The Two-Sided Effect of the Sharing Economy and Its Impacts on Inter-organizational Cooperation in the Tourism Sector

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Abstract The sharing economy has recently enjoyed increasing interest, especially in the tourism sector, thanks to the growing popularity of information and communication technologies including digital platforms. However, it remains a phenomenon not fully recognized, especially in the context of inter-organizational cooperation. The aim of the paper is to determine whether and how the popularization of the sharing economy impacts tourism sector development and stimulates inter-organizational cooperation within the sector. Recognition of the two-faceted effects of the sharing economy (i.e., accelerating and limiting effects) on the development of the tourism sector resulted in the use of the quantitative approach and structural equation modeling. The data, gathered from a randomly selected representative sample of 368 Polish tourism companies, members of Destination Marketing Organizations, shows that the sharing economy can paradoxically both accelerate and limit the development of the tourism sector. The research results also revealed that the popularization of the sharing economy (measured by two intentionally chosen factors, i.e., the increase in both information and communication technologies, and experience tourism) positively and significantly impacts intra-sectoral cooperation in the tourism sector.

1 Introduction

Almost two decades ago, Stamboulis and Skayannis (2003) identified two main streams of changes in tourism. One is the growing desire among tourists to have exceptional experiences, while the second is the change in the creation, production,

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and consumption of tourism products due to the rapid development of information and communication technologies (ICT). Both of these can be perceived as particularly important factors stimulating one of the most revolutionary phenomena affecting the condition of the tourism sector, that is the sharing economy (SE)—the general trend towards sharing assets instead of owning them (Fang et al. 2016; Pappas 2019; Paulauskaite et al. 2017; Qian et al. 2020; Roblek et al. 2016; Sigala 2018; Ukpabi and Karjaluoto 2017).

ICT have provided new opportunities for entrepreneurs, including alternative forms of access to the goods and services that are recognized as important and desirable to customers. At the same time, the desire to embrace new experiences and emotions, and to appreciate the authenticity of meeting new people and seeing new places (Chen et al. 2020; Wang et al. 2020) has begun to increase in importance on the market. Indeed, the so-called experience economy, including experience tourism (ET), is evident primarily in the dynamic development of services providing access to alternative forms of travel as offered by digital platforms (Bae et al. 2017) such as Airbnb, Triple, Vayable, or Withlocal. This is in addition to much more inclusive tourism platforms such as Accomable, Andyamo, Handiplanet, or Mobee Travel, which focus on providing access to smart and inclusive destinations for tourists with disabilities and limited mobility.

It seems, however, that although SE is an important issue and has become a more popular research stream, it is still relatively insufficiently explored (Leung et al. 2019; Moreno-Izquierdo et al. 2019), thus several knowledge gaps can be identified.

Firstly, there are some empirical works that explore SE from the demand side perspective (i.e., the tourist/user perception) (Belk 2010; Buhalis and Amaranggana 2015; Hamari et al. 2015; Tussyadiah and Pesonen 2016), whereas the supply side (i.e., the tourist entrepreneur perception) has not yet been broadly analyzed. It is essential, for example, to understand how tourist entrepreneurs perceive the impact of SE on the tourism sector (Cheng 2016).

Secondly, the literature underlines some limitations stemming from the development of SE regarding the tourism sector (Lyons and Wearing 2015). SE activities are often perceived as hampering the development of the tourism sector or even as a dangerous threat that result, for instance, in unfair competition, increase of intra-sectoral opportunistic behaviors, reduction in employment in the tourism sector, tax evasion, and disregard for legal regulations (Fang et al. 2016; Heo 2016). Given the above, SE can be seen as potentially limiting tourism sector development. Simultaneously, other researchers stress that SE has wide positive impacts (e.g., environmental or social) on development of the tourism sector (Botsman and Rogers 2011), including, for instance, providing additional capacity in cities in peak seasons. This suggests that SE has the potential for accelerating tourism sector development. Indeed, in the literature there is no coherent stance among researchers on whether the SE accelerates or limits tourism development (Heo 2016), thus further research is needed.

Thirdly, the current stock of knowledge not only fails to provide a clear answer as to whether (and how) the popularization of SE impacts the development of the tourism sector (Cheng 2016), but in particular we are missing transparent evidence

regarding its impact on development of intra-sectoral cooperation in tourist destinations (Wójcik et al. 2020).

Fourthly, according to a systematic literature review run by Mwesiumo and Halpern (2019), this cooperation, as an inter-organizational relationship, is one of the fastest growing areas of research in tourism. Moreover, due to the complex character of tourist products, such cooperation is crucial, especially in tourist destinations. It develops quickly as it can be successfully utilized through different formal and informal solutions, including strategic alliances, managerial cooperatives, and strategic and social networks. Mwesiumo and Halpern (2019) identified six streams in current research on cooperative relationships in tourism, of which one was still underexplored, that is research related to their formation. Therefore, this chapter focuses on the triggering of inter-organizational relationships among tourism companies by two factors related to SE development, ICT and ET.

Finally, although some research on SE has been conducted from the perspective of western countries, including Western Europe in particular (Almeida-Santana et al. 2020), relatively little attention has been paid to emerging central and eastern European countries such as Poland (Tolkach et al. 2016). Similarly, researchers interested in tourism management as well as intra-sectoral cooperation within the tourism sector have called for further research to be carried out in European contexts, but restricted to one country only (Kylänen and Rusko 2011; Mariani 2007).

This chapter addresses all of the above-mentioned gaps. In particular, it aims to determine whether and how the popularization of SE (measured by two chosen factors: the increase in both ICT and ET) impacts tourism sector development and stimulates inter-organizational cooperation within the tourism sector. Our study was conducted using a quantitative approach and a random, representative sample of 368 Polish tourism companies associated in 124 local Destination Marketing Organizations (LTO—Local Tourism Organizations), which are a popular form of inter-organizational tourism cooperation in Poland.

2 Theoretical Background

2.1 The Sharing Economy Phenomenon and Digital Platforms Used in the Tourism Sector

The idea of sharing is not new (Belk 2010); however, around 2000, when natural resource constraints started to become increasingly visible, the Internet became a tool for more efficient use of resources. This was achieved by the sharing of such resources among strangers through the convergence of online and offline communities and the breaking down of the historical links between geographical and social distance (Botsman and Rogers 2011; Gössling and Hall 2019; Price 1975). Earlier sharing (mostly non-profit and community-oriented, such as Couchsurfing, Napster, and Freecycle) was different to sharing nowadays (more for profit, e.g., Airbnb or

Uber), which is connected to ICT and the development of digital platforms (Botsman and Rogers 2011; Martin 2016; Ravenelle 2017).

Digital platforms can be understood as a set of digital resources, be they services or content, which facilitate interactions between its participants (Bonina et al. 2021). Such platforms share three basic characteristics: they are technologically mediated, enable interaction between user groups, and allow such user groups to carry out defined tasks (Cusumano et al. 2019). Digital platforms have become globally dominant intermediaries, labeled also as cybermediaries (Stamboulis and Skayannis 2003) with their own rights (Gössling and Hall 2019). Based on a technological core infrastructure, they connect various external actors for purposes such as knowledge generation, improvement of communication, information sharing, product development, or supply and demand matching.

Moreover, recent rapid developments, particularly in the context of Industry 4.0, have pointed to the enormous potential of digital platforms for business models and inter-company relationships (Veile et al. 2022), e.g., thanks to transforming traditional roles in areas like employment, productivity, and innovation activities (Bonina et al. 2021). Digital platforms simultaneously stimulate an inclusive business ecosystem incorporating customers and further actors. This implies a shift towards the customer centricity of value creation, or even value co-creation, and integrative business models performed via multi-sided networks (Wang 2021). Digital platforms can orchestrate service providers to learn from other participants in the platform market (e.g., in online communities). Thus, researchers emphasize the increasing importance of engagement in the usage of digital platforms in the context of coordination, collaboration, and cooperation among firms (Cremona et al. 2014).

Additionally, as recent research shows, since the important attributes of using digital platforms are external network elements and interactivity (Yang et al. 2018), these generate the need to design an appropriate strategy that platform leaders can use to manage service providers in the sharing economy (Wang and Jeong 2018). Digital platform providers might need to allocate more of their resources to further strengthen network externalities (e.g., the number of users and the extent of additional services generated by the growing network) (Yang et al. 2018). Thus, many strategies need to be established in order to increase the number of platform participants. As digital platforms connect an increasing number of actors in an ever-growing complex network, firms which are determined to maintain and grow the network must manage new boundaries (and issues) within the digital platforms. These include, for example, the boundary of power (relating to issues such as competing interests among actors, competing for power, and power shifts to new actors) and the boundary of identity (relating to issues such as reaching a consensus among actors regarding the changing roles of digital platform firms in facilitating exchanges) (Leong et al. 2019).

Finally, platforms sharing economic goods, represented by Airbnb, Uber, and Lyft, have brought about changes in tourists' behavior. They put security and trust at the center of interest, which is of special importance in SE development.

Despite the growing popularity of the SE, there is no single definition of the concept (Gössling and Hall 2019; Pappas 2019; Wójcik et al. 2020). The "sharing

turn" as a general trend for sharing assets instead of owning them, is described by many authors using different terminology, for example, "sharing economy," "peer to peer economy" (Cheng 2016), "collaborative consumption" (Botsman and Rogers 2011; Moreno-Izquierdo et al. 2019; Pouri and Hilty 2018a), and many others.

When defining and delimiting the SE concept, the following criteria are taken into account: type of sharing (digital vs. non-digital) (Dredge and Gyimóthy 2017), type of platforms used (owned by global corporations or not) (Boffey 2017), monetary aspects (monetary vs. non-monetary exchange), type of transactions (commercial vs. non-commercial), type of resources (digital vs. physical) (Hamari et al. 2015), and adopted business model (Belk 2010; Botsman and Rogers 2011; Sigala 2015). In general, the majority of researchers consider only peer-to-peer (P2P) relationships facilitated by technology as adequate for qualifying for the SE (Botsman and Rogers 2011; Frenken et al. 2015; Gansky 2010), allowing people to use underused assets (Palgan et al. 2016) without permanent transfer of ownership (Botsman and Rogers 2011; Eckhardt and Bardhi 2015). Finally, some authors (e.g., Frenken et al. 2015) claim that the SE should only refer to sharing physical assets, whereas others include intangible resources (Pouri and Hilty 2018a, b), encompassing not only sharing but also exchanging, selling, and buying such resources (Sigala 2017). As a result, as the authors make no distinction between the above-related terms and the adopted scopes, their boundaries are blurred (Allen and Berg 2014).

In this chapter, the sharing economy is defined as "a socio-economic model of peer-to-peer relationships i.e. bottom-up initiatives between individuals who utilize the idle capacity of assets in order to share them via a digital platform for free or for a fee" (Wójcik et al. 2020, p. 275). The adopted approach remains in line with considering the SE as a "techno-socio-economic" phenomenon as it bridges digital technology, people, and economic behaviors/goals/functions (Pouri and Hilty 2018a) in order to "provide temporary access to resources that may involve either direct or indirect monetary value" (Pouri and Hilty 2018b, p. 5).

The development of the SE and the use of digital platforms can be associated with a wide range of benefits at a different cognitive levels. At the macro level it is said that the SE positively impacts environmental sustainability (Pouri and Hilty 2018a). At the tourism sector level, the SE expands the overall size of the accommodation (Moreno-Izquierdo et al. 2019; Pappas 2019) and transportation market (Cervero et al. 2007; Martin et al. 2010); increases employment (Moreno-Izquierdo et al. 2019); provides innovations, more choices, and service differentiation (Paulauskaite et al. 2017); and increases profitability (Moreno-Izquierdo et al. 2019). At the destination level, the SE stimulates the supply of tourist destinations (Paulauskaite et al. 2017), including its deseasonalization (Moreno-Izquierdo et al. 2019), and leads to the higher competitiveness of tourism destinations (Moreno-Izquierdo et al. 2019). At the level of firms, the SE stimulates competition by making it fiercer and more challenging (Sigala 2017), but also leads to additional sources of income (Paulauskaite et al. 2017), more effective pricing and a higher quality of services (Paulauskaite et al. 2017). Finally, the SE impacts individuals, including not only tourism entrepreneurs, but also tourists. Indeed, the SE broadens travel opportunities

as it creates the possibility to see new destinations, which would be financially unattainable if it were not for the SE (Juul 2015; Shaheen et al. 2012; Tussyadiah and Pesonen 2016). Moreover, it offers a higher level of belongingness ("feeling at home"), uniqueness ("atypical places to stay"), and affordability for tourists (Paulauskaite et al. 2017), making it easier to experience a tourism destination.

However, alongside the benefits, certain problems and costs connected with the SE are also mentioned (Malhotra and van Alstyne 2014; Zervas et al. 2017). At the macro level, in the long-term perspective, the SE can generate a classic rebound effect, as due to its significant impact on tourism it may lead to higher tourist traffic utilizing a wide range of transportation more frequently and leaving a heavier ecological footprint on our planet (Pouri and Hilty 2018a). At the sector level, one should mention inter-sectoral conflicts, as hoteliers (especially lower-priced ones) and governments often treat SE entities as a threat to traditional tourism entrepreneurs (Queensland Tourism Industry Council 2014) (i.e., enterprises not formerly using new business models based on the SE). This is because traditional market players have to compete with new rivals offering non-traditional products, such as accommodation through Airbnb.com, but also with customers who offer, for instance, couchsurfing accommodation (Sigala 2017). Moreover, the SE is considered as responsible for disruption to traditional value chains (Sigala 2017), as the time-to-market shortens and the delivery follows shorter distribution channels in terms of the number of actors engaged, e.g., travel operators are often excluded (Li and Suomi 2007). Regarding tourism destinations, the SE is perceived as leading to massification/touristification (i.e., a type of gentrification), especially in some the most well-known and popular tourism destinations (Moreno-Izquierdo et al. 2019), and also as leading to the problem of overcrowding, mainly in non-traditional tourist destinations (Paulauskaite et al. 2017). Another problem is tax evasion and the illegal renting of property (Lyons and Wearing 2015; Roblek et al. 2016), which stimulate conflicts and lower destination budget revenues. At the micro level, the SE impacts on employment and bankruptcy in traditional tourism firms (Fang et al. 2016; Paulauskaite et al. 2017; Sigala 2017). This is because tourists are moving to non-traditional accommodation providers who adopt new, more profitable, platform-based business models (Pappas 2019). Another problem is the lack of social security cover for a firm's workforce if the income from the SE becomes the sole source of revenue (Lyons and Wearing 2015; Schor and Fitzmaurice 2015), as well as the bypassing of government regulations, which can not only violate consumer rights, but also negatively affects the standard of services (Juul 2015; Rauch and Schleicher 2015). Last but not least, the SE can be considered to negatively impact the demand side of the market, namely tourists. For example, it is claimed to lead to depersonalization and lack of assistance in the case of any problems or bad experiences (Moreno-Izquierdo et al. 2019), but also as creating certain social problems, including discrimination among Airbnb hosts on the basis of race, ethnicity, or religion (Paulauskaite et al. 2017). Furthermore, it is said that too much reliance on the user-generated content available and shared through digital platforms may lead to problems of lock-in and redundant information (Martínez-Pérez et al. 2019).

Given the two-faceted positive and negative nature of SE development in the tourism context, it can be considered as either accelerating or limiting the speed of tourism sector development, while the literature claims that the real contribution of the SE should continue to be examined further (Gössling and Hall 2019; Moreno-Izquierdo et al. 2019; Paulauskaite et al. 2017). For instance, Paulauskaite et al. (2017) propose an SE framework covering two integral components, that is experiences (underlying the phenomenon called experience tourism—ET) and digital communication/platforms (underlying ICT development). With regard to the first, it must be stressed that tourists are increasingly considered as so-called prosumers as they are interested and engaged in the co-creation of tourism products (Sigala 2018), which includes their intentional involvement in the creation of their tourism experiences (Kim and Fesenmaier 2017; Sigala 2018; Yoo and Gretzel 2011), and co-investing in new product development (Sigala 2018; Egger et al. 2016). Nonetheless, to some extent the fast-growing phenomenon of presumption in the tourism context (Egger et al. 2016) may unintentionally lead to value co-destruction (Sigala 2016). Once again, alongside the pros and cons of the SE, its two-faceted nature can be seen through the beneficial or harmful role assumed by "engaged" tourists.

All of the above options, which favor co-creation of the tourism offer and tourism experiences through digital sharing of information, knowledge, and experience, suggest mutual connections between ICT and ET. Similarly, from the marketing perspective, following Qian et al. (2020), e-Word Of Mouth (eWOM) and e-viral marketing as indicated by Roblek et al. (2016) are good examples of new solutions that significantly impact tourism and tourism management linking both ICT and the focus on ET in the context of the SE, exploiting content co-created and shared by a crowd of individuals or by communities of individuals. Indeed, digital WOM (e.g., other tourists' reviews, recommendations, warnings, etc.) is considered as much more impactful, convincing, and trustworthy for tourists in the tourism decision process than traditional forms of marketing, including offline WOM, which has a limited scope of spread (Qian et al. 2020).

2.2 ICT and ET as Factors Related to the Sharing Economy Phenomenon

As outlined above, in the context of accelerating and limiting the speed of development of the tourism sector, we have indicated two extraordinarily important factors of the SE:

- an increase in ICT as a factor related to the supply side of the market (e.g., the usage of new technologies by tourist companies, and presence on different digital tourism platforms)
- an increase in ET as a factor related mainly to the demand side of the market (e.g., changing expectations and preferences of tourists, the need for customized services)

2.2.1 The Role of ICT

In the twenty-first century, the digitization of the tourism sector has been a response to the growing expectations and behaviors of tourists (Pouri and Hilty 2018a; Ukpabi and Karjaluoto 2017) and has caused enormous changes (both opportunities and threats) to the market (Ho and Lee 2007; Werthner and Klein 1999). Thus, ICT is seen as a major tool with the potential to fundamentally change business behavior, business models, and business strategies (Koch and Windsperger 2017), allowing companies to survive and be more flexible and adaptive to changes in the tourism sector (Islam 2012; Sigala 2003).

ICT has allowed tourist experiences to be created by modifying tourists' expectations and preferences regarding tourist offers (Lam et al. 2020; Munar and Jacobsen 2014). The adoption of ICT can be utilized by a tourist before, during, or after a trip or journey (Bae et al. 2017; Ukpabi and Karjaluoto 2017). Pre-trip solutions include tourism attraction websites and social media (i.e., Facebook, Twitter, Instagram, Snapchat, Flicker, and YouTube) (Lam et al. 2020; Mandić and Praničević 2019), as well as digital platforms (i.e., Airbnb) used to collect opinions, recommendations, ratings, etc. (Sigala 2018). These shared opinions and recommendations are not only acknowledged as relevant (Roblek et al. 2016), but also as much more valuable, honest, and convincing than those made directly by tourist organizations or third parties (Pierdicca et al. 2019). Moreover, pre-trip solutions allow tourists to make direct and indirect bookings (Mandić and Praničević 2019). On-site solutions include mobile guide information services (e.g., e-tour maps, voice maps, automated translators—Lam et al. 2020); apps and websites for navigating and tracking travel routes (Mandić and Praničević 2019); chatbots that are able to interact with visitors and tourists on site (Martínez-Pérez et al. 2019); and augmented (Martínez-Pérez et al. 2019; Yung and Khoo-Lattimore 2019) and mobile augmented reality (MAR) (Lam et al. 2020) that allow, for example, descriptions of attractions to be provided, or can be used to guide tourists at the destination. Moreover, thanks to ICT, tourists can better interact with locals. Finally, post-trip solutions include social media (Lam et al. 2020; Mandić and Praničević 2019) and online platforms used to share and co-create opinions, recommendations, ratings, etc. (Sigala 2018). As a result, as research shows, ICT has a positive and statistically significant effect on tourist demand (Adeola and Evans 2020). Moreover, given the impact of COVID-19 on the world today, one may assume that ICT usage will become even more important than before in the area of consumers' decisions as we move from the real to the virtual world in many aspects of human activity (Yaqub et al. 2020).

Moreover, the dynamic growth in the use of ICT has also resulted in changes to the structure and operations of the whole travel and tourism sector (Buhalis and Deimezi 2004). This has led to significant changes in the ways tourist firms are run (Buhalis 2003) and to the reorganization and greater efficiency of tourist businesses (Frias et al. 2008), including the process of digitization of the tourism supply chain (Moreno-Izquierdo et al. 2019). ICT is also perceived as a key factor in

competitiveness (Martínez-Pérez et al. 2019; Pierdicca et al. 2019) both at the destination and the company level. For example, at the destination level (Buhalis 2003; Buhalis and O'Connor 2005), new digital technologies are shown as improving the accessibility of tourist attractions, thus increasing tourism development and destination attractiveness (Lam et al. 2020; Pierdicca et al. 2019). On the company level, it reduces transaction and operational costs (Stamboulis and Skayannis 2003), thus making competition more intensive and dynamic (Berne et al. 2012), and leads to improved company performance (Mandić and Praničević 2019). This is possible due to the wider use of online sales channels (via, for example, the use of new media), and the increasing personalization of offers. ICT development is also acknowledged as leveraging innovativeness (e.g., as companies gain inspiration from the shared opinions and ideas of tourists), decreasing the time-to-market, and increasing the number and the novelty level of newly developed tourism products (e.g., better tailoring of the offer to customers' needs—recognized via digital platforms). Therefore, ICT is seen as a factor that is moving the tourism sector towards a higher, more modern, more innovative and more digital level (Berne et al. 2015; Sigala 2018). The rise of technologies based on big data, sensors, and information exchange has led tourism to evolve into e-tourism (Li and Suomi 2007; Martins et al. 2017; Ukpabi and Karjaluoto 2017), and further from e-tourism to smart tourism in many tourist destinations (Kim and Fesenmaier 2017).

To sum up, ICT is an important factor that impacts the tourism sector, including the SE phenomenon observable inside the sector. As shown above, ICT makes sharing possible, gives access to outcomes through sharing by peers, expands options and accelerates sharing actions, including those undertaken by disabled people (Lam et al. 2020). A large amount of current, online ICT use user-generated data (labeled also as user-generated content, UGC—Sigala 2017), but what is more, it also gives access to this data in a processed form not only to these same users, but to other users as well. In this perspective, ICT definitely nurtures the benefits of the SE phenomenon. Moreover, as ICT provides a great many solutions for P2P activity, it can be considered as a source of social commerce, to some extent overlapping with the idea of the SE, in which a wide range of collaborative tools and applications are used (Sigala 2017).

2.2.2 The Role of Experience Tourism

Experience tourism is a part of the experience economy (Pine II and Gilmore 1998), a modern megatrend understood as a social tendency resulting from the increasing demand for individual experiences (Lund et al. 2005). Pine II and Gilmore (1998) identified personal experience as the fourth product on offer in the economy, alongside raw materials, goods, and services. Experience phenomena include sensory pleasures, daydreams, esthetic enjoyment, emotional responses (cheerfulness), fantasies, feelings, and fun encompassed by the so-called "experiential view" (Holbrook and Hirschman 1982). Experience relates to elements such as colors and sounds, impressions and feelings of attraction and repulsion, as well as ecstasies

and disillusionments. Experience can be "addressed as an object of study" (Koch 1964, p. 34). According to the experiential view, an individual's purchase decision is only a small component in the constellation of events involved in the overall consumption experience, given the operation of the pleasure principle in multisensory gratification, exciting fantasies, and cathected emotions. This is why an increase in importance has been noted in the role of esthetic products and services, multisensory aspects of product/service enjoyment, product-related fantasies and imagery, and feelings arising from consumption.

Sensation-seeking (Zuckerman 1979) is a variable likely to affect a consumer's tendency to enjoy more complex entertainment. An important part of the consumer experience are patterns of association, which Osgood (1957) called "associative hierarchy." This refers to sensations, imagery, feelings, pleasure, and other symbolic or hedonic components which are frequently paired together in experience (Klinger 1971). The stream of associations that occur during consumption (imagery, daydreams, emotions) may be important experiential aspects of consumer behavior.

Adaptation of the experience economy concept to tourism seems to be of interest to increasing numbers of researchers and managers (e.g., Buhalis and Amaranggana 2015; Hwang and Lyu 2015). It is even said that tourism is one of the pioneering examples of the experience economy (Quan and Wang 2004). This is because experience is considered as "the place where experiences of pleasure, enjoyment, and entertainment can be encountered, as well as where human interactions occur" (Walls et al. 2011, p. 170), thus a place where the two dimensions of experience can materialize simultaneously. Stamboulis and Skayannis (2003) claim that "experience emerges from the interaction between destinations and tourists." It can be concluded that an experience occurs when visiting (and touching, feeling, smelling, etc.) a specific tourism destination.

It is acknowledged that a tourism experience is memorable if it is simultaneously emotional (as it creates a specific connection with the tourist) and immersive (as it leads to the full involvement of the tourist in the specific surroundings), or if not immersive then at least multisensory (Martins et al. 2017). Several sensory channels should operate simultaneously. Many products and services project important non-verbal sensory cues that must be seen, heard, tasted, felt, or smelled to be appreciated properly. Esthetic stimuli should be designed to vary in complexity over a broad enough range (Holbrook and Hirschman 1982). Researchers pay attention to aspects such as emotional responses (Platt 1970), pictorial imagery (Richardson 1969), fantasies (Klinger 1971), and daydreams (Singer 1966), or esthetics (Berlyne 1960). It is indicated that emotions form an important substrate of consumption. This sphere of human experience has been often neglected by scientists, while others have developed systematic and coherent models of emotion (Plutchik 1980) as an important element of consumption, also for tourism. It is worth adding that many relevant symbolic meanings lie beneath the consciousness threshold of users of products and services (Levy 1980). In some cases, the symbolic role is especially rich and salient: for example, architecture, paintings, museum exhibitions, the arts, the performing arts, and associated patterns of entertainment and leisure activity (Holbrook and Hirschman 1982) such as tourism.

Tourists are ready to pay more for such an experience as long as it provides unique opportunities, for example, gaining new knowledge and skills, or experiencing new adventures (e.g., visiting unique places, meeting unique people). Nowadays, tourists play an active role in deciding on their tourist trips, interacting with tourist providers in destinations, influencing other tourists and choosing how to satisfy their own needs (Buonincontri et al. 2017). Research by Buonincontri et al. (2017) has shown that experience co-creation positively affects tourists' satisfaction and happiness, as well as their level of expenditure on goods and services in tourist destinations. Thus, ET can bring benefits for both tourists and tourist destinations (Buonincontri et al. 2017; Grissemann and Stokburger-Sauer 2012).

What is important is that experience tourism favors the SE. Experience can be a favorable factor or the only motivation for traveling (Stamboulis and Skayannis 2003) and for visiting specific tourism destinations (e.g., "foodies" representing gastro tourism) (Qian et al. 2020), but also for participating in the local community (e.g., through private social dining) (Qian et al. 2020), and using P2P accommodation (Pappas 2019). This is because ET takes the form of authenticity-seeking tourism in which experience is co-created with locals and other tourists (Paulauskaite et al. 2017). Interestingly, while ET favors the SE, in return the SE favors experiences had by tourists. Tourists use social media such as TripAdvisor, Facebook, Twitter, or Instagram to share their experiences and to build relationships (Kim and Fesenmaier 2017; Munar and Jacobsen 2014). Moreover, these sharing activities are an important element in creating meaningful tourism experiences (Kim and Fesenmaier 2017; Wang et al. 2012). What is important is that SE platforms can also be very useful for ensuring emotive experiences for tourists in tourist destinations. Using digital platforms, local people may play the role of hosts welcoming tourists in their homes and thus assuring the authenticity of a tourist offer. For tourists, it is a chance to visit a given place from a different, unique perspective (Chen et al. 2020; Wang et al. 2020), while for hosts it provides the possibility to earn money as their main or supplementary income (Zervas et al. 2017).

Summing up, the development of initiatives undertaken within the framework of the SE impacts on changes in the tourism sector, caused by an increase of both factors, i.e., ICT and ET. Interestingly, both these important factors related to popularization of the SE phenomenon seem to impact another relevant, modern and dynamically growing phenomenon—inter-organizational cooperation.

2.3 The Sharing Economy in the Tourism Sector: Its Impact on Intra-sectoral Cooperation

Nowadays, different forms of networks are crucial for business activity. Cooperation is also crucial for the tourism sector, understood as "relationships between two or more agents that agree, either formally or informally, to exchange information, technical support, managerial training, capital and/or market information" (Wilke

et al. 2019, p. 341). Due to increasing dynamics and growing customer pressure, cooperation in this sector more often connects a wide range of different organizational partners not only in an ad hoc manner, but also longitudinally (Wilke et al. 2019), for instance in the form of Destination Marketing Organizations.

The motives for intra-sectoral cooperation may result from perceived opportunities (understood as an accelerating factor) (Mendonça et al. 2015) and threats (understood as a limiting factor), both regarding development of the whole tourism sector and an individual actor's business activity. Due to the potential opportunities, perceived by entities as a chance to develop their own business or the tourist offer in a particular destination (Czernek-Marszałek 2020; Mendonça et al. 2015; Mwesiumo and Halpern 2019), and as a consequence of an acceleration of tourism sector development, entrepreneurs start to cooperate with one another. In the second scenario involving potential threats, tourist entities may perceive the risk of being forced out of the market because of SE popularization, therefore they begin to cooperate, e.g., to increase their collective strength. Thus, in such a situation, partners enter into cooperation voluntarily, but they make this decision under certain pressure (Palmer and Bejou 1995). According to these authors, cooperation is all the more necessary and its objectives are all the more complex, the higher the level of motivation of the partners, often associated with the perceived opportunity (accelerating factor) or threat (limiting factor) to developing their own business and the tourism sector in a given area.

Also, the SE opens companies to cooperation (Egger et al. 2016). We claim, therefore, that both factors driving the SE, i.e., ICT and ET, favor intra-sectoral cooperation because both perceived opportunities (accelerators) and threats (limiters) may lead to cooperation and ultimately to development of the whole tourism sector. In turn, both ICT and ET are perceived as factors that influence the popularization of the SE, and this popularization affects intra-sectoral cooperation within the tourism sector.

Firstly, ICT development can stimulate inter-organizational cooperation as its use can be a factor that contributes to combining the competences of various tourism entrepreneurs (Buhalis and O'Connor 2005; Lam et al. 2020; Mandić and Praničević 2019; Pierdicca et al. 2019), thus improving a wide range of both B2B and B2C external relationships (Li and Suomi 2007). Moreover, ICT tools facilitate communication between entities, which supports horizontal, vertical, and diagonal cooperation between companies inside the sector (Garces et al. 2004), resulting, for instance, in the introduction of innovations and stimulating their continuous development. ICT as a whole, including digital and e-commerce solutions, facilitates the establishment and supports the maintaining of cooperation in the long-term perspective (Mandić and Praničević 2019; Mendonça et al. 2015) as it may consist, for example, of creating joint offers that can be accessed with the use of telephone applications, or by creating joint e-booking platforms (Aramendia-Muneta and Ollo-Lopez 2013). Furthermore, ICT favors international and boundaryless cooperation among tourism organizations (Li and Suomi 2007; Sigala 2017). For instance, due to improved and more efficient communication, inter-organizational cooperation can be seen as a valuable path to internationalization (e.g., making a product global

through online cooperation with foreign partners representing distant destinations) (Brandão et al. 2019).

Secondly, the development of ET stimulates the development of the tourism sector, and thus encourages tourism enterprises to cooperate. This is related to the fact that entrepreneurs are aware that tourists are now looking for new and very personal experiences, based on unique attractions (Gao et al. 2020). This means that they are forced to adapt their offer to the needs of such tourists (Chen et al. 2020; Wang et al. 2020), and cooperation between them is often necessary. This may, for example, consist of organizing meetings with people representing local traditions, history and culture, or using the services of local guides who show tourists a tourist destination from a completely different perspective than the one usually offered by travel agencies.

Cooperation between tourist entrepreneurs may also result from the occurrence of negative phenomena. For instance, this may be random events in response to which tourist demand is highly volatile (e.g., natural disasters, terrorist attacks), as well as a decline in interest in a tourist destination's offer due to other reasons such as deterioration of the destination's image, changes in tourists' habits, new trends, etc. The literature provides many more such examples (see, e.g., Gursoy et al. 2015; Nordin 2003), including very recent ones, namely those related to COVID-19 (González-Torres et al. 2020).

It should also be highlighted that the increase of ICT and ET can negatively affect tourism sector development. Braun (2004), Danielle and Mistilis (1999) and Hollick (2003) have noted that although the development of the Internet and ICT generates a great many benefits, many small and micro tourism enterprises have not managed to effectively implement solutions in this field. Thus, the tourism sector has no choice but to adapt itself to this new world and the new order of doing business, and enterprises that do not understand this must disappear from the market (Kathan et al. 2016). Additionally, as a result of the necessity for even greater use of ICT in the times of the global COVID-19 pandemic, what the future tourism market will look like remains in the sphere of uncertainty.

Finally, in the case of ET, it may turn out that new entities operating on the market and offering their services at lower prices, e.g., as part of the Airbnb platform or others, will start to replace traditional tourism enterprises (those companies that have never operated and do not operate according to the SE model). Also, a real threat to the effective shaping of a competitive tourist product is the danger of overloading an offer with too many attractions. Although the modern tourist is a collector of experiences and is looking for new impressions, excessive saturation with emotions can lead to weariness, even indifference or the trivializing of a tourist offer.

Given the above, one can state that popularization of the SE can be seen as driven by an increase in ICT and ET. Simultaneously, the popularization of the sharing economy implies changes in traditional business sectors of the economy. Last but not least, these changes may be positive or negative in terms of economic development. Therefore, in the context of the tourism sector, we may consider a two-faceted effect of the growing popularity of the SE (Table 1).

Table 1 Specificity of items referring to the observable effect of popularization of the sharing economy in the tourism sector

Two-faceted effects of development of the tourism sector	Sharing economy popularization factors	
	Increase in ICT	Increase in ET
Acceleration	Firms' development (1)/ Business opportunity (1)	Firms' development (1)/ Business opportunity (1)
Limitation	Firms' limitation (1)/ Business threat (1)	Firms' limitation (1)/ Business threat (1)
Preliminary source of factors of the popularization of the sharing economy	More pushed by supply than by demand	More pushed by demand than by supply

Notes: * The number of items is given in brackets

The two-faceted effect of popularization of the SE in development of the tourism sector may be reflected in intra-sectoral cooperation. The popularization of the SE may be measured by two factors, i.e., ICT and ET. Thus, either opportunities (perceived as accelerating) or threats (perceived as limiting) may impact cooperation within the sector. This means that the results of both acceleration and limitation of the tourism sector development may be linked to the popularization of the SE. As discussed earlier, ICT and ET, as well as the sharing economy per se, can encourage, push, or even force companies into cooperation. Given the above, the authors see it justified to set forward and test the following research hypotheses:

Hypothesis 1. *(H1). The popularization of the sharing economy, by accelerating tourism sector development, stimulates intra-sectoral cooperation.*

Hypothesis 2. *(H2). The popularization of the sharing economy, by limiting tourism sector development, stimulates intra-sectoral cooperation.*

3 Research Process

Our field study focused on recognition of whether the development of the SE, reflected in either acceleration or slowdown of tourism sector development, influences cooperation between entities in this sector.

Exploration of the role of a changing business environment on cooperation among and between tourism companies was carried out on tourism companies experienced in intra-sectoral cooperation. Therefore, our sampling frame from which the research sample was drawn was purposefully set as members of 124 Local Tourism Organizations, acknowledged as the biggest, the most powerful and the most reputable network of associations for companies operating in the tourism sector in Poland. Furthermore, we also addressed one of the methodological claims of Wilke et al. (2019), as the vast majority of prior works on inter-organizational cooperation were focused on a single tourism industry (e.g., hospitality services, transportation services, entertainment venues), whereas it is cross-industry, tourism sector focused studies which are most needed.

The study was limited by its national and regional context. This is because the SE is seen as a global phenomenon with a highly distinct local impact. Therefore, it is recommended to analyze the SE in a specific, limited geographical scope (Moreno-Izquierdo et al. 2019), e.g., a region, city, or country. The study was conducted in Poland, as the SE is acknowledged as having a significant impact on the scope of supply in the case of lesser-well-known locations (Fang et al. 2016). To date, however, the dominant empirical focus has been on high-demand and well-known destinations (e.g., in Portugal—Martins et al. 2017, in Spain—Moreno-Izquierdo et al. 2019, Martínez-Pérez et al. 2019, in Brazil—Wilke et al. 2019).

The data was gathered from 368 randomly selected Polish tourism companies experienced in intra-industry cooperation (random selection from 1647 members of 124 LTOs operating in Poland). It should be noted that the key informant organizations covered by our sample represented all dimensions of the application of ICT considered important when addressing the leveraging of tourism experience (Buhalis and Amaranggana 2015), namely accommodation, tourist attractions, gastronomy, tourist guides, and transportation. The data was collected through direct contact using the PAPI research technique from directors, top managers, and owners of companies acknowledged to be key informants for an investigation concerning both organizational (Venkatraman and Grant 1986) and inter-organizational (e.g., Kumar et al. 1993) issues. Direct interviews allowed the researchers to ensure that the informants clearly understood (Tsaur and Wang 2011) the issues being explored, as these are not common knowledge inside the industry (Kagerbauer et al. 2013).

The final sample ($n = 368$) was randomly selected and representative (maximum measurement error $< 5\%$; sig. level of $\alpha = 0.05$; fraction size $= 0.5$). It met the requirements in terms of sample size imposed on studies run using factor analysis, i.e., at least 5 observations per item, hence fewer than 200 (following Gorsuch 1983) or 300 (following Yong and Pearce 2013), and structural equation modeling (i.e., at least 10 cases per estimated parameter, but fewer than 200—Wolf et al. 2013), so as a result these were accepted as the applied methods for data processing and hypotheses testing.

As the current literature does not provide researchers with a scale for measuring the two-faceted effect of popularization of the SE, normative statements from non-empirical literature were included in our measurement scale (Table 2). The research questionnaire consisted of closed questions based on the 5-point Likert scale. The answers for all items followed the gradation from 5—strongly agree to 1—strongly disagree. In order to ensure face validity (Hardesty and Bearden 2004), the items used were discussed with experts (i.e., for statistical and content issues), moreover in the final version of the questionnaire we presented the definitions of every term used in individual questions—these definitions were also pre-evaluated by the experts.

Given the methodological recommendations (e.g., Hair and Hult 2016), the scale followed the multi-item approach regarding both popularization of the SE (8 items—measurement of independent variables) and intra-sectoral cooperation (6 items—measurement of the dependent variable). The multi-item approach was followed as it remains the most commonly used approach in studies on management

Table 2 Items used in the study

Variables	Code	Question	References
Independent		The popularization of the sharing economy is driven by	
Accelerating tourism sector development	ACC_1	Popularization of ICT stimulates the development of "traditional[a]" entities formally operating in the tourism sector	Poon (1993), Sheldon (1997), Werthner and Klein (1999), Buhalis (2003), Buhalis and O'Connor (2005), Frias et al. (2008), Cervero et al. (2007), Martin et al. (2010), Berné et al. (2015), Buhalis and Amaranggana (2015), Sigala (2018), Moreno-Izquierdo et al. (2019), Pappas (2019), Wójcik et al. (2020)
	ACC_2	Popularization of ICT stimulates innovation among "traditional" entities formally operating in the tourism sector	
	ACC_3	Popularization of experience tourism accelerates the development of entities operating in the tourism sector	
	ACC_4	Popularization of experience tourism accelerates innovation among entities operating in the tourism sector	
Limiting tourism sector development	LMT_1	Popularization of ICT limits the development of "traditional" entities formally operating in the tourism sector	Danielle and Mistilis (1999), Evans and Peacock (1999), Buhalis (2003), Hollick (2003), Braun (2004), Islam (2012), Kathan et al. (2016), Sigala (2017), Sigala (2018), Fang et al. (2016), Paulauskaite et al. (2017)
	LMT_2	Popularization of ICT creates a threat to "traditional" entities formally operating in the tourism sector	
	LMT_3	Popularization of experience tourism limits the development of entities operating in the tourism sector	
	LMT_4	Popularization of experience tourism is a threat to entities operating in the tourism sector	
Dependent		The changing business environment inside the tourism sector	
Intra-sectoral cooperation	COOP_1	Induces tourism companies to establish cooperation between "traditional" entities formally operating in the tourism sector (e.g., *to make the offer for customers more attractive, to meet the expectations of the customers in a better way or to be more competitive,* etc.)	Palmer and Bejou (1995), Fyall and Garrod (2005), Mariani (2007), Lemmetyinen and Go (2009), Baggio (2011), Beritelli (2011), Czernek (2013), Kylänen and Rusko (2011), Gursoy et al. (2015), Mendonça et al. (2015), Martins et al. (2017), Moreno-Izquierdo et al. (2019), Martínez-Pérez et al. (2019), Wilke et al. (2019)
	COOP_2	Forces tourism companies to start cooperation between "traditional" entities operating in the tourism sector (e.g., *to improve competitiveness or ensure survival on the market,* etc.)	

(continued)

Table 2 (continued)

Variables	Code	Question	References
	COOP_3	Results in my organization establishing cooperation with other (s) "traditional" entity(ies) formally operating in the tourism sector. (e.g., *to make the offer for customers more attractive, to meet the expectations of customers in a better way or to be more competitive,* etc.)	
	COOP_4	Induces tourism companies to establish cooperation with different entities (e.g., *traditional, digital, informal, individuals*) operating in the tourism sector (e.g., *to make the offer for customers more attractive, to meet the expectations of customers in a better way or to be more competitive,* etc.)	
	COOP_5	Forces tourism companies to start cooperation with different entities (e.g., *traditional, digital, informal, individuals*) operating in the tourism sector (e.g., *to improve competitiveness or ensure survival on the market,* etc.)	
	COOP_6	Results in my organization establishing cooperation with other (s) entity(ies) (e.g., *traditional, digital, informal, individuals*) operating in the tourism sector (e.g., *to make the offer for customers more attractive, to meet the expectations of customers in a better way or to be more competitive,* etc.)	

[a]Understood as enterprises not formerly using new business models based on the SE

(Diamantopoulos et al. 2012), including those within the tourism sector (e.g., Millan and Esteban 2004), and its development (e.g., Lankford and Howard 1994), as well as in research based on structural equation modeling (i.e., with a threshold of 3 items per variable—Iacobucci 2010). Furthermore, the data collection process was purposefully focused on measuring the considered phenomena using a wide perspective on the tourism industry, not limited to traditional tourism organizations. Such an approach is acknowledged as relevant in both the open and shared economy. For instance, Sigala (2015, 2018) distinguishes traditional and new actors/players in the tourism industry, with the latter considered to be technology agents that intensively utilize digital solutions in their business models. In the same vein, Stamboulis and

Skayannis (2003) differentiate between the conventional tourism industry and the new tourism industry, as the latter includes ventures based on intensive exploitation of ICT. Therefore, in our study, every variable was measured using proxies referring "just" to the traditional boundaries of the tourism industry, as well as to a "wide and open" definition of tourism industry boundaries.

Firstly, the two-faceted effect of the growing popularity of the SE was measured using eight items, namely four referring to the observable acceleration of tourism sector development (independent variable) and four to the observable slowdown of tourism sector development (independent variable). Furthermore, as these effects are perceived as reflecting the growing popularity of ICT and ET, the items referring to acceleration and limitation were linked with such reflections in business practice. Similarly, as both the acceleration and limitation of tourism sector development are—in business practice—linked either to the general development of tourism companies (e.g., perceived through increasing turnover, employment, areas of business activities, etc.) or to their capability to innovate, the items included in the measurement tool were connected with the above-mentioned aspects.

Secondly, inter-organizational cooperation within the tourism sector (dependent variable) was measured using six items, including proxies for willingness, pressure and formal establishment of cooperation with "traditional" tourism actors, or cooperation in a wider perspective also covering new actors. It is worth noting, as identified by Mwesiumo and Halpern (2019), that it is hard to find studies that examine both traditional tourism organizations and those that emerged as a result of the digital revolution or the SE phenomenon, as the latter are usually outside the scope of consideration, even in the case of studies exploring the SE phenomenon.

As the aims of the empirical investigation targeted exploration and initial revelation of quantitative insights, exploratory factor analyses (EFA) were carried out first (Osborne and Costello 2009), followed by structural equation modeling (SEM) (Gefen et al. 2000). First, EFA allowed us to identify the relationships among different reflections of the SE phenomenon either limiting or accelerating tourism sector development. Second, SEM allowed us to support with empirical data the a priori assumed directional relationship between SE reflections and inter-organizational cooperation.

4 Empirical Results

Given that the minimum sample size (i.e., 300—Yong and Pearce 2013) was achieved, the data was checked in terms of meeting the basic requirements of exploratory factor analysis, including sampling adequacy, sampling sphericity, and common method bias (Costello and Osborne 2005). Firstly, the KMO test proved that the scales used for both independent variables and the dependent variable were adequate (KMOIV $= 0.682$; $p > 0.5$ and KMODV $= 0.711$; $p > 0.5$). Secondly, Bartlett's sphericity test showed both scales to be applicable to factor analysis, as the results of the test for sphericity gave a significant p value. Thirdly, the results of the

Herman one-factor tests showed that less than 70% of all variances (the threshold adopted in management studies—Fuller et al. 2016) were explained by factors with the highest eigenvalue, namely 36.571% in the case of the independent variables and 49.195% in the case of the dependent variable.

Exploratory factor analysis was applied separately for our two potential constructs, namely the independent variables reflecting the considered effect on development of the SE, and the dependent variable reflecting the willingness and readiness to participate in intra-sectoral cooperation. It must be noted that both analyses were run using Promax, as this is one of the oblique rotation methods suggested for use in the case of probable interdependencies among items (Byrne 2010) and factors (Costello and Osborne 2005) (Table 3).

One should bear in mind that the analyses were conducted using generalized least square (GLS) as an extraction method as it provides more reliable results in the case of latent constructs and for potential factors which can correlate (Fabrigar et al. 1999).

4.1 The Structure of Intra-sectoral Cooperation

The exploratory factor analysis carried out for items related to the perceived willingness and readiness to participate in intra-sectoral cooperation supported the one-dimensional view of this construct. However, by applying Kaiser's criterion, the considered set of items seems to provide a two-factor solution, as there were two factors with eigenvalues greater than 1 (i.e., 2.952 and 1.047; total variance explained 66.636%). Nevertheless, the screen plot sharply flattened after the first factor. Given that Cattell's criterion is seen as more prone to overestimations (Yong and Pearce 2013), as well as considering the fierce discussion on the reasonability of the strict application of Kaiser's criterion in social science research (e.g., Osborne and Costello 2009), a one-factor solution was adopted including six directly measurable proxies (Table 2).

The loadings of the items range from 0.625 to 0.712, thus there was no need to exclude initial items from further analyses (minimum level 0.6—Fornell and Larcker 1981). Given the quality of the solution, it seemed to be consistent (Cronbach's alpha = 0.711, so less than 0.95 but more than 0.7—Tavakol and Dennick (2011)) and reliable (AVEs = 0.423 although less than 0.5 but at the same time CR = 0.813 so more than 0.7—Fornell and Larcker 1981) as it explains 49.195% of the total variance.

Table 3 Inter-item correlations

Itę	Parameter	ACC_1	ACC_2	ACC_3	ACC_4	LMT_1	LMT_2	LMT_3	LMT_4	COOP_1	COOP_2	COOP_3	COOP_4	COOP_5	COOP_6
ACC_1	rho_s	1.000	0.651**	0.356**	0.422**	0.067	0.057	0.009	0.068	0.415**	0.186**	0.494**	0.333**	0.196**	0.308**
	Sip.		0.000	0.000	0.000	0.196	0.274	0.866	0.195	0.000	0.000	0.000	0.000	0.000	0.000
ACC_2	rho_s	0.651**	1.000	0.360**	0.486**	0.001	0.041	0.048	0.046	0.389**	0.201**	0.455**	0.289**	0.142**	0.331**
	Sig.	0.000		0.000	0.000	0.979	0.432	0.355	0.378	0.000	0.000	0.000	0.000	0.006	0.000
ACC_3	rho_s	0.356**	0.360**	1.000	0.601**	0.023	0.020	−0.024	0.010	0.283**	0.146**	0.306**	0.308**	0.159**	0.322**
	Sig.	0.000	0.000		0.000	0.657	0.707	0.652	0.849	0.000	0.005	0.000	0.000	0.002	0.000
ACC_4	rho_s	0.422**	0.486**	0.601**	1.000	0.021	0.023	−0.001	0.005	0.325**	0.161**	0.315**	0.314**	0.190**	0.407**
	Sig.	0.000	0.000	0.000		0.690	0.667	0.991	0.917	0.000	0.002	0.000	0.000	0.000	0.000
LMT_1	rho_s	0.067	0.001	0.023	0.021	1.000	0.784**	0.543**	0.551**	0.227**	0.483**	0.188**	0.191**	0.423**	0.134*
	Sig.	0.196	0.979	0.657	0.690		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010
LMT_2	rho_s	0.057	0.041	0.020	0.023	0.784**	1.000	0.514**	0.579**	0.232**	0.573**	0.210**	0.211**	0.464**	0.118*
	Sig.	0.274	0.432	0.707	0.667	0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.024
LMT_3	rho_s	0.009	0.048	−0.024	−0.001	0.543**	0.514**	1.000	0.792**	0.132*	0.392**	0.222**	0.208**	0.509**	0.264**
	Sig.	0.866	0.355	0.652	0.991	0.000	0.000		0.000	0.011	0.000	0.000	0.000	0.000	0.000
LMT_4	rho_s	0.068	0.046	0.010	0.005	0.551**	0.579**	0.792**	1.000	0.214**	0.467**	0.270**	0.276**	0.574**	0.243**
	Sig.	0.195	0.378	0.849	0.917	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000
COOP_1	rho_s	0.415**	0.389**	0.283**	0.325**	0.227**	0.232**	0.132*	0.214**	1.000	0.385**	0.592**	0.353**	0.230**	0.311**
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.011	0.000		0.000	0.000	0.000	0.000	0.000
COOP_2	rho_s	0.186**	0.201**	0.146**	0.161**	0.483**	0.573**	0.392**	0.467**	0.385**	1.000	0.322**	0.275**	0.583**	0.163**
	Sig.	0.000	0.000	0.005	0.002	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.002
COOP_3	rho_s	0.494**	0.455**	0.306**	0.315**	0.188**	0.210**	0.222**	0.270**	0.592**	0.322**	1.000	0.425**	0.277**	0.477**
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000
COOP_4	rho_s	0.333**	0.289**	0.308**	0.314**	0.191**	0.211**	0.208**	0.276**	0.353**	0.275**	0.425**	1.000	0.382**	0.538**
	Sig.	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000
COOP_5	rho_s	0.196**	0.142**	0.159**	0.190**	0.423**	0.464**	0.509**	0.574**	0.230**	0.583**	0.277**	0.382**	1.000	0.368**
	Sip.	0.000	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000
COOP_6	rho_s	0.308**	0.331**	0.322**	0.407**	0.134*	0.118*	0.264**	0.243**	0.311**	0.163**	0.477**	0.538**	0.368**	1.000
	Sig.	0.000	0.000	0.000	0.000	0.010	0.024	0.000	0.000	0.000	0.002	0.000	0.000	0.000	
N		368													

Notes: *Significance at the level of 0.05 (two-tailed) **Significance at the level of 0.01 (two-tailed)

4.2 The Two-Faceted Effect of the Growing Popularity of the Sharing Economy

The EFA results provided a two-factor solution supporting the initial assumption on the two-faceted effect on the tourism sector related to the development of the SE. Using both criteria, i.e., Kaiser's and Cattell's, it seems that the considered independent items load into two factors, as the screen plot starts to flatten after the second factor (Cattell's criterion—Yong and Pearce 2013) and there are two factors with eigenvalues higher than 1 (Kaiser's criterion—Osborne and Costello 2009). The extracted factors (eigenvalues 2.926 and 2.451) explain 67.205% of the total variance, and their loadings prove that all of the initially considered items adopted in the scale should be included in further analyses (the loadings exceed the threshold set at the level of 0.6—Fornell and Larcker 1981) (Table 4). The revealed solution meets the requirements (Costello and Osborne 2005) of internal consistency (the Cronbach's alphas exceed 0.7 but are lower than 0.95), composite reliability (the CRs exceed the level of 0.7) and convergent validity (the AVEs exceed the level of 0.5).

The results of factor analyses both for our independent variables driven by popularization of the sharing economy (i.e., accelerating tourism sector development and limiting tourism sector development) and for our dependent variable (i.e., intra-sectoral cooperation) show them to be latent, directly unmeasurable complex variables loaded with multiple items. As the considered variables have been shown to be loaded by more than two items, it was possible to apply structural equation modeling to test the conceptual research model (Iacobucci 2010).

Table 4 Exploratory factor analysis for the two-faceted effect of sharing economy popularization

The effect of sharing economy popularization	Model matrix			Internal consistency (Cronbach α)	Convergent validity (AVE)	Composite Reliability (CR)
Independent variables	Codes	Factor				
		1	2			
Accelerating tourism sector development	ACC_1	0.036	**0.731**	0.797	0.534	0.820
	ACC_2	0.013	**0.787**			
	ACC_3	−0.027	**0.650**			
	ACC_4	−0.025	**0.747**			
Limiting tourism sector development	LMT_1	**0.809**	−0.004	0.871	0.666	0.889
	LMT_2	**0.811**	0.003			
	LMT_3	**0.809**	−0.009			
	LMT_4	**0.836**	0.006			

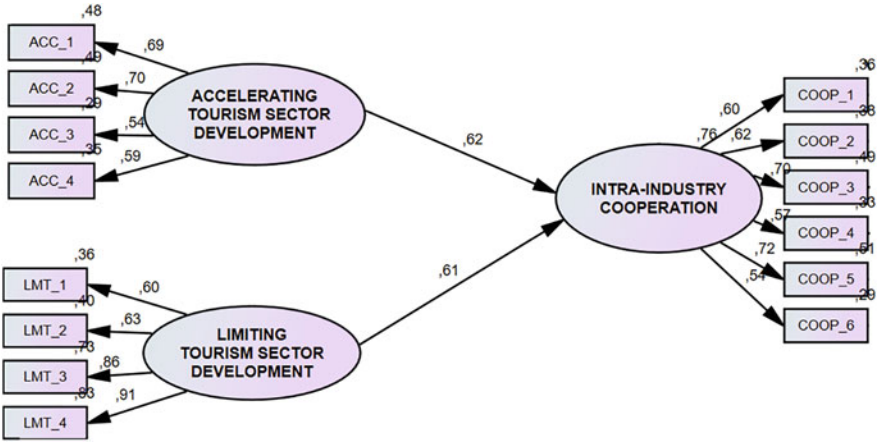

Fig. 1 The influence on intra-sectoral cooperation of changes in the tourism sector driven by development of the SE. Source: own elaboration prepared using AMOS under IBM SPSS ver. 25

4.3 Factors of Cooperation Inside the Tourism Sector

The research aims to test a theoretically reasoned model to explain the more or less autonomous propensity and willingness to cooperate within the tourism sector, using the effect of SE development as a determinant. Based on the results of factor analyses, a structural model was created and used in order to test our hypotheses (Fig. 1).

The goodness of model fit was verified using a wide range of fit measures including the absolute (CMIN/DF = 2.478; GFI = 0.956; AGFI = 0.912) and relative fit measures (NFI = 0.951; CFI = 0.969; TLI = 0.947), as well as fit measures based on the non-central chi-square distribution (RMSEA = 0.063; FMIN = 0.351). Given the results of the fit assessment, the model can be considered as satisfactory and representing appropriate goodness of fit, as all of the most commonly used fit measures meet the imposed thresholds (Blunch 2013; Hair and Hult 2016; Iacobucci 2010).

5 Discussion and Conclusions

This study provides original and relevant findings on driving phenomena in the tourism sector as it targets cognitive gaps identified in the existing literature.

Firstly, the SE is analyzed from the point of view of its perception by tourist entrepreneurs, i.e., the supply side of the market, therefore we shed complementary light on previous literature, in which the SE was investigated from the perspective of tourists—i.e., the demand side of the market (Cheng 2016; Hamari et al. 2015; Tussyadiah and Pesonen 2016).

Secondly, our deliberations, as well as the empirical results, point to the two-faceted nature of the SE, which should be seen by tourist entrepreneurs not only as a threat, perceived as a limiting factor (either to the tourism sector or their individual businesses) as it has been perceived in the literature so far (Heo 2016; Lyons and Wearing 2015), but also as a possible opportunity. This can be perceived as an accelerating factor for the development of the tourism sector and—as is so important nowadays—different forms of networks, including intra-sectoral cooperation. Although this two-faceted nature (i.e., accelerating and limiting simultaneously) of the considered SE factors (i.e., ICT and ET) can be seen at first glance to be contradictory or mutually exclusive, we do believe that both are of importance inside the industry. This is due to the fact that the considered factors are complex, reflect a wide scope of both positive and negative impacts (as discussed in Sect. 2.2), and significantly impact different tourism organizations. For instance, their role in development can be different for different tourism organizations—in terms of size, experience, technological advancement, tourism offer, etc.

Thirdly, our empirical results cumulatively develop the current stock of knowledge on tourism management in the era of popularization of the SE, including intensive use of digital platforms. Our attention was focused on inter-organizational cooperation within the tourism sector, and the study was not restricted to one specific tourism industry (e.g., accommodation only, transportation only) or one particular tourism destination, but covered 368 tourism entrepreneurs from across Poland.

Fourthly, another research gap filled is that the study indicates how, in the opinion of tourist entrepreneurs, the sharing economy may affect cooperation in this sector (Cheng 2016). This study adds to one of the rapidly growing streams of research, namely research on the drivers, factors, and antecedents of inter-organizational relationships (including cooperation and coopetition) inside the tourism sector (Mwesiumo and Halpern 2019). We see our findings as valuable and original as they relate to the two-faceted effect of SE popularization, stimulated by increasing ICT and ET—issues not considered to date in this context.

Fifthly, the SE phenomenon was analyzed in relation to a relatively novel context less well-known in the literature, that is Poland—a country in a different geographical location to most countries (from Western Europe or North America) analyzed in the current literature with regard to the SE phenomenon (Kylänen and Rusko 2011; Mariani 2007; Tolkach et al. 2016). Given this perspective, our empirical evidence should be seen as supportive to research conducted in other national contexts, thus bringing us closer to generalizable conclusions about the SE phenomenon.

Last but not least, our findings expand knowledge on the drivers of cooperation in the context of the tourism sector (Mwesiumo and Halpern 2019). We see this as relevant and valuable, as the scope of consideration was not restricted only to cooperation with non-rivals in business activity, but also to business rivals operating in Local Tourism Organizations (Kylänen and Rusko 2011; Mariani 2007; Tsaur and Wang 2011).

The results of the quantitative analyses point to a significant link between cooperation and the popularization of SE in the tourism sector. The identification of the positive influence of SE popularization on this cooperation suggests that

tourism companies are more willing to cooperate both due to the acceleration and the limitation of development of tourism sector entities. Thus, our research is in line with those works where the SE is perceived as having a dual effect on tourism sector development, i.e., accelerating (Boswijk 2017; Cervero et al. 2007; Fang et al. 2016; Martin et al. 2010) and limiting (Fang et al. 2016; Heo 2016; Lyons and Wearing 2015; Malhotra and van Alstyne 2014; Zervas et al. 2017). This shows that both groups of authors were right about the SE's perceived impact on tourism sector entities. In other words, it can be said that for companies in tourist destinations, the development of the sharing economy has a two-faceted effect on tourism sector development, which in turn results in greater openness to cooperation. Furthermore, it seems that tourism companies and their propensity to cooperate are driven by both an increase in ICT and an increase in experience tourism. Thus, our research results are in line with those papers where ICT is perceived as a stimulant to cooperation (Aramendia-Muneta and Ollo-Lopez 2013; Buhalis and O'Connor 2005), and where experience tourism is concluded to also be such a stimulant (Wójcik et al. 2020). Since the development of ICT strengthens cooperation in the tourism sector, in the era of intensive popularization of digital platforms, as mentioned in the latest literature (Cremona et al. 2014; Yang et al. 2018; Leong et al. 2019; Veile et al. 2022), it can be expected that these ties in the sector will grow stronger, and that the industry will also digitize.

From the methodological perspective, our study adds to the prior stock of knowledge as it offers reliable operationalization of two phenomena that are significant for tourism development, namely SE and inter-organizational cooperation. Firstly, as the lack of comprehensive conceptualization and operationalization of SE may lead to invalid research results (Pouri and Hilty 2018a), thus hampering sound knowledge development, we perceive our proposition for measuring SE as worthy of validation in further studies, especially as it covers its two integral components, namely ICT and experience tourism (Paulauskaite et al. 2017). Secondly, in the literature there is no commonly accepted tool for measuring inter-organizational cooperation. Even though there have been some initial attempts to create such a measurement tool, we decided to use our own scale, as validation of prior solutions is either not always reported (Martínez-Pérez et al. 2019) or its results can be seen as questionable (e.g., a too high internal consistency for scales, along with Cronbach's alpha greater than 0.9 suggests that the scale covers redundant items—Wilke et al. 2019). Furthermore, in comparison to prior studies, our investigation is one of the first to consider inter-organizational cooperation as a dependent variable in quantitative studies. So far, the focus has been on reviewing and synthesizing the literature on the sharing economy in the context of ICT and/or experience tourism (Mandić and Praničević 2019; Roblek et al. 2016) using qualitative and case study-based exploration (e.g., focus on ICT—Lam et al. 2020; inter-organizational cooperation in the context of supporting technological solutions—Mendonça et al. 2015). At the same time, in the limited number of quantitative investigations available in the literature, inter-organizational cooperation has been considered as independent variable influencing, for instance, pricing practices (Martínez-Pérez et al. 2019) or firm performance (Wilke et al. 2019).

Finally, the results obtained in the study, particularly those regarding the positive impact of tourism sector limitation on intra-sectoral cooperation, appear to be of unique value in the current, pandemic-affected business reality. Although it is too early to estimate specific losses at this point, it is already clear that the hospitality industry, including the accommodation sharing sector, was one of those impacted the most (Baum and Hai 2020). Constant uncertainty, the need to observe social distancing, and fear about the possibility of infection at the place of stay (e.g., as a result of not ensuring a sufficient level of cleanliness and disinfection—especially in private houses) significantly reduced the propensity for tourists to travel, including with use of the SE model. Some even consider whether this model will survive as a result of the global COVID-19 pandemic (Baum and Hai 2020; Zenker and Kock 2020). At the same time, one may wonder whether staying in an apartment away from large hotels, only among one's own travel companions, will stimulate travel using the SE model. It is still difficult to make unambiguous forecasts in this respect.

As no research is free of limitations, we see it as important to outline those which should be considered in relation to our sampling, data gathering, data quality, and data analysis. Firstly, regarding our sample, it should be emphasized that its representativeness corresponds to a purposefully restricted sampling frame, namely all tourism companies operating in Poland, but associated in Local Tourism Organizations. Thus, any generalization can relate only to the above-defined population. It should be noted, however, that inter-organizational issues, including intra-sectoral cooperation, are shown as sector-dependent and country-conditioned (Oliver and Ebers 1998), thus an intentional focus on one sector and one country can be seen as reasoned, especially as the exploration was placed within the tourism sector (Mariani 2007). Secondly, the data was collected using a survey questionnaire based on the 5-point Likert scale to gather information about informants' perceptions and their subjective opinions, hence not an objective view of the considered phenomena (McMullan et al. 2001). Nevertheless, the adopted measurement approach remains the most common in management studies (Hinkin et al. 1997; Venkatraman and Grant 1986) and typical for research applying an indirect approach to evaluation of inter-organizational issues (Kumar et al. 1993), especially those using SEM to analyze data (Hair and Hult 2016). Furthermore, we believe that direct contact with key informants resulted in them being much more aware and conscious of their answers (Kagerbauer et al. 2013). Thirdly, regarding the quality of our data, it should be noted that although the basic requirements imposed on quantitative data as well as on the developed model are satisfactorily fulfilled, the scale used to measure the dependent variable explains just 49.195% of the total variance, thus the convergent validity of the measurement may be seen as dubious. However, the explained level is not far from the threshold set at 50% (Costello and Osborne 2005) and the slight differences should not be seen as an exclusion criterion (Blunch 2013; Byrne 2010). Fourthly, the research followed an unmeasurable approach to investigating both the two-faceted effect of development of the SE (namely the acceleration and limitation of tourism sector development) and intra-sectoral cooperation. Therefore, the data was analyzed using SEM and the reflective approach to identify the links between the latent variables and the proxies. Even though our variables may be seen

as directly measurable, we consider them to be latent as they are deeply rooted in experience, perception, and cognition, and are thus definitely unmeasurable. To develop both the measurement and structural models, we applied the reflective approach to the relationships between our variables and particular items, as the observed indicators are considered as determined by the variables. Nonetheless, although the reflective approach is seen as traditional and more popular (Christophersen and Konradt 2012; Hair et al. 2019), also in the case of research on inter-organizational issues (Luo et al. 2006), it would be recommended to apply a formative approach, at least for comparing the results.

Regarding managerial implications, our research has shown that knowledge about the sharing economy concept among some of our respondents was insufficient, which strengthened their reluctance to adopt the SE model and cooperate with entities employing the model. We claim that in order to encourage tourist entrepreneurs to cooperate, it is necessary to organize meetings to inform them about possible forms of cooperation, and to present successful case studies and the potential benefits of intra-sectoral cooperation, including cooperation with direct and indirect competitors in particular. The entities responsible for the organization of such meetings could be local authorities and representatives of different forms of tourism cooperation, e.g., Destination Marketing Organizations. In addition, on the basis of our research, it is necessary to point out the positive effects of using ICT and experience tourism, which means that tourist entrepreneurs should not only develop their competences and skills in the use of ICT, but also offer an increasing number of elements related to ET in their business activity. It is also worth highlighting the specificity of different tourism enterprises (e.g., accommodation or catering facilities) of various sizes (micro/large companies) and in different locations (urban/rural). It seems that each of these groups will perceive the SE phenomenon differently, and thus also benefit from its popularization. Finally, it must be stressed that it is necessary to introduce legal changes to the scope of regulations concerning the SE phenomenon in Poland. Many countries around the world have already introduced such regulations, which is beneficial in that it increases transparency and security in the provision and use of SE services.

In the context of future research, it would be worth focusing on three issues. First of all, considering recent events related to COVID-19, research is needed to show what the tourism sector will be like in the future and how the SE phenomenon will react and change under pandemic conditions. Secondly, it is worth researching which factor stimulates entrepreneurs to cooperate more: the development of the tourism sector or the threat to this development resulting from the SE. The research appears to show that when entrepreneurs feel threatened—i.e., they feel that if they want to survive on the market, they have no other option but to establish cooperation—they are the most motivated to cooperate. As mentioned before, COVID-19 and its impact on world tourism may be just such a threat that stimulates the development of inter-organizational cooperation. Finally, it would be worthwhile carrying out qualitative research on this subject, thanks to which a better insight could be gained into the decisions and activities of tourism entrepreneurs in this area.

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