in Carnide, based on the knowledge of local history and heritage and their cultural meanings.

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Putting Social Innovation into Action: The Case of the Ecotourism at the Dominican Republic

Marival Segarra-Oña and Angel Peiró-Signes

Abstract Social innovation, defined as a new and useful solution to a problem or a social need that the created value or benefits that are mainly addressed to society, instead that to a particular business or group of people, is arising as one of the most powerful tools to drive change. Its ability to engage with the needs of society is one of its key characteristics. On the other hand, environmental concern has to be considered nowadays in every aspect of the development on new products or services, as it has been proved to be a differentiating aspect and, therefore, to generate competitive advantages as well as a society's demand to achieve a sustainable growing. Considering these, our objective is to analyze, study and shape the process of identifying needs, generating ideas and innovation assessment that integrates social, business and sustainability goals that society demands. We studied the ecotourism sector in a country that is a first level objective regarding International Cooperation, The Dominican Republic. To do so, we follow an innovative methodology, the living-lab, that was first tested at the MIT, consisting in a research methodology for detecting and testing needs in real life environments, therefore, focusing on the reality and with a high degree of user involvement as they are included in the value creation process. As a result, we explain the implementation of the research project, difficulties, observed benefits and main findings.

Keywords Social innovation · Ecotourism · Living labs

JEL Classification O35 · O31 · L83 · Q56

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1 Introduction

Innovation is not only an economic or technological tool, it is also a social phenomenon, as already noted by the (European Commission 2013), and it is specially important when referring to social innovation.

Considering the concept has just arose in the academia, it has already been defined from diverse perspectives, although with one shared point: the idea that, in the social field, innovations come mainly from the stakeholders by creating synergies that involve firms, final users, suppliers, and the local environment (Nicholls and Murdock 2011, e.g.), and that either it can be promoted by the government or by the different needs that may arise, but are usually developed in a transversal way specially when diverse interest groups work together in the search for their common goals (Mulgan 2006, 2012a, b; Murray et al. 2010; Lettice and Parekh 2010; Dawson and Daniel 2010; Hämäläinen 2007; Goldsmith et al. 2010; Nicholls and Murdock 2012; Sharra and Nyssens 2010; Franz et al. 2012).

A key element in social innovation is the participation of the public and users on it. Von Hippel (1976, 2011) was the first to describe the importance of users as a source of innovation. Later, he emphasized a paradigm shift towards innovation systems user-centric. According to this paradigm, users contributing to the development of new products and services and, in many cases, to reveal their innovations freely for others to use (Von Hippel 2005).

A recent paradigm linked to participation in innovation, which is especially important in social innovation, is called crowdsourcing. The term crowdsourcing was coined by Howe (2006), who defined it as “the act of a company or institution that outsources a function, previously developed by its members or employees to a network public or semi-public, undefined (and generally large) people in the form of an open call” for this author, the condition of crowdsourcing is limited to the fact that the company should use the results, produce and sell or mass distribution (Howe 2006).

In a broader context, crowdsourcing has been considered an explicit form of integration of consumers in the internal processes of value creation. Consequence of these concepts appears the idea of the living labs. This tool was originated at the Massachusetts Institute of Technology (MIT) as a research methodology for detecting needs, testing, prototyping, refining and validation of complex innovations in real life environments. Living labs appear as a consequence or a natural evolution of the concepts discussed in the preceding paragraphs. They allow a context of multiple knowledge to focus more on reality, and secondly, there is a high degree of user involvement as users are included in the value creation process (Eriksson et al. 2005).

In addition, participation is not limited to the ideation phase of open innovation but users involved throughout the process until the validation phase. Because of this integration, the ex-post evaluation of the market is more reliable. Moreover, users co-create in this environment with researchers and developers, and that provide the structure and governance of their participation in the process (Almirall and

Wareham 2008). Living labs can facilitate an efficient interaction of market, technology/innovation, and society (Eriksson et al. 2005; Lievens et al. 2014).

This will be key to identifying needs and to establish an effective and extrapolable and direct process that enhances social innovation tool. The empirical application is carried out in a basic sector for the economy of the Dominican Republic, whose barriers are well permeable and non-knowledge-intensive, so the results will generate significant economic impact and visibility. The integration of all the elements and the importance of innovation developed on the ground (local) will provide a multidisciplinary approach from the social and sustainable innovation.

Therefore, in this study we empirically deploy the living labs methodology “in situ” and extract conclusions regarding the methodology as a way to increase the social involvement when innovating.

2 Literature Review

In recent years, several authors have published different works on social innovation, thus demonstrating the importance of this new paradigm. Table 1 shows the definitions of the main organizations working in social innovation (Segarra-Oña et al. 2016):

Hipp and Grupp (2005) describe some aspects of services’ innovation that are applicable to tourism services. Among them, the relevance of the skills of personal and human factors, the role of technology as a support element for the development of innovative products and services, the difficulty of the process and product innovation, the intangibility of separation and thus the barriers to ownership, integration of customers in the innovation process and innovation barrier caused by the small size of the organizations.

These authors agree with others that knowledge is one of the important, especially when referring to underdeveloped countries as the Dominican Republic. Sipe and Testa (2009) have proposed a framework for research innovation in the field of hospitality, where knowledge, beliefs and social behavior play an important role in the pursuit of innovation.

Moreover, in a recent work, Albors et al. (2013) covered the analysis of best practices and core competencies for culinary innovation, a study of the behavior of innovation of Spanish chefs describing the role of brand differentiation innovation and the leadership role of chefs with Michelin stars, innovation trends in bread and bakery, the impact of innovation in the social development of gastronomy, the influence of gastronomic culture in the process and habits of the general public by spreading it, so inclusive innovation, taking into account the client, the employer, society and its traditions and culture, make this tourism and gastronomy as part of it, a perfect example for application, a fundamental part of the tourist experience and transmitter of culture, history and traditions.

Table 1 Social innovation definitions

Regarding social innovation...	Author	Organization
There are all new and old social innovations. Ideas, processes, and initiatives which are radically changing our society ^a	Augustinsson (2011)	Forum for Social Innovation ^b (Sweden)
Social innovation refers to innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly diffused through organizations whose primary purposes are social	Mulgan (2006), Murray et al. (2010)	Young Foundation ^c (UK)
Any novel and useful solution to a social need or problem that is better than existing approaches (i.e., more effective, efficient, sustainable, or just) and for which the value created (benefits) accrues primarily to society as a whole rather than private individuals	Phills and Nee (2009)	Center for Social Innovation, Stanford University ^d (USA)
Social innovation is focused on finding new ways to solve old problems and doing so in the public interest		Office of Social Innovation and Civil Participation; President Obama's Office ^e (USA)

Source Retrieved from Segarra-Oña et al. (2016)

^aOpen Book of Social Innovation, see Murray et al. (2010)

^b<http://socialinnovation.se/en/>

^c<http://youngfoundation.org/>

^d<http://csi.gsb.stanford.edu/social-entrepreneurship>

^e<http://www.whitehouse.gov/administration/eop/sicp/initiatives/community-solutions>

Today, we can say that the tourism sector is divided into two large blocks, mass tourism and other more sustainable tourism (Pigram and Wahab 2005), ranging from the slow tourism, to travel the primary purpose is the contemplation of nature, increase their awareness and participation and promotion of conservation and whose destination are areas little changed by human action, which is generally included under the término ecotourism. Ecotourism still does not represent a large share of total world tourism, though its scope is rising in recent years, and their growth rates exceed those of conventional tourism (Schulte 2003).

Many authors contemplate ecotourism increasingly as a tool that simultaneously promotes the conservation of nature is able to contribute to rural local development. Although some authors disagree in some respects and to some extent questioning the results of some ecotourism projects, especially in regard to the alleged improvement of the conditions of the natural areas that host (Álvarez et al. 2012).

The positive aspects of ecotourism are many, clear and very valuable to promote. Although it is also necessary to know what your upgradable features that appear

when their particular implementation are. It is absolutely necessary that the aim of the changes associated with ecotourism, to assess its real impact analysis.

Several countries in Latin America have been pioneers in their development because of the abundance and diversity of its flora and fauna. However its development in Spain, is far from over, as the abundance of natural parks and protected areas contrasts with the shortage of ecotourism projects so that inclusive innovation, taking into account local and sustainability aspects, is justified.

In the process of building a model of sustainable and social innovation it will be taken into account the information generated in the Living-Lab, which will determine the scheme of obtaining and validating information in a process of inclusive innovation.

3 Methodology

The main tool used in this work has been the Living lab. This methodology helps shaping the process of identifying needs, generating ideas and innovation assessment through the integration of social, business and sustainability goals that society demands, which is the process of this work.

The objective is conceived as an experimental study. In a recent study, García-Guzmán et al. (2013) specifies the steps to engage users in a living lab: (a) the development of a community of local users as key to the innovation process agent, (b) identify areas of interest and innovation initiatives in collaboration with researchers and users, (c) identify the needs of users in interviews, brainstorming sessions, discussions and observations, (d) encourage user involvement in the development of products and service, and (e) that users, researchers and designers to evaluate lessons learned and in collaboration preparing new initiatives. This scheme will continue with the analysis of the information generated and teamwork sessions will be held.

So, following the procedure, first of all a community of local users was identified. We contacted with universities (FLACSO, the Latin American Social Sciences School at the Dominican Republic) Fig. 1, in order to confirm the main areas of interest.

Several hotels, local guides, small excursions-organizer firms, restaurants and rental cars were identified as key information providers. After identification, we contacted them in order to explain the project and asked them to participate in a session of product co-creation. We decided that the objective of the first session would be to improve a current touristic activity although bearing in mind that we were not only there to act on specific activities, but to show the partner university and local stakeholder how to establish the process of generating social innovations.

Figures 2 and 3 represent the first living-lab meeting we organized in the Dominican Republic in November 2015.



Fig. 1 Meeting at the FLACSO University with local researchers. Defining the areas of interest and contacting the involved stakeholders

Fig. 2 A local guide explaining his point of view of the involvement of the local community and improvement possibilities





Fig. 3 Living-lab experience



Fig. 4 Some of the activities related to sustainability

Figure 3, some participants of the first meeting of the living-lab deployed at the Dominican Republic. Interviews, discussions sessions and brainstorming and ideas-contest were organized.

The next step, aimed to encourage user involvement in the development of products and services was focused mainly on sustainability, with emphasis on education (see Fig. 4).

And finally, the process of evaluating the activities and preparing new initiatives was developed considering all the ideas, learning and real experiences.

4 Results

The Dominican Republic is one of the main touristic destinations and, at the same time, one of the richest regions in natural resources and coastal area but the current definition of all-included touristic vacation has overdrift its possibilities and a deep reconsideration of the links and relationships that are established is needed in order to improve local, regional and society-related benefits.

This research has contributed to design actions to make innovation in the field of eco-tourism in the Dominican Republic social, promoting the generation of ideas, receiving and encouraging responses from different areas and involving both users and public administrations. To know how to promote and improve conditions for social innovation to occur is needed. Also how and where is the best way to address public actions.

This case study was developed in order to study how the process of setting a new activity, considering both, the environment and society, could be improved. Although most of the stakeholders were involved in the process, and the experience itself was a big success, we confronted several difficulties. First of all, the generation of ideas was very interesting and users and small firms rapidly saw the benefits of working together but it was different with the big companies (hotel, rental car companies, etc.).

The flexibility of the small firms allow them to take decisions in a fast way and stablish alliances that, in order to be fruitful, would also need the agreement an participation of bigger organizations, which is difficult to obtain in a short period of time.

Furthermore, the different cultural backgrounds of the clients (final users) of an international touristic destination as the Dominican Republican is, should be considered and the meetings and living-lab sessions should be split accordingly, as it arises quite difficult to manage in an open and creative environment.

5 Conclusion

The empirical application of this improvement process was carried out in a basic sector for the economy of the Dominican Republic, whose barriers are well permeable and non-knowledge-intensive, so the results will generate significant economic impact and visibility. The integration of all the elements and the importance of innovation developed on the local area will provide a multidisciplinary approach from the social and sustainable innovation.

The process of improvement based on the selection of an existing touristic activity is easy and can be repeated several times. The research team showed the local representants how to identify critical variables as well as stakeholders. Also how to create a climate of self respect and confidence that turns to be a critical point to allow ideas to flow in this “not-used to be creative” environment.

We can conclude that, on one hand, living labs is a suitable tool for social innovation to occur although the process should be refined. Final users and companies involved have led to new ideas but without the output of local and regional administrations, the final products are difficult to be implemented successfully.

We could also conclude that there must be a previous training step before organizing the sessions. On the other hand, it is important that a local well known organization establishes the links and helps in the definition of the study but also to contact with the big companies that may have commercial interests in the area, as they re, specially in an undeveloped country, those who allows the decision-taking process to convert into real facts.

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Landscape, Culture and Place Marketing—The International Dance Festival in Kalamata, Greece

Sotiria Katsafadou and Alex Deffner

Abstract This paper aims to analyse the interaction of landscape, culture and special events and the impact of this intangible relationship to a tangible level in a place. The paper begins with a theoretical analysis of the concepts of landscape, culture, special events, place marketing and cultural tourism that are relevant to the topic of this research. The theoretical framework is followed by the case study of the International Dance Festival in Kalamata. Special events, as place demonstration action, allow a place to promote its comparative advantages and upgrade its tourist product. Thus, special events influence landscape. The International Dance Festival in Kalamata, which has been going on for 22 years, has shaped city's cultural identity and therefore its landscape. This paper provides a new perspective regarding the way that culture and place marketing can influence landscape.

Keywords Landscape · Culture · Special events · Place marketing · Kalamata International Dance Festival

JEL Classification Z180 · Z32 · Z380 · Z390

1 Introduction

Landscape plays an important cultural, ecological, environmental and social role, acting as a resource for the development of the economic activity and the creation of a place identity. Landscape is the main ingredient of a region, and therefore all of its natural and human-made features. It is the image of the local characteristics of the place and the basis for the most important processes that determine the identity of a destination.

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This paper examines the interaction of landscape, culture and special events and the impact of this intangible relationship to a tangible level in a place. It begins with a theoretical analysis of the concepts of landscape, culture, special events, place marketing and cultural tourism that are relevant to the topic of this research. The theoretical framework is followed by the analysis of the case study of the International Dance Festival in Kalamata and its active presence for 22 years in the Greek dancing events.

The paper provides a new perspective regarding the way that culture and place marketing can influence landscape. The research aims to answer questions about the way that Kalamata's Dance Festival has managed to form city's cultural identity and the consequences of the creation and organisation of the festival to the landscape of the city.

2 Literature Review

2.1 *Landscape and Culture*

The concept of landscape is difficult to be determined, since its content depends on the way that it is approached. The term can be defined through an ambiguity between the place and the observer, as the result of the phenomenological approach of a place by its observer. Thus, the concept of landscape is approached through the interaction of the concepts of people and place. People observe and understand place according to their experiences, intentions, objectives and goals through a process in which the senses, the mental and psychological condition and the experience of the observer, as well as the external conditions of place such as atmospheric conditions, light, distance, motion, season and time are involved (Doukellis 2007; Eleutheriadis 2006; Manolidis 2003; Simmel et al. 2004; Stefanou and Stefanou 1999). The perception of place strongly incorporates the elements of subjectivity, aesthetics and ideology of the observer (Katsafadou and Deffner 2015).

The landscape is composed not only of what lies before our eyes, but also of what it is in our minds (Meinig 1979). In other words, we do not all perceive landscape the same way. Landscape constitutes a geographical unit and its image is perceived by the human eye and elaborated by the human mind. As a result, the process of perception, knowledge, appropriation and consciousness of a landscape is not neutral, since the natural and cultural dimension of the place are filtered by narratives and collective memories. Every place can have a multitude of readings and situated knowledge according to its observer. The perception of landscape is never pure/innocent (Crang 1998).

According to the European Landscape Convention, which was signed in 2010 by the Greek Parliament, the landscape is defined as the region, which is perceived by people, and whose character is the result of the action and interaction of natural and/or human factors (Government Gazete 30 A/2010). This definition contains the

two main trends of the current landscape theory. The first one treats landscape as a specific geographical area, based on certain criteria (e.g. geomorphological, historical, cultural), in which people live, work, move and generally act (landscape of engagement). According to the second trend, the observer is very important, since landscape is considered as a selected composition of characteristics that are chosen at random in order to construct a form, while the rest of the field is lost in a neutral background. Thus, the recomposed image of this area after its perception by the human eye is extremely important (observational landscape) [Doukellis 2007; Eleutheriadis 2006; Sfaellos 1991].

The perception of the landscape is not a selective observation of a specified geographical area according to the observer's aesthetic. On the contrary, the approach of the landscape is an attempt to conceive the internal identity of a place, which is strongly influenced by the emotional background of the subject and the context of history (Manolidis 2003). Landscape, before it is introduced in the mechanism of representation, constitutes a background of meanings and values that embody social relations and cultural practices. Thus, the image that people observe is not a pure representation of place but the representation of an already structured approach.

The concept of culture, although it is widely used in everyday speech, has no clear content. There is a long debate on the definition of this complex term. Culture is associated with the concepts of education, communication, entertainment, intellectual and mental improvement, social participation and social, political and technological development. It embodies the lifestyle of people and the way that it is perceived in social system, at arts, in the customs and the traditions and in religion (Eliot 1953/1990). According to Tylor (1871, p. 1), culture is "that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society".

Culture is a set of attitudes, beliefs and practices that are expressed in a particular way by each society and are based on its values and customs (Throsby 1999). Culture is treated as a dynamic function, which composes and causes a creative and spiritual atmosphere, and it is neither defined nor determined as some theater performances, art exhibitions or some intellectual works publications. Culture is defined as the overall spiritual, material, intellectual and emotional elements that characterize a place. The concept includes the arts and the literature, the lifestyles, the fundamental human rights, the value systems, the traditions and the beliefs (Mpitsani 2004). Culture includes all the elements which are present in the landscape. Thus, the concepts of landscape and culture are closely and directly related, so they should be studied together. The landscape is the basis on which culture is created, but also part of the already formed cultural background of a region.

On the other side, the development is defined quantitatively and qualitatively as the distribution of resources and income and as the quality of life of the inhabitants of a region, respectively (Skia-Panopoulou 1998). The cultural development involves the use of cultural activities and facilities to enhance the image and the economic and social development of an area: social integration and cohesion, infrastructure construction, increase the quality of life, creation of local cultural

identity (Bayliss 2004; Durantaye 2002; Grodach and Loukaitou-Sideris 2007; Hesmondhalgh and Pratt 2005; Richards 1996/2005).

The approach of the anthropological content of this concept, namely the development of mental, spiritual, moral, cultural and social potential of people is the main theme of this paper. The term 'development' is used to denote the process of sequential integration of the human personality. Consequently, humans constitute its main core (Maistros, 1986 as referred in Skia-Panopoulou 1998).

Regardless of whether cultural development is referred to the individual, the group, the community, the institution or the nation, it takes place in a specific place and in a particular time. Thus, the natural and historic environment, the landscape, plays an active role in cultural development and has a fundamental impact on every aspect and dimension of cultural life (Schafer, 1994 as referred in Skia-Panopoulou 1998).

2.2 Place Marketing and Cultural Tourism

Since the mid-1980s onwards, changes in socioeconomic conditions (neoliberalism, globalization, structural changes in the economy, European integration, explosion of new information systems, etc.) have led cities to face new problems and new challenges, leading to the need to redefine their role (Kavaratzis 2008).

Political leaders in the context of neoliberal governments (e.g. Thatcher in the UK, Reagan in the USA) promoted the integration of markets in the process of urban planning. This has created a business type of local economic development whose main purpose was to promote the image of each place and determine its identity in the European environment (Cheshire and Gordon 1996; Hannigan 2003).

Places began to promote their comparative advantages in order to search for new ways to increase their attractiveness and their competitiveness (Cheshire and Gordon 1996; Kotler et al. 1999; Roth-Zanker 2001). Thus, cities set as their first priority their economic and physical regeneration, claiming a high position in the hierarchy of European, and international, urban system. Every place is converted into a commodity whose identity and value should be planned and promoted, thus converted to a 'service seller', aiming at the strengthening of its economy (Kotler et al. 1993). The strategy which is used is that of conservation, enhancement and promotion of the special characteristics of each place, those that make it automatically unique.

The cultural factor, which is related to the quality of the urban environment, plays an important role among the other factors that can determine the perspective of a place's development e.g. the existence of high technology, the specialized human resources, the research institutions, etc. (Mpessis 2013).

Place marketing as a strategically planned process that requires actual place awareness aims at enhancing its overall image through the maintenance and promotion of its distinctive characteristics. These characteristics make the place automatically unique, contributing to its orientation, recalling its identity and

leading to its development. The formation of a place identity constitutes an urban strategy that can be transformed into a significant tool for its image configuration which will accompany this identity.

In terms of cultural tourism, there are a great number of definitions in use due to the involvement of various researchers, resulting in different definitions that are being used in research studies related to it (<http://www.etc-corporate.org>). Thus, there is a strong debate among researchers about its definition (Richards 1996/2005). According to the International Council of Monuments and Sites (ICOMOS 2002, p. 22):

‘Cultural Tourism is essentially that form of tourism that focuses on the culture, and cultural environments including landscapes of the destination, the values and lifestyles, heritage, visual and performing arts, industries, traditions and leisure pursuits of the local population or host community. It can include attendance at cultural events, visits to museums and heritage places and mixing with local people. It should not be regarded as a definable niche within the broad range of tourism activities, but encompasses all experiences absorbed by the visitor to a place that is beyond their own living environment’.

Cultural tourism has been recognized as an important tool for economic and social change. The attractions of cultural tourism include built and material values, cultural values referred to everyday life (such as leisure time, lifestyle, gastronomy, etc.) and special events and festivals (Aubert and Csapó, 2002 as referred in Csapó 2012).

The development of a city is perceived as the development of human resources, relationships and living conditions. Thus, this development should begin with the assumption that creation of wealth, social cohesion and quality of life require confident citizens with imagination, who feel able to realize their goals using arts and culture as means of mobilization, promotion and development of local community (Landry et al. 1996).

Cultural tourism was associated with place marketing, as well as with strategies that aim at the promotion of the place through the organisation of cultural events. Culture was used by many European cities as a tool of place marketing that led to its local economic development, forming an economic sector with growing capacity and positive effects in other parts of the economy e.g. tourism, trade, etc. (Skia-Panopoulou 1998).

In this direction, special events can be considered as significant tools. These are the specific rituals, performances or celebrations that have deliberately created and planned to mark a particular event and to contribute to the achievement of specific social, cultural or collective objectives (Bowdin et al. 2001). Special events, as a cultural tourism and place marketing demonstration action, allow a place to promote its comparative advantages and upgrade its tourist product. The way that special events affect the landscape depends on their organisation, their character, their space and time placement and the emphasis that is given to them by the local community and the local government.

Festivals are included in special events. Festivals, as public thematic celebrations that are organized for a specific purpose (Evans 2001), are strategic means and established mechanisms of modern cities, which enable them to differentiate creating their new image in order to attract and maintain investment, tourists and

trained workforce. Festivals are considered as an effective tool for the promotion of local identity and social cohesion of the place, and as places of meeting and dialogue between different ways of thinking and expression of various cultures from the inside and the outside of the local community (Psarrou 2009).

Landscape contributes to the creation of the brand name of a place. In other words, landscape allows a place to achieve the desired connection between the name of the destination, the identifiable natural and tangible characteristics, the historical and cultural elements and, thus, the recognizable tourist resources, the local products, the services and the available activities (Doxiadis and Liveri 2012). It contributes to the organization of all features that can be provided by a special tourist destination in a way that allows the place to differentiate, to compete with other places and to create a unique relationship with the visitor-consumer.

Landscape as a representation of reality can contribute to the interpretation of regional identity. Tourists observe the environment of the visited place, which is different from their daily environment, and thereby understand and evaluate the world defining their own identity. Landscape constitutes both the basis of the interpretation and, possibly, the formation of a place identity loaded from the psychic world of the observer and the history of the place, as well as the final provided good in the process of place marketing. However, landscape constitutes the basis for tourism, the result of its interventions (Doxiadis and Liveri 2012). Thus, place and locality constitute the basis for a strong and lasting place identity and the basis on which culture and cultural tourism is based and created. Consequently, cultural tourism and special events can influence landscape.

3 Methodology

The paper begins with a theoretical analysis of the concepts of landscape, culture, special events, place marketing and cultural tourism that are relevant to the topic of this research. The theoretical framework is followed by the case study of the International Dance Festival in Kalamata. This approach helps to inform practice by illustrating what has worked well and what has been achieved.

The paper uses a mixed method research design to overcome the limitations of a single design. Specifically, the research methodology consists of the following successive stages:

- selection and determination of the research topic, formulation of the problem and the research question,
- literature review (selection, design and list of the main references in order to clarify the main concepts) providing an overview of sources, a description and a critical evaluation of concepts related to the research (landscape, culture, special events, place marketing and cultural tourism),
- data evaluation and determination of which literature contributes to the understanding of the topic,

- synthesis and reorganization of the information (demonstrating the way that the research fits in a larger field of study and offering a new perception of the prior research), analysis and interpretation of the findings of pertinent literature and restatement of the research problem,
- case study research, selection of the International Dance Festival in Kalamata, Greece,
- determination of data gathering and collection,
- evaluation and analysis of data.

4 Case Study: The International Dance Festival in Kalamata, Greece

Kalamata is the capital of the Regional Unity of Messinia in the Region of Peloponnese and a large urban center with strong political influence of the local government. The city has a university community, a wide variety of artists, a history of cultural organizations that exceeds 20 years and a cultural initiative that makes it a pioneer in Greece level. In addition, Kalamata was a candidate city for the European Capital of Culture 2021 in Greece and was recently shortlisted from the pre-selection round. Currently, it is invited to submit a revised application in order to take part in the selection meeting in November 2016.

Kalamata is a city that passed through a devastating earthquake in September 1986 and managed to be renewed and reconstructed. Today, in a period of socio-economic crisis in Greece and Europe, Kalamata attempts to develop through culture. In this section, a brief overview of the cultural history of the city is presented culminating in the formation and the organisation of the Kalamata International Dance Festival (KIDF).

In the late 19th century (1882–1901) the port of Kalamata was formed, thus the city gained the opportunity to come into contact with the West and its culture. The result of this was the birth of a new bourgeoisie which formed an important cultural basis and heritage. The cultural development of the city began with the establishment of the first clubs and associations that had educational, cultural and charity purposes. The social and cultural initiatives were taken exclusively from individuals. Decisions were implemented by the central government, while local government was limited to an executive role.

In 1933, the library of Kalamata was founded. The library contributed to the cultural life of the city. The Gallery of the Contemporary Greek Art was founded in 1962 and had equipped with donations mainly from intellectuals. However, the gallery had a limited cultural offer in the city due to the economic problems and the lack of employee training (Kappou 2010).

The dominant form of leisure activities mainly relied on the family or the friend circle of each person and the private sector (e.g. restaurants, cinemas). Consequently, there was no visible need for action from the state in order to provide

facilities for leisure activities. In the years that followed the wars (World War II and Civil), the poverty did not allow the average Greek family to spend money on recreation and leisure time. The governments of the 1950s and 1960s which were directly linked with the new industrial class had the economic development and the growth of the country as their priority. As a result, social policy issues were of secondary importance (Papageorgiou 1993; Sirakoulis 2009).

The dictatorship in 1974 and the political change of 1981 formed new conditions in Greek politics and social life. The Municipality made an effort to create infrastructure for leisure in order to promote cultural and sporting events. This time period is characterized by a non-targeted development of leisure time policies mainly at the urban level due to the inexperience of the most local authorities. In the 1980s, the important role of local authorities in promoting leisure activities and creating leisure time policies in local communities was highlighted (Papageorgiou 1993; Sirakoulis 2009).

In 1978, the Mayor of the city Stavros Benos noted the limited opportunities of citizens to spend their leisure time usefully and proposed the creation of entertainment clubs, the organisation of cultural events and the establishment and the operation of a cultural center in order to provide a proper building infrastructure for the promotion and the support of the cultural activities of the city (Giannakaki 2013; Kappou 2010; Katsafadou et al. 2014).

During the decade of 1980–1990, cultural development was a priority for Kalamata. The planning of the city changed after the large earthquake in 1986. The purpose was to strengthen the cultural infrastructure and modernize the city through cultural development. The earthquake provided local authorities with an opportunity to set new objectives in urban planning and protection of architectural heritage. The local government succeeded to implement the most innovative proposals and maintain the cultural character of the city through the restoration of many traditional buildings (Katsafadou et al. 2014).

In 1984 the cultural center was constructed and in 1985 the Municipal Cultural Development Corporation of Kalamata (DEPAK) was created in order to give guidelines for the implementation of an integrated cultural development programme. To implement the programme, the sections of music, dance and art with educational and entertaining character were created. At the same time, a series of cultural enterprises were established, among which were included the Municipal and Regional Theatre of Kalamata (DIPETHEK 1984) and the Municipal Corporation of Tourism Development of Kalamata (DETAK 1991). The Philharmonic (1940), two Open Care Centers for the Elderly (KAPI 1982 and 1985), the Municipal Social Organization (1993) and the Vocational Training Centre (KEK 1993) were set as legal entities under public law (Mpessis 2013).

In 2008 it was decided to merge the DEPAK, the DETAK, the DIPETHEK and the KEK and turn them into a purely charitable enterprise of the municipality under the name of FARIS. FARIS purpose was to highlight the contemporary artistic creation, to cultivate the love for the arts to children and young people and to initiate a two-way relationship between the citizens and the municipality with special emphasis on social vulnerable groups. FARIS supports, until today,

activities in the fields of dance, artistic education with the operation of the Municipal Conservatoire, the artistic workshop, the theater, the visual arts and the social solidarity (<http://www.kalamata.gr>).

In 1993, the institution of the National Cultural Network of the Cities (NCNC) was established in order to create a network of cultural relations between the Greek cities to stimulate and develop regional cultural life (Skia-Panopoulou 1998). In 1995, Kalamata entered this network as a city of dance. The International Dance Center (DIKECHO) was then founded and was established as an institution that promotes and highlights contemporary dance creation. The DIKECHO operated in the fields of research, education and artistic action and production and turned Kalamata into a meeting place and a place of exchange between the Greek and the foreign artists and the students of the dancing art (Tsiliras 2009).

Dance is one of the most important expressions of art which is based on agility and balance. It is a way to achieve contact, communication, dialogue and create relationships between people. “Dance is not only the steps and the movements of the dancer, but also his/her own body, his/her costume and the other people who dance with him/her and those who sit around him/her” (Mpitsani 2002, p. 117).

The most important activity of the DIKECHO is the KIDF which is held every summer from July 1995. The KIDF is a pioneering and innovative cultural institution which has a special place in the list of the southern Mediterranean festivals, building bridges to international dance creativity. After 22 years as an active presence in the Greek dance scene with the support of the local authority, it has managed to host major artists and promote and strengthen the Greek creation “in the field by commissioning works from talented Greek choreographers and supporting new companies in their experimental explorations” (<http://www.kalamatadancefestival.gr>).

In recent years, the artistic activities of the festival last only 8 days due to the socio-economic situation of the country, as opposed to previous years that lasted 10–11 days. The artistic activities include:

- performances and productions wherein international dance companies and foreign artists are presented such as Merce Cunningham Dance Company, Momix, Rosas, KVS, Nederlands Dans Theater 2, Doug Varone & Dancers, David Dorfman Dance and Jan Fabre. The modern Greek dance creation is also presented with works by contemporary Greek artists such as Zouzou Nikoloudi, Harry Mandafounis and Lia Meletopoulou. The performances and productions constitute the backbone of the festival.
- choreography workshops and specialized dance workshops by world class instructors with great appeal to advanced professional theater and dance school students and professional dancers. Irene Hultman, Shelley Senter, Jill Clark, Deborah Saxon, Stefan Prins, Jeremy Nelson and Paul Douglas are some of the famous teachers.
- off-program events including lectures, dance performances, dance presentation workshops, film screenings, exhibitions and tours. These events are held in neighborhoods, creating a festive atmosphere throughout the city. The entrance to these events is free (<http://www.kalamatadancefestival.gr>).

The KIDF uses the infrastructure of DIKECHO and FARIS. In the human resources the artistic director, the secretary of the DIKECHO, the secretary of the international communication, various external partners arising from the needs of the festival, the administrative staff of FARIS and the volunteers are included (Mpsessis 2013). The DEPAK and the KIDF are supported financially by a programmatic agreement signed by the Municipality of Kalamata and the Ministry of Culture and Sports. Furthermore, since 1993, the Municipality of Kalamata has established the institution of cultural duty for the first time in Greece, ensuring this way an important and permanent income for the maintenance and operation of cultural organizations (Giannakaki 2013). From 2009 onwards, the government grant has been reduced considerably. Income is obtained from programs of the European Union or other international organizations, as well as from donations and revenues of the organization itself (ticket sales, seminar fees, etc.) [Mpsessis 2013].

The venues that host the festival activities are:

- the Kalamata Dance Megaron located at the centre of the city. The construction of the Dance Megaron started in 2007 and completed in 2013 with funding from the C and D Community Support Framework, costing over 12 million Euros. The building has the shape of an inverted ‘T’ and a total area of 7000 sqm. It has a large central stage (1500 sqm with backstage), an orchestra pit equipped with all the modern audiovisual equipment, a large test room (350 sqm) for the preparation of dancers and the performance of the off-program events, a spectator hall (735 seats), an administration area and a library, a cafeteria and a foyer and dressing rooms (individual and group) (Petrogiannis 2013). The aim of the construction of the Kalamata Dance Megaron is to boost the art of dance in Greece in terms of performances and studying to obtain Kalamata a higher education in dance (Kappou 2010). The high maintenance cost of the Dance Megaron and the lack of financial and human resources require the creation of a plan for its management.
- the Zoumpouleio Megaro that houses the DIKECHO and features modern infrastructure.
- the Kalamata Castle Amphitheater with a stage (729 seats), which is reminiscent of ancient Greek theaters (Mpsessis 2013). The amphitheater provides the viewer an unforgettable sensation and experience and direct contact with the artists, through the dreamlike scenery. The location and the configuration of the castle with a large staircase with many steps are a drawback, since it has a difficult access for people with reduced mobility. Finally, the small stage of the castle restricts some dance compositions that require enough space for their equipment.
- the DIPETHEK building which has two halls, the main stage (260 seats) and the new scene (Kappou 2010).
- the Kalamata Municipal Cultural Center—Pantazopouleios public school which is the main place for the expression of the cultural life of the city. Its facilities include a library, a gallery of Modern Greek art, a roofed patio where a variety of exhibitions are organized (painting, photography, sculpture, etc.), a

conference hall (280 seats) and amphitheater which is used as a theatre or a multifunctional cinema (450 seats) [<http://www.kalamata.gr>].

- the gymnasium of the former multidisciplinary lyceum of Kalamata (120–220 seats, depending on the distribution of public in the space) [Mpessis 2013].
- various open spaces in the historic city center, the main square, the railway park and the beach (<http://www.kalamata.gr>).

5 Discussions

People play an active role in the perception and the attribution of the concept of landscape. Therefore, the profile analysis of the audience which attends the KIDF is very important. The audience can provide information about the cultural life of the city which affects its cultural image and hence, its landscape. Consequently, it is worth to mention two surveys which were carried out in the audience of the KIDF.

In the first survey which was conducted with questionnaires from 2002 to 2012 regarding the festival's public profile, it was found that it is constituted mainly from people aged 25–34 years (27%), females (71%), and highly educated (47%). The same survey revealed that the largest proportion of viewers is living outside the city, while most of them visit Kalamata exclusively for the festival (70%) [Mpessis 2013].

The above results are confirmed in the second survey, which was also conducted with questionnaires from 2007 to 2012. In this survey, it was found that more than half of the viewers are not professionally related to culture (64.2%). In addition, the highest percentage of people attends and other contemporary dance performances in the same year (65.9%). Finally, the audience is steadily interested in KIDF and has attended it other 3–5 times (50%) [Giannakaki 2013].

The effect of the creation and the organization of the institution of the KIDF in the landscape can only be understood through the concept of energy and the overall atmosphere and the sense that is created at the place. Currently, the effect of the festival can only be revealed in an intangible level, which is considered that with the passage of time it will turn into tangible and will leave its imprint on the landscape of Kalamata.

The KIDF managed to create a cultural identity of the city and led to the transformation of its landscape to a cultural landscape. By improving the overall image and the aesthetics of the place, the local cultural identity managed to come sight, be strengthened and upgraded. The modernization of the equipment of the city and the construction of the infrastructure help also in the same direction. However, after the construction of the new Dance Megaron, an impact assessment plan of its consequences to the overall landscape of the city is required.

Improving the image of the place helped to improve the quality of life of the citizens and motivated to attract investment in various sectors of the economy. However, the concentration of a large number of people in a city for the relatively short time that the festival lasts, can lead to the destruction of the cultural heritage

and the landscape of Kalamata, and hence the overall encumbrance of the environmental management system in the region. Further research on this issue is necessary to be conducted, in order to determine the probability that destruction occurs and find ways that it can be avoided.

Finally, the cultural development of the place led to the all-round development of the people and the spatial harmony was transformed into social harmony. Kalamata with the organisation of KIDF succeed to become a meeting place and a place for dialogue of different cultures. Thus, Kalamata became a place which creates the feeling of pride, community and recognition, a place with interaction and creativity. The organisation of artistic and educational events and the construction of venues for artistic and intellectual expression enhanced the artistic creation and upgraded the intellectual level of the citizens, which in the future may lead to changes in the landscape.

6 Conclusion

The concept of landscape is the main feature of a region, the sum of all natural and human elements, the image of the local characteristics, the ideology and the feeling that the place carries. All the processes that determine the identity of a place happen in its landscape. The landscape is also the basis on which the development of the culture starts, and hence the cultural tourism.

The organization of special events, as cultural tourism and place marketing demonstration action offers to the place the ability to utilize and display its comparative advantages and upgrade its tourism product. In other words, the organization of special events can influence the landscape.

This paper analyzed the example of the KIDF and examined the impact of the formation and the organization of this institution on the place. The KIDF is considered as a successful special event which has helped to create the cultural identity of the city and therefore its landscape. The transformation of the landscape of the city to a cultural landscape led to the enhancement of its image and aesthetics and to the development of the sense of social cohesion. However, the sustainability of the new Dance Megaron and the effects of the high concentration of the population for a short time period in the city, are two issues that must be examined in order to be able to interpret their impact on the landscape.

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Assessment of Impact-Contribution of Cultural Festival in the Tourism Development of Thessaloniki

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Abstract During the last decades tourism has shown a rapid growth in international level. This rapid growth of tourism has created the need for diversification and enrichment of tourism products of each destination. Thus, in this highly competitive environment, each tourism destination seeks to enrich and diversify its tourism product utilizing existing tourism resources or creating new tourist attractions, such as cultural festivals. In fact, the effects of cultural festivals, as noted in the international bibliography, are multifaceted and multilayered, since they not only contribute to tourism and economic development of a region but also to its cultural development. Thus, more and more regions worldwide wanting to extract positive results in economic, cultural and social level, organize cultural festivals. This study seeks to investigate and assess the contribution of cultural festivals in tourism development through the case study of the Municipality of Thessaloniki. Particularly, the aim of this study is to examine the contribution of cultural festivals, both in local businesses and in the whole city. More specifically, this paper consists of three basic parts: (a) the theoretical framework of the dissertation, analyzing theoretical concepts related to the tourism phenomenon and especially cultural tourism, (b) a case study which analyzes the current situation in the Municipality of Thessaloniki and in particular the organization of cultural festivals and (c) the research part, which describes the research methodology and analyzes the results of primary research.

Keywords Cultural festival · Cultural tourism · Thessaloniki · Impact of cultural events

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1 Introduction

During the past decades, where the tourism phenomenon was spread extensively in almost the entire planet, is understood by everybody the necessity of tourism development from almost all regions. Thus, the areas that do not have special tourism resources seek to attract visitors through the organization of cultural events. Furthermore, due to the intense competition arising among tourism destinations, the different areas want to diversify and enhance their tourism product. So, even the areas with intense tourism development turn to the organization of cultural events in order to ensure and enhance their existing tourism traffic.

According to the international bibliography, the contribution of cultural festivals can be multi-faceted and multilayered, since beyond their contribution to tourism and therefore economic development of a city, can still contribute to the creation of the tourist image of the city, the brand development (brand name) and the creation of tourist flow in periods that are not considered active. This paper focuses on the city of Thessaloniki and especially in the Municipality of Thessaloniki, which is used as a case study. So, the purpose of this paper is to investigate and assess the contribution of cultural festivals in the tourism development of Thessaloniki in order to become a renowned a tourism destination with a particular image. Moreover, the aim of this paper is the export of basic conclusions concerning cultural festivals and their influence on tourism development, as well as the formulation of concrete proposals to enhance their contribution.

This paper shows a certain originality since while Thessaloniki has a long tradition in organizing cultural festivals, has not taken place so far an overall assessment of what to regard about festival contribute to the tourism development of the city. So this paper is an opportunity for the realization of the evaluation that results in useful conclusions for both the organizers of the festival, and for the city of Thessaloniki itself.

2 Cultural Festivals and Their Role

The word “festival” derives from the Latin word “festum” which refers to public joy and cheer.

A definition of festivals, as we mean it today, is the following (Falassi 1987):

The term Festival covers a constellation of very different events, sacred and profane, private and public, sanctioning tradition and introducing innovation, proposing nostalgic revivals, providing the expressive means for the survival of the most archaic folk customs, and celebrating the highly speculative and experimental avant-gardes of the elite fine arts.

Another definition is by Janiskee (1980) that states:

Festivals are formal periods or programs of pleasurable activities, entertainment, or events having a festive character and publicly celebrating some concept, happening or fact.

Meanwhile, Getz (1997) gives the following very concise but informative definition:

Festivals public themed celebrations.

Within a festival, in its current sense, activities related to a specific topic within a given period are gathered offering significant experiences that attract significant numbers of visitors (Saleh and Ryan 1993).

Cultural events concentrated in a particular time period were widespread even from the beginning of humanity. Initially, they had exclusively religious and ritual character (for example in Ancient Greece).

The first festivals in their current sense were solely related to art issues and included a specific art form, such as the Venice Biennale, founded in the late 19th century (Hunyadi et al. 2006). For a long time, festivals were considered only the major international events related to art. However, from approximately the middle of the last century, the concept of tourism started becoming more important and in combination with the ease of transportation, the concept of festivals received a wider acknowledgment resulting to festivals becoming very popular in recent years, constituting a global tourist phenomenon (Hunyadi et al. 2006).

Within the 20th century, festivals have multiplied, especially at a European level and got connected with separate sites and places of particular historic and cultural prestige (Varopoulou 2006).

Festivals can be classified in various ways, depending on their operations, the content and size. However, almost all festivals may fall into more than one category. The common feature of all festivals is that there are not just a series of events but they also provide a unique experience to their visitors (Hunyadi et al. 2006).

Festivals have various themes that come mainly from the fields of arts and culture. Nowadays, the most widespread festivals are the music ones, usually of a specific genre (rock, jazz, classical etc.). There are also festivals for theater (such as in Epidaurus), dance, literature, cinema but also gastronomy, wine or beer (such as the Beer Festival in Munich, known as Oktoberfest).

Today, most European countries have at least one local network for cooperation and communication among festivals. Their aim is the research and development of the festival market, the buying public research, as well as the promotion of national and international partnerships. The largest network is the "European Festival Association", which is located in Belgium and consists of festivals across Europe (Angeletou 2010).

The effects of cultural festivals are mainly social, meaning effects that may have an impact on the quality of life of local residents. These include economic, touristic, cultural, and environmental impacts, depending on the size and number of visitors (Fredline et al. 2003).

3 The Case of Cultural Festivals in Thessaloniki

3.1 *Recording Cultural Festivals in Thessaloniki*

In this section, a recording of the cultural festival in Thessaloniki is attempted. The documented festivals are in one hand the ones with great range and constitute a tradition for the city and on the other hand these of smaller range with long history and contribution to the cultural life of the city.

At this point it should be noted that since Thessaloniki acts as a single unit in the Greater Thessaloniki Area, a summary record of festivals is aimed throughout the Metropolitan Area of Thessaloniki. Certainly, the focus and the more detailed recording is performed at festivals of the Municipality of Thessaloniki.

Furthermore, it should be mentioned that such a record of cultural events has not been made so far by any management body. So this recording, pursued in this section, utilizes information from all competent bodies (especially their websites). More specifically, for the recording of cultural festivals, they are classified into three main categories:

- Major Cultural Festivals, which are a tradition for the city of Thessaloniki and have great range in national and international level, attracting large numbers of visitors
- Smaller cultural events-festivals of the Municipality of Thessaloniki, which are of a smaller scale but with significant history and consist an institution for the city
- Cultural events-festivals of regional municipalities of the Greater Thessaloniki Area, which can be of long or short range, but have a long history, and are organized for several consecutive years
- Other cultural events-festivals, this category includes festivals organized by private entities such as cultural and entertainment centers, radio stations etc., and also festival organized by political youth clubs.

3.1.1 Major Cultural Festivals—Institutions of Thessaloniki

In the city of Thessaloniki and especially in the Municipality of Thessaloniki, a series of major cultural large-scale festivals are annually organized and attract the interest at a national and international level. These festivals attract a great number of visitors both from the city and other areas. Also, most of these festivals have a long history and set an institution for the city of Thessaloniki.

One of the most known cultural festivals in Thessaloniki in international level is the Thessaloniki International Film Festival (TIFF). The TIFF is the leading film festival in southeastern Europe. It was organized in 1960 for the first time with the name Greek Cinema Week and from 1992 became international, including the Competitive Sections of Feature Films for Best New Directors. From the very first

Festival up until today 52 consecutive organizations were realized. Through this course, the Thessaloniki International Film Festival evolves constantly demanding and achieving an ever increasing international scope (Douvitsas 2006)

Summing up, TIFF is one of the most important cultural institutions in Thessaloniki with a large number of guests and attracts new visitors in the city highlighting Thessaloniki worldwide. So it is easy to comprehend that the festival effects are very significant and multifaceted culturally, economically and socially.

In 1999, along with the TIFF, started the Thessaloniki Documentary Festival (TDF), as a parallel and dynamic event, inspired by Dimitris Eipides. The TDF grew rapidly and today is one independent and very successful organization with a 13-year history (<http://tdf.filmfestival.gr>).

Like TIFF, TDF also attracts a great number of visitors and has significant effects to the city of Thessaloniki.

An equally important cultural institution for Thessaloniki is “Demetria”. It is basically the reviving of ancient fairs with the same name. The institution of “Demetria” started as an initiative of the Municipality of Thessaloniki in 1965 and since then never stopped. During the years, it evolved and was significantly enhanced. Thus, in 1995, Demetria were included in the European Festivals Association (EFA) and took part among the major cultural events across Europe (www.dimitriathess.gr).

Today Demetria are organized annually from September until December in almost every cultural venue of Thessaloniki including hundreds of music and theater events, exhibitions (painting, sculpture, crafts etc.) and conventions. Basically, Demetria is the second biggest Festival of the country right after the Greek Festival. It can be inferred by the above that Demetria is a very important institution for the city of Thessaloniki and has significant effects in the city (Douvitsas 2006).

Moreover, HELEXPO constitutes a very important cultural event for the city. Certainly, it can be mainly perceived as an economic event, but has also a strong cultural character, since during the Expo many cultural activities are taking place. In fact, many of these activities are the reason that many people visit HELEXPO. So it makes sense to record the HELEXPO as one of the institutions of the city.

More specifically, HELEXPO is consistently organized for the last 81 years and has become one of the city’s characteristics. In the previous years but also today, HELEXPO attracts a great number of visitors and exhibitors both from Greece and abroad. For this reason, HELEXPO has very significant effects on the economy of the city, boosting local businesses and creating jobs. At the same time, HELEXPO has important cultural effects since during its course there are various and diverse cultural events (www.helexpo.gr).

Another very important cultural institution of the Municipality of Thessaloniki is Open Theatre Festival. This festival is organized annually in July and includes the most important theatrical plays of the country. It is hosted by the Garden Theatre that is located in the center of the city. This cultural institution is considered very successful as it has been embraced by the city residents and attracts a large number of visitors (www.thessaloniki.gr)

One more very important cultural institution of Thessaloniki is the National Book Festival. It is organized annually for the last 30 years outdoors at the Thessaloniki promenade (Nea Paralia) around the White Tower from the Association of Publishers of Northern Greece and the Southeastern Europe Culture and Book Centre in cooperation with the Municipality of Thessaloniki, and is under the auspices of the Ministry of Culture. The National Book Festival is considered as one of the most successful events and attracts a great number of visitors not only from Thessaloniki but also from all the neighboring areas (www.sekve.gr).

A relatively recent but very successful cultural event is the “Music of the World Festival”. The Festival is organized annually by the Municipality of Thessaloniki in Thessaloniki’s port pier A’. During the Festival, music from the Balkans and the Mediterranean area are presented in the basis of experimentation and improvisation. As mentioned above, this festival is considered successful since it attracts a lot of visitors and gradually evolves to one of the most important cultural institutions of the city.

Finally, one of the most significant cultural institutions of Thessaloniki, which is no longer organized, was the Thessaloniki Song Festival. It started as contest for light songs in 1959 under the auspices of the National Radio Foundation and the first three events were held in Athens. Later on, in 1962, it was transferred to Thessaloniki where it was organized according to the guidelines of the Sanremo Festival in Italy (Douvitsas 2006).

The Thessaloniki Song Festival passed through various stages until 1997 where after 36 consecutive events stopped. In 2005, HELEXPO tried to revive the Festival. It managed to organize four more events, but in 2009 it stopped definitely.

The Thessaloniki Song Festival, especially in its first years, was the most important cultural event of the city since it was supported by great Greek composers and singers, such as Theodorakis, Hatzidakis etc. In fact, during the course of the Festival many people gathered in the city of Thessaloniki which brought significant local economic boost.

3.1.2 Smaller Cultural Events-Festivals of the Municipality of Thessaloniki

Along with the major cultural festivals organized in the Municipality of Thessaloniki there are also several smaller cultural events in other regions (districts) of the Municipality. These festivals can be of local range but they became institutions for the Municipality. Many of them have a long history as up to thirty consecutive years.

The most important ones are (www.thessaloniki.gr):

- The Cultural Events of Ano Poli, include music, dancing and theater, organized during the summer in open spaces in the broader outer area of Ano Poli.
- The “Celebration of the Angels”, this event takes place in Aristotelous Square during the Christmas season, where the city’s decoration and Christmas tree is

presented. This event includes concerts from famous artists and usually takes place during the first fifteen days of December.

- “Toubiotika” is a cultural institution which occurs for the last 20 years at the Touba region in Thessaloniki. This event takes place outdoors in Touba in the beginning of summer. It consists of various music, dance and theatre shows organized by the cultural associations and schools of the area.
- “Hariliotika” is an event organized by the Social Association of Harilaou Residents and the 5th District of the Municipality of Thessaloniki. The event is taking place at Nea Elvetia’s grove and consists of various music and dance shows. “Hariliotika” is one of the oldest cultural institutions in Harilaou area since it is organized for the last 35 years.

3.1.3 Cultural Events-Festivals of Regional Municipalities of the Greater Thessaloniki Area

Along with the major and smaller cultural festivals of the Municipality of Thessaloniki, there are also many other significant cultural events organized by regional municipalities of the Greater Thessaloniki Area. As mentioned above, the Greater Thessaloniki Area is considered as one unit and for this reason there will be a brief report on its cultural events that are held throughout this whole area. In fact, some of these events have such a long history that are considered as cultural institution for the whole city of Thessaloniki and attract a great number of visitors even from other regions.

The most important cultural events-festivals that are organized by the regional municipalities of the Greater Thessaloniki Area are:

- “Thermis’ events” is organized by the Municipality of Thermi around the area of Thermi’s dam. It includes dance and theatre shows and various other activities. It is organized for more than a decade and it is considered the most successful one since it attracts a large number of visitors (www.thermi.gov.gr).
- “Para thin alos” Festival (“By the shore” Festival) includes a great amount of cultural events (music, theater, dance shows etc.), is organized by the Municipality of Kalamaria for the last 21 years (www.kalamaria.gr).
- “Kodra Festival” includes a number of concerts that are organized during the summer at the former Kodra Military Camp (www.kalamaria.gr).
- “Children’s Dance Festival” is organized by the Municipality of Kordelio Evosmos for the last 10 years at the end of February (www.kordelio-evosmos.gr).
- “Education Festival” is organized every May for the last 13 years by the Municipality of Kordelio Evosmos. It consists of a series of theater, music, dance shows, exhibitions and visual arts all performed by the students of all the schools of the Municipality of Kordelio Evosmos (www.kordelio-evosmos.gr).

- “Cultural Days” are organized by the Municipality of Pavlos Melas at the end and the beginning of each school year. It consists of various cultural events created by the cultural associations of the area (www.pavlosmelas.gr).
- “Education Festival” is organized by the Municipality of Pavlos Melas during spring time and includes various cultural events created by the students of the schools of the Municipality and is organized by the last 15 years (www.pavlosmelas.gr).
- “Merkouria Festival” is organized every year by the Municipality of Sikies—Neapoli for the last 17 years. “Merkouria” is the largest theatrical institution in Northern Greece and is taking place every summer at the Open Theatre of Sikies presenting the greatest performances of the season (www.sykies.gr).
- Various Cultural Events held at the two open theatres of the Municipality of Thessaloniki, Forest Theatre (Dassos Theatre) and Theatre of the Earth (Theatro Gis). These events are not considered traditions but every year during the summer there is a great amount of concerts and theatric performances in these two theatres.

3.1.4 Other Cultural Events-Festivals

Lastly, the cultural events—festivals which are not recorded in any of the previous categories are classified as other events—festivals. These cultural events-festivals are mostly festivals organized by the private sector and political youth clubs.

The most important festivals of the private sector are: Mylos Festival, Moni Lazariston Festival, various festivals organized from time to time by the Creative Space Block 33 etc. As for the festivals created by political youth clubs, the most known ones are: KNE Festival (The communist youth of Greece), Synaspismos Festival (Coalition of Radical Left), Antiracism Festival etc.

These festivals have a long presence in the cultural life of Thessaloniki and have become a tradition for the city. In fact, they attract a large number of visitors both from the city of Thessaloniki and the nearby regions.

3.1.5 Conclusions

As can be seen from the summary record, the cultural festivals of Thessaloniki, both in number of events and cultural level, are many and of high quality. Most of these events have a local or regional scope, contributing to the city only in cultural level. There is also though a relatively small number of the events recorded that have national and international scope, attracting visitors from other regions.

These events lead to very significant multilayered effects for the region of Thessaloniki. So, in financial terms, they stimulate the local economy as well as enhance the local businesses. Moreover, the organization of cultural festivals create new jobs, but mainly seasonal.

In addition, the cultural festivals contribute also to the tourism development in the city. So these events serve as tourist attractions, as well as promotion for the city's image as a tourism destination. There are certain events, such as the Thessaloniki International Film Festival and HELEXPO, which are the typical example of characterizing the area and its identity.

But the organization of cultural events in Thessaloniki shows significant weaknesses which hinder the effectiveness of some events that do not bring the expected results.

One of the main problems in organizing events is the involvement of many different actors. This results in no coordination among events and thus no synergies are generated. The lack of coordination creates problems in the promotion of the events in an integrated and organized manner, while financial and human resources are wasted.

Furthermore, the lack of communication among the institutions that organize cultural festivals, in many cases, does not only destroy the economies of scale and synergies, but also one event operates in competition with the others.

Therefore through the identification of this very important problem, the need for coordination and organization of all actors involved in organizing cultural events—festivals is perceived. The coordination of the agencies and consequently of events can create synergies among them in the organization of cultural festivals, that in turn will result in savings. Finally the coordination of cultural events will make organizations more efficient and would maximize the benefits for the city of Thessaloniki.

3.2 Research on Residents and Businesses in Thessaloniki

3.2.1 Methodology

For a more complete assessment of the effects of the cultural festivals in Thessaloniki a primary research was conducted on residents and city businesses with the use of questionnaires. The main objective of this research was the investigation of the effects of the cultural festivals in Thessaloniki by recording the views of the residents of Thessaloniki, but also the entrepreneurs who own businesses that are directly or indirectly related to tourism, such as hotels, restaurants, cafes etc.

The research was conducted between December 2011 and January 2012 at a selected sample of city residents and businesses. The method used to select the sample is simple random sampling. In this case, the sample of city residents was 203 people, while the businesses sample was 81 companies from the broader tourism industry. The selection of the sample may have been done randomly but it was attempted to be as representative as possible about the key elements of the population e.g. the residence of the city residents or the type of the business.

Methodologically, the survey started with the preparation of two questionnaires, which were based on the aim of the research that was set from the beginning. Then a pilot survey was conducted on a small sample, in order for the questionnaires to be tested and improved, so as to ensure the quality of the main research. Next, there was the distribution and the collection of the questionnaires. For this phase of the research, the following methods were used: (a) on-site filling of the questionnaires, (b) questionnaires via e-mail or fax and (c) questionnaire via telephone. The sorting and processing of the data was performed using SPSS MS Excel software.

3.2.2 Survey Results on Residents of Thessaloniki

Part of the survey results to the residents of Thessaloniki are presented in this section. First, an important finding from our study is the fact that the respondents appear aware of the cultural festivals organized in the city. More specifically, 42.4% of the respondents is aware of all the cultural festivals and 23.6% fully aware when only the 7.9% knows little or nothing about them. From the answers to this question seems that the information about the cultural festivals that are organized in the city is quite good, at least to the residents of the city. It is therefore understood that the promotional activities of the local cultural events are effective.

Moreover, the majority of the residents of Thessaloniki seems to attend to some of the festivals. More specifically, 49.8% of the respondents attends sometimes in cultural festivals, 19.2% attends often and 21.7% seldom. This shows that the residents of Thessaloniki are interested for the cultural festivals that are organized in their city and in fact participate in them.

Regarding the kind of festivals that the respondents prefer, 41% prefer film festivals, 28% music festivals and 11% arts festivals. Generally, it could be derived that film festivals, especially TIFFF which of course is one of the biggest and most important festival of the city, as well as music festivals almost monopolize the interest of the residents of Thessaloniki.

Regarding the assessment of the effects of cultural festivals, respondents generally evaluate them as very, enough or relatively important. Especially in the area of the festival tourism reinforcement, 40.9% of respondents consider that cultural festivals have moderate impact, while 25.1% think that have enough impact and 10.3% little impact. In strengthening of the leisure business, the evaluation of the effects has more positive results, as 30% of the respondents consider that cultural festivals have a moderate impact, 26.6% felt that have enough impact and 22.2% consider that have great impact. In the overall economic development of the region, 40.4% of the respondents consider that cultural festivals have a moderate impact, while 24.6% think that have enough impact and 18.2% that have great impact. As for the effect of the cultural festival in the tourist promotion of the city seem to be significant, with 43.8% of respondents consider that the impact is enough while 28.1% think that the impact is great. Same as above, for the attraction of new visitors to the city the influence of the cultural festival is significant, with 37.4% considering that the impact is sufficient and 37.9% considers it is great.

In addition, the contribution of cultural festivals in the cultural development of the city is assessed as significant, since 41.4% of the participants in the survey consider that the effect is great and the 36% that is enough. Similarly to the previous field, cultural festivals seem to have a positive effect also to the cultural enhancement of city residents since 43.8% think that this effect is significant, while 37.4% consider the effect significant enough. Even the area of the improvement of the quality of life seems to be influenced by cultural festivals, as 40.4% of respondents consider that the effect is important enough and 27.6% consider that the effect is very important. Likewise, the effect on improving cultural infrastructure appears to be significant, with 34% of respondents assessing it as important enough and 31.5% evaluating it as very important. In contrary, the effect on improving the city image is assessed as moderate by the residents of Thessaloniki at a rate of 30.5%.

Even more, the effect of cultural festivals in strengthening the city's prestige seems to be quite significant, with 39.9% of respondents assessing it as very important and 28.6% as important enough. There is the same effect on the squandering of public money as 36% considers it important while 31.5% important enough. This is one of the few negative effects of the festivals. On the contrary, the effect of the increase of job openings is assessed as moderate as 48.3% of respondents evaluates it as such. Lastly, one more negative effect of the festivals that has to do with the city is the environmental pollution. Fortunately though, this effect seems to be moderate since 50.2% of the respondents evaluates it as such.

In fact, apart from the recognition of the importance of the effects of cultural festivals by city residents, that was mentioned above, the respondents also believe that there is room for greater benefits for the city of Thessaloniki by organizing such events. More specifically, the majority of the participants in the survey (66%) believe that there is significant scope for improvement of the city's benefits from festivals, while only 27.6% consider that there is enough and the rest 6.6% that there is slight to none. The answers to these questions disclose that the residents believe in the development of such events and believe that Thessaloniki has all the potential to further increase these activities.

3.2.3 Survey Results on the Businesses of Thessaloniki

Part of the survey results on the businesses in Thessaloniki is presented in this section. At first, the majority of the businesses is aware of the cultural festivals organized in the city of Thessaloniki. More specifically, 35.8% of the participants in the survey is well aware about the cultural festivals and the 29.6% is aware enough while only 9.9% knows only a little and 7.4% knows nothing at all. This demonstrates that cultural festivals organized in Thessaloniki are considered as important events for the city and are broadly known and especially to the city's entrepreneurs.

Regarding the effects of cultural festivals, businesses generally assess them as very important. For this reason, in almost every sector, the majority of the participants believe that the effects are very significant. The exception to this though is

the sector of the new visitors' attraction, where 60.5% of respondents assess that the effects of cultural festivals are moderate.

On the other side, in the second group of questions that evaluate the effects of cultural festivals, there is no common assessment. So there are some fields such as the improvement of the quality of life, the improvement of cultural infrastructure, the strengthening of city's prestige and the increase of job openings, where the participants in the survey believe that there is a moderate effect on them by the cultural festivals. On the contrary, in the question about the improvement of the city image, the majority of the respondents believe that the effect is very important. Finally, the effect of cultural festivals on the environmental pollution of the city is considered minimal by the respondents.

From the analysis of the previous answers it can be inferred that there are some fields where cultural festivals have already a significant effect when there are others where the effects are either slight or none. For this reason there shall be an emphasis in two directions, in one hand efforts shall be made in order to maintain and strengthen the positive impact of the festivals in the areas the effects are already positive.

As far as the effects of the festivals on businesses, the majority of the respondents (39.5%) believe that there are positive effects, followed by those (38.3%) who believe that the effects are moderate. It is worth mentioning that only 7.4% of the respondents believe that the cultural events have negative effects on their businesses.

The increase in the business turnover during the cultural festivals organized in the city seems to be quite important. Thus, 34.6% of the respondents believe that the turnover is increased by 10-20%, 28.4% of the respondents' state that the increase in turnover is approximately 20-50%, while 17.3% report that the increase is 0-10%. From these answers can be inferred that the increase of the turnover is significant enough during the duration of the festivals.

Finally, entrepreneurs in their majority believe that there is room for greater benefits for their business by organizing cultural festivals. More specifically, 44.4% of the respondents believe that the margins for benefits are significant and the 29.6% that are important enough, while only the 9.9% state that there are no margins at all.

4 Conclusions

From all the above, some basic conclusions can be drawn concerning the assessment of the contribution of the cultural festivals in the tourism development of Thessaloniki, which was the principal objective of this research.

First, due to the rapid development of the tourism phenomenon globally, there was an increase of tourism destinations which intensified the competition between the places. So in order to strengthen the role of tourism destinations in this competitive environment, each destination tried to enrich and enhance its tourist

product. The attempt was made in several ways, one of them is the organization of cultural festivals which are of international interest.

From the above analysis emerges that cultural festivals have multifaceted effects on a region. Thus in one hand contribute to the economic, social and cultural development of the region, while on the other hand serve as tourist attractions, thereby enhancing tourism development in the region.

During the last years, the city of Thessaloniki makes an effort to organize such cultural festivals. The results from the analysis of the region show that Thessaloniki is now a modern city with a metropolitan air and has all the characteristics in order to play a greater role in the broader region. More particularly, in the tourism sector, even though Thessaloniki has remarkable tourist resources, but also all the necessary infrastructure, it has not been developed in the tourism sector adequately.

In fact, as noted in the primary research and reflected in both views of the city residents and the businesses, the city of Thessaloniki even though has no particular tourism development so far, has great potential for a future one. The tourism development of the city, as noted, can be based on the better utilization of tourism resources and its infrastructures.

In the quest for tourism development and evolution of the city to a popular tourism destination at an international level, the aim is the enrichment of the tourism product with new modern tourist forms, among which are the cultural festival. Therefore, it can be derived through our research that there are numerous and very qualitative cultural festivals organized in the city of Thessaloniki. Certainly most of these cultural festivals have a local or regional scope, contributing only a small portion to the city. This small contribution of the festivals to the city has to do with the small number of organization of national or international range that attracts visitors from other areas.

As revealed by the primary research, the residents of the city and the entrepreneurs recognize that the festivals already affect the city and the businesses of Thessaloniki. They even argue that Thessaloniki has every chance to further develop this activity and maximize the benefits deriving from the festivals.

At this point, there should be a mention to the findings of the intersections of the variables of the survey in businesses that show that the effect of cultural festivals to local businesses differentiates by the type of its activity. Therefore, it seems that businesses directly linked to tourism such as hotels, restaurants etc. receive significant effects of the cultural festivals. But businesses that are not directly linked with tourism, such as stores, have no similar effect. For this reason, there should be included in the designing of a festival the broadening of the categories of the businesses that can benefit from the organization of such festivals.

For example, in festivals abroad, it is common to distribute discount coupons at the venue of the festivals for purchases from local stores. In this way, they give motives to the visitors of the festival, either if it is a resident of the city or it is a guest, to visit the shopping area of the city.

Furthermore, as derived from the analysis of the field of organization of cultural festivals in Thessaloniki, but also from the primary research to the residents and businesses of the city, the organization of cultural events shows significant

weaknesses and problems, which weaken them, do not make them competitive in international level and do not bring the expected results. One of these problems, highlighted in the primary research, is the lack of coordination between the different events which sometimes act competitively to one another.

Therefore it is necessary to coordinate the cultural festivals so that the various organizations to become more efficient, to maximize the benefits of the city and create synergies between the events.

Certainly a very positive element that emerged from the primary research is that both the residents of the city and the entrepreneurs recognize the importance of cultural festivals despite their relatively limited contribution in Thessaloniki today. Moreover, residents and city entrepreneurs believe that the organization of such events can bring significant results in many fields. Finally, another very promising factor arising from the research in the two target groups is the identification of significant scope for greater benefits from organizing cultural festivals for the city of Thessaloniki, but also the strengthening of the local economy.

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Is Silver Economy a New Way of Tourism Potential for Greece?

Dimitrios Kyriakou and Dimitrios Belias

Abstract The need to travel appears to be innate in humans. Exploring one's surroundings is prevalent at birth. A child will wander around looking with keen interest at his/her environment. As people grow older, they feel the need to see different parts of their world. For example, many young people will embark on an overseas trip during or after completing their education. The older population has the time to travel and experience the world that may have eluded them during the years of raising a family or pursuing career commitments. Higher income enables greater exploration. The United Nations (1948, Article 24) have declared that "everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay", with everyone assumed to have the right to leisure for developing every aspect of his/her personality and furthering social integration (European Commission 2006). However, the recent report on Demographic Change and Tourism (DCT) by the World Tourism Organization & European Travel Commission (Demographic change and tourism. World Tourism Organization & European Travel Commission, Madrid 2010) has highlighted that the demographic changes in modern societies have created new challenges for the development of tourism due to their implications on tourism participation behaviour (see also Nickerson 2000; Reece 2004). Litrell, Paige, and Song (2004) described senior travelers as becoming an important travel segment because of their level of wealth, higher discretionary income, lower consumer debt, greater free time to travel, and their tendency to travel greater distances and for longer lengths of time. Huang and Tsai (2003) found that seniors will soon be one of the largest prospective market segments for the hospitality and travel industries. A marked shift in interests from beach and shopping to culture, nature and food opens additional business prospects to accommodate those who now enjoy the extension of a long-term hobby or the opportunity to try something entirely new. But what policy makers in Greece

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can actually do to develop and expand silver economy tourism in order to combat economic crisis as well as tackle down seasonality thus create a supplementary sustainable and viable tourism product in Greece?

Keywords Silver economy · Senior tourism · Tourism policy · Tourism development

JEL classification Z32 · Z38 · R11 · P46

1 Introduction

Nowadays, tourism is one of the largest world industries and provides a considerable range of potential benefits, including the development of intercultural interaction, the stimulation of peace and understanding, personal benefits to tourists, and economic growth and prosperity for tourism destinations (McCabe, Joldersma, and Li 2010, Eugenio-Martin and Campos-Soria 2011). The United Nations (1948, Article 24) have declared that “everyone has the right to rest and leisure, including reasonable limitation of working hours and periodic holidays with pay”, with everyone assumed to have the right to leisure for developing every aspect of his/her personality and furthering social integration (European Commission 2006). However, the recent report on Demographic Change and Tourism (DCT) by the World Tourism Organization & European Travel Commission (2010) has highlighted that the demographic changes in modern societies have created new challenges for the development of tourism due to their implications on tourism participation behaviour (see also Nickerson 2000; Reece 2004).

According to Schulz and Radvansky (2014), ageing is currently considered as a significant social and economic issue in Europe. The effects of ageing on the consumption structure will lead to structural economic challenges. Increase in the demand for some specific goods and services could be considered as an opportunity for some sectors or even small countries. We assume that almost all newly-created jobs will focus on the increased consumption of the elderly and its structure. We refer to this approach as the “Silver economy”. Its main idea is that supplying goods and services for the growing sector of elderly consumers has the potential to stimulate economic growth and create new jobs (Batra 2009).

Adapting from Sedgley et al. (2011), the dramatic increase in the numbers of older people means that there is likely to be an acceleration of tourism research focused on these individuals (Glover and Prideaux 2009). For example, in more developed countries there is predicted to be some 1.2 billion people aged 60 and over by 2025, rising to 2 billion by 2050—three times as many as today (World Health Organisation 2009). The sheer scale of this increase implies many inter-related transformations in the very nature of societies and policymakers at local, national and supranational level (such as the European Union) recognize the

need for research which maps social arrangements and structures, behavioural patterns and the potential to exploit the so-called silver economy (Magnus 2009).

But what policy makers in Greece can actually do to develop and expand silver economy tourism in order to combat economic crisis as well as tackle down seasonality thus create a supplementary sustainable and viable tourism product in Greece? Although it could be argued that the topic covered reflects seasoned thinking about answering the question ‘what can be done’ and if everything was ‘well done’, silver economy tourism, as it can be seen in the core text of this paper, surfaces as one of the means towards the light of the tunnel.

2 Literature Review

The ageing baby-boom generations are one of the most relevant markets in the tourism industry (Chu and Chu 2013; Mahadevan 2014). The elderly today not only have greater purchasing power than other groups (Metz and Underwood 2005; Wang, Ma, Hsu, Jao, and Lin 2013), such as the young, but they also have a lifestyle that is more based around entertainment and the enjoyment of travelling in their leisure time than previous generations (Van den Berg, Arentze, and Timmermans 2011). This demographic change will mean that the senior tourism sector will come to be considered as one of the most attractive within the tourism industry, making this sector the ‘growth engine’ of tourism (Chen, Liu, and Chang 2013). According to Wu (2003), the theories most frequently used to research travel motivation are based on: Maslow’s need hierarchy theory, Pearce’s travel career ladder, Lawler’s expectancy theory, ‘Push’ and ‘Pull’ theory, Iso-Ahola’s social psychological model and the Functional theory of attitudes. Fodness (1994) was the first author to adapt Katz’s (1960) Functional theory of attitudes to tourism. In so doing, the author developed a scale to measure tourism motivation based on five dimensions related to the psychological needs of the individual to travel: Knowledge function, Utilitarian function: Minimization of punishment, Social adjustive function, Value-expressive function and Utilitarian function: Reward maximization. Since then, many authors have used the Fodness (1994) model adapted to the theory of ‘push’ and ‘pull’ factors to research senior travel motivation (Alen et al. 2015).

The existing studies in the field of seniors’ travel motivation are based on the two dimensions of motivation, that is, ‘pull’ and ‘push’ factors. The precursors of these two motivation dimensions were Crompton (1979) and Dann (1981), who established a connection between ‘push’ factors and the desire to or need for travel, and between ‘pull’ factors and the choice of destination. More recently, ‘push’ factors have tended to be connected with the reason to travel and ‘pull’ factors with the attractiveness of the destination’s attributes (Chen and Wu 2009).

In trying to segment this market, much of this research has attempted to comprehend their motivations (see e.g., the work of Anderson and Langmeyer 1982; Sellick 2004; Zimmer, Brayley, and Searle 1995). In segmenting the market in this way, many researchers, as depicted in Prayag (2012), have categorized older people

into various marketing groups using demographic and psychographic data (Horneman, Carter, and Ruys 2002), lifestyle and attitudinal factors (Muller and O’Cass 2001), educational and income levels (Jang and Ham 2009) and even housing type and ownership (Reece 2004).

Moreover, researchers have formulated various classifications and labels for different types of older tourist. You and O’Leary (2000), for example, formulated three groups of older tourists, ‘passive visitors,’ ‘enthusiastic go-getters’ and ‘cultural hounds.’ In a similar fashion, Kim, Wei, and Ruys (2003) identified ‘active learner,’ ‘relaxed family body,’ ‘careful participant’ and ‘elementary vacationer.’ Morgan and Levy (1993) in distinguishing between the different attitudes and motivations of older people recognized ‘pampered relaxers,’ ‘highway wanderers,’ ‘global explorers,’ ‘independent adventurers’ and ‘anxious travellers.’ Likewise, Moschis’s (1996) work identifies ‘healthy indulgers,’ ‘healthy hermits,’ ‘ailing out goers’ and ‘frail reclusers.’ (Sedgley et al. 2011).

When it comes to the “old” or “senior” population, the criteria for this population may vary depending on the literature. It is usual to denote people aged 65 years or older as being part of an older population (Peterson 2007). However, the specific ages of older consumers were not consistent in literature reviews, such as those 55 years old (Hong, Kim, and Lee 1999; Moschis 2003) and those 45 years of age or older (AARP 2004). Baby boomers, a specific focus of our research interest, refer to people who were born between 1946 and 1964 (AARP 2004).

With more money, time, and an active lifestyle, older consumers are also the fastest-growing market segment in the travel and tourism industry in the United States (TIA 2002). In terms of spending while traveling, the Bureau of Labor Statistics (BLS) reported that individuals between the ages of 45 and 54 years spent the most on aggregate leisure trips in 2000, with 24% (7.9 billion) of the year’s total travel expenditures (32.3 billion). The next highest group in terms of travel expenditures was those 65 or older (19%) (Janini 2003). The BLS reported that average travel expenditures by individual households were the highest for those 65 and older. However, another group of researchers (Hong et al. 1999) indicated that those aged 55–64 years tended to spend more on trips than the older groups of seniors (64–74 and 75 years or older).

But although nobody appears to doubt the increasing significance of senior tourists in current and future tourism, an in-depth understanding of this market is lacking, especially from a temporal view. Although existing studies in senior tourism have greatly enhanced our understanding of the senior market, most have used a cross-sectional approach with data collected at a single time point. Many academic and trade articles have studied the market of those ages 55 years or older to better understand their travel behavior (Shoemaker 2000). Marketers originally identified this population group using such labels as “the mature market” (Lazer 1985), the “older market” (Allan 1981), and “the senior market” (Shoemaker 1989). More recent studies have used other phrases such as “the silver market” (Branchik 2010).

Some authors (e.g., Gonzalez, Rodriguez, Miranda, and Cervantes 2008; Hudson 2010) have maintained that today’s senior market differs greatly from the stereotypical mold of senior tourists of past eras, and that it is a misunderstanding to

think of senior citizens 55 years or older as weak, dependent, lonely, or physically or mentally limited, who want only consistency and predictability when they travel. As Cummings (2006) contended, instead this market loves exciting adventures and new challenges. Gonzalez et al. (2008) even suggested that nowadays seniors usually think of themselves as 15 years younger than they really are. Bolt (2007) in turn asserted that today's seniors are not ready to focus on a future when their health is in decline. In other words, these authors believe that a generation gap does exist between the most recent seniors and those of the older generation.

3 Discussion

There is no consensus on the exact definition of the senior tourist market, generally defined as a tourist segment delimited by chronological age, beginning "anywhere from 50 up to 65 years of age" (Gonzalez et al. 2008). According to forecasts, the number of people aged above 60 years will increase more than double to constitute 22% of the world's population by 2050 (Magnus 2009).

Particularly in Europe, there is a clear tendency towards an ageing population, as a consequence of the gradual increase of life expectancy, resulting from an improvement in the quality of life standards and healthcare. In 2010, nearly 17.4% of the European population were aged above 65 years (Eurostat 2012a). Forecasts (Eurostat 2012b) concerning the age structure in 2050 indicate an increase in the number of the elderly, with those aged above 65 years expected to account for 27.8% of the European population and those aged above 80 years accounting for 10.1% in 2050. Several authors (e.g. Urhausen 2008; Wang, Cheng, and Chou 2007) state that a substantial growth of the senior tourist market in the next decades is expected, not only due to population ageing and improvement of health conditions, but also due to the ageing of new generations, more used to travelling (Jang and Ham 2009; Carneiro et al. 2013). Given this trend of modern society's ageing, the senior population is becoming an increasingly attractive tourist market, given its high propensity to travel and relatively fewer limitations on timing of travel and duration of stay (European Commission 2011; Nimrod and Rotem 2010; Urhausen 2008).

According to Schulz and Radvansky (2014), in 2010, silver households with a reference person over 60 comprised roughly 28% of total households' consumption. Considering the fact that silver households comprise an almost 36% share of the total number of households, we can see that lower incomes in retirement lead to a decreasing ability to consume. The spending structure varies by the different ages and levels of wealth in each country. In the EU 27, the share of households with a reference person aged over 60 will increase from almost 36% in 2010 to more than 43% in 2030 (growth over 20%), significantly more than in younger one. Similarly, in the case of total household consumption, we can also expect an increase in we can also expect an increase in the share of 60 + households to 32% in 2025, and 35% in 2030 (Bernini and Cracolici 2015).

Moreover in Schulz and Radvansky (2014), luxury goods and services such as restaurants, travel, recreation and culture are more often demanded and consumed in countries with higher average incomes (mostly EU15). In countries with lower average incomes, represented mainly by the new EU member states, the elderly spend larger share on services and products important for day-to-day living (food and housing) (Bernini and Cracolici 2015).

From selected country perspective, German silver consumers tend to spend a significant part of their income on health care (mainly co-payments), recreation and culture. This is determined by high income. The expected development of silver demand in Italy is fairly similar to that in Germany. Additionally, the elderly in Italy will spend a relatively high share of their expenditure on luxury products. In Slovakia, based on cultural and social behaviour, demand will mostly target goods and services for day-to-day living and healthcare. The demand of silver customers in Finland will target day-to-day necessities, as well as other more luxurious types of products and services (Schulz and Radvansky 2014).

Moving along in Bauer (2012), one Australian study (Honeman et al. 2002) profiled senior travellers and suggested that 45% were 'Conservatives' preferring reliable package holidays; 25% 'Pioneers' seeking adventure and new experiences, and 15% 'Aussies' enjoying a budget family holiday. The 'Big Spenders' (10%) prefer luxury holidays, whereas the 'Indulgers' (< 10%) take an interest in good food and wine. Less than 5%, the 'Enthusiasts', continue to be social party people, seeking predominantly club holidays (Chen 2014).

From another view in Bauer's work (2012), a Canadian study (Tung and Ritchie 2011) focused on the link between memorable experiences (the 'reminiscence bump') and senior travelers' travel decisions. Five categories emerged with the first being 'Identity Formation'. Here, travel is used to expand on perspectives in life. 'Family Milestones' is linked to visiting one's country of origin (Canada like Australia being a country of immigrants) and reviving old contacts. The third characteristic, 'Relationship Development', relates to a traveler's new or current relationship. 'Nostalgia Re-enactment' may be expressed in trips to childhood places, repeating activities travelers enjoyed decades ago, e.g. fishing in a village creek. Finally, 'Freedom Pursuits' refers to having the time and money to travel, to learn new things, to 'feel young again' without the earlier family obligations (Chen 2014).

Greece is one of the most popular destinations in the Mediterranean, while tourism is considered in general a major financial activity. According to the Greek Tourism Confederation, Greek Tourism contributed in 2012 to the country's GPA about 16.4%. Its contribution to employment was accounted for 18.3%. More specific, the International Tourism Receipts, the same year, reached 10 billion Euros.

Due to the socioeconomic and political crisis Greece has undergone since 2009, Greek tourism was characterized by a general contraction in terms of both arrivals and receipts. However, corresponding data from the last 2 years show a clear tendency for the numbers to be restored (Hellenic Statistical Authority 2014). Based on that fact, it is believed that tourism might be the driving force behind the country's economic recovery (Kapik 2012).

Acknowledging though the great effect a successful regional policy might have in boosting local tourism, regions' and prefectures' authorities do try to form specialized policies for the corresponding areas they serve. It is attempted for these policies to be custom-made and as a result, to rely on the specific and unique characteristics of the region. Among Greece's competitive advantages are its rich cultural legacy, natural beauty and geographic diversity. However, what need to be considered are the not so favorable aspects of Greek tourism. The geography of Greek tourism is one of those. It refers to the dissimilar distribution of tourists' visits. In particular, tourists prefer to visit coastal areas and islands. The fact of their concentration in such geographic regions can be explained through the establishment of Greece over the years as a destination, where visitors can enjoy sun and sea.

Narrowing the selling proposition of the country in that diptych is actually the reason why tourism appears to have intense seasonality. The tourism product selected to be the flagship of Greek tourism can be offered only during the summer. Obviously, that fact generates a series of issues along with little exploitation of the already existing infrastructure and increased cost of use (Polyzos and Saratsis 2013). Greece based its tourism development mainly on mass-market models and included the popular sun-sea-sand destinations view. However, this model is rather outdated and changes are needed. Hence, Greece started to evaluate its current tourism model, tourist activities and the need of alternative forms of tourism. Out of this evaluation, the following several weaknesses emerged (ELKE: The Hellenic Center for Investment): (i) High seasonality and high density in peak seasons, (ii) Dominance of mass tourism, (iii) Lack of thematic and alternative forms of tourism, (iv) Unhealthy public infrastructure. On the contrary, the following strengths existed within the Greek tourism (ELKE: The Hellenic Center for Investment): (i) The increase in the number of tourist arrivals; (ii) Diverse natural beauty; (iii) Cultural and historical heritage; and (iv) Vibrant folklore and Greek way of life.

Nurturing our thinking and judging from the above mentioned, the question remains on what policy makers and professionals in Greece can actually do to develop and expand silver economy tourism in order to combat economic crisis as well as tackle down seasonality thus create an extra sustainable and viable tourism product in Greece. One answer could be to listen and make a list of what potential silver visitors want or expect to live when travelling to Greece, in a few words what intrigues them to travel in the country.

A synopsis of visitors' wants that has to be taken into consideration when tourism planning and what should tourism professionals do could be the following:

1. Introduction of low rates in hospitality sector and special packages especially during low season periods,
2. Introduction of travel packages through low rates and/or reduction in travelling costs policies between home residence and destination by all means of transport in order to promote and increase demand,
3. Introduction of special coupons scheme that grants access or reduction in prices when visiting places of cultural interest,

4. Introduction of promotional schemes when booking long haul journeys such as free nights, reduced or free travel expenses, free traditional activities in the relevant destination but also develop city-breaks scheme,
5. Introduction of activities according to destination's culture and tradition and not 'what everyone in the world does' activities such as agro-tourism activities, mountain walks on foot, by bicycle and/or on horse, stay overnight in a monastery, 'a look into the ordinary life of locals' scheme etc.,
6. Introduction of a 'feeling like home' sentiment during the whole circle of pre-booking, booking and during visiting phases of the journey and not being seeing as 'money',
7. Provision of accessibility on different attractions and/or destinations,
8. Upgrade and modernisation of health centers in tourism destinations.

4 Conclusion

The need to travel appears to be innate in humans. Exploring one's surroundings is prevalent at birth. A child will wander around looking with keen interest at his/her environment. As people grow older, they feel the need to see different parts of their world. For example, many young people will embark on an overseas trip during or after completing their education. The older population has the time to travel and experience the world that may have eluded them during the years of raising a family or pursuing career commitments. Higher income enables greater exploration.

Litrell, Paige, and Song (2004) described senior travelers as becoming an important travel segment because of their level of wealth, higher discretionary income, lower consumer debt, greater free time to travel, and their tendency to travel greater distances and for longer lengths of time. Huang and Tsai (2003) found that seniors will soon be one of the largest prospective market segments for the hospitality and travel industries. Nevertheless, they are the target of a whole new market focused on providing goods and services to a growing and relatively well-off clientele. A marked shift in interests from beach and shopping to culture, nature and food opens additional business prospects to accommodate those who now enjoy the extension of a long-term hobby or the opportunity to try something entirely new. And on this latter, Greek tourism has to capitalise on.

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The Information and Promotion of Rural Tourism in the Globalised Era: The Case of Madeira Island

Elisabete Rodrigues

Abstract This paper debates the information and tourism promotion of rural tourism, particularly the Country Homes in Madeira Island, focusing on the link between information and tourism promotion and the profile of this visitor. Through the interconnection of the visitor profile, in the context of demand and travel arrangements, and the current tourist promotion of Madeira's Country Homes, it was our intention to demonstrate the fragility and the crucial relevance of innovation in the sphere of information and tourism promotion of the rural tourism in the digital tourist era. In the absence of studies of this nature on the island of Madeira, we used the combination of qualitative and quantitative methods, in order to pursue our goals. Those methods consisted in launching questionnaire surveys, semi-structured interviews, field work and bibliographical and documentary research. This research allowed us to conclude that the rural tourism should focus heavily on innovation, improving information and tourist promotion through the use of new information and communication technologies and networking, in order to contribute to its sustainable development.

Keywords Rural tourism • Tourism promotion • Innovation

JEL Classification Z other special topics

1 Introduction

The tourist flow of Madeira's Rural Tourism has been understudied in the field of tourist supply and demand and consequently in the area of tourist information and promotion. Since Rural Tourism is intimately related to the movement of people, its

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study is fundamental for the comprehension of the factors that have influenced it through time and space.

Recent studies have shown that these visitors resorts to the Internet both for gathering information prior, during and after their journey, as well as to organize their dislocation in terms of accommodation and transportation. In this scenario, the importance of the diffused information/promotion through the Internet is capital and consequently resorting to information and communication technologies (ICTs), both for visitors and stakeholders.

In the present article, we intended to identify the weaknesses of this sector's tourist information/promotion in Madeira, cross referencing with the visitor's profile, especially in the field of information sources and dislocation organization, in order to find solutions that may contribute to Madeira's Rural Tourism' sustainable growth in the digital era.

The choice for this subject, was based, in the midst of other motives, in the relative inexistence of studies in this field, relative to Madeira, and in the fact that we believe this type of tourism presents strong future potentialities, if it gets the support it needs to innovate and give the qualitative leap that allows it to get in the global era.

2 Literature Review

The literature review amassed different analysis about tourist information and promotion, with special focus on Rural Tourism—Madeira Island's Country Homes, highlighting the interconnection between information and tourist promotion as well as the visitor's profile, particularly in the digital era.

Rural Tourism is still difficult to define, despite our awareness that the first tourist flows originated from the more developed population centres, being the resident's main motivation the discovery of quieter and less developed locations.

Given the trouble to define this concept, we chose to guide ourselves by the United Nations World Tourism Organization's (UNWTO) enlightenment: "The concept of rural tourism embraces a number of constituent elements, at the heart of which lie the rural tourism community. Rural tourism is dependent on the countryside which an area has to offer, its heritage and culture, rural activities and rural life" (WTO 2004, p. 13).

Rural Tourism finds its earliest legal origins, in Portugal, in 1978 and it is possible to conclude that this emerging concept, which began to take shape in 1984, overflowed the mere question of tourist accommodation, since it should integrate "services of tourist interest in the dominions of animation, crafts, culture and even sports and tourist recreation" (Decree-Law no. 251/1984), which met the need of supplying the tourist with something genuine, thus establishing a sustainable growth standard where the social, cultural and natural features of said place were in imminently intertwined.

Nowadays, and in strictly legal terms, Rural Tourism in Portugal is the one that is practiced in establishments located in rural areas and designed to provide “accommodation services to tourists, while preserving, restoring and enhancing the architectural, historic, natural and landscape aspects of the several places and regions where they are located, through reconstruction, rehabilitation or expansion of existing buildings, in order to guarantee its integration in the surroundings.” (Decree-Law no. 15/2014, Sect. 1, Article 18). Also according to the same law, some of these establishments, among them, those classified as Country Homes, are “buildings located in villages and rural areas that are integrated, by its design, building materials and other characteristics, in the typical local architecture” (Decree-Law no. 15/2014, Sect. 4, Article 18).

In the European concept, as well as in the Portuguese one, coexists the idea of a deep interconnection between a region’s heritage and rural tourism, which allows us to conclude that the tourist promotion and information are indeed key factors to ensure the future development of this tourist sector.

The promotion of a tourist destination occurs in a variety of spheres, currently, across adverts, websites, social networks, brochures, travel journalists, marketing specialized agencies, through the media, television, specific publications in areas such as sports, culture and arts, among others.

Promotion, in tourism, plays an immensely valuable part and underlines the interaction between tourist offer and demand. At the centre of this criteria Cunha claims that “the promotion of places presents the world as an image, inviting the viewer to become an imaginary voyager to an envisioned location” (2007, p. 175), reason why tourist information acquires such a preponderant influence in the envisioning of a tourist destination, thus assuming itself as a decisive factor in the description of a tourist destination complex, either by the way it is disclosed or by how much it can attract someone.

The texts used in promoting said places are considered cultural texts, since they transmit “representations of ethnographic knowledge and of places of cultural production—the culmination of social interaction as well as individual experiences” (Morgan 2004, p. 205).

In the late eighteenth century, Madeira Island turned into a preferred port of call for the English traveler, which later published his impressions when returning to his home country, some were even accompanied by beautiful illustrations. The nineteenth century witnessed still, another type of visitor, those looking for a solution for their health problems, drawn by the celebrity of Madeira Island’s unique weather. This influx originated several testimonies and guides for invalids, where the Island was recommended as an ideal stay.

According to Walter Minchinton, travel literature on the promotion of Madeira, as a tourist destination, was an elemental piece: “to inform tourists, a literature developed. Brown’s Madeira, Canary Islands and Azores, first published in 1883, ran through many editions before it ceased publication in 1932. It was specifically designed for the “stop-over” visitors travelling on the Union-Castle liners” (1990, p. 518).

Today, the promotion of tourist products can be regarded as a marketing activity. The ideological concept of marketing states that: “it is the ingenuity of the consumer society that encourages and manipulates the buyer” (OMT 1998, p. 285). According to this statement, marketing is capable of forcing the consumer into buying the product in question. This concept is associated with two others, the action one, where the means to achieve sales are lumped, specially promotion and advertising, and the analysis one, where market studies are included, in order to get to know and also change the demand.

According to Philip Kotler’s definition (1988), marketing is “the analysis, organization, planning and control of several resources, politics and activities of the company which makes the offer to the client, aiming to satisfy the chosen group of clients’ necessities and desires, while benefiting from it” (Cit. in OMT 1998, p. 286). Although this definition implies the clients’ satisfaction in segmented markets, tourism is a service industry with very specific features, where the tourist product by itself, is already a combination of different assets and tangible and intangible services which lacks specific tools, thus calling upon tourist marketing, a singular category inside the services marketing, as the adopted strategy in this sector.

On the other hand, being promotion one of the four basic categories of the “market mix”, it is essentially seen as a way of “communication with the goal of changing the behaviour of the consumer, specifically to purchase a tourism product” (WTO 1997, p. 170). In order to achieve certain outlined goals, tourist promotion has resorted to several kinds of tools, from adverts, to direct sales and publicity as well as, more recently, the Internet’s capabilities and potential and Information and Communications Technologies (ICTs).

The access to tourist information has suffered, in the last decades, significant changes due to massive Internet and ICTs usage, which, currently, are considered to be vital elements of the tourist industry. Effectively, the process of selection and decision of a tourist product’s purchase relies in the offer’s available information (Maurer 2014). Technologies, specially the Internet, granted tourists a superior power in their search for experiences and extraordinary value (Buhalis and Law 2008).

The use of ICTs by tourism organizations allows for the creation of “enhanced experiences with tourist throughout their journey from early inspiration to the on-site travel experience and post travel recollection in the online world” (Neuhofer et al. 2013, p. 549).

In the digital era, e-business is an essential tool for the success of organizations, in particular, for the tourist industry (Buhalis and Hyun Jun 2011).

On one hand, tourists need information about the tourist products they wish to acquire, on the other, companies should make it available in adequate form and through the more appropriate and sought after channels/means of distribution.

In Madeira, there is no strategic tourist promotion plan directed to rural tourism, essential to ensure that the developed efforts reach their goals. In addition,

currently, the promotion Madeira's rural tourism is being conducted by the owners themselves and also a local association, Madeira Rural. One of the measures introduced in this article, result of the analysis between Madeira's Country Homes' tourist dissemination and the visitor's profile, is the urgent need to innovate and adapt the models in effect to the digital era.

3 Methodology

Results from a larger study concerning Madeira Island's Rural Tourism were used in the present article, being this tourist segment's sustainable growth its primary objective, with particular focus on Country Homes. The main topic of this article focuses on rural tourism, dealing above all with rural tourism's information and tourism promotion, particularly the Country Homes in Madeira Island, focusing on the link between information and tourism promotion and the profile of this visitor.

In this table and, in general terms, for the elaboration of this article, the following objectives were outlined:

- Identify the rural tourism's visitor's profile, concerning the organization of his journey as well as the gather information;
- Analyse the tourist divulgation/promotion of Madeira's Country Homes, in the field of available information and online distribution channels;
- Demonstrate the crucial relevance of innovation in the sphere of information and tourism promotion of the rural tourism in the digital tourist era.

For the prosecution of our goals, a bibliographical research on the present matter and related concepts was conducted. In this contour, we resorted to primary and secondary sources.

Given the lack of studies on Madeira's rural tourism, we were confronted with the need to launch semi structured interviews and queries directed to different entities, especially to the Country Homes' owners/representatives, to associations and also to the visitors. The obtained results offered valuable data which along with the carried out research concerning online distribution channels, allowed us to achieve the initially drawn out goals.

From the 34 Country Homes existing in Madeira 16 of them agreed to collaborate in the present study, which ensured a good representation of the sample (47%), in relation to the number of ventures and geographical localization, as with the number of replies to the interviews, in relation with the universe in question.

The first interviews directed to the Country Homes' owners/representatives, were conducted between the months of June and October 2012. Between the months of January and February 2016, the relevant data was verified in order to elaborate the present article.

The present study was complemented with the investigator's visit to the Country Homes that collaborated with the study. This fact enabled a superior comprehension

over the ambience surrounding these establishments. Said visits enriched our knowledge, allowing us to conclude on the current reality that is the tourist information/promotion in Madeira's rural tourism.

4 Results

4.1 The Information Gathering and Travel Organization of Madeira's Country Homes' Visitors

Rural Tourism in Madeira has been understudied in the field of tourist supply and demand. Being rural tourism intimately related with population movement, its study is fundamental for the comprehension of the factors that have been influencing it through time and space. Knowing more accurately the measures taken to respond to and meet the tourist's needs, the rural tourism's visitor's profile who visits the Island and above all the means utilized in the gathering of information on the tourist's destination and journey organization, is a prominent need for this sector's sustainable growth, in the chapter of tourist information and promotion.

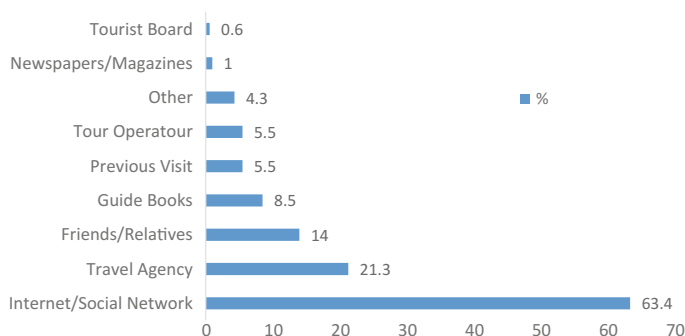
In 2008, a study conducted in 2007 was published with the objective of characterizing the profile of the offer and demand dynamics in Portugal's Rural Tourism and Nature Tourism. In spite of it aggregating two somewhat diverse tourist segments, it was possible to infer that the gathered data, in the field of information gathering and travel organization meet the conclusions from other studies:

The client that seeks Rural or Nature Tourism has levels of autonomy, which are reflected in the way he chooses an establishment (Internet, prior visits, recommendations from a third party represent all together, more than 75% of said choices). This autonomy also translates in the way the reservation is made: chooses the destination via Internet, contacts the establishment by e-mail or telephone and travels in a private vehicle (Neves 2008, pp. 6–7).

For a better understanding of this point on our study, it seemed relevant to present more specific data, more up to date and with a superior geographical reach on the profile of rural tourism's visitor. We opted for an European study on Rural Tourism, conducted between 2009 and 2010. The study, inserted in the QUALITOOL (Transfer of Quality Insurance Tools for European Rural Tourism Sector) project, saw the participation of 55 countries.

Like the previous study, the most used method in the booking of accommodation was direct contact with the owner (70%). In regard to the information source in order to plan their travel, the vast majority confirmed having turned to the Internet, to friendly advices and to personal experience (Qualitool 2010).

The study we conducted back in 2012, on Rural Tourism, particularly on Madeira Island's Country Homes, one of our intentions was to get to know the source from which the visitor obtained his information on the tourist unit and the reason behind him choosing it, all this proved to be relevant data in the selection of



Graph 1 Gathering of information regarding Country Homes. *Source* Self-elaboration based on the data provided through the Inquiry by Questionnaire to the Country Homes' Visitor (2012)

the type of disclosure chosen by any tourist establishment. According to that principle we launched a multiple choice question to the visitors (Graph 1).

The information on the Country Home was obtained in the vast majority of cases (63.4%) through the Internet/Social Network, although travel agencies and information transmitted through friends and family still influence the choice of accommodation considerably. In 2004, António Ferreira concluded that “the best promotion still is the one that occurs through the traditional means, where previous knowledge of said places, as well as the advice of friends and family, stand out” (Ferreira 2004, p. 484), 8 years after the scenario has changed dramatically, even though the “traditional means” still hold some influence, the Internet has supplanted them in an overwhelming way:

Tourism and information technologies constitute two of the largest and most dynamic industries in the world, being the referred technologies one of the most important variables in the tourist segment's competitiveness. The fact that tourism is a service industry with international reach, which possesses unique features, contributes to the elevated amount of information in the sector. Nowadays, the effective use of information technologies should be considered a critical success factor. To many tourists, the research and availability of information are an integral part of the travel experience (Melo 2003, p. 156).

The sample's results revealed, equally, that the travel organization is done mostly by the visitors themselves, turning to the Internet/Social Networks or other means of communication (e-mail, telephone, among others).

By analysing the following table we stated that the transportation is reserved separately through the Internet (44.5%) or directly by the visitor (8.5%), as well as the accommodation's reservation, which is done through the Internet (41.5%) or directly by the visitor (17.1%).

Despite still holding a considerable number of tourists who resort to travel agencies (15%) and package tours (23.2%), the sample makes notorious the resort to the Internet/ICTs in the rural tourist's travel organization (Table 1).

The visitors who did not reserve in advance, either transportation or accommodation, were inserted in domestic tourism, with usual residence on the Island.

Table 1 Trip arrangements—transport and accommodation

Trip arrangements		Transport booked separately			Accommodation booked separately		
		N	%	% valid	N	%	% valid
Valid	Booked via travel agent or tour operator	26	15.9	21.3	21	12.8	17.2
	Booked via internet	73	44.5	59.8	68	41.5	55.7
	Made own travel arrangements directly (phone, mail)	14	8.5	11.5	28	17.1	23.0
	Nothing booked in advance	9	5.5	7.4	5	3.0	4.1
	Total	122	74.4	100.0	122	74.4	100.0
No reply		42	25.6		42	25.6	
Total		164	100.0		164	100.0	

N = Frequency

Source Self-elaboration based on the data provided through the Inquiry by Questionnaire to the Country Homes' Visitor (2012)

We believe that for this kind of visitor it is not relevant to book in advance, since they know the location of several different Country Homes and therefore, if one cannot accept their reservation, another one can be easily found.

Based on the displayed table, relative to information gathering and organization of their dislocation, it is possible to conclude that Madeira's Country Homes' visitor bears the following particularities:

- Gathers information on the Country Homes through the Internet/Social Networks;
- Books in advance, both accommodation and transportation, majorly through the Internet.

By examining these features as a whole, it is possible to claim that these visitors are well informed individuals who possess a clear notion of the type of tourism they are seeking. On the other hand, this analysis anchors and consolidates the results of the previously mentioned studies and reinforces the need for a future bet on ICTs, as part of Madeira's Rural Tourism's tourist information and promotion.

4.2 *The Tourist Disclosure/Promotion of Madeira's Country Homes*

Tourist promotion of Madeira as a destination is assured by one of Madeira's Regional Government's department, the Regional Office of Economics, Tourism and Culture (ROETC), integrated within this Office is the Regional Tourism Office, whose mission is to "study, coordinate, promote, execute and supervise all tourist activities within the governmental policy defined for the tourist sector, with the sole

purpose the balanced and sustainable growth of the tourist activity in the Autonomous Region of Madeira” (Regional Implementing Decree no. 4/2008/M, Sect. 4, Article 17). The ROETC relies also with the help of the Association for the Promotion of the Autonomous Region of Madeira (AP Madeira).

The AP Madeira is a non-profitable association, founded in August 2004. It is composed by two entities, a public and a private one: the Regional Tourism Office and the Commercial and Industrial Association of Funchal (ACIF). It emerged as an answer to the strong need to create an entity which would collaborate with the Regional Tourism Office, exclusively in the promotion of Madeira as a destination. To the core of members belong Hotels, Travel Agencies, Rent-a-Car, Official Bodies, Tourist Animation Companies and Rural Tourism Companies (AP Madeira, www.madeirapromotionbureau.com).

The promotion made by public bodies for the destination Madeira, which should intend to evoke “in the human being the desire to experience, to feel and to know the place’s distinct cultures, in other words, wake in them the consumption of extraneous singularities” (Cravidão and Marujo 2012, p. 282), rural tourism features in none of those promotional materials, not even in the press dossiers that may be consulted on AP Madeira’s web page.

Moreover, in Portugal, associativism does not possess great tradition, it usually happens because companies feel impelled by necessity and not as fruit of a business mentality. In the Autonomous Region of Madeira, following the example of the Portuguese mentality, a businessman “is not used to seeing himself as a member of a cohesive body, with common interests to defend, and even less to abide by decisions that, even though taken by the majority and in the interest of the class or the community in general, may real or just apparently hurt him” (Mello and Carita 2002, p. 23).

In the Autonomous Region of Madeira there are three associations that advocate and support the interest of their associates, to which rural tourism establishments, particularly the Country Homes, could associate themselves to. One of a more generic character, the Commercial and Industrial Association of Funchal (ACIF) which is also Madeira’s Council of Commerce and Industry and two others with more specific objectives, Association for the Promotion of the Autonomous Region of Madeira (AP Madeira), as previously referred, and the Madeira Rural Association (MRA).

Concerning ACIF, founded in January 1836, it is a non-profitable association that represents companies doing business in the Autonomous Region of Madeira, in the areas of Commerce and Services, Industry and Tourism (ACIF 2016).

In an analysis on the involvement of ACIF, together with the help of the owners of Rural Tourism establishments, constants of our universe of study and based on interviews conducted to the owners, we found that only 25% of the sampled establishments were, in fact, associated with ACIF, which presents a low significance when it comes to the associative spirit of these Rural Tourism establishments (Table 2).

Table 2 ACIF members

ACIF member	No. Country Homes	%
Yes	4	25
No	12	75
Total	16	100

Source Self-elaboration based on the data provided through the Inquiry by Questionnaire to the Country Homes’ Visitor (2012)

Compared to the number of ACIF’s members (about 1,000), the weight that their associates hold, which belong to our investigation’s sample, is incredibly small (0.4%).

When it comes to AP Madeira, accordingly to what was previously stated, it is a non-profitable association, whose main purpose is to promote and disclose Madeira as a destination to strategical destinations: United Kingdom, Germany, France, Spain, Italy, Scandinavia, Austria, Switzerland, Netherlands and Belgium. The association has even another mission, to create new opportunities for its associates, whether it is through investing in public relations or through supporting differentiated initiatives. AP Madeira, among its numerous associates, accounts with Hotels, Travel Agencies, Restaurants, Official Bodies and Rural Tourism Companies.

When consulting this association’s website we verify that Rural Tourism is not one of the advertised products, at the present moment. AP Madeira’s site featured six main fields: the association itself, the Madeira brand, their products, the news, the media/trade tools and their contacts. In the “Madeira brand”, the campaigns, promotional material and published articles were advertised; in the “products” section, Nature, Spas, Golfing, Villas, MICE and Porto Santo were highlighted; in the “news” and “media/trade tools” we found news, brochures, videos and photos. None of them featured ever so slightly Madeira’s Rural Tourism.

In an analysis of AP Madeira’s involvement, based on the interviews conducted to the Country Homes’ owners, constants of our universe of study, we stated that only 25% of the establishments within our sample were AP Madeira’s associates (Table 3).

Compared to the grand total of AP Madeira’s associates, about 125, the weight represented by the associates that took part in our investigation is relatively weak (3.2%). It is important to stress that the four Country Homes that took part in our investigation and that are associated to AP Madeira, are the same four that were associated with ACIF, which, again, confirms the low associative spirit in this area.

Table 3 AP Madeira’s members

AP Madeira member	No. Country Homes	%
Yes	4	25
No	12	75
Total	16	100

Source Self-elaboration based on the data provided through the Inquiry by Questionnaire to the Country Homes’ Visitor (2012)

Lastly, Madeira Rural Association is a non-profitable yet private association, founded in October 10th 2000, by the initiative of the entrepreneurs behind eight Rural Tourism establishments, having adopted the designation of: “Madeira Rural Association of the Autonomous Region of Madeira” (MRA 2012a).

This association is the only one in all of the Autonomous Region of Madeira which is directed to rural tourism, being its primary mission to: “Promote and Develop Rural Tourism in the Autonomous Region of Madeira” (MRA 2012b)

In accordance with the initial statute of this association, their associates were only to be tourist establishments licensed as rural tourism, according to the Portuguese legislation. During the first years of activity, the association kept that principle, which was then altered, due to varied motives, and now accounts with establishments in the accommodation sector, ventures licensed as rural tourism, as well as other types of tourist accommodation, including tourist apartments.

When consulting this association’s site we verified that, out of the 51 ventures licensed as Rural Tourism in 2012, only 23 were associated (45%) with Madeira Rural. Within our sample, out of the 16 Country Homes that cooperated with the present study, only 7 (43%) were Madeira Rural’s associates, which represented a relative weight (15.5%) in the totality of their associates.

Since this association possesses an online booking central, one question that triggered our attention was the way it was divulging the present situation. When we researched said website, its English version, on 2012 as well as on 2016, we were faced with the following conjecture:

- Firstly, the designation, as well as the description of their functions pointed to an association exclusive to Rural Tourism, as seen in the following image (Fig. 1):
- In second place, “Portugal’s Tourism, I.P” publishes on their webpage the translation for different foreign languages of the Decree-Law no. 228/2009, in which the proper adopted English terminology for rural tourism establishments can be confirmed:
 - “Tourism enterprises in rural areas can be graded under the following groups:
 - Country homes;
 - Agro-tourism;
 - Rural hotels” (article 18°).
- According to the translation of this legal diploma, the “Casas de Campo” as said in Portuguese, should be entitled “Country Homes” in English and not “Country Houses” as seen in this association’s website, in the filter relative to the property type (Fig. 2):

Fig. 1 Designation and purpose of Madeira rural association’s course of action.

Source Madeira rural association (<http://en.madeirarural.com/>, 19-03-2016)

About Madeira Rural

Madeira Rural is a private non-profitable organization aiming at developing and promoting rural tourism and the activities of its associates in particular.

Fig. 2 Madeira rural association—booking filter. Source Madeira rural association (<http://en.madeirarural.com/accommodation-grid.php/>, 19-03-2016)

The image shows a web-based booking filter interface. At the top, there is a blue header with a white funnel icon and the text "Filter by". Below this, there are two main sections. The first section is titled "Location" and has a small blue square with a white plus sign to its right. The second section is titled "Property Type" and has a small grey square with a white minus sign to its right. Below the "Property Type" title, there is a list of nine property types, each with an unchecked checkbox to its left: APARTMENTS, GUEST HOUSE, COUNTRY HOUSES, BED & BREAKFAST, ROOMS, COTTAGES, FARMHOUSES, VILLAS, and BUNGALOWS.

On one hand, Madeira Rural Association is not using the right terminology for the divulgation of their rural tourism establishments, on the other hand, we found that there was not a clear differentiation between the ventures that were, in fact, licensed as rural tourism and the rest, as seen in the following images (Figs. 3 and 4):

When describing these Homes, there is no mention of their licensing as a “Country Home”, nor if they are part of Rural Tourism or not. The differentiation, unclear, between the two houses resides in the “Property Type”, which refers “Vila Joaninha” as being a “Country House” instead of a “Country Home”, according to the already referenced legal diploma. And, further aggravating the present scenario, was entitled a “Holiday House” which may confuse the tourist and lead to a higher degree of difficulty when it comes to selecting the desired rural tourism establishment.

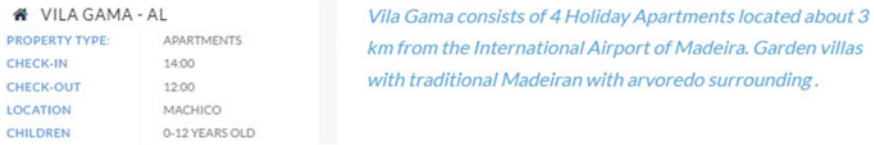


Fig. 3 Vila Gama (not licensed as a rural tourism venture). *Source* Madeira rural association (<http://en.madeirarural.com/accommodation-details.php?bundle=75>, 19-03-2016)



Fig. 4 Vila Joaninha (licensed as a Country Home). *Source* Madeira rural association (<http://en.madeirarural.com/accommodation-details.php?bundle=35>, 19-03-2016)

In our opinion, a tourist who visits this reservations’ central will not, most likely, understand the range of what he is being offered, which include properly licensed establishments as Rural Tourism and others which are not.

Among the different situations found in this association’s webpage, which are, regrettably, many, we selected just a few that mirror in a generic form Madeira’s Rural Tourism’s distorted image, shown by this association at an international level.

Considering that “[t]he Internet is the primary medium for accessing travel information for planning in all major markets” and in the future “[t]he major growth markets for international travel will consist predominantly of Internet users” (WTO 2007, p. 125), this association should adopt urgent measures and manage the information that it is disseminating through its website.

Faced with a scenario where there is no tourist promotion plan specific for Rural Tourism, either at a public level or at a private level, the vast majority of the Country Homes’ owners are marketing and divulging their Country Homes in an isolated way, since there is no joint promotion alternative followed by most.

During the interviews conducted to the owners of these Homes, one of the main questions was how they divulged them (Table 4).

In this sample, the distinct elements can be summarized in three primordial perspectives:

- The Internet’s clear predominance as a means of divulgation: 16 houses (100%) divulge their tourist product through the Internet. The majority of them (69%) opts for divulging both through their own website and by other sites, being that 5 houses (31%) added to this type of divulgation a social network. The remaining five houses (31%) that do not possess their own website, chose to

Table 4 Country homes divulgation performed by their owners

Owners' divulgation	No. of Country Homes	%
<i>Internet</i>		
Own Website + Other Websites	6	38
Own Website + Other Websites + Social Network	5	31
Other Websites + Social Network	1	6
Other websites	4	25
Total (internet)	16	100
<i>Travel agencies</i>	6	38
<i>Tour operators</i>	1	6

Source Author's own study on the basis of data provided through the Country Homes' Owners' Interviews (2012)

promote themselves through other websites and only one of them (6%), besides the third-party sites, chose social networking as well;

- Relative representation in travel agencies: six houses (38%) confirmed the existence of contracts of this nature;
- A faint presence with tour operators, registered by only one (6%) house.

Most owners decided to invest in Rural Tourism due to the location and characteristics of their establishment and not by a particular attraction for this type of tourism (Rodrigues 2016). When asked about the other websites where they divulged the establishment, the answers were rather evasive and the majority did not provide any specific information. Some still referred the site “www.booking.com”. When we tried to find out which sites were actually used, a search conducted on the “Google” search engine, we found that some Homes were present in over 20 different sites. Which, at first glance, seemed like a good indicator, it turned out that most of these sites were not directed towards Rural Tourism.

In this aspect, it would be relevant that the Country Homes' owners would bear in mind the following:

With the Internet's growth, the challenge presented to managers and administrators is not only to attract clients to visit their locations, but also to retain them. Until recently, winning over new costumers represented one of the main marketing tasks. Currently, with the competition getting bigger and the consequent increase in product offer, customer loyalty has become an important question for the future viability of companies (Melo 2003, p. 158).

In an analysis to the Country Homes' descriptions, spread online through different sites, as previously mentioned, we found no specific reference to their classification as Rural Tourism, a truly problematic situation, since these Homes appear in equal terms and together with other ventures that do not feature in Regional Tourism Office's list of Rural Tourism licensed establishments.

When it comes to the information made available online by the Country Homes and, particularly, regarding the relation the owners decided to establish between their ventures and the region's heritage, a strong predominance of natural heritage is

found, both in the description of the houses as well as in the suggested activities. The references to cultural heritage are scarce or inexistent in most cases, which does not fit into Madeira's Country Homes' visitor's profile, whose main reasons for choosing a Country Home (Rodrigues 2014), are "Tranquillity and Peace" (64.6%), followed up close by "Contact with Nature" (48.2%) and "Contact with Local Culture" (42.1%).

The overview provided in this sub-section referred the main characteristics of the divulgation of these tourist establishments and allows us to conclude that the Global Code of Ethics for Tourism (UNWTO) is not being taken into account, particularly some points referred in the sixth article: "Obligations of stakeholders in tourism development—tourism professionals have an obligation to provide tourists with objective and honest information on their places of destination and on the conditions of travel, hospitality and stays" (UNWTO 1999).

Moreover, and considering that "communication assumes a vital role in the relations with various partners, especially at an image association and trust transmission to potential clients level" (Lopes 2005, p. 157), the need to innovate is of the utmost importance, tourist information/promotion enrichment specific for Rural Tourism, resorting to new information and communication technologies and networking, in order to contribute to its sustainable development.

5 Conclusion

Portuguese legislation states that "rural tourism houses and ventures [...] are obligatorily identified by plaques on the outside of the establishment, close to the main entrance" (Order-in-Council no. 1173/2010, of November 15). This legal diploma describes and presents equally the different symbology in use.

Despite being known in Portugal, this symbology is not identical throughout Europe, just like the rural tourism concept differs depending on the country we are referring to, which, from our point of view, contributes to a higher degree of difficulty in divulging and commercializing these ventures. The debate around this question is not recent, however it appears not to have had any positive effects (CE 1993). In our opinion it is crucial that efforts should be made in order to establish similar concepts and symbologies on a European or international levels.

Madeira's Rural Tourism's promotion has been weakly done by governmental entities and different associations, according to each one's goals. However, Madeira Rural Association that should stand for and support Rural Tourism in specific, besides being the only one in Madeira to possess a central for online reservations and that initially (in 2000) only accepted as their associates, rural tourism establishments, now accepts associates, in the areas of accommodation, any kind of tourist venture, without differentiating them in a clear and strong fashion on their website. The panorama only worsens when we take into consideration the fact that Rural Tourism's visitors use the Internet as their preferred means of gathering information and booking accommodation and also that this association's lack of

transparency, may potentiate the international diffusion of Madeira's Rural Tourism's distorted image.

In this frame, free of associative spirit and without any specific tourist promotion plan for Rural Tourism, ignored by public and private entities, the majority of the Country Homes' owners market and divulge their ventures online, in an isolated manner, never resorting to an integrated way of promoting them, followed by most.

Being Rural Tourism essential to the rural economy of a region, thanks to its capability to create jobs and to diversify rural areas, the "innovation in Rural Tourism is a crucial strategic element" (Mahroum et al. 2007).

On the other hand and attending to this visitor's profile, the current challenge for rural tourism's sustainable development passes through the implementation of technologic solutions that allow to connect and manage this tourist sector's information and promotion.

Lastly, and considering that "increasingly ICTs will provide the 'info-structure' for the entire industry and will overtake all mechanistic aspects of tourism transactions" (Buhalis and Law 2008), we outlined the urgency for organizational innovation, networking with different entities, technological innovation and improvement of politics and strategies for tourist promotion/information that can potentiate Madeira Rural Tourism's sustainable growth in the digital era.

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Thermal Spring Health Tourism in Albania: Challenges and Perspectives

Vusal Gambarov and Hecarta Gjinika

Abstract Albania is a small country, but with considerable natural resources. However, the Organization of these resources for the good of population needs improvement. One of potential useful resources for Albania is thermal waters which covers whole country. Purpose of the study to discover this potential and understand consumers' approach to the use of these resources. Secondary data collection is an important part for study of condition in terms of usage of thermal waters. For better understanding of consumer perception on thermal bathes, a questionnaire is collected. By this survey, we tried to understand reasons behind few visits to thermal bathes and how the industry may be developed. Research showed that infrastructure (e.g. roads) and facilities (e.g. sport and leisure) offered by touristic centers using thermal waters need improvement for responding to consumers' needs. Strategies pursued by these businesses have to be revisited. Our research focused on thermal springs and its usage in Albania which creates geographical limitations for the work. However we tried to add global perspective by studying global experiences in the field. Generally, literature on thermal resources is lacking in Albania. Even globally, this is not an attractive topic for academicians. Especially, marketing perspective needs attention. Consumer as an important factor in this process is mainly ignored. This study is pioneering consumer research in thermal spring hotel market.

Keywords Thermal springs · Tourism · Health tourism · Segmentation · Positioning · Strategy

JEL classification Z33 tourism marketing and finance

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1 Introduction

All around the world, thermal spring health resorts are moving away from medical treatments towards fitness and wellness. Also they are accompanied by an increase in facilities for recreation (Boekstein 2014; Erfurt-Cooper and Cooper 2009; Smith and Puczko 2014). Thermal springs are focusing on using thermal water for the treatment of different illnesses. This way, they can help people become healthier. In order to highlight new developments it is important to consider geographical distribution and historical development. It is important to highlight the role that thermal spring resorts have played in many different countries over the time. The first health resort in history was built in the ancient Greek city of Thermae, and it was famous for its thermal mineral water. Today, it is known with the name Loutraki and it is known as a center for health tourism. Its thermal water is described as the water of life (Erfurt-Cooper and Cooper 2009, p. 212).

Today, some of the world's best mineral baths are found in Budapest, Hungary, which holds the title "City of Spas" since it has more thermal and mineral water springs compared to any other capital city in the world. There exist 118 springs in Budapest, Hungary. These springs provide almost 70 million liters of mineral water per day. The temperature of the waters varies between 21 and 78 °C. The Blue Lagoon in Iceland, which was formed in 1976 during operation at the nearby geothermal power plant, is another example. Some years after, people began to bathe in its unique water and also apply the silica mud to their skin. Blue Lagoon is recognized as one of the wonders of the world. From early origins, research and development has been an important part of the Blue Lagoon. Their R&D team works with different scientists creating professional network in bio-technology, marine cosmetology and dermatology. Kangal Fishy Health Spa should be considered as a method of balneotherapy-climatotherapy which is increased by the contribution of the fish (Özcelik and Akyol 2011).

2 Thermal Waters Around the World

In the 5th century by the use of thermal balneology, the Greek physician Hippocrates (460–370 BCE) in his Asclepeion Centre, treated patients from all over the Mediterranean Centre (Cataldi et al. 1999, cited in Erfurt-Cooper and Cooper 2009). For determining sicknesses, he included air, fire, and water. According to Hippocrates, imbalance of body fluid was the cause of all diseases and, in order to regain its balance, he was advising a change of environment and habit. In his treatments, he was including walking, massage, perspiration and bathing. He wrote extensively about the healing power of seawater and its curative power for people suffering from arthritis (Harris 2010). He also was the first who listed the distinctive healing power and made the classification of thermal waters (Katsambas and Antoniou 1996).

Greece has introduced subsidies for the development of health spas that use the country's thermal water resources (Stathi and Avgerinos 2001) and, as a result, a survey was undertaken to investigate the characteristics of thermal spas in Greece, both in terms of supply and demand, and current practices in balneotherapy and thermal water-based healing. The Romans adapted the ideas of the Greeks, and quickly developed many different thermal bathing centers (Routh et al. 1996). They used thermal mineral water on treatment of skin diseases, gout, fever, foot diseases, and sciatica (Routh et al. 1996). Aqua is a public bath in which bathing took place. Later, it was developed for a bigger capacity of people and it was called thermo (Van Tubergen and Van der Linden 2001). Many of the Roman Spa towns today have been restored and are still in use. Here are included Aix-en-Provence and Vichy (France), Karlovy Vary (Czech Republic), Tiberius and Hamat Gader (Israel), Aachen and Baden (Germany), Pamukkale (Turkey) and Bath (England). After the fall of Roman Empire, bathing traditions in Europe diminished rapidly (Gilbert and Van De Weert 1991: 5). By the 17th century, many of the European thermal springs were developed into sophisticated spa resorts. By the 20th century health spa treatments, medical in nature, were incorporated in many different national health services of France, Austria, Germany, Italy, Switzerland, Denmark and Belgium. Most European Spas after 1970s began to change their focus, from the treatment of illnesses to leisure environment, in order to attract younger visitors.

3 Thermal Waters and Geothermal Zones in Albania

In Albania, many different thermal water springs and wells of low enthalpy, that have a temperature that goes up to 65.5 °C, can be found. This indicates that there exist possibilities for direct usage of the geothermal energy. The new technologies related to the direct use of geothermal energy in Albania are either partly developed or have remained still untouched. The use of geothermal energy of low enthalpy in Albania will help to make profitable investment in order to raise incomes. Exploitation of geothermal energy inside the country definitely will have a direct impact in increasing per capita income. Also, it will contribute in the development of the regions. At the same time it will contribute in ameliorating the standard of living for people in Albania.

In different areas of Albania, there are located large numbers of geothermal energy of low enthalpy resources (Frasheri et al. 1997, 2003, 2005; Eftimi et al. 1989). There exist thermal waters that have a temperature that reaches maximum values of 65.5 °C which are: sulfide, iodinate-bromide, sulfate and methane types (Frasheri et al. 2003; Cermak et al. 1996). In some deep gas and oil wells there exist thermal water fountain outputs, which have a temperature that varies from 32 to 65.5 °C. There exist different geologic and thermo-hydro geological features in Albanian geothermal areas. Thermal sources in Albania are located in three different geothermal zones:

Kruja geothermal zone has a length of 180 km and has more geothermal resources than other zones. It is extended in the North of Adriatic Sea, continues in Albanian South-Eastern area and in Greece in Konitza area. Langarica–Permet is the thermal spring that is located at southern region of Albania. In the Northern region of Kruja Geothermal Area, in the South to Ishmi, in the North of Tirana is located Llixha-Elbasan, which is the most important resource in Albania. The geothermal area of Kruja represents an anticline structure chain with carbonate core of Cretaceous-Eocene age. The Ishmi area is located 20 km in North-West region of Tirana, near “Mother Theresa” Tirana airport. In this area, a limestone at 1300 m of depth that goes through a carbonatic coupe of 1016 m of thickness, is found. Kozani 8 well is located 35 km in the South-Eastern region of Tirana and 8 km in the North-Western region of Elbasan. It has been drilled in 1989. It meets limestone at 1810 m of depth and goes 10 m deep in them. Elbasan Llixha is located 12 km in the South region of Elbasan. There are seven different spring groups which are connected with the main regional disjunctive tectonics of Kruja zone. The reservoir in this region is represented by limestone structure.

Peshkopia geothermal zone is situated in the Northeastern region of Albania, 2 km in the East of the city of Peshkopia. There are some thermal springs that are situated close to each other, and flow out on Banja river slope. These springs are of sulfate calcium type. They have a mineralization of up to 4.4 g/l, containing 50 mg/l H₂S. Water temperature in these zone can be as high as 43.5 °C. Water temperature, stability and aquifer temperature of Peshkopia Geothermal zone is similar to that of Kruja Geothermal Zone. For this reason, geothermal resources of Peshkopia zone have been estimated to be almost similar to those of Tirana-Elbasan zone.

Ardenica geothermal zone is located in sandstone reservoirs, in the coastal area of Albania.

Thermal waters and spas known for their healing power are part of rare resources in the world (Frashëri et al. 1997; Frasheri A and Frasheri N 2000; Frasheri and Kodhelaj 2006). These thermal waters can heal a lot of different diseases. Also they can make you relax your body and remove stress.

In Albania, as in many other countries in the world, these natural resources are used in such a way that can be of use to the population. It also can serve for development of eco-tourism. Building SPA centers may be interesting for a lot of clients, not only from Albania, but also from other countries. That can happen because of the curative properties of waters and springs that are situated near seashores, mountains or lakes. The hot water of SPAs can be used for heating of tourist centers and hotels. In addition, near thermal water springs and wells, greenhouses for flowers and vegetables can be built. Another use of SPAs can be the Aqua culture installations for cultivation of the microalgae such as spirulina, preparation of different pomades, and also fish cultivation. Thermal mineral waters contain useful chemical elements as chlorine, bromine, iodine and many different natural salts that can be essential for the preparation of different pomades for healing skin diseases. In addition, these minerals can be used for beauty treatments. From these spring waters it is possible to extract carbonic gas and sulphidic. In this aspect, it is important to mention Bilaj thermal waters in Fush-Kruje which are rich

in sulphate and other minerals. They have shown curative effect for rheumatic pains, skin problems and nervous system. These thermal springs emerge from Ishmi lagoon deposits. They are located near the capital in the national road Vorë-FushëKruja in Bilaj village, near the bridge of Gjolës. Water resources in Bënjë have shown special effects related to skin treatments. These resources are located 14 km from the city of Përmet, in the municipality of Petran, only 3 km away from the place where the river Vjose joins the brook Lëngaricë. There are a total of 6 resources. The special thing about them is that they are outdoor open sources. Their temperatures vary from 26 to 32 °C. One of these sources is used for the treatment of stomach diseases, another for skin diseases and so on. Other sources have shown curative effects related to chronic rheumatism pains. These waters have started to be used since 1964 in an outpatient way. Peshkopi Thermal Baths are located in the northeastern part of the city of Peshkopi. They derive from the gypsum foundations of mountain Korab. There are two sulphurous sources whose temperatures vary from 35 to 43.5 °C. They have a flow of 14 L/s. Thermal Baths of Peshkopi are rich in potassium and sulfate. The effects of these minerals treat respiratory diseases, rheumatism pains, skin diseases and gynecological problems. Vronomero thermal waters are located 10 km in the south region of Leskovik. These sources are rich in various salts, which treat different illnesses. Water temperature varies from 29 to 40 °C. It is worth mentioning steam baths of Postenam, as well as curative drinking water such as Kroi I Bardhë Selite in Mirdite Municipality. Also, a gem of thermal waters is Kroi I Nënës Mbretëreshë in national park Qafështamës. Elbasan Thermal Baths (Spa) are known and used since in the Roman period. Their existence has been discovered nearly 5 centuries ago. However, only in the nineteenth century the use of these curative waters joined medical science. The first hotel in the area was built in 1932 by private entrepreneurs. These SPAs are known for high therapeutic value. This is proven by numerous tests made by different foreign specialists. They deal with: respiratory disease, nervous system diseases, and various types of skin diseases, diseases of the stomach, Gallstones, anemia, rheumatoid diseases, various gynecological problems and also cosmetic problems.

4 Data Analysis and Results

The main purpose of this study was to understand why people in Albania are not preferring thermal bathes as primary alternative for their holidays and leisure time. Expectedly, thermal resorts to be among most popular places as Albania has deep culture in this field. Thermal resorts also important for healing in the entire Balkan region.

Referring to the research method, the authors constructed a survey which was filled face-to-face. 228 (n) questionnaires were collected. Each questionnaire consisted of 35 questions. Before the start of the research we expected to have more questions. Due to the nature of target group, we were obliged to shrink the

questionnaire. First three questions were descriptive (Did you visit thermal resort before? Age. Gender). Relatively we can call 2nd part questions on expectations from thermal resorts. This part consisted of 32 questions. Respondents asked to grade every factor from Not at all important (1) to Very important (5). For creating 32 questions of second part some pre-study interviews held and secondary sources reviewed for understanding consumer preferences about thermal resorts (Tables 1 and 2).

Because of privacy concerns of people we couldn't ask many questions about respondents demographics. We had to consider the character of middle age and above it was quite challenging to make them to answer. As expected, mainly middle age and above people visiting and planning to visit thermal resorts. This is also obvious from Table 3. As we see from Table 1 only 27.6% of respondents have been at thermal resort before. Gender share was almost equal with a small incline in favor of females—53.9%.

Table 4 gives us important insight about the situation. Means which exceed 4.5 are highlighted at the table. It may easily be observed that all the factors with a high grade are about “relaxed life”. These mainly include standard thermal resort like jacuzzi, hot water bathes, restaurant etc. On the other hand, facilities like biking, hiking, gym etc., which are related with adrenaline and dynamism, have low points (below 3). Cross analysis between age and this factors would provide more insight.

Table 1 Frequency table for thermal resort visit before

	Frequency	Percent	Valid percent	Cumulative percent
Yes	63	27.6	27.6	27.6
No	165	72.4	72.4	100.0
Total	228	100.0	100.0	

Table 2 Frequency table for gender

	Frequency	Percent	Valid percent	Cumulative percent
Female	123	53.9	53.9	53.9
Male	105	46.1	46.1	100.0
Total	228	100.0	100.0	

Table 3 Frequency table for age groups

	Frequency	Percent	Valid percent	Cumulative percent
Up to 25 years	36	15.8	15.8	15.8
26–35	37	16.2	16.2	32.0
36–50	55	24.1	24.1	56.1
51–60	50	21.9	21.9	78.1
61+	50	21.9	21.9	100.0
Total	228	100.0	100.0	

Table 4 Statistics for consumer preferences about thermal resorts

	N	Mean	Std. deviation	Variance
1. To be able to exercise in a gym, do aerobics	228	2.33	1.47270	2.169
2. To visit nearby tourist attractions and places of interest, go sightseeing	228	3.37	1.34935	1.821
3. To attend organized cultural activities, like music and dancing	228	3.15	1.20612	1.455
4. To go for easy walks in the area (1–2 h)	228	4.52	0.84188	0.709
5. To swim in a warm/hot water swimming pool	228	4.25	0.99059	0.981
6. To have a quiet hot pool available (just relaxing in the water, no jumping or splashing)	228	4.28	1.03590	1.073
7. To buy souvenirs, such as locally-produced arts and crafts, to take home	228	3.89	1.18407	1.402
8. To have organized entertainment for children available	228	4.18	1.20137	1.443
9. To have wellness treatments and activities available (massage, aromatherapy, yoga, etc.)	228	4.67	0.72807	0.530
10. To have beauty treatments available (skin care, manicure, pedicure, etc.)	228	4.22	1.04437	1.091
11. To take part in outdoor leisure activities (mini-golf, horse riding, etc.)	228	3.10	1.14168	1.303
12. To swim in a cold water swimming pool	228	2.31	1.43663	2.064
13. To take part in indoor leisure activities (snooker, table tennis, etc.)	228	2.50	1.71158	2.930
14. To take part in sporting activities (tennis, squash, etc.)	228	2.33	1.35156	1.827
15. To go hiking along a marked hiking trail (up to 1 day)	228	2.68	1.26153	1.591
16. To take part in water-based exercise, like aquarobics	228	2.04	1.38520	1.919
17. To do very little/sit around/read a book	228	3.93	1.24174	1.542
18. To buy locally produced foodstuffs (jam, pickles, dried fruit, etc.)	228	3.87	1.38915	1.930
19. To watch sport and/or family entertainment on TV	228	4.08	1.18838	1.412
20. To swim in mineral water	228	4.75	0.65114	0.424
21. To sit in a jacuzzi/sauna/steam room	228	4.64	1.00392	1.008
22. To be able to socialise with old friends	228	2.35	1.41363	1.998
23. To sit in a bar/lounge serving alcoholic drinks	228	2.70	1.59531	2.545
24. To live a more „green lifestyle at the resort (recycling, saving electricity, etc.)	228	3.96	1.44905	2.100
25. To go jogging/cycling in the area	228	4.00	1.14576	1.313
26. To take part in artistically creative activities (painting, pottery, etc.)	228	3.54	1.34826	1.818

(continued)

Table 4 (continued)

	N	Mean	Std. deviation	Variance
27. To be able to learn about the flora and fauna (plants and animals) of the area	228	4.27	0.89821	0.807
28. To have water-based medical treatments available (for rheumatism, arthritis, psoriasis, etc.)	228	4.61	0.77980	0.608
29. To eat in a restaurant at the resort	228	4.73	0.68057	0.463
30. To cook and/or eat healthy food	228	4.70	0.62163	0.386
31. To take part in adventure/adrenaline activities (mountain biking, rock climbing, etc.)	228	2.56	1.58759	2.520
32. To look at wildlife/go bird-watching	228	3.97	1.20349	1.448

As we see at Table 5 young people would like to have these facilities at thermal resorts. This is an important result. As youth avoids to visit thermal resorts mainly because of old-fashioned approach to business. It's important to consider that, among these low averaging factors, we have also "socializing" which averaged 4.94 among respondents below 25 years old.

Eta values at Table 6 proves strong impact of age cycle on approach to given factors. The closer the result is to one, the higher is the impact. Also, significance levels at ANOVA all are at 0.00 which is also another proof of this effect.

Even if the impact is not that high as it is for low averaging factors, generally age groups have important impact on grading. For comparison between age groups and 8 factors Eta values resulted lower than 0.5 (To go for easy walks in the area, To swim in a warm/hot water swimming pool, To have a quiet hot pool available, To have wellness treatments and activities available (massage, aromatherapy, yoga, etc.), To swim in mineral water, To eat in a restaurant at the resort, To cook and/or eat healthy food, To look at wildlife/go bird-watching).

Interestingly, previous visit to the thermal resort was not so important at grading the facilities. This is an important result as we can see that people who visit thermal resort are not so happy with facilities offered. None of eta values resulted above 0.5. Only 3 factors passed 0.4 level:

- 13. To take part in indoor leisure activities (1.30 vs. 2.96 average)
- 23. To sit in a bar/lounge serving alcoholic drinks (1.53 vs. 3.15)
- 31. To take part in adventure/adrenaline activities (1.50 vs. 2.96)

Respondents who visited thermal resorts before do not see these facilities as important factors as it appeared somehow important for people who didn't experience thermal resorts before. Maybe these services may rise attention of "others" at thermal resorts.

Gender was not of major difference at preferences as none of the Eta values overpassed 0.2.

Table 5 Cross statistics between age groups and least averaging factors

Age groups	1st question	12th question	13th question	14th question	15th question	16th question	22nd question	23rd question	31st question
Up to 25 years	Mean	4.1111	5.0000	4.9444	4.9167	4.9167	4.9444	4.9444	4.9722
	N	36	36	36	36	36	36	36	36
	Std. dev.	0.94952	0.5426	0.00000	0.33333	0.50000	0.50000	0.33333	0.33333
26-35	Mean	2.5135	4.6216	2.8919	2.2973	2.1892	2.8378	4.2432	3.9730
	N	37	37	37	37	37	37	37	37
	Std. dev.	1.12105	0.8542	0.79412	0.31480	0.46337	0.39706	0.37368	0.83017
36-50	Mean	2.9455	1.8182	1.5636	2.9636	1.4545	1.2727	2.8909	2.4000
	N	55	55	55	55	55	55	55	55
	Std. dev.	1.47093	0.79561	0.73946	0.18892	0.66160	0.44947	0.31463	0.78410
51-60	Mean	1.3200	1.6000	1.9800	2.5000	1.3200	2.4000	1.2400	1.4800
	N	50	50	50	50	50	50	50	50
	Std. dev.	0.84370	1.1429	0.41650	0.51468	0.88641	0.51270	0.98974	0.95959
61+	Mean	1.2400	1.2000	1.2400	1.2400	1.2400	1.2400	1.2000	1.0400
	N	50	50	50	50	50	50	50	50
	Std. dev.	0.59109	0.4040	0.45356	0.43142	0.43142	0.43142	0.43142	0.40406
Total	Mean	2.3289	2.3070	2.5000	2.3333	2.6842	2.0439	2.3465	2.7018
	N	228	228	228	228	228	228	228	228
	Std. dev.	1.47270	1.4366	1.71158	1.35156	1.26153	1.38520	1.41363	1.59531

Table 6 Eta values

	Eta	Eta squared
Question 1 * age groups	0.708	0.501
Question 12 * age groups	0.834	0.695
Question 13 * age groups	0.942	0.887
Question 14 * age groups	0.926	0.858
Question 15 * age groups	0.904	0.817
Question 16 * age groups	0.928	0.862
Question 22 * age groups	0.911	0.830
Question 23 * age groups	0.921	0.849
Question 24 * age groups	0.895	0.802

5 Practical Implications. Limitations. Conclusion

Our research mainly proved expectations. There are some significant perceptual problems for the industry. These problems are identified on both businessmen and consumers' side. On one hand, consumers are not fully informed about impacts of thermal resorts on health. On the other hand, businessmen who are obsessed only with elderly people are limiting the market. They have to offer new facilities more than that there is a need to change positioning for the market.

This study maybe continued with more holistic approach with also the check of other factors, like infrastructure, service quality, and governmental policies. Also, case study method would be very useful for understanding business perspectives and challenges.

Our study tries to capture thermal resorts condition, challenges and perspectives in Albanian market. This geographical limitation brings some narrow approach. However, global literature is important for avoiding negative effects of local study.

Our research showed that thermal resorts in Albania need to approach firstly younger generations. Of course, the needs and requirements of younger generation are much more different than those of elderly people. Factors offered for grading were quite diversified. Additionally, means comparing analysis showed difference according age groups. If having no significant difference according gender was expected, previous thermal resort visits low effect was surprising. Results according this element are assisting for businessmen. If they will follow these results, they would have chance to control changes at facilities.

Main difference appeared at age groups, which was quite compatible with expectations. Focus on elderly people shrinking the market size for thermal tourism. Businesses need to approach the youth for attracting them also. Here, we have important results. Current static perception of thermal resorts making youth to avoid visit. There is a need to enrich services with more dynamic facilities like indoor and outdoor sports and leisure.

Another crucial point is positioning of thermal resorts which totally focused on healing some skin diseases. Thermal waters are not helpful only to this kind of diseases. Thermal waters are different from each other, and each of them has

specific effect on health. Our observations showed that even managers at thermal hotels are not so informed about it. On the other hand thermal resorts are not only for healing. In modern world health goes further beyond healing, as we are very familiar with “proactive medicine”. This area is still uncovered. Association of thermal resorts with more dynamic facilities (indoor and outdoor sports etc.) and leisure (serving alcoholic drinks etc.) would rise business.

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The Role of Experience in Shaping Student Perception of the Significance of Cultural Heritage

Savvas Makridis, Spyridon Alexiou and Maria Vrasida

Abstract This paper examines how experiences shape student perception regarding culture and heritage during their on-campus studies. Specifically, our research focuses on students from The Department of ‘Culture and Tourism Business Management’ of The Technological Educational Institute (TEI) of Central Greece in Amphissa, the capital of Phokis Prefecture (near Delphi). This is a popular tourist destination with significant cultural and archeological monuments with a major cultural and historical impact worldwide and locally. We quantitatively examine the role and effect of extracurricular experience within the vicinity of students’ immediate academic environment, in constructing student perception, as well as study its influence in creating a comprehensive perception of heritage at large. Our methodology is based on a pilot research in which students participated using questionnaires. Students of this particular department were chosen as they are expected to be ‘semi-informed’ individuals with a predetermined inclination towards tourism, heritage and heritage interpretation, relevant to their studies. The specific choice of semi-informed specimen allows for a high level of accuracy in the quantitative aspect of the research. The study also looks at how experiences can subsequently re-shape student perceptions by urging them to become more closely attached to the culture and heritage of a place, be it by way of sightseeing landmarks or adhering to local customs as culturally aware members of their community. Our findings indicate that student experience significantly influences the interpretation of heritage and, in turn, cultural perceptions, and the latent potential, prospects and options such experiences may afford students thereafter.

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1 Introduction

The purpose of this research is to investigate the impact of student experience in shaping student perceptions of local cultural heritage in the vicinity of their place of study. Experiences at a place are assessed through individual beliefs that, in turn, influence one's personal perception of the place. Several psycho-socio-cognitive processes play a role in shaping perceptions about experiences, such as a person's motivation, attitudes, and emotions. Experiences represent "a complex assemblage of cognitions, beliefs or knowledge, emotions, feelings, sentiments or evaluations and behavioural tendencies" within psycho-social phenomena (Larsen 2007, p. 11).

In this study we consider "experience" as the positive, neutral or negative attitudes developed by students for a culturally loaded place in the vicinity of their studies arising from psycho-cognitive assessments thereof. In other words, the perceptions students form during their stay at a place result from cognitively and affectively assessing whether their experiences at this place were positive, neutral or negative and, hence, such perceptions form the basis for their interpretation of the significance of cultural heritage.

Experiences related to place are assessed by students during their interaction with the social, psychological and environmental contexts of these settings. To this end, the interaction of the socio-cultural system of place and the personal values of students takes place based on personal expectation, events and memories (Moore 2000). From a socio-psychological perspective, the perception of the significance of a place is therefore a mental process "where sensory input is selectively attended, organized and evaluated" creating an (re)interpretation of cultural sightseeing (Mesh and Manor 1998, p. 508). We identify four steps in the process of students interpreting the culture of a place: experience, (re)assessment, perception and (re)interpretation.

Interpretation of a place also involves assessing and perceiving the intrinsic and extrinsic characteristics of the environment of a place based on experiences, memories and expectations of this environment. This context is further established by perceptions of interacting behaviors and social roles. Moreover, perception of a place is shaped by social connectedness and interactions that create dependence, attachment or affinity to a place (Altman and Low 1992).

This study quantitatively examines the impact that culture and sightseeing has on the students of The Department of 'Culture and Tourism Business Management' of The Technological Educational Institute (TEI) of Central Greece in Amphissa, the capital of Phokis Prefecture (near Delphi) and its effect in constructing or deconstructing the cultural significance of place.

This research indicates that the study of student perception of a place, namely Phokis, is indeed a complex process related to several affective and cognitive dimensions of experience, but that culturally loaded environments with strong symbolic features, i.e. Delphi, overall affect positively such perceptions, even by mitigating the reinforcement of negative experiences. Non-local students to an area that is considered a cultural destination may also be viewed as heritage and cultural tourists whose visit is long enough to create strong perceptions contingent to place attachment, place identity and, in some cases, place dependence, if their main motivation in becoming aware of this destination's significance is the creation of experience, and if thereafter the process of experiential memories assessment is reinforced by the environment itself as an integral component of their student experience.

2 Literature Review

Places should be considered as repositories and contexts within which interpersonal, community, and cultural relationships occur, and it is these social relationships to which people are attached (MacLeod et al. 2009). Many researchers have paid attention to the strength of individual or personal attachments to place (Raymond et al. 2010). Most of them explained these personal attachments to place by highlighting the role of place identity and place dependence; seeing that the notion of place is constructed by personal activities and experiences, where meanings are attached by individuals (Bricker and Kerstetter 2000). Hence, a place represents not only physical settings, but also the meanings and emotions that people associate with the settings irrelevant of space.

Place identity refers to those dimensions of self, such as the mixture of feelings about specific physical settings and symbolic connections to a place. Place identity pertains therefore to an individual's emotional or affective attachment, "characterized by the combination of attitude, value, thoughts, beliefs, meanings, and behavioral tendencies" (Gustafson 2001, p. 11). From the students' perspective, past visit experience could affect their place attachments (Deepak 2010). Another viewpoint of place identity highlights the importance of the role that community has in forming place attachments (Dixon and Durrheim 2004). Similarly, Hay (1998) maintains that cultural connections are important to the development of a rooted attachment to a place.

Social attachment to a place has been explained using a variety of frameworks or 100 constructs that in some instances have overlapping meanings (Kyle and Chick 2007). However, most of these constructs include and define the notion of 'place familiarity' as "pleasant memories, achievement memories and environmental images associated with places" (Roberts 1996, p. 64).

Place attachment is defined by Tuan (1980, p. 4) as "a positive affective bond between an individual and a specific place, the main characteristic of which is the tendency of the individual to maintain closeness to such a place". By being attached to both the physical and social context of a place, people acquire a sense of

belonging. Place attachment therefore has the capacity to influence people's attitudes, shaping perceptions and potential behaviors (Jorgensen and Stedman 2001). Place attachment also is important because the resultant identification with a place fosters social and cultural involvement within it (Altman and Low 1992). In turn, place dependency is defined as the context within which individuals perceive themselves as functionally associated with places based on the setting's capacity to facilitate their behavior and endeavors (Makridis and Pollatou 2015).

Places may denote a rich variety of meanings for individuals themselves, and it is likely that the very meaning(s) assigned to the place itself by the individual is the trigger for the emotional bond constituting the core to which this bond gets attached (Kreitler and Kreitler 1984). As Relph (1976, p. 43) asserts "[t]his association seems to constitute a vital source of both individual and cultural identity and security". First, Mesh and Manor (1998, p. 507) stressed that "affect, emotion and feeling are central to the perception of place", and indicated that these emotional elements "are often accompanied by cognition such as thought, knowledge and belief, and practice, such as action and behavior".

Heritage tourism is linked to the places and artifacts as well as the cultural, historical and natural resources of a place (Macdonald 1992). A descriptive approach is employed to define heritage tourism as some sort of inheritance that has to be passed down to current and future generations, both in terms of cultural traditions and physical artifacts (Goodall 1993). This implies that heritage tourists are motivated by a necessity to know, analyze and (re)interpret the significance of inheritance (McIntosh 1999). Heritage tourism involves the role of experience in the interpretation of sites (Mansfeldt et al. 2008). Therefore, experience can be defined as "the subjective mental state felt by participants" (Lugosi and Walls 2013, p. 57); and, hence, cultural heritage attractions can be seen as experiential products facilitating feelings, emotions and knowledge for visitors (Wang 1999).

Some authors have drawn distinctions between both heritage and cultural tourism; however, as suggested by Moscardo (1996, p. 380) "any debatable differences are subtle". The main motivation of cultural tourists is to learn, discover and gain more experiences about the visited destination (Richards 2010). Chen et al. (2010, p. 64), for example, distinguishes between visitors to heritage sites according to two motives: "pursuit of knowledge and personal benefit". Nonetheless, heritage tourism is praised for reintroducing people to their cultural roots, and for strengthening people's interest in history or culture (Falk and Dierking 2000). Cultural destinations can be framed as "an amalgam of tangible and intangible aspects" creating an overall experience of the visited area (Loulanski and Loulanski 2011, p. 844).

Therefore, the principal motivation of visitors to a culturally loaded destination is the creation of experience(s). These experiences can be so powerful that visitors might have an emotional attachment to some destinations (Cetin and Bilgihan 2016). It is important to note, however, the fact that valued dimensions of the visitor experience are produced in part by the visitors themselves through the resultant reciprocity of a place with their personal thoughts, feelings, imaginations and the unique 'contexts' or backgrounds, including personal interests, values, experiences and motivations, which visitors bring with them (Poria et al. 2006).

In visiting places, tourism experiences also have a psychological dimension based on events and processes, such as expectation, perception, and memory, which are connected with different stages of the overall tourist experience (Larsen 2007). The tourists' perspective and analyses encompass an interactive dimension involved in experiences, before, during and after travel (Lugosi and Walls 2013, Anastasiou and Alexiou 2001). This dimension pertains to the relations between people that take place during the experience, in being emotional or knowledge-based (Richards 2010).

The beneficial experiences reported by tourists are classified into two main mental processes resulting from the visitor's awareness: "affective process[,] affecting emotions, attitudes, values, enhancing enjoyment and involving familiarity[,] and cognitive process[,] involving synthesis and evaluation, improving comprehension and providing new insights or additional information" (Worcester 1996, p. 211). The cognitive component includes cognitive content which incorporates a multitude of facts or factual causations that refer to knowledge or beliefs regarding a destination, based on a cognitive evaluation of the destination's attributes. On the other hand, the affective component includes emotional content often relevant to perceptions of favorable, unfavorable, or neutral feelings toward the cultural destination (Alonso et al. 2015).

Prebensen and Foss (2011, p. 56) suggested that "tourists' experiences must be seen as an organic whole in which peak experiences [i.e. art, culture and heritage] and supporting experiences [i.e. daily interaction with locals] complement each other". Moreover, Uriely (2005) considers experiences to be immediate conscious events, lived in the present which can be analyzed in terms of intensity, duration, memorability, and meaning.

Participative experiences contribute to meaningful personal narratives (Moscardo 1999). Mathisen (2013) asserts that emotions and cognition are influenced by active participation in the experience, but specifically this kind of participation links to existential authenticity and perception of personal value. This active participation may be physical, emotional, or mental engagement and can intensify the experience through the use of personal skills and resources (Prentice et al. 1998).

People's interaction may affect the perception of cultural heritage to varying degrees seeing that human interaction is perceived to play a major significance in the context of cultural tourism (Andrades and Dimanche 2014). According to O'Dell (2007, p. 37) the perception of cultural heritage emanating from interaction in the environment and "include[es] the particular contexts, the physical objects, the subjects and their sets of relationships". These interactions carry social meaning, because they are closely connected to tourists' motivations towards pursuing pleasure in socializing with others (De Rojas and Camarero 2008) and sharing emotional moments with them. Kyle and Chick (2004, p. 261) suggest that "such collaborative involvement creates bonding, attachment and memorability". Social interaction enables the individual's social development and experiences to become memorable (Tung and Ritchie 2011). Communication during interactions involves the sharing of information, meanings, emotions, and feelings. Therefore, the degree

of closeness influences the behavioral, affective, and cognitive dimensions of interactions.

Both active participation and interaction affect the visitor's "immediate conscious experience, which is made up of perceptions, sensations, emotions, and other psychological events and processes" (Larsen 2007, p. 11). As a result, these variables are interpreted as factors that shape tourist behavior during onsite experiences which are afterwards evaluated and remembered (Scott and Godbey 1992).

The strength of experience can augment an individual's evaluation for the cultural settings and the place attachment. Campos et al. (2015) argue that cultural tourism is the movement of people towards cultural attractions, in order to obtain information and knowledge to fulfill their own cultural demands.

Thus, "it is people's own disparate evaluations of diverse experiences that, in turn, evaluate heritage settings differently; and therefore results in forming diverse perceptions of said places, because historic spaces are multifunctional goods that serve multi-motivated users, who behave in different ways" (Richards 2010, p. 12). A consensus of generally homogenous perception of cultural heritage of a place after a visit, as in overall positive or overall negative, would necessitate there being experiential aspects that coalesce into common emotive and cognitive ground for visitors despite their diverse motivations.

An individual's affective evaluations are built upon his or her cognitive knowledge of the cultural heritage (Baloglu and McCleary 1999). Heritage tourism involves the experience of heritage attractions with a site's interpretation. In particular, the perception of a place with cultural significance is formed by two critical components, namely reasoned (cognitive image) and emotional (affective image) interpretations (Qu et al. 2011). The cognitive image incorporates a multitude of facts "that refer to awareness and knowledge or beliefs regarding a destination, based on a cognitive evaluation of the destination's attributes" (Kyle et al. 2004, p. 441). In contrast, the affective component or emotional content often relates to perceptions of favorable, unfavorable, or neutral feelings toward the cultural destination. These cognitive and affective dimensions "represent [...] values, symbolic meanings and created associations" (Uzzell 1993, p. 128). The perceived significance of a cultural simulacrum can thus significantly contribute in building neutral, positive or negative propensities of assessment and, therefore, interpretation of the cultural heritage of a place.

There is a symbiotic relationship between visitor and cultural resource (McArthur and Hall 1996). People need heritage to add perspective and meaning to their lives. A heritage attraction maintains traditional preservation and serves an educational role (Mezirow 2000). In particular, cultural heritage is generally perceived as having substantial educational significance and as an important determinant of sense of place, seeing as educational attainment has long been a benefit associated with visiting of cultural sites.

Beerli and Martin (2003) confirm that the cognitive evaluations of a place and its cultural heritage have a direct influence on the overall perception of this cultural destination. Therefore, cognitive perceptions may refer to tourist attitudes towards positive or negative evaluation of destination. According to Selstad (2007), cultural

places comprise the evaluations of the physical features and social functions. Uzzell (1996, p. 225) argues that “heritage interpretation generally needs to strive for a better connection of past, present and future”. Inevitably, such interactions generate a common space where “emotions, values, choices, ideas, and ideals emerge, converge, or collide” (Bochner et al. 1991, p. 18). It is intrinsic in the human capacity to anticipate and (re)interpret the essence and authenticity of experiences, and (cultural) symbols facilitate this process of mindfulness, to a great extent.

Cultural places have symbolic contexts imbued with meaning. These meanings emerge and evolve through ongoing social and environmental interaction and reinterpretation. The meanings individuals and cohesive social groups ascribe to a place are reflections of cultural identity (Vong 2015), ranging from the personal to the social to the national and even the identity of being human itself. Hummon (1992) suggests that a sense of place is dual in nature “involving both an interpretive perspective on the environment and an emotional reaction to the environment” (p. 262). Following this view is Milligan (1998), who maintains that this approach suggests subjective definitions of place and the attributes contained within reflect self-definitions conditioned by cultural affiliation; hence, mindfulness of interaction with the place. Such mindfulness of place is assisted by the inter-social, inter-historical and inter-psychological capacity of symbols of a place in being recognized as bearing cultural heritage. The more over-encumbered the collective symbolic value of sites, activities, stories and events is in forming the notion of ‘place’, the more gravity these elements have in helping create place identity and cultural affiliation.

Factors such as historic connection and connectedness, education and seeking social ties, all play a significant role in cultural affiliation, as the beneficial experiences gained by visitors are evaluated by them and expressed in their own words.

Moscardo (1996) approached tourism experiences in heritage sites through a socio-psychological perspective, using the mindfulness concept to describe a particular state of mind that occurs when individuals are “active, interested, questioning, and capable of reassessing the way they view the world” (p. 382). In closing this literature review, Moscardo’s own words (p. 383) deserve mention:

Mindfulness has been found essential in contexts where interpretation plays an important role in experiences because effective interpretation requires the individual’s awareness of the situation, active information processing, and attentive behaviour, as well as perception of being interested, involved, and in control during performance of activities. Such psychological engagement in the experience is seen as beneficial to visitors and tourists due to the increase in self-esteem, satisfaction, and learning outcomes that a mindful state generates.

The process of perceiving and interpreting any received information about cultural heritage acts as a catalyst that allows visitors to differentiate their experiences, categorizing them into those they might seek and those they would avoid (Yang 2016).

Interpretation, therefore, involves the imaginative perspectives of tourists and the deep involvement, understanding, meaning and sensory feelings resulting from

immersion and attention to a place, or, resulting from a mindful encounter (Vong 2013), in approaching a place with mindfulness. Accordingly, individuals may interpret cultural products in an entirely different way from what was intended. It is these cognitive and affective dimensions which serve to conceptualize cultural heritage that result into substantial interpretive significances.

3 Methodology

The main purpose of this study is to offer insight into the understanding of the ways that experience may affect the students' perception of a cultural destination within the vicinity of their studies. The research has been conducted in the Department of 'Culture and Tourism Business Management' of The Technological Educational Institute (TEI) of Central Greece in Amphissa, the capital of Phokis Prefecture (near Delphi). This is a popular tourist destination with significant cultural and archeological monuments with a major cultural and historical impact worldwide and locally. We quantitatively examine the role and effect of extracurricular experience within the vicinity of students' immediate academic environment, in constructing student perception, as well as study its influence in creating a comprehensive perception of heritage at large. Our methodology is based on a pilot quantitative research in which students participated using questionnaires. Students of this specific department were chosen as they are 'semi-informed individuals' with a predetermined inclination towards tourism, heritage and heritage interpretation.

The specific choice of semi-informed specimen allows for a higher level of accuracy in the quantitative part of the research with a relatively smaller sample. Furthermore the fact that the department is one of tourist and cultural management, it is of utmost importance to examine the attitudes of tomorrow's tourism and cultural managers toward cultural heritage and their perceptions. Based on the literature review theories presented, student experiences are further defined as "memorable and enjoyable activities, events and perceptions in a cultural destination that engage students personally and positively affecting their perception" (Cetin and Bilgihan 2016, p. 139).

To carry out this research, a questionnaire was created based on McIntosh's research (1999). The questionnaire survey was designed and employed to measure the perception of the students of the department as well as their attitude toward cultural heritage of Phokis. To this end, we chose mostly closed-type questions as and some open-ended questions to encourage students to identify as many positive or negative experiences as possible. This helped develop a suitable questionnaire for conducting analysis of the attributes that are used for assessing students' experiences in regard to their cognitive and affective perception on the cultural significance of traditions and sightseeing of Phokis.

The total number of questions was twenty-seven, and five of these focused on demographics. Using a quantitative analysis, we identified in each case the prior knowledge that students had regarding the cultural heritage of Phokis. We also tried

to examine whether this knowledge had increased during students’ residence in Amphissa for their studies.

Some questions required from respondents to rate on a scale of 1–5 (from totally disagree to totally agree), how much they assess the significance of the attractions and customs of Phokis. We also focused on the interest of students in participating in local customs or visiting major sites of the area, as well as on the main causes that may (have) prevent(ed) them from having a cultural experience.

Our sample included 122 students, both male and female. We distributed the questionnaires to students electronically via google forms. Our sample included students from all semesters (1st, 2nd and 3rd year; note that the Department of ‘Culture and Tourism Business Management’ was established in 2013, so there are no students attending 4th year yet). We conducted this research between the 14th and 24th day of April in 2016. The number of active students in all semesters is 164, out of whom we received 122 responses. Given the short period of our research, student participation of 74% is satisfactory.

4 Results

The sample of 122 respondents comprised 85% female and 15% male respondents. This is inevitable, as the vast majority of students in the Department are female (Table 1). Regarding the age of the respondents, 62% were between 20 to 21 years old, and around 30% were between 18 to 19 years old, while only 8% were above 22 years old. Furthermore, 26% of the respondents were in their 1st year of studies, 33% were in their 2nd year of studies, and 41% attended their 3rd year of studies. As mentioned in the Methodology section, the Department was established in 2013. The results also show that the origination of our sample of students includes 40% from Athens, and 60% came from the rest of Greece from various prefectures. Also important to note is that of this sample 84% of students originated from other parts of the country, but live in Amphissa permanently for their studies or otherwise.

In response to the question “which of major towns of Phokis did you know, before your studies in Amphissa?”, Delphi was the best well known location for 95% of respondents, followed by Galaxidi at a distant second place with 59% of respondents recognizing it. Delphi is a place with a major archeological impact, while the town of Galaxidi is famous for its particular architectural style, including well-preserved traditional buildings. Lastly, Amphissa city itself was less known and third in place with 33%, followed by Itea with 32%. Important to note is that

Table 1 Sex

	Sample	Percentage (%)
Female	104	85
Male	18	15
Total	122	100

80% of students had not visited the prefecture of Phokis before their studies commenced in Amphissa city.

The most visited sightseeing of Phokis was the castle of Amphissa (67%) and the traditional neighborhood of Charmaina (62%), a district in which there are many buildings of traditional leather tanning that are well preserved. It is very easy and economical for students to visit all these sites due to proximity. The archeological place (52%) and museum of Delphi (39%) have enjoyed an increased percentage of visits and interest in (re)visiting, mostly “because Delphi attracts tourists from around the world”. In contrast, only 8% of students have visited the museum of Amphissa, possibly also because it is open only for a few hours per day as well as the amusement park Vagonetto (3%), due to the distance from Amphissa. Of the sample of students, 13% have never visited sites in Phokis and the main reason for this was due to difficulties in transportation (54%), lack of information (42%) and lack of motivation in doing so (39%). On the other hand, the cost of admission fees was not a major reason that prevented students from visiting sites (19%).

Regarding the social interaction of students with a place of cultural importance, 50% of students have guided friends or relatives to cultural monuments of the Prefecture. About one out of two respondents (53%) had never participated in major traditional events that take place in Phokis, such as during spring break that coincides with the religious holidays of Easter in Greece. The main reasons included lack of interest (35%), the lack of motivation (32%), the difficulty in transportation (22%), and the lack of information (19%). Nonetheless, 39% of the respondents participated in “Nychta ton Stihion”, which is an impressive spectacle with song and costumes and similar to the celebration of Halloween in the USA or ‘Dia de los Muertos’ in Mexico. Moreover, 13% of students have participated in “flour battles” in Galaxidi, a custom that takes place during Spring Break, resembling the festival of ‘la Tomatina’ in Spain. The majority of participants has learned about these events from locals (78%), or other students (55%), and only a small percentage (4%) was informed about these by the local or national media. This fact shows the important contribution of interpersonal relations in their capacity to act as “informatory channels” within a place.

When assessing the degree of importance of the cultural attractions or events at Phokis from the students’ point of view, it is important mention that the archeological area and museum of Delphi are by far the most significant places for students (75%), followed by the archeological museum (50%) and the castle of Amphissa (44%), and Charmaina’s neighbourhood (40%). “The flour battle” in Galaxidi is characterised as an event with less importance, according to students’ perception (55%). This is probably because the majority of students did not participate in this traditional event, nor has ever been encouraged to do so by local authorities.

The overall experiences that students had during their visits to cultural attractions in Phokis is considered marginally positive by majority (52%), neutral (46%) but hardly ever negative (2%). With regard to the opinion of the research

participants about their perception of the cultural heritage of Phokis before they resided there, they admitted that they did not know the region (44%) or that they had a neutral attitude (33%) towards it. Only 10% mentioned they had a positive perception before visiting and living in the area, but this percentage enormously increases after they stayed in Amphissa, given that 44% of the surveyed students mention having a positive perception about the cultural heritage of the place. This is likely a result of the fact that students obtained knowledge on the cultural places in question by way of experience. Important to note is that 88% of students find the Delphic landscape very interesting. Also, according to 84% of respondents, they would like to learn more about the attractions of the area. This is highly indicative of place attachment, wherefore students are compelled to search for more information about the history and culture of the prefecture. According to 75% of the students, the most effective way to acquire information is through visits to sites and places of cultural interest for educational purposes or by organizing events or lectures to this end in the Department of 'Culture and Tourism Business Management' (63%).

Half of students (50%) agree that Phokis is a prefecture with strong traditions and customs, and 60% believes that their interest to visit the sites of the region has increased due to the interaction with locals. Without doubt, this finding is in accordance with their perception that local society is a closed society (66%).

In the open question section where the students were asked to describe a positive experience during their visit to a cultural attraction, some mentioned the following:

"The archaeological site of Delphi makes a great impression and it is worth a visit from everyone", "Phokis has many cultural and historical sights that everyone should visit!", "The communication I had with foreign visitors was nice", "The scenery of Charmaina transported me back in time", "Delphi is a worthwhile experience", "There was an interesting and well organized exhibition in the museum of Delphi", "During your visit in Delphi you may obtain much information and knowledge you did not possess before", "The Archaeological Museum of Amphissa has a remarkable collection", "The panoramic view of Amphissa from the castle is astonishing", "The preservation of Charmaina's buildings is good", "I Nychta ton Stihion" was a very amusing experience, an impressive spectacle, with sounds and costumes", "I enjoyed the flour battle in Galaxidi".

In contrast, when the students were asked to describe a negative experience during their visit to a cultural attraction, they mentioned the following:

"All attractions are far away from the center of Amphissa", "Unfortunately, the Archaeological Museum of Amphissa is small", "I could not find even bottled water in the canteen of the Delphi museum", "There is a terrible smell in the district of Charmaina; the Municipality should do something about it", "The small cafeteria in Charmaina is often closed".

Lastly, 53% of students would like to visit other places of cultural interest beyond Phokis after visiting the cultural sites of Phokis.

5 Conclusion

Literature seems to lack attention on the role of experience in altering students' perception of a destination with cultural interest. The students' affective and cognitive evaluation and interpretation of a place is a major factor that impacts their perception of the cultural heritage significance of this place. Although additional research is needed in order to investigate the links between student awareness and perception of a place, and their interpretation of the cultural significance of this place, this preliminary study seems to indicate there is strong correlation between the two. Future research should also focus on the qualitative analysis of the dimensions of active participation and interaction of students with a place's cultural heritage using a variety of methods, such as "focus groups" or "in depth interviews".

Students' cultural experiences, perceptions and awareness of a place's significance are primarily formed by means of emotion and cognition. Emotive and informational reflections arising from the experiences in a place and its cultural heritage, be this in regard to the distant antiquity or the present, or the whole range of past to present perceived as a harmonious whole and the monuments, the people and their near and distant ancestry and their customs, folklore, myths and legends, were all seen as important factors that contributed to the overall perception of the culture of the notion of place.

Hence, more focus should be placed on cognitive and emotional perceptions *per se* formed through different experiences during a student's stay at a place of cultural significance and on the role such perceptions have in influencing positively or negatively the evaluation of a place's meaning, be it from the students for students, and the locals themselves, and at large for gradually shaping therefore the constantly evolving trajectory of future emotional and cognitive memory associated with this place. In turn, the personal context of studying at culturally loaded locations becomes an essential component in the interpretation of the significance of heritage (Campos et al. 2015).

From our literature review it also becomes evident that although there is emphasis on examining the diverse range of factors by which experiences of visiting students to a locale can be influenced and determined, the strongest influencing factors to this end are: place attachment, the interplay of personal narrative to the cultural heritage narrative, and emotive awareness. Our quantitative analysis seems to corroborate this and the open questionnaires reinforce this further. While experiences of students are influenced, determined and particularized through such influencing factors, the students' emotional evaluations of such experiences are, in turn, influenced by the reciprocity of perceptions between students, and between students and locals, likewise formed during diverse experiences in these culturally loaded locations. Given that by comparison to a given base unit of neutrality (as per the experience of locals) visitors to a place (such as tourists or non-local students) interpret the place with affective associations of a certain range (such as positive, neutral or negative feelings), these emotional evaluations are further influenced and either reinforced or rejected, by the perceptions of non-local

students formed during their own diverse experiences in Phokis. Theoretically, this is due to the fact that cultural places that have powerful symbolic features assert a stronger influence on visitor perception (Uzzell 1996).

This study indicates that experiences can (re)shape student perceptions by compelling and impelling students to become more closely attached with the culture and heritage of a place, be it by way of sightseeing and landmarks or adhering to local customs, but is currently limited to Phokis. Our findings indicate that the students' experiences within culturally loaded settings do in fact significantly influence the interpretation of heritage more positively than negatively and, in turn, such cultural perceptions and experiences may reward students thereafter, thus further reinforcing emotive and cognitive interpretation of this place anew. These findings highlight the importance of placing greater emphasis on the consideration of the socio-psychological context in which these experiences are shared in a place (e.g. place attachment, place identity, place dependence, emotional geography). Such emphasis should also include investigating the correlation of the socio-cultural dimensions of the place to the socio-emotional causes of perception, and will ensue by studying the perceptions of students for culturally loaded areas near their place of study in other locations beyond Phokis.

On this note, certain limitations of this study should be pointed out, seeing that this study has as its starting point the principles of social psychology but inevitably bridges over to emotional geography, creating thus even higher demands for an interdisciplinary focus in future research. In turn, not only is there need to add a qualitative element to future studies, but also more culturally loaded locations in proximity to student residents need to be examined. Most importantly, the questionnaire was designed only to research students' expectations and perceptions of a particular place, specifically Phokis, and due to the small sample size, it is therefore not safe to make generalizations yet, despite the strong indications thereof (i.e. that culturally loaded experiences generally influence student perception positively for a place), beyond the results pertinent to this specific group of participants and for Phokis, only.

In general, the student evaluation, interpretation and perception of the significance of the cultural heritage of Phokis is overall positive, as is the students' overall emotional and cognitive attachment to Phokis and, in turn, their place of study in Phokis. This study indicates that the culturally loaded experiences with strong symbolic features at Phokis (i.e. from visiting and learning about monuments and being aware or participating in local customs) appear to positively influence and (re) define student emotions and cognitions, and hence perceptions, about Phokis.

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Forecasting British Tourist Inflows to Portugal Using Google Trends Data

Gorete Dinis, Carlos Costa and Osvaldo Pacheco

Abstract Purpose—The purpose of this paper is to explore the Google Trends (GT) data in order to understand the behavior and interests of British tourists in Portugal as a tourist destination and to verify if the GT data correlates with the tourism official data of Portugal. Furthermore, it will investigate if GT data can improve forecasts on the arrival of British tourists to Portugal. Design/methodology/approach—We used GT data on a set of search terms to predict the demand for hotel establishments by UK residents in Portugal and employed the Autoregressive Integrated Moving Average (ARIMA) model and Transfer Function (TF) to evaluate the usefulness of this data. Furthermore, we correlated the GT data with official tourism data of Portugal. Findings—The TF models outperformed their ARIMA counterparts, meaning that the TF models which considered the GT index produced more accurate forecasts. Practical implications—The paper contributes to increase the knowledge on the potential of Google-based search data in order to understand the behaviour patterns of predicted British travelers to Portugal and help to predict the British tourist inflows to Portugal. Originality/value—The paper is novel because it is the first in the field of hospitality and tourism to predict British tourists inflows to Portugal and it is a unique paper in this area that used several keywords in order to define a tourist destination.

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JEL Classification Z other special topics

1 Introduction

The tourism demand of a destination is influenced by a diversity of factors, such as, economic, social and psychological. In order to understand tourism demand it is necessary to consider these factors and because of this the academics are concerned about considering these variables in forecast tourism demand models. However, it is very difficult to consider all these variables at same time in the model because some of them are difficult to quantify or there is no data available. Over the last few years the tourism demand forecasting models mostly consider economic variables as independent variables, however, the tourism demand and their travelling behaviour is changing due to several factors, but most significantly were the technological advances verified at different levels, highlighting the Internet. Nowadays, the tourist consumer uses the Internet in all phases of the travel cycle and most of this process starts from a search engine, meaning that these carry within themselves a lot of data regarding the interests and intentions of people around the world about a specific theme. Google is the most used search engine in the world and Google Inc. developed a tool named GT that provides data, since 2004, showing the interests over time, on a daily or weekly basis, based on web searches performed on Google about various themes, divided into categories, highlighting the travel category. This data can be downloaded in .CSV format almost in real time and since the tourist consumer increasingly makes searches on Google before the trip, sometimes months in advance, this data can be used to make more accurate tourism demand predictions.

The aim of this paper is to explore the GT data in order to understand the behaviour and interests of British tourists in Portugal as a tourist destination and to verify if the GT data correlates with the tourism official data of Portugal. Furthermore, it will investigate if GT data can improve forecasts on the arrival of British tourists to Portugal. For that, we begin the paper with a review of literature, mostly about studies on forecasting in the field of tourism and GT tool use. We then detail the methodology used in the study for correlation of the GT data with the tourism official data and to forecast the overnight stays of British tourists in Portugal, with and without GT data as an independent variable. Finally, we present the results and the performed analysis, ending with the conclusions.

2 Literature Review

The tourism demand is affected by different types of factors and although economic factors are the most mentioned in the literature (e.g. Cunha (2013), Uysal (1998), UNWTO and ETC 2008) the authors are unanimous in stating that tourist demand is also determined by factors of social, psychological and others, which include, for example, the unpredictable variables such as natural disasters, outbreaks and pandemics, and acts of terrorism, or technological advances.

However, Uysal (1998) states that it is difficult to consider, at the same time, all the variables that influence the tourism demand and because of that the academics tend to consider them as determinants of tourism, usually demanding those variables that mostly influence the tourist demand and, according to UNWTO and ETC (2008), the academics should choose the variables with higher potential to represent the tourism demand. Song et al. (2009) affirmed that due to lack of available data or difficulties in quantifying the variables, it is complicated to find exact measurements for the determinants of tourist demand. These variables are designated as explanatory or independent variables (Ramos 2011).

The studies about tourism demand developed after the rapid global growth of the tourism sector after World War II, focusing on the analysis of the effects of the factors that determined the tourism demand, but also forecasting tourism demand (Song et al. 2009).

According to Song and Guo (2008) the growing interest in forecasting tourism demand is mainly due to the fact that the estimates of demand are very important for efficient planning, foundation of investment decisions in infrastructure, formulating and implementing long-term strategies in the sector, and assist in the positioning and competitiveness of the destination. In the opinion of Goeldner and Ritchie (2009) this subject is of interest to all tourism stakeholders since they all desire the growth of tourism demand.

Currently, the methods used to forecast tourism demand are diverse and with different levels of complexity. According to the review article of Song and Li (2008) summarizing the state of the art for tourism demand forecasting based on 121 studies published from 2000 to 2007, the dependent variable most widely used is tourist arrivals. In addition, most of the studies using annual data to predict the tourist demand and the areas analysed still continue to focus on Western Europe, especially the UK and France, but also Spain and Germany, and the USA. Regarding the methods used, the authors concluded that, with the exception of two, all the empirical studies analysed apply quantitative forecasting methods with 60% of the studies using time series techniques, with predominance of ARIMA models. In the studies that focused on the evaluation of forecasting performance of the models, the authors concluded that the MAPE and RSPE are the most commonly used measures.

Daniel and Rodrigues (2007) analysed the studies conducted on the tourism demand in Portugal and found a total of 18 studies, with the first studies referring to the early 90's. Most studies address the international tourism demand for Portugal,

particularly in Germany, Spain, France, United Kingdom and the Netherlands and use univariate time series models or causal models, highlighting the econometric models. In addition, the authors report the use of TF models as an interesting recent methodological application, which has been used in three studies. Regarding the dependent variables, the measures most commonly used in studies to determine tourist demand are: number of tourists, average stay in accommodation establishments and “number of overnight stays in hotels and similar establishments”. With respect to the independent variables, the authors found that the variables mostly used are economic variables such as income, the cost of travel to the destination, the cost of living in the destination and price of substitute destinations. From the analysis, the authors also verify the lacking of independent variables relating to technological factors in order to evaluate the tourist demand. Ramos and Rodrigues (2010) state that taking into account that tourism is strongly influenced by the technological environment, it is important to identify other variables related to Information and Communications Technology that can be used to improve understanding of tourism demand.

Over the last years we observed an increase of Internet use for tourist consumers in all phases of trip planning. Due to this, the Internet and mainly the search engine, that according to Google & Ipsos MediaCT (2014) are among the most popular online planning and inspiration sources for travellers, is an important data source regarding the interests, intentions and desires of the tourist consumer. The search engine that is the worldwide market leader since December 2008 until March 2016 with a share larger than 88% (StatCounter Global Stats 2016) is Google. In 2012 the Google company launched GT, a free tool available to the public that shows the interest of Google searches about a particular subject almost in real time.

This data can be downloaded in .CSV format and recently the data has been employed in research fields such as economics and finances (Askitas and Zimmermann (2009), Schmidt and Vosen (2009), Della Penna and Huang (2009), Kholodilin et al. (2010), Fondeur and Karamé (2011), Baker and Fradkin (2011), Smith (2012), Mao et al. (2011), communication and marketing (Scharnow and Vogelgesang (2011), Hoffman and Novak (2009), Granka (2010)), tourism (Chamberlin (2010), Choi and Varian (2009), Shimshoni et al. (2009), Suhoy (2009), Smith and White (2011), Artola and Galán (2012), Gawlik et al. (2011), Saidi et al. (2010), Pan et al. (2012), De La Oz Pineda (2014), and health (Ginsberg et al. (2009), Carneiro and Mylonakis (2009), Chung et al. (2009), Yang et al. (2011), Willard and Nguyen (2013), Murugiah et al. (2014)). One of the main conclusions of most of these studies is that GT data can be used to help in predicting certain phenomena of the real world.

The GT tool presents some limitations that are necessary to take into account when the data is analyzed, such as, the data is in relative values, it refers to individuals that search in Google, and represents the population of a country or region, identified by the IP address, that use the Internet as a source of information for planning and organizing a trip.

This research study is innovative because it is the first in the field of hospitality and tourism to predict British tourists inflows to mainland Portugal and it is a

unique paper in this area that used several keywords, namely the municipality's names with the most number of overnights in the hotel accommodations in mainland Portugal in 2011, in order to define a tourist destination.

3 Methodology

The aim of this study is to show that there exists a correlation between the tourism official data and the searches people make on Google about this thematic, furthermore, we want to prove that the consideration of the GT data in a prevision model can improve the forecasting model performance. The study was based in mainland Portugal, a country located in Southern Europe, which received in 2014 a total number of 17.3 million guests and 48.8 million of overnight stays (INE 2015). The United Kingdom was the main inbound market. According to the survey results of the "Preferences of Europeans towards tourism" (Comissão Europeia 2014), 73% of British tourists use the Internet to organize their holidays.

The Central body responsible for the production and dissemination of all official statistics, including Tourism statistics is the National Statistics Institute (Statistics Portugal) (Azevedo et al. 2010). Since 2007 the Institute does not provide statistics on the number of visitors to Portugal, but on a monthly schedule the Institute collects data from hotel establishments about, among others indicators, the number of guests and the overnights stays that can be used as variables to represent the tourism demand in Portugal.

The data from GT was obtained from <https://www.google.pt/trends/>, per year, from January 2004 to October 2012, from the United Kingdom, in the category "travelling" and subcategory "hotels & accommodations". For search terms we used a unique methodology that consisted in putting the name of the municipalities that, according to Statistics Portugal, registered the most number of overnights in the hotel accommodation in mainland Portugal in 2011. Since the tool only allows a maximum of 30 search terms in a singly entry, we had to limit the number of municipalities name's and in addition we restricted the search terms to the hotel accommodations using the minus sign and quotation marks in the name of some municipalities when we wanted to only include the searches that matched that exact expression. The country name and the tourism region mark was also used as a search term, and when the search term is dubious such as "north" or "center" we replaced them with "douro" and "estrela", respectively, we chose theses search terms because they represent the main local tourist attractions of those regions (see Fig. 1). The GT data of the study is available per weeks but since the variable "D_UK_PT_C" is monthly we transformed the GT data into monthly data through the arithmetic average, like authors such as Schmidt & Vosen (2009) and Willard & Nguyen (2011).

When the GT data was analysed, we verified that the value "zero" is the minimum value of the series. This doesn't mean that there were no searches on Google about those specifics terms but rather that search volume was insufficient to generate data. (Google 2012). In these cases, we replaced the value zero by the

Search Terms	Modifications
"portugal"+"douro"+ "estrela" +"lisboa"+"alentejo"+"algarve" + "porto"+ "albufeira"+ "vilamoura"+ "portimao"+ "gaia"+ "coimbra"+ "cascais"+ "braga"+ "evora"+ "matosinhos"+ "ourem"+ "fatima"+ "covilha"+ "viseu"+ "oeiras"+ "tavira"+ "setubal"+ "faro"+ "figueira"+ "aveiro"+ "carvoeiro- rural-campismo-juventude-hostel"	The search terms "norte" and "centro" are replaced by "douro" and "estrela", respectively. The search term "fátima" is included since the Sanctuary of Fátima is the biggest point of interest of the Ourém municipality. The Lagoa municipality was replaced with "carvoeiro". A village in the Lagoa municipality where the closest beach, accommodations and golf courses are located. The rural accommodations, camping sites, young hostels and hostels are excluded from the analysis.

Fig. 1 Search terms used in the study

arithmetic media of the variable. In addition, we tested the normality of both variables but, even after carrying out the transformation of the variables, that wasn't reached and it was decided to apply the Spearman's correlation coefficient in order to analyse the relation between the variables.

In order to forecast British tourism inflows to Portugal, we adopted as dependent variables the "total number of overnights of British in hotel accommodation activity" (D_UK_PT_C) and we used the GT data as an independent variable (G_UK_PT_C). From the literature review we found that the forecast performance can be influenced by the sample period used for the estimation and validation of the model. So in this study, we considered the first 96 observations (01/2004–12/2011) for the model estimation and the remaining 10 observations (01/2012–10/2012) as the validation period.

Given the purpose of this study, we proceeded to a common practice in the forecasting of tourism demand which is to compare the model to be tested with models often used in tourism forecast (Yang et al. 2014). The ARIMA model has often been used as a reference model in forecasting accuracy comparisons between models (Chu 2009). As such, the ARIMA model was considered as a reference model in the study to serve as a comparison with the model to be tested, that is, the model that considers the G_UK_PT_C variable, thus making the traditional model in TF model.

The statistical software used to estimate the ARIMA and TF model is the SPSS, version 20. This program has a method known as Expert Modeler that uses an algorithm that selects the model adjusted for each dependent variable, performing certain procedures of modelling automatically. In this study we decided to use the Expert Modeler to model the D_UK_PT variable. The model parameters identified by the program were later used in the TF model.

The time series studied do not display missing cases and in relation to outliers, the software program employs a process of automatic detection and management of outliers in time series. In addition, the time series in order to achieve stationary of the data they were subjected to a simple differentiation and a seasonal differentiation. The quality of the model fit was assessed by Ljung-Box statistical test.

Furthermore, we used the R^2 to obtain information on the adjustment of the number of estimated parameters and for evaluating the performance of the tourism demand forecasting model the following measures: mean absolute error; percentage error and mean absolute percent error. We calculated the error measures based on the following formulas (Yaffee and McGee 2000):

$$PE_t = \left(\frac{x_t - y_t}{x_t} \right) \times 100 \quad (1)$$

$$MAE = \sum_{t=1}^T \frac{|e_t|}{T} \quad (2)$$

$$MAPE = \sum_{t=1}^T \frac{|PE_t|}{T} \quad (3)$$

where:

x = observed value of data

PE = percentage error

t = time period

y = forecasted value

e_t = (observed value – forecasted value) at time t

T = total number of observations

4 Results

In Fig. 2 we can observe the time series referent to the variable $D_UK_PT_C$ and the variable $G_UK_PT_C$. Analysing this figure, we found that the variable $D_UK_PT_C$ during the time interval in analysis shows a seasonal pattern, reaching maximum values in the Spring and Summer months and minimum values during the Winter months. On the other hand, the variable $G_UK_PT_C$ shows a similar behaviour but we started to see that Google searches occurred earlier than the overnights stays of British tourists in Portugal with about a deferral of 2 months, similar to that found by Frazão (2013). We also observed a superior interest of the British tourists in hotels establishments in Portugal in the month of January.

While analyzing Table 1, we observed that the variables do not exhibit missing values. The mean of the variable $D_UK_PT_C$ is approximately 440 thousand overnights and the $G_UK_PT_C$ variable presents a mean of approximately 61.¹ Only the variable $G_UK_PT_C$ presents one outlier. The correlation coefficient of the variables is 0,5, i.e., the correlation is moderate, according with the Franzblau (1958).

¹¹The GT data varies between 0 and 100.

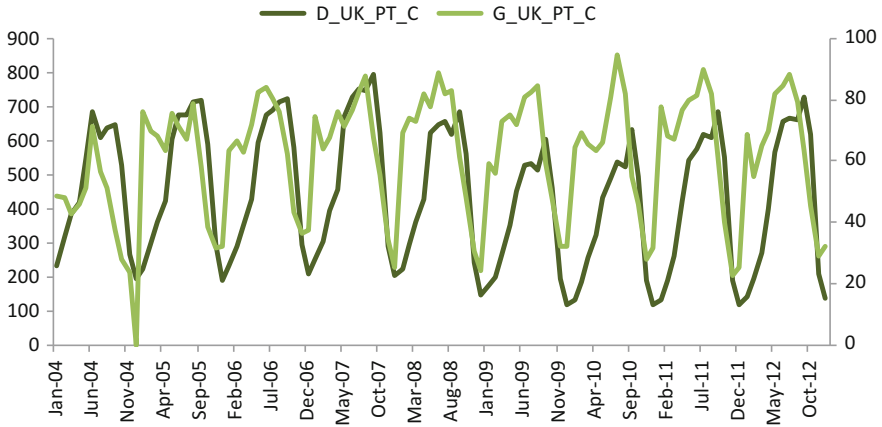


Fig. 2 Overnights spent by residents of the United Kingdom in hotel establishments in mainland Portugal versus the GT index. *Source* Own elaboration from Google (www.google.pt/trends/) e INE (2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012,2013)

Table 1 Descriptive statistics and correlation coefficient

Variables	No of observations	Missing values	Mean	Standard deviation	Variance	Outlier	Correlation coefficient
D_UK_PT_C	108	0	440	300	39.910	0	0.5
G_UK_PT_C	108	0	61	20	393	1	

Source Own elaboration from SPSS data

The model suggested by the Expert Modeler for forecasting is an ARIMA (1,1,0) (0,1,0) (see Table 2), i.e., a model that indicates that the current overnight stays depend on the value of overnight stays immediately preceding some more random error, and it was necessary to apply a simple differentiation and a seasonal differentiation for the stationary of time series.

In Table 3 we can observe the results from the estimated parameters of the ARIMA and FT model.

Analysing the quality adjustment of the models, we can verify based on Table 4 that the value of R^2 in both models is 0.99, indicating a good fit of models. Furthermore, we also observed that the program detected two outliers, which were appropriately shaped by SPSS.

Table 2 Model description

Variable	Model
Overnights UK_PT_C	ARIMA (1,1,0) (0,1,0)

Source Own elaboration from SPSS data

Table 3 Results of the estimated model parameters of ARIMA and TF

Model		ARIMA	TF
Dependent variable		Overnights UK_PT_C	Overnights UK_PT_C
Independent variable			Google_UK_PT_C
Transformation		Natural logarithm	Natural logarithm
Differentiation		1	1
Seasonal differentiation		1	1
Constant			
AR (1)		-0.315	-0.355
Numerator	Lag 0		0.064
	Lag 1		0.036

Table 4 ARIMA and FT model statistics

Model	Number of predictors	Statistics of model adjustment			Ljung-Box (Q18)			Outliers
		R ²	MAPE	MAE	Statistics	DF	p	
Overnights_UK_PT_C (FT)	1	0.99	4.16	17.1	24.74	17	0.1	2
Overnights_UK_PT_C (ARIMA)		0.99	4.23	17.3	20.85	17	0.2	2

Source Own elaboration from SPSS data

The test applied to the residuals, namely the Ljung-Box test provides indication of the autocorrelation between the residuals and the assumption of stationarity of the data in the series. Analyzing the test *p*-value it can be seen that the significance value is 0.1 and 0.2 for the ARIMA and FT model, respectively, i.e. above 0.05, within the 95% confidence interval, which proves that the residuals are not auto-correlated. To verify the normality assumption of the residuals in TF model, we observed the normal probability plot and held the K-S normality test, and it was found that error values are distributed in the main diagonal and in the adjustment test it has a value of 0.49 ($p > 0.05$), indicating, with an error probability of 5%, that the distribution is normal.

In Fig. 3 we can see the observed and predicted values for the period from January 2012 to October 2012, through the ARIMA and FT models. From its analysis we can see that the models perform better for short-term forecasts. However, for larger prediction horizons, the FT model shows better results. After evaluating the quality of the model, we proceed to forecast the overnight stays by British tourists in hotel establishments in Portugal, based on the model identified in Table 1.

Based on the predicted values and observed values, taking into account the objective of this study, we proceeded to a comparative assessment of the model’s forecasting performance. To do this, we calculated the percentage error rate (see Eq. 1), and analysed the values of MAPE and MAE (Table 3).

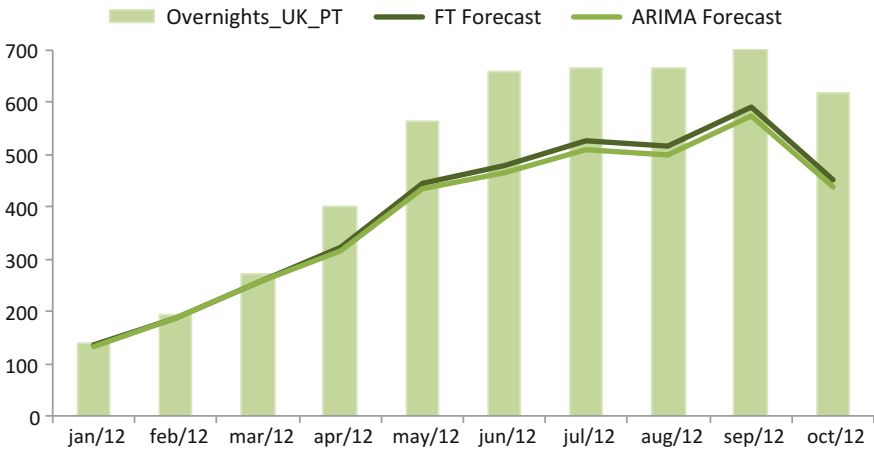


Fig. 3 Actual and forecasting overnights of British in Portugal

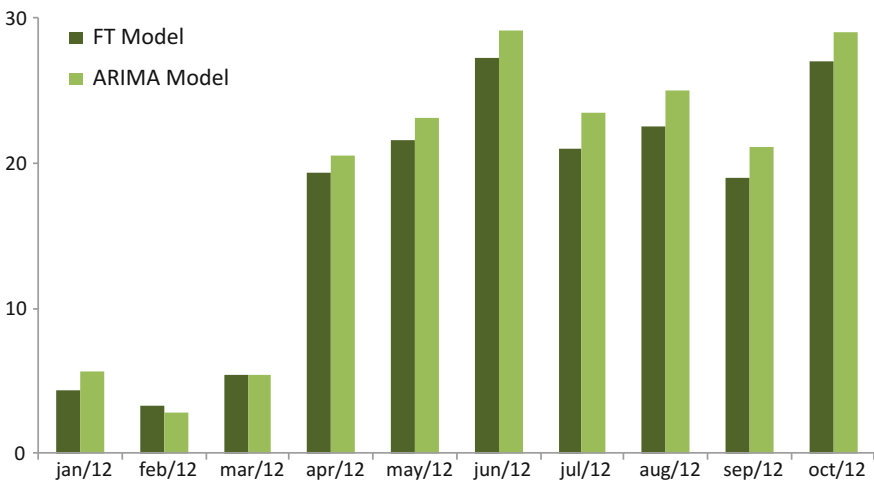


Fig. 4 Percentage error rate of ARIMA and FT models. *Source* Own elaboration from SPSS data

By analysing Fig. 4, we verified that the FT model which considered the Google_UK_PT_C variable presents a better performance than the ARIMA model in every month of the forecast period. Furthermore, we verified that the consideration of the Google_UK_PT_C variable in forecast model resulted in a reduction of MAE and MAPE. Concretely, MAPE associated with the prediction of the overnight stays by British tourists in Portugal is about 2.0% lower while considering the Google_UK_PT_C variable. These results indicate that the FT model has a better performance than the ARIMA model.

5 Conclusion

The behaviour and travel habits of tourist consumer have been changing over the last years. Nowadays, the tourist consumer starts and ends the travel life cycle using the Internet. Most of the travel consumers start planning their trip searching in a search engine, such as, Google, the global leader. GT is a free tool that provides data about the search volumes performed by Google users in several areas, including travel. This data is available on a daily or weekly basis almost in real time, meaning that, this data is available for shorter periods, while the official tourism data in Portugal is only available for monthly periods, and before the issuing of official tourism statistics. Thus far, GT data presents a great potential for anticipating the interests and intentions of the potential tourism consumer. Until now, several researchers used GT data in their investigations in different areas and have shown that GT data is correlated with the official statistics data and that the use of GT data in the forecasting and nowcasting models improves its forecasting ability.

Our results show that the correlation between the GT data and the overnights stays of British tourists in Portugal are moderate and that the TF model which considered the GT data produced more accurate forecasts than their ARIMA counterparts, proving that the models that consider the data searches performed in Google have better results. For future research, we suggest that the GT data for the search terms defined in this study could also be used to test other forecasting models.

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