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Journal of Tourism, Heritage & Services Marketing (JTHSM) is an international, open-access, multi-disciplinary, refereed (double blind peer-reviewed) journal aiming to promote and enhance research in tourism, heritage and services marketing, both at macro-economic and at micro-economic level.

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# Journal of Tourism, Heritage & Services Marketing

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Journal of Tourism, Heritage & Services Marketing is an open access, international, multi-disciplinary, refereed (double blind peer-reviewed) journal aiming to promote and enhance research at both macro-economic and micro-economic levels of tourism, heritage and services marketing.

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# Editorial

**Evangelos Christou**, Editor-in-Chief  
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**JEL Classification:** L83, M1, O1

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## 1 INTRODUCTION

We are pleased to present the eleventh publication of JTHSM (volume 6, issue 2), in its sixth year of publication. In previous issues, this journal presented original refereed papers, both conceptual and research-based, focused on various topics of tourism, heritage, and services with an emphasis on marketing and management. Volume 6, issue 2 focus on furthering the journal's scope and consolidating its position in both conceptual developments and practical applications in tourism, heritage, and services through publication of seven quality manuscripts that underwent rigorous double-blind reviewing: six full papers, one research note, and one book review.

## 2 PRESENTATION OF THE SECOND ISSUE FOR 2020

The present issue of JTHSM contains eight manuscripts written by twenty-one authors located in eleven different countries and affiliated with fourteen different universities. The first full paper is written by Antonios Giannopoulos from the University of the Aegean, in Greece, Georgios Skourtis from Canterbury Christ Church University in the United Kingdom, Alexandra Kalliga and Dimitrios-Michail Dontas-Chrysis both for the Hellenic Open University in Greece, and Dimitrios Paschalidis from the Region of South Aegean. The authors investigate co-creating high-value hospitality services in the tourism ecosystem and explore a potential paradigm shift. Adopting the service-ecosystem perspective, this is the first empirical study conceptualising tourism as an ecosystem. Based on the institutional theory and focusing on high-value hospitality services, it aims to unveil the components of the multilayer tourism ecosystem that enable stakeholders' interactions at and between different levels. Applying a qualitative research design in Rhodes, the study focuses on value co-creation to explore the structure of the tourism ecosystem and its underlying mechanisms. The

results led to the identification of the three-level service ecosystem (micro, meso, macro) that incorporates myriads of actions and interactions shaping tourism activity in order to provide high-value hospitality services. Analysis revealed the institutional logic that permeates all levels (rules, norms, practices, meanings and symbols). The study goes beyond the destination-visitor and firm-guest interactions to incorporate multiple stakeholders co-creating value in the tourism ecosystem, including tourists, locals and employees, hotels and restaurants, DMOs and other organisations supporting the tourism value chain. It sheds light on new paradigm shifts from the notion of tourism industry to the concept of an inclusive tourism ecosystem, paving way for future research to address global challenges in the COVID-19 era.

Active sport tourism is one of the fastest rising leisure segments. Considering the extensive growth of both the millennial and baby boomers generation in this sector, there are large-scale economic potentials for tourism practitioners. The aim of the second full paper, written by Ruth IJspeert and Gilda Hernandez-Maskivker from Ramon Llull University in Spain, is to explore the characteristics of baby boomers and millennial active sport tourists and to differentiate them by relevant factors. Applying a qualitative research design, data were collected through online surveys on the characteristics, needs and motivations of baby boomer and millennial active sport tourists. Significant differences were found between the groups regarding social-economic characteristics (gender, education level, marital status and income) and motivations. This study may be significant due to an extensive growth seen for both the millennial and baby boomers generation in the active sport tourism market and considering the fact that limited understanding of the characteristics, needs and motives was contradicting this enormous growth in the market. Differences were found between the millennial and the baby boomer active sport tourists.

In the third full paper, Arne Schuhbert and Hannes Thees, both from the Catholic University Eichstätt-Ingolstadt, Germany, address the problem of the global-local link by



critically examining a case at the southern Caucasus, as tourism is considered as a key industry for economic diversification in all three countries examined. Under the title of Belt-and-Road-Initiative (BRI), China has launched a global development program, which spans many regions and sectors. Tourism initiatives can occupy an interlinking position between infrastructure and services, and between global and local projects. Based on a mixed qualitative and quantitative approach, the study is about critically investigating the current state of challenges and opportunities for tourism-induced, integrated regional development, with particular focus on potential obstacles for regional and national destination competitiveness. Results reveal that the BRI offers a basis for export-diversification in tourism and non-tourism economic sectors.

The fourth full paper is authored by Nguyen Van Truong, affiliated with the University of Transport and Communication in Vietnam, Tetsuo Shimizu from Tokyo Metropolitan University in Japan, and Sunkyung Choi from Tokyo Institute of Technology, also in Japan. Their study was undertaken to investigate the characteristics and to seek for the most fitting models for population total estimation in relation to tourist accommodation data. Based on the data of 10,503 hotels, obtained from by a nationwide Japanese survey, the bootstrap resampling method was applied for re-randomisation of the data. Six count models were fitted to the training set and validated with the test set. Bootstrap distributions for parameters of significance were used for model evaluation. The outcome variable (number of guests), was found to be heterogenous, over dispersed and long-tailed, with excessive zero counts. The hurdle negative binomial and zero-inflated negative binomial models outperformed the other models. Results appear rather overestimated. Findings indicated that the integration of the bootstrap resampling method and count regression provide a statistical tool for generating reliable tourist accommodation statistics. The use of bootstrap would help to detect and correct the bias of the estimation.

The fifth full paper comes from four authors based in Greece; Dimitrios Amanatidis, University of Western Macedonia, and Ifigeneia Mylona, Spyridon Mamalis and Irene (Eirini) Kamenidou, all from the International Hellenic University. Social media are changing the way that museums communicate with their public. Most of the museums seem to understand the need for using social media to communicate their events to the public. Facebook and Instagram now dominate the social media use landscape. Instagram is one of the fastest growing social network globally among young people. What users can do with the use of Instagram is to communicate their experiences through both choice of photo subject and ways they choose to manipulate and present them (Weilenmann, Hillman and Jungselius, 2013). Greek museums, especially in big cities, use social media for communications and provision of all the necessary information to the visitors. The aim of the study is to examine the use of Instagram by museums in the Greek cultural scene. More specifically the study focuses in examining the use of Instagram by the museum communication professionals and carry out a twofold investigation; do they use and in what way Instagram to reach out for their audience and also how does the public perceives this effort. Instagram has already

been adopted by other groupse.g. politicians in Greece, with its usage however not being to the same extent as with other popular social media such as Facebook.

The sixth full paper comes from two authors based in Belgium; Kaat De Ridder from Thomas More University of Applied Sciences and Dominique Vanneste from University of Leuven (KU Leuven). This study aims to present and explore the landscape approach as an innovative management model for heritage tourism, applied to the case of the Brussels Art Nouveau heritage. The main objective of this paper is to gain insight in discrepancies regarding visions on the tourism potential of the Brussels' Art Nouveau and the Art Nouveau patrimony's integration within a (themed) tourism landscape. The research resulted in an innovative perspective to increase common ground between a landscape centered perspective with a focus on heritage and a tourism landscape centered approach. The research deduced several hidden mismatches in perception and appreciation of the Art Nouveau and showed that there are major information and promotion problems, fostered by politically influenced fragmentation and lack of collaboration.

The research note is written by two authors based in Russia: Alexander Pakhalov and Natalia Rozhkova, both from Lomonosov Moscow State University. Over the last five years, real-life escape rooms have become popular tourist attractions in many European cities. Growing competition stimulates the escape room providers to search for new experience design strategies. One of the new strategies assumes active use of new technologies, including special effects and virtual reality technologies. This study aims to assess the impact of new technologies on escape room visitors' experience based on a netnographic survey of visitors' reviews. The results show that technologically sophisticated escape rooms create a more authentic tourist experience. At the same time, technical failures and bugs can reduce visitors' satisfaction.

Last, Maximiliano E. Korstanje from the University of Palermo in Argentina presents a critical review of the book titled "Tourism and Resilience" and edited by Richard Butler. Based on this review, this book should be seen a compilation of high-quality chapters, written by well-distinguished scholars who are worried on the future of tourism in the next years. It introduces a multicultural approach, based on the origin of authors, each one intellectually dotted with a different perspective or national-character, but what is more important, Butler presents an organized volume with practical study-cases which are pertinently accompanied by some critical lens of the problem.

Based on the above, we trust that you will enjoy reading this new issue of the Journal of Tourism, Heritage & Services Marketing!

Evangelos Christou  
International Hellenic University  
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# Co-creating high-value hospitality services in the tourism ecosystem: Towards a paradigm shift?

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## Abstract

**Purpose:** Adopting the service-ecosystem perspective, this is the first empirical study conceptualising tourism as an ecosystem. Based on the institutional theory and focusing on high-value hospitality services, it aims to unveil the components of the multilayer tourism ecosystem that enable stakeholders' interactions at and between different levels.

**Methods:** Applying a qualitative research design in Rhodes, the study focuses on value co-creation to explore the structure of the tourism ecosystem and its underlying mechanisms. Triangulation and bracketing were employed to ensure the reliability of the data collected through ten semi-structured interviews with high-ranking tourism policy-makers and hotel/restaurant managers.

**Results:** The results led to the identification of the three-level service ecosystem (micro, meso, macro) that incorporates myriads of actions and interactions shaping tourism activity in order to provide high-value hospitality services. The analysis also revealed the institutional logic that permeates all levels (rules, norms, practices, meanings and symbols).

**Implications:** The study goes beyond the destination-visitor and firm-guest interactions to incorporate multiple stakeholders co-creating value in the tourism ecosystem, including tourists, locals and employees, hotels and restaurants, DMOs and other organisations supporting the tourism value chain. It sheds light on the new paradigm shift from the notion of tourism industry to the concept of an inclusive tourism ecosystem, paving the way for future research to address global challenges in the COVID-19 era.

**Keywords:** tourism marketing, hospitality services, institutional theory, service ecosystem, value co-creation

**JEL Classification:** L83, L8, Q57

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## 1 INTRODUCTION

In times of uncertainty, global competition poses new challenges for the hospitality and tourism industry (e.g. travel commoditisation, sharing economy, digital nomads, global

clans, overcrowding, severe sustainability concerns from 'generation Greta', age shift and global health system, neutralisation and de-densification in aviation in the COVID-19 era). The tourism value chain is largely susceptible to changes in the external environment due to the close interdependence between various companies and



organisations either directly or indirectly related to tourism. Significant technological advancements have also affected the tourism industry (Cabbidu et al., 2013). From digital immigrants to digital natives, technological disruptions have significantly supported innovation processes by changing the way people search, read, share and discuss information (Sigala & Chalkiti, 2015). Through the use of social media, tourists have become more aware of the power they have and they have become more active in the development and successfully delivery of hospitality services, as active participants in the whole process (Buhalis & Foerste, 2015; Neuhofer et al., 2015; Buhalis et al., 2019).

To this end, technology acts as a catalyst for tourists to get involved with other actors in the tourism sector (Chatzigeorgiou & Christou, 2020), and as a result, together they co-create value. The Service-Dominant Logic (S-D logic) considers the role of the customers in value co-creation (Grönroos, 2006; Lusch & Vargo, 2006; Vargo & Lusch, 2008). It suggests that, in the process of value co-creation, tourists, tourism businesses and organisations all act as resource integrators (Dabholkar, 1990; Holbrook, 1996, 2006; Arnould et al., 2006). The study tries to uncover the dynamics between the actors of the tourism ecosystem, drawing on institutional theory (Scott, 2005). Through the lens of this theory, various underlying mechanisms (i.e. regulative, normative and cultural cognitive elements) stimulate or undercut processes and interlinkages within the ecosystem (e.g. coervice, normative and mimetic) fostering institutional logics at various levels of analysis (Scott, 2008). This study closes a significant research gap since it is first to conduct empirical research on the service ecosystem in the tourism sector, incorporating institutional theory. The research delves into the tourism ecosystem, identifies the actors involved and their relationships within the ecosystem, analysing the case of Rhodes in the Region of South Aegean that dominates the seasonal nature of the tourism product and lifts great weight of inbound tourism in Greece (Papatheodorou & Arvanitis, 2014). In the first part of the paper, the theory of S-D Logic and service ecosystems as well as the institutional theory and institutions are critically reviewed. In the second part, the qualitative methodology, including in-depth interviews, is delineated to provide particular insight into the way the tourism ecosystem is structured encompassing various actors, different roles, norms and activities all with the intent purpose of delivering high-value hospitality services. Based on the findings, theoretical and practical implications are discussed and new areas for future research are unveiled in an ever-evolving tourism ecosystem.

## 2 SERVICE-DOMINANT LOGIC AND SERVICE ECOSYSTEM

According to Maglio and Spohrer (2008: 18), “S-D logic may be the philosophical foundation for service science, and the service system may be its basic theoretical construct”. Value gets co-created when resources are integrated and used by actors, in a specific context and with an intention to meet the realised value in context (Vargo & Lusch, 2008). A proliferation of definitions of value co-creation have been cited throughout the years such as the creation of value in use

(Grönroos, 2008) or the integration of resources through interactions with the constituent parties of the service network (McColl-Kennedy et al., 2012). Prahalad and Ramaswamy (2004) denoted that experience instigates value co-creation, incorporating multiple parties beyond the service provider-customer dyad with customers considered as unique arbiters of value (Vargo et al., 2008). Indeed, the resource integration takes place in a constellation of exchanges, actions and interactions within service systems and networks (Vargo et al., 2008). The S-D Logic constitutes a metatheoretical framework for understanding value co-creation through resource integration and service exchange in various disciplines and contexts (Black & Veloutsou, 2017; Kennedy E. & Guzmán, 2017; Simmonds et al., 2018; Assiouras et al., 2019).

In line with the S-D logic, services unfold as the application of resources for the benefit of others – as a common denominator of economic (and non-economic) exchange; thus, value is co-created (i.e. not delivered). In discussing these resources, Vargo and Morgan (2005) stressed the primary role of operant resources that can act on other resources to create a benefit, rather than the role of the relatively static, operand resources, which are more commonly considered. Likewise, value co-creation has been examined in the tourism context (e.g. Prebensen & Foss, 2011; Grisseemann & Stokburger-Sauer, 2012; Cabiddu et al., 2013; Sfantla & Björk, 2013; Mathis et al., 2016).

According to Van Riel (2015: 199), “service is not to be considered, studied, managed, as a discrete phenomenon, but rather as something that is part of a system, of a network, linking departments in the firm, multiple firms and customers in an ecosystem”. In the same vein, a service ecosystem is defined as “a relatively self – contained, self – adjusting system of resource – integrating actors connected by shared institutional arrangements and mutual value creation through service exchange” (Vargo & Lusch 2016: 11-12). Service ecosystems are rather complicated in nature, encompassing numerous actors, various forces social forces and resource integration activities (Akaka & Vargo, 2015) that can be identified at various levels (Beirao et al., 2016). In more detail, the service ecosystem perspective engenders various interactions among and between multiple actors at and between three inter-related levels, namely the micro, meso and macro-level (Akaka & Vargo, 2015; Fisk et al., 2016; Witell et al., 2015). Yet, the concept of service ecosystem in the tourism context is still in its infancy (e.g. Barile et al., 2017).

In the tourism setting, actors (i.e. stakeholders) operate in the service ecosystem permeating multiple networks (e.g. tourists, hotels, destinations); the destination complexity derives from the variation of the actors’ roles and is thereby related to the available resources and the relationships nurturing in a specific context (Akaka & Chandler, 2011). Provided that actors’ roles and interrelationships are not static, the levels of the ecosystem dynamically change (Chandler & Vargo 2011; Edvardsson et al., 2011). In line with the work of Akaka and Vargo (2015: 459), macro-level does not exist without micro and macro-level and vice versa. The service ecosystem approach emphasises the way micro-level interactions engender the macro and meso-level contexts. At the micro-level, dyadic interactions (Yilmaz,

2018) set the platform for the integration of resources (e.g. tourists and front-line hospitality employees) as well as the value that stems from the specific interaction (Chandler & Vargo, 2011). Hence, each micro-level interaction is nested within a broader-level setting (Chandler & Vargo 2011) e.g. destination at a regional or national level.

In this context, destination management organisations should try to create opportunities for multiple touchpoints between the visitors and the destination brand (Chatzigeorgiou & Christou, 2016). In fact, the service ecosystem approach emphasises the idea that market interactions occur throughout networks of firms, customers, and other stakeholders and are governed by “institutions” (Williamson, 2000). However, the so-called “institutions” spur actions and interactions (Giddens, 1984), and the service ecosystems are built on the platform of iterative actions, reproduced relationships and shared meanings.

### 3 INSTITUTIONAL THEORY AND INSTITUTIONS

According to North (1990: 70), institutions are “sets of rules governing interpersonal relations”; they can be considered as the game rules, which may pose limitations, but also shape mutual societal interactions (North, 1993). Previous research drew attention to the proliferation of institutional arrangements challenging the actors in a service ecosystem, where institutions pertain to “rules, norms, meanings, symbols, practices and similar aides to collaboration” (i.e., Vargo & Lusch 2016: 6). Institutions are viewed as the mechanism that somehow connects the different actors. The extant institutional theory tends to assign to norms, rules, meanings, symbols and practices the status of “the rules of the game” (Vargo & Akaka 2012; Vargo et al., 2015).

“Humans create institutions to coordinate their behaviours and free up time that otherwise would be dedicated to finding ways to coordinate” (Barile et. al., 2016: 665). Institutions represent the humanly devised resources (Simon, 1996) that are continually reproduced to engender the structural properties formulating the social context (Chandler & Vargo, 2011; Edvardsson et al. 2011). This process is essential for the deeper comprehension of the co-creation of value. Being crucial elements in shaping economic and social processes, institutions guide actors’ actions and interactions and value co-creation processes (Edvardsson et al., 2014).

Following this rationale, institutions pertain to any rules, norms, and beliefs that encourage or prevent actions, interactions adding meaning to social life (North, 1990; Scott, 2005, 2008). The sets of interrelated institutions stimulate institutional arrangements; this process of “institutionalisation” provides further insight into the structure and functions of service ecosystems. With the addition of institutions and service ecosystems to the foundational concepts of the S-D logic (Vargo & Lusch, 2017), a relatively coherent narrative of value co-creation is developed through resource integration and service exchange, facilitated by shared institutional arrangements that dictate nested and overlapping service ecosystems. Institutions enable actors to attain a higher level of service exchange and value co-creation under time and cognitive constraints. The more actors share an institution, the greater

the potential coordination benefits to all actors. Thus, institutions play a major role in value co-creation.

In this context, “institutionalisation” refers to the processes by which “social expectations of appropriate organisational form and behavior come to take on a rule-like status in social thought and action” (Martinez & Dacin, 1999: 78). It involves the social process, obligation or actualities with a rule-like status in social thought and action (Scott, 1987). When applied to service ecosystems, this process offers a better comprehension of service ecosystem actors and their interactions.

### 4 METHODOLOGY

To address the research objectives by revealing the principles of the tourism ecosystem, a qualitative research design was deployed to explore the nature of a constellation of linkages and interlinkages amid tourism key-players and empirically investigate the genesis and development the value co-created with multiple stakeholders. Contributing to the methodological discourse on qualitative methods, the research incorporated in-depth interviews to offer insights into the “why” tourism actors engage in pertinent actions and behaviours.

In order to tap a wide range of different perspectives, the sample included high-ranking representatives from crucial areas of tourism and hospitality services on the Greek island of Rhodes. Apart from the Region of South Aegean, four-star, five-star hotels as well as haute-cuisine restaurants were specially selected, considering their role in the tourism community, covering three major fields in the tourism ecosystem. The actual number (10) of the interviews was examined to ensure that it is an indicator of saturation, not a cause for concern, after consultation between the members of the research team (Ahern, 1999).

In more detail, the authors conducted ten in-depth interviews with key-informants from the Region of South Aegean, the hotel industry and the restaurant sector. Four interviewees officially engaged in destination policy making at regional level (Directorate of Tourism, Region of South Aegean), three hotel managers were selected in accordance with the years of their professional experience and three restaurant managers participated in the research based on their largely acknowledged expertise (Table 1). The respondents were carefully selected to represent critical informants with close ties with regional associations, actively involved in the destination marketing and management activities for the specific destination.

The average duration of the interviews was one hour covering a range between a 27-minute discussion (minimum) and a 1-hour-and-50 minute conversation (maximum). In line with current research ethics, the interviews were audiotaped, assuring anonymity and confidentiality. During the interviews, respondents were encouraged to express their views on the tourism service ecosystem, the institutions and their interrelationships, and eventually how value is co-created in the ecosystem of tourism in Rhodes. To guarantee the consistency and reliability of the research findings, the discussions were based on a carefully developed interview protocol with semi-structured questions (Castillo-Montoya, 2013) referring to the relevant background information, level



of awareness, understanding, knowledge, acts and additional ways of thinking or acting.

*Table 1: Profile of the interviewees*

Interviewees	Profile			
	Professional Status	Role in the Ecosystem	Field in the Ecosystem	Years of Experience
1	Vice-Governor A	Region of South Aegean	Policy-making	28
2	Vice-Governor B	Region of South Aegean	Policy-making	20
3	Senior Consultant	Region of South Aegean	Policy-making	20
4	Supervisor	Region of South Aegean	Policy-making	7
5	Manager	Hotel sector	Service provider	30
6	Manager	Hotel sector	Service provider	28
7	Manager	Hotel sector	Service provider	29
8	Manager	Restaurant sector	Service provider	34
9	Manager	Restaurant sector	Service provider	12
10	Manager	Restaurant sector	Service provider	25

In more detail, after a short introduction to set the context of the study, simple terms were used to stimulate the discussion on hospitality services, whether and how value emerges in service interactions and how the respective underlying conditions are perceived e.g. imperatives, instructions, facilitating guidelines, symbolic or explanatory elements. After a pilot test with two members of the tourism community (both academics and practitioners), the interview guide was enriched with the respondents' standpoint regarding the position of the organisation/firm they represented against other stakeholders in the tourism value chain.

To further enhance the validity in the data collection and analysis, a combination of server aspects, methods and data resources were used, ensuring triangulation (Decrop, 2004; Bekhet & Zauszniewski, 2012; Denzin, 2012; Houghton et al, 2013). Considering that the multidimensional context of the tourism industry is better approached with the aid of triangulation, a group of two or three interviewers was always present during the data collection process and three different researchers were engaged in the transcription process. At least three different sources of data were used, namely, semi-structured interviews, theory based on a thorough literature review and organisational documents relevant to each actor and the ecosystem overall (either web-based or hard copies provided by the respondents themselves). Content analysis was then applied to extract the research findings.

## 5 FINDINGS

Given the qualitative nature of the study, in an effort to uncover tacit assumptions made by the researchers and in line with the work of Tufford and Newman (2010), the research team employed bracketing, starting from the level of conceptualisation and formulation of the research questions up to the phase of data collection, critical analysis and overall understanding. As a tool to rise the validity of the data analysed and distinguish the final outcome from subjective experiences and prior knowledge in the field of the tourism ecosystem and institutional theory, bracketing was performed with the use of memos including any identified presuppositions associated with the researchers' background (e.g. place of residence, professional as well as academic status), personal value systems and potential role conflicts (e.g. research collaboration based on previous student-instructor relationship) that might evoke feelings

characterised by a lack of neutrality. In this way, reactions from previous events and the current research were separated (Ahern, 1999), alleviating potentially detrimental impact of preconceptions that might distort the findings, which are briefly discussed below.

### 5.1. Ecosystem

As a concept, ecosystem was thoroughly described in the interviews, and was interpreted as a business and economic environment that entails part or the whole industry. During the interviews, actors were all perceived as parties, which have direct or indirect contact with tourists. Most of the actors (i.e. organisational entities represented by the interviewees) showed a good level of understanding of the different levels within the ecosystem, although they were not able to define them. Considering tourism ecosystem as a pyramid consisting of three levels (macro, meso, micro-level), all actors seemed to agree on the position of tourists, locals and employees (boundary-spanning) at the micro-level. Although they questioned the role of the Region of South Aegean being on the top of the pyramid, they unanimously concluded that hotels/restaurants/other businesses (directly/indirectly related to tourism) belong to the meso-level. Many respondents argued that, although the Region of South Aegean might be on top, in reality the hotels are the flagship business in the industry, which mainly drive the tourism growth. More specifically, central government and international bodies should appear at the macro level; in this case, regional and local authorities such as the Region of South Aegean and the Municipality of Rhodes may also belong to the meso-level. Respondents also referred to hotels, restaurants, cafés, tour operators (TOs), travel agencies (TAs), etc. as a balanced network of actors (Mansfield, 2017), including competing suppliers and companies with direct or indirect influence over the tourism ecosystem; they all rest in the middle (meso-level). Referring to the ecosystem, a 55-year-old Hotel Manager rhetorically asked: "Basically, we should ask ourselves... who is not part of the tourism ecosystem?". Although a single answer/definition was not given, all discussions unveiled the local community as the baseline (micro-level). All the actors interact with each other and with the tourists, co-creating value. For example, as a 53-year-old Hotel Manager mentioned: "There is a kind of cooperation between hotels and local authorities. Hotels act as a mediator between tourists and authorities and transfer complaints and requests".

#### *Value co-creation*

In the tourism ecosystem of Rhodes, when tourists receive high-value services, it is largely implied that they interact with the actors to accumulate high-value experiences and get, for example, high-quality service, and high-quality food and beverages. Nevertheless, the relationships between the actors in the tourism ecosystem on the island are characterised as superficial and typical. Respondents acknowledged that each tourist perceives differently the notion of high-value service, but the perception of value could be a differentiating factor (Almeyda-Ibáñez & George, 2017). It is thereby implied that different actors offer some sort of added value to the tourism value chain, contributing to the continuous improvement of destination image and the execution of various training

schemes (Region of South Aegean), the provision of high-quality accommodation services (Hotels), and high quality food and beverage services (Restaurants). As a 53-year-old Hotel Manager quoted: “[...] high value services is almost everything”. A 52-year-old counterpart (Hotel Manager) characteristically mentioned: “In hospitality services, along with the ‘hardware’ (infrastructure) there is also ‘heartware’ (to do it with all your heart)”. As a result, they all referred to the synergies fostered between operand and operant resources, leading to a value jointly created. “The local who will guide and assist the tourist in finding his/her way, co-creates value” as a highly ranked representative of the Region of South Aegean noted. Another Hotel Manager put it in a similar way, stating that: “The hotels are somewhere in the middle of the chain. They listen to the demands of the tourists, for example, more bus routes, and they convey them to the local authorities. That way, value is co-created”. As suggested by Akaka et al., (2013) the success of this interaction is guided by the congruence or difference between actors' shared institutions.

## 5.2. Institutions

All high value services are bound by norms and rules within the ecosystem. Based on the classification proposed by Baron and his colleagues (2018), norms, rules, practices, meanings and symbols emerged from the study as the main pillars of institutional logic, as shown below.

### *Norms*

The attitudinal and behavioural aspect of shared actions and interactions within the ecosystem is dictated by norms (Vargo et al., 2015). Generally, they remain tacit and unspoken. People follow norms just because “one” “knows” that these norms are right (Steinhoff, 2009). In the tourism ecosystem of Rhodes, almost all of the actors identified the position of their organisation/business in the ecosystem (macro, meso, micro-level). At the macro-level the mission of the organisations is destination re-branding and crisis management, while the norms entail passion for work and honesty. At the meso-level, the mission of hospitality firms refers to the bottom line (based on the main purpose of their foundation and statute), the high-quality services (the suitable service product to address customer needs), and the mutual respect. Likewise, another Hotel Manager added: “the customer is very right, but not always”, emphasizing the need for a precise segmentation and targeting strategy (Kladou et al., 2014; Assiouras et al., 2015; Nella & Christou, 2016; Mavragani et al., 2019).

### *Rules*

Rules are considered as either explicit or tacit regulations deeply embedded in the operational protocol. The difference from the norms is that sanctions may be imposed in case of violation (Edvardsson et al., 2014). Usually, rules are dictated by the most powerful actor(s) in the ecosystem (Baron et al., 2018). At the macro level of the tourism ecosystem in Rhodes, high-ranking tourism policy-makers admitted that they do not have the authority to set the rules or the sanctions, since regulation and penalties stem from the Central Government. While they are responsible to check the compliance with the rules, they are unable to conduct successful inspections, since they are understaffed. At the

meso-level, there are internal, operational rules, governing the operation of each business. They also apply to international quality assurance standards (e.g. ISO). In general, there are no direct sanctions, but there are consequences. In this context, a Restaurant Manager underlined that: “There are no direct penalties, but if we do not follow the rules, we will ‘lose’ customers or we will get lower ratings on the social media platforms”. Similarly, respondents from the hotel sector emphasised that any sanctions arise from the breach of the terms of the contracts with the Tour Operators.

### *Practices*

Practices are the routine-based activities usually identified in organisations that encourage a smooth workflow. Given the diversity of organisations within the ecosystem in terms of sectors and layers (multilevel and multidimensional), these practices are naturally highlighted by multiple organisational logics (Baron et al., 2018). The way to avoid sanctions is to implement activities and practices that support high-value services. Every actor focused on the need and the importance of education and training addressed to each level and actor. At the macro-level, the practices mentioned include destination promotion, promotion of alternative forms of tourism, certification of agricultural products, support of agricultural production, management of European funds, etc. Their daily routine encompasses the facilitating and enhancement role in sustaining the relationship between local authorities and community. At the meso-level, the majority of the small-sized firms dictate that the actors are involved in almost every aspect and activity of the business e.g. safety and security, education, social media, operational activities and monitoring. Daily routines at this level refer to the progress and growth of business as well as the provision of high-value services.

### *Meanings*

Resource integration between actors in the ecosystem fabricates the meaning attributed to their activities (Luca et al., 2016). The dynamic formation of ecosystems derives from the meanings (Akaka et al., 2013). For most actors, the meaning nests in the rationale to exceed tourists' expectations, to satisfy their needs (Fotiadis & Williams, 2018), to provide value-for-money services and standard high-value services. Another 55-year-old, highly experienced Hotel Manager said: “High-value services lie in the heart of hospitality”. At the end of the day, interviewees feel that there is some level of satisfaction with the services they currently provide. Most of them agreed that actors strive for high-value services in Rhodes, but they call for improvements.

### *Symbols*

Symbols adjust and amplify the behaviours in the ecosystem also acting as underlying mechanisms for value co-creation (Flint, 2006; Vargo and Akaka, 2012; Akaka et al., 2014). Following Flint's rationale (2006), anything can be considered a symbol. In the tourism ecosystem of Rhodes, common values are shared among the actors and mainly originate from the sun, the sea, the smile, the spirit of philoxenia, the food, the legacy behind the name of Rhodes, the music and the folk dance etc. As a restaurant manager noticed: “It is all about ouzo, seafood tavern and nearby

islands". It was also argued that the geographic size of Rhodes Island does not leave much room to adopt only one symbol (i.e. diversity in the service offerings). The enthusiastic drivers operating in the ecosystem are generally identified through the simplicity in the service delivery, the 1960's mentality of hospitality, history and culture.

*Table 2: Synthesis of the tourism ecosystem*

Tourism Ecosystem			
	Micro-level	Meso-level	Macro-level
<b>Levels (nested)</b>	Tourists	Regional Authorities, RTO, LTO, Hotels, Restaurants, Cafés, TOs/TAs, Suppliers & other firms related to tourism	Central Government Authorities (Ministry of Tourism, NTOs) and other bodies and organisations
	Local		
	Community	*directly/indirectly	*national/international level
	Employees		
<b>Institutions (institutional logic)</b>	<b>Norms</b>	Tacit/unspoken behaviours and attitudes shared by all the actors (e.g. mission statements entailing passion for work and honesty, mutual respect and bottom line)	
	<b>Rules</b>	Laws, regulations at operational level (e.g. quality assurance standards, tourists' reviews, no sanctions from the RTO but penalties from the tour operators)	
	<b>Practices</b>	Activities and practices that support high-value services (e.g. safety and security, education, social media, promotional activity)	
	<b>Meanings</b>	How actors make sense of the value co-creation (e.g. exceed tourists' expectations, provide value-for-money services)	
	<b>Symbols</b>	Mechanisms for value co-creation (e.g. sun, sea, smile, spirit of philoxenia, gastronomy, music, folk dance and the legacy stemming from the destination brand)	

Overall, the research demonstrated that interactions do exist among the institutions, some of which might ask for a level of integration. More specifically, in some cases, rules are very limited and tend to be powered or even substituted by norms and meanings. For example, sanctions work in the very same way. They are intangible in nature, and are largely 'imposed' by the tourists, not from the authorities or the business operation manual. In the tourism ecosystem of Rhodes, it seems that practices have been the focal point of analysis and sight towards the provision of high-value services; thus, norms, rules, meanings and symbols follow this rationale to support the practices. Although the research findings are in line with Feldmann's work (2016: 68) denoting that "symbols unite people in a community in which differences are plenty", symbols do not constitute the glue that binds the ecosystem together. In fact, symbols do not work that way in the tourism ecosystem of Rhodes, but they follow practices. In general, the relationship among institutions is bidirectional and all institutions interact with each other. For example, it was implied that in case the mission of the Region of South Aegean changes, this might also affect other institutions, possibly altering the existing rules, symbols etc.

## 6 DISCUSSION

Drawing on recent theories and following current developments in the services marketing field (Edvardsson et al., 2014; Vargo & Lusch 2016, 2017), this is the first research attempt that elaborates on the notion and synthesis of the tourism ecosystem; based on empirical evidence, it provides further insight into its principal components. Therefore, the position of the key-actors is described and the way they intertwine in a multilevel framework (service

ecosystem). The analysis of the findings reveals basic institutional arrangements, which might otherwise be considered latent due to the significant overlaps and nested relationships within the ecosystem. Multiple arrangements are unveiled both within and between the levels of the ecosystem.

High-value services are generally conceived as high-quality offerings, where the visitor plays a significant role (i.e. value co-creation). As part of the tourism ecosystem in Rhodes, hotels, restaurants and the Region of South Aegean were put forward in the study. Although locals and central government bodies were not incorporated in the research design, their distinct role was highlighted in the interviews. For example, the way locals also treat tourists is deemed critical in order for the level of services to be maintained. Therefore, local community may also be an integral part of the micro-level of the tourism ecosystem.

Overwhelmed by the well-established administrative boundaries and hierarchies, the authors assumed that tourism authorities would be part of the macro-level. Yet, NTOs are part of the macro-level, whereas RTOs may be found at the meso-level. In fact, what differentiates some tourism organisations/authorities from others (e.g. NTOs and RTOs) may not be the administrative hierarchy but the essence of their perceived role in the ecosystem, as shown in the analysis of the institutions (e.g. RTOs may not impose sanctions, may focus on promotion-related activities while the legislative framework derives from the central government). Despite the fact that a higher-order effect on the tourism ecosystem might be assumed at the regional administrative level, the actors posit that hotels are the main focus of the ecosystem, driving the tourism development. Customers, with the aid of information and communications technology (Giannopoulos & Mavragani, 2011), may indirectly pose sanctions; as co-creators of value, they express their views on the social media (Revilla Hernández et al., 2016) and increase their power through social media ratings and actual performance.

### *Theoretical Implications*

Based on the institutional theory, this is the first study to approach the tourism industry from an ecosystem perspective, explaining its different levels and showcasing that actions and interactions are nested in levels. The paradigm shift from viewing tourism as a fragmented industry (Leiper, 2008) to a service ecosystem has been empirically explored; the research goes one step forward to explain the close interdependence among firms and organisations directly or indirectly related to tourism at regional, national and international level. Similar to previous findings (Storbacka et al., 2016), the frame of reference is the value co-created with actors' engagement – including locals, tourists, employees and the upper layers of the tourism ecosystem (e.g. hospitality service providers and policy-makers). The findings highlight that the importance of the tourism value chain (various stakeholders in multiple layers) is well nested in the concept of value co-creation.

Contrary to previous studies (Feldmann, 2016), symbols are not perceived as the glue that binds different parties together in the specific tourism context. This may be interpreted by the limited gravity of symbols on the integration and texture of the tourism ecosystem, as expressed through the

interviews. Additionally, this role is partly substituted by the everyday practices. It is then assumed that symbols cannot be considered as regulators in the tourism ecosystem and only common tactical actions (i.e. practices) move the ecosystem forward; in a deeper investigation of the symbols-practices relationship, symbols appear to follow practices, not vice versa.

### *Practical Implications*

A closer investigation of the interrelationships within the tourism ecosystem in Rhodes showed that they are largely described as lenient. Destination policy makers should seriously consider this finding, which might potentially threaten the nature of the ecosystem and the provision of high-value services over time. The Region of South Aegean and the Municipality of Rhodes actually constitute a significant part of the meso-level, whereas central government bodies (e.g. Ministry of Tourism, National Tourism Organisation etc.) pertain to the macro-level. All in all, the actors pinpoint that the lack of strategy at macro-level is rather crucial for the provision of high-value hospitality services. All parties may then reconsider their role in the service value chain and undertake actions to support the sustainability of the tourism ecosystem (interconnecting tourism with the primary sector of the economy e.g. farming). Education and training addressed to all the actors may act as a positive catalyst in this direction.

Focusing on resource integration, value co-creation may also encourage synergies to address global challenges posed by the external environment (e.g. natural disasters, terrorist attacks, pandemics). For instance, the high-tech momentum (AR, VR, geotagging etc.) can reinforce the development of user-generated content (Revilla Hernández et al., 2016) that in turn, may add value to the customer-firm relationship. Empowering dyadic interactions, the value co-created with the use of social media is another example of strengthening the visitor-destination links (Buhalis & Foerste, 2015).

## **7 CONCLUSIONS AND RECOMMENDATIONS**

Considering the above, the study attempts to cast light on the new paradigm shift from multiple sectors composing the tourism industry to an inclusive ecosystem consisting of vital cells that support tourism activity. Tourism thereby operates as an ecosystem of actions and interactions between actors with different roles depending on the level and the underlying mechanisms (institutions).

However, these results pose new research challenges. In accordance with the current research stream (Edvardsson et al., 2014; Baron et al., 2018), value co-creation insights have to be further explored. To validate the findings from this qualitative study, a quantitative research would be more than welcome. Testing the degree of adoption of various institutions can unveil the full potential of the conceptual model presented in this paper i.e. how these mechanisms accelerate or delay, encourage or discourage, progress or hinder value co-creation at and between different levels.

Scrutinizing the constituent parts of the ecosystem, future studies should encompass the central government and local community perspectives in a broader framework. The framework would also be more complete by incorporating

international organisations (Sotiriadis & Shen, 2017) and national bodies (macro-level) as well as frontline employees (micro-level) in the research design. To deal with the role of technology, possible interlinkages between ICT and existing institutions may also be part of the analysis.

Last but not least, it is now more imperative than ever to replicate the findings in the COVID-19 era so as to demonstrate the very nature and the classification of the institutions reinforcing and/or weakening actors' roles in the tourism ecosystem. The identification of changes in the negotiating power of intermediaries (TAs) over service providers (e.g. hotels) possibly instigated by tourism authorities at the macro-level (e.g. new norms and rules) might be part of the outcomes of the anticipated study. In the same context, researching any other interconnections between sectors indirectly related to tourism (meso-level) would be deemed appropriate to explore mutual benefits from the application of international medical protocols in the tourism industry (i.e. healthcare sector imposing new rules to the tourism sector) and the capitalisation on the hotel companies' expertise from healthcare organisations/hospitals (i.e. new practices and meanings). Hence, this paper identifies the dynamics of the future research agenda and aims to contribute to the extant literature, through the consideration of tourism as an ever challenging and largely inclusive ecosystem.

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# Active sport tourists: Millennials vs baby boomers

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## Abstract

**Purpose:** Active sport tourism is one of the fastest rising leisure segments. Considering the extensive growth of both the millennial and baby boomers generation in this sector, there are large-scale economic potentials for tourism practitioners. The aim of this study is to explore the characteristics of baby boomers and millennial active sport tourists and to differentiate them by relevant factors.

**Methods:** Applying a qualitative research design numerical data is collected by using online surveys about the characteristics, needs and motivations of baby boomer and millennial active sport tourists.

**Results:** Significant differences were found between the groups regarding social-economic characteristics (gender, education level, marital status and income) and motivations. For millennials, 'Escaping from daily routine', 'Thrill & sensation', 'Overcoming challenges' and 'Adrenalin' appeared as relevant motivations. For baby boomers, 'Health' highlights as a principal motivation. Recommendations for professionals in the sector are suggested.

**Implications:** Current study was considered to be important due to an extensive growth seen for both the millennial and baby boomers generation in the active sport tourism market and considering the fact that limited understanding of the characteristics, needs and motives was contradicting this enormous growth in the market. Differences were found between the millennial and the baby boomer active sport tourists.

**Keywords:** sport tourism, millennials, baby boomers, consumer behavior, leisure tourism

**JEL Classification:** L83, L8, Z20

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## 1 INTRODUCTION

With a number of 1.4 billion international tourist arrivals worldwide in 2019, the tourism industry is considered one of the world's biggest market industry nowadays, leading to extensive economic potentials for tourism practitioners (UNWTO, 2019). To be able to play well in the tourism market as a practitioner it is important to decide which specific market segment you want to target, to know the activities most popular within this segment and to know all the characteristics and motives of the travellers of that segment (Mahika, 2011).

Two different age groups that have shown a significant growth in the tourism market in the last few decennia' are the millennial and the baby boomer generation (Patterson 2012, UNWTO Statista, 2016, MDG advertising, 2015). The growth seen for both age groups makes the two groups potential interesting market segments to target for tourism practitioners, considering that growth increases the economic

potential of the market (Mahika, 2011). Knowing that the millennial and the baby boomer travellers are interesting market segments to target (UNWTO Statista, 2016), it is also important to get to know the specific characteristics, motives and the preferred type of holidays of the two groups. This will help practitioner to understand what the two groups value most (Osterwalder & Peigner, 2010).

Looking more specific to the wishes concerning the preferred types of holidays of the baby boomer and the millennial travellers, an interesting change in interests has been mentioned in literature (Mahika, 2011). According to prior studies, both the millennial and the baby boomer travellers are showing a shift in interests, with less interest shown for the traditional sun, sea and sand, sightseeing and shopping holiday trips and more interest shown for beautiful, healthy, intellectual, active and adventurous traveling types (Mahika, 2011; Patterson & Pan, 2007).

It is therefore not surprising that the active and adventure tourism industry (tourists traveling with the specific purpose of participating in a certain sport and adventurous activity out





of their home town) has mentioned to be the one of the fastest growing leisure tourism industry segment nowadays (Hungenberg et al., 2016; Mahika, 2011; Midland & Kingston, 2013; Muller & Cleaver, 2000).

Contradicting this clear growth of the millennial and the baby boomer active and adventure sport tourism market is the lacking deeper understanding of the factors representing the active sport travellers stated in literature (Goodnow, 2005; Hungenberg et al., 2016; Pomfret & Bramwell, 2016; Weed, 2014). Further clarification and differentiation of the active sport tourism is thereby said to be needed (Kaplanidou & Gibson, 2010; Pomfret & Bramwell, 2016; Naidoo et al., 2015).

Looking at the motivations of the baby boomer and millennial active sport tourists, on one hand the similar interest of the two groups in the same type of holiday trips may induce similarities in their motivations (Crompton, 1979). The difference in age (and corresponding lifestyle) on the other hand may however also induce some clear differences between the two groups (Kurtzman & Zauhar, 2005). When differences do exist, age may be used as a differentiation method in the diverse active sport tourism market, making it easier for tourism practitioners to decide on their target strategies for the two groups in future. Purpose of current study is to investigate on those factors differentiating the baby boomer and millennial active sport tourists.

## 2 LITERATURE REVIEW

Reviewing the literature on the active sport tourism, it became clear that this tourism market is part of the more general overarching sport tourism industry (Gammon & Robison, 1997; Gibson, 1998a). Sport tourism is defined as "Leisure-based travel that takes individuals temporarily outside of their home communities to participate in physical activities, to watch physical activities, or to venerate attractions associated with physical activities" (Gibson & Fairley, 2011, p.171). The interest and opportunities of this sport tourism market were thereby said to start increasing and diversifying around the mid-1990s (Kurtzman & Zauhar, 1993; Gibson 2004; Weed, 2014). Research on this area is very extensive (Robinson & Gammon, 2004; Hinch & Higham, 2001; Ma et al., 2017).

Several attempts have been made to categorize the broader sport tourism market (Gibson, 1998a; Huggins, 2013; Robison & Gammon, 1997; Ross, 2001; Fotiadis, Vassiliadis, & Soteriades, 2016; Fotiadis & Williams, 2018). One of the most used division of sport tourism hereby is the division of Gibson (1998a). She divided sport tourists into three categories: 1) Sport event tourism, 2) Active sport tourism and 3) Nostalgia sport tourism. The sport event tourism hereby refers to the travellers travelling out of their home communities to watch a certain sport event (Robison, 1998). The active sport tourism group, in contrary, are the tourists that travel to actually participate in sports and the last group. Finally, the nostalgia sport tourists are defined as those people that travel to places with sport related historical importance and cultural values.

Looking deeper into the active sport tourism group some attempts for further subdividing the group has been made.

One subdivision of the active sport tourists thereby is the subdivision into "non-event" or "hobbyists" versus the "event" or "activity" participants (Kaplanidou & Gibson, 2010). On the one hand, the 'activity or event participants' are hereby the amateur participants who travel to take part in tournaments, events or other types of competitions of their chosen sport with examples like soccer, hockey and tennis tournaments, marathons or triathlons. On the other hand, 'the hobbyists or non-event participants' are individuals who have a certain sport as general purpose of their travel without any competition involved in it. For example, travelling for hiking, skiing, snowboarding, scuba diving, rafting, surfing, playing golf and going on survival (mountain climbing, abseiling, canoeing) (Kaplanidou & Gibson, 2010; Naidoo et al. 2015; Ross, 2001).

A second way of subdividing the active sport tourism market is a subdivision into "soft" and "hard" active sport tourism. The "soft" and "hard" terms are hereby about the amount of challenge, risk and effort that is being taken. Hiking and golfing are hereby two examples of the "soft" active sport activities and mountain biking or for example kite surfing on the other hand are examples of the "hard" active sport activities (Naidoo, 2015).

Important to consider is the fact that much overlap of the active sport tourism market is seen with a slightly other tourism market, namely the adventure tourism market (Pomfret & Bramwell, 2016). Just as the active sport tourism industry, the adventure tourism industry also contains many physical demanding activities. However, it also includes many short-term activities like bungee jumping and skydiving which are not part of the active sport tourism industry (Pomfret & Bramwell, 2016). Next to the little differences in certain activities, adventure tourism as a general rule has to involve a certain amount of risk taking and thereby adrenaline increasing, what is not necessary for the active sport tourism market (Giddy & Webb, 2016).

Regarding the characteristics and motives of the active sport travellers, as may be seen from the subdivisions mentioned above, the group of active sport tourism entails a wide range of tourists. For Europeans, for example, most popular physical activities mentioned have always been hiking, bicycling, skiing and golfing (Gibson, 1998b; Weed, 2014). Although this all-time popularity exists, also new sports like kitesurfing and snowboarding have become more popular and have shown a significant growth in latest years (Holt & McCole, 2012).

Describing the characteristics of active sport tourist travellers, Schreiber (1976) was one of the first researcher investigating on golfers, tennis players and skiers. Characteristics mentioned by Schreiber (1976) regarding sport travellers were that most of them were male, affluent, well-educated and more active individuals in general. However, those characteristics have changed in latest years, considering that also other economic classes and different races became interested in active sport tourism trips (Gibson, 2004) and as latest trend also more female have become interested. For gender, an equal split of 57% males vs. 43 % females is seen nowadays (ATTA, 2013). One of the reasons mentioned for the latest trend of female active sport travellers is because of the increasing amount of women-only adventure holidays being offered (Pomfret & Bramwell, 2016).



Trying to investigate more in deep on to the decision-making process of the active sport tourist, the relevance of studying needs and motivations has been clearly stated. Knowing the tourist's needs and motivations can help to segment the travel industry and it can help to obtain loyal and satisfied guests (Pizam, & Mansfeld, 1999). Motivations are hereby defined as reasons for people to act in a certain way and to desire certain things. Needs of people are more concerning the necessities of people to live a healthy and happy life (Boon, & Hendrickx, 2015). Thus, characteristics (defined as the traits, qualities and feature that distinguishes or identifies a person (Boon, & Hendrickx, 2015), needs and motivations can very well explain a person's behaviour and thereby explain decision-making (Gibson, 2004).

Investigating the specific motivations of active sport travellers, not a lot of research has been performed so far, however when looking at the overlapping market of adventure tourism much more research is shown. The review of Buckley (2012) suggested 14 motivators, that were mentioned to be significant in earlier studies, going about thrill & sensation, fear, control, skills, achieve, fitness, risk, nature, art, spirit, friends, image, escape and compete.

Pizam et al. (2004) specifically looked at the connection between risk-taking and sensation-seeking scores and adventure tourist activities. They conclude that some people are more risk takers than others in general, enjoying mostly the adrenaline that comes with it. Thus, adventurous sports often contain a certain amount of risk and sensation that increase participant's adrenaline (Giddy & Webb, 2016). The study of Pizam et al. (2004) suggest that risk-taking and sensation-seeking can be important motivator for the young travellers to participate in adventurous sport tourism. Other factors should be included in the study to give a more complete conclusion about the psychological characteristics of active and adventurous sport tourists (Abraham, et al. 2004).

As it seems, the needs and motives (and psychological and behavioural characteristics) are often influenced by a person's age. When looking at the preferences of certain age groups, also the generation people are part of is said to be important (Wong et al. 2008; Mavragani et al., 2017). In the generation theory of Strauss and Howe (1991), they define a generation as a group of people sharing the same birth years with a span of around twenty years (Glass, 2007). In that generation theory most important criteria mentioned for being part of a generation is: to be a member of a generation, you have a so called shared "age location in history". This age location in history means that some shared formative experiences, social trends or historical events, like growing up after the second world war or growing up in a new technical advanced environment, is said to have lasting influence on the habits and preferences of people (Wong et al. 2008).

Due to the shared experiences, the people that are being part of the same generation often also feel like being part of the same group. Getting insight in the needs, motivators and the overall culture of the members of a generation can help managers in any market to target this group of people better (Pendergast, 2010).

Millennials are the people between  $\pm 20$ -35 years old now (college students, young adults and professionals) (Catlett,

2015). They were born between 1980 and 2000. Considering travelling behaviour, the millennials are described as having a huge desire to see the world and thereby being more global-oriented than other generations. This is shown by an 23% higher interest in going abroad than other generations (Barton et al. 2013). Biggest reason mentioned for the annual growth of millennials travelling has been the increased possibilities of low budget travelling and the increase of peer-to-peer businesses tools like Airbnb, Couchsurfing and BlaBlaCar (Osterwalder & Pigneur, 2010). These peer-to-peer businesses not only make it cheaper to travel, but also adds a social value to the travel and can increase the cultural experience with more opportunities for different types of stays for example (Godelnik, 2017).

Next to the higher interest, the millennials are also said to view travelling differently. Where older consumers tend to see travelling more as a luxury, the millennials often see their international trips as an important life experience, fundamental for their personal development (Barton et al. 2013). They use travelling to develop themselves, considering that going abroad often offers new opportunities and experiences like learning about other cultures. Having cultural knowledge and experience has therefore also become an important marker of affluence (Barton et al. 2013; Swartz, 2016).

Another important issue concerning traveller's behaviour is that millennials also see themselves as more adventurous and more receptive to new ideas (Deal et al., 2010; DeBard, 2004). Thus, millennials are changing travels (Machado, 2014). The sports and outdoors adventure tourism industry is therefore mentioned as one of the important new activities of the millennial travellers (Cain, 2016). Looking at specific psychological characteristics of these millennial adventure travellers, a connection between high risk-taking and sensation-seeking scores and adventure tourist activities is found (Pizam et al. 2004).

The baby boomers on the other hand are the generation born between 1946 and 1964, being between 52 and 70 years old now. Considering travelling behaviour, while getting at an age of retirement, they have more free time to spend. In general, they have less social and family obligations than younger people (Patterson, 2012). Next to that, the baby boomers are healthier, wealthier, better educated, more affluent and more independent than older generations were at the age of 52-70 years (Muller & Cleaver, 2000, Naidoo et al. 2015 & Patterson, 2012). Differences with previous generations at the age of 52-70 years are also visible by different attitudes and lifestyles mentioned in literature and by the fact that they also see themselves as younger than they actually are (Patterson, Balderas-Cejudo, & Rivera-Hernaez, 2017). Baby boomers are keen to travel and to do things they have never done before (Muller & Cleaver, 2000, Naidoo et al. 2015 & Patterson, 2012).

Looking at the specific travel preferences, high climate destinations, traditional sightseeing and cultural trips are still popular under the baby boomer travellers. However, experiencing adventure, culture and having authentic learning experiences have become more and more important (World Tourism Organization, 2001). Trips that have become less popular under this new retirement cohort group are the beach holidays which have their main focus on relaxation

(Patterson, Balderas-Cejudo, & Rivera-Hernandez, 2017; World Tourism Organization, 2001). The baby boomers want to have a richer feeling of experiencing by discovering new things, getting new knowledge, learning new skills and being involved in new and adventures activities (Conceição & Skibba, 2008; Harwood, 2007). Some differences between men and women have been mentioned, whereby men are said to be more interested in action and adventure types of holiday and women are more interested in getting new cultural and educational experiences (Chiang & Jogaratnam, 2006).

Looking at the active sport tourism market, baby boomers are nowadays starting to get more interested in actively participating in new activities like hiking, diving, surfing, mountain climbing and riding while being on holiday. Their specific motivations mentioned for this type of holidays are because of fun and enjoyment, relieve from stress and tension, escapism, relaxation, change, novelty, the attractiveness of the physical environment and getting a better health (Naidoo et al., 2015). Escaping and relief from stress and tension was mentioned as one of the most important factors for baby boomer to go on an active sport tourism trip. However, researchers also states that more research on the motivations of baby boomer active sport tourists needs to be conducted (Naidoo et al. 2015).

When comparing baby boomer and millennial active sport tourist for example in a kayaking trip, differences between the two groups were found for achievement and stimulation. The younger participants more often went on a kayaking trip to achieve certain goals and to stimulate themselves compared to the older participants (O'Connell's, 2010). Next to achievement and stimulation motivations, O'Connell's (2010) also showed that escaping personal and social pressures and relieving from stress and tension was different between the two groups, with again higher scores for the younger participants.

### 3 METHODOLOGY

This research will explore from a quantitative approach the characteristics, needs and motives of millennials and baby boomers to investigate on the differences between the two segments. The hypotheses of the current study are based on prior studies explaining how certain social-economic characteristic and motivations of a person are generally influencing the decision-making process of a person (Berlyne's, 1960; Gibson, 2004; Maslow's, 1943). Differences in age (and corresponding lifestyle) may induce some clear differences in their motivations and behaviours (Goodnow, 2005; Kurtzman & Zauhar, 2005; Wong et al. 2008).

To be able to explore on those relationships, numerical data is collected by using online surveys about the characteristics, needs and motivations of baby boomer and millennial active sport tourists. The questionnaire consists of active sport tourism related questions, like how often someone goes on an active sport tourism holiday, what type of sport he or she performs on these holidays, if he or she is a hobbyist or event tourist (Kaplanidou & Gibson, 2010), if the travel holidays are competition related or not and if the trips are self-organised or organised by an organisation (Naidoo et al., 2015). Questions on social economic characteristics were

also included such as age, gender, nationality, education level, income, marital status and health/fitness status (Horner & Swarbrooke, 2016; Jönsson, & Devonish, 2008; Mahika, 2011; Mazilu, & Mitroi, 2010).

At last, questions considering a person's motivations to go on an active sport tourism trip were included. To know which motives should asked for in current study, earlier studies investigating on the motivations of active sport tourist were being overlooked. Considering that not many studies have looked at active sport tourism motivations before, also studies looking at adventure tourism were used, considering the big overlap seen between the two types of tourism (Pomfret & Bramwell, 2016). The review of Buckley (2012) was hereby considered as it was the most recent review looking at 50 earlier studies on participant motivations in adventure tourism and recreation. The study indicated 14 motivators which were mentioned to be significant in earlier studies, being: "Thrill & Sensation", "Fear", "Control", "Skills", "Achieve", "Fitness", "Risk", "Adrenalin", "New", "Fun & Enjoyment", "Nature", "Art", "Spirit", "Friends", "Image", "Escape", "Compete", "Relieve/Refresh".

After comparing these 14 motives with other studies, like studies looking at the often-used push and pull factors of Crompton (1979), four more motives were added. One is adrenalin, which was added considering that a connection between high risk-taking and sensation-seeking scores and adventure tourist activities for young travellers. Pizam et al. (2004) concluded that some people are more risk takers than others in general, enjoying mostly the adrenalin that comes with it. The other three motives were: trying new things, fun and enjoyment and relief from stress and tension/to relax and refresh.

These three motives were added after looking at the study of Naidoo et al., (2015) investigating the specific motivations mentioned for the baby boomer adventures sport tourists. Investigating escapism and to relieve from stress and tension was thought to be especially important to ask considering that in the study of O'Connell's (2010), comparing baby boomer and millennial active sport tourist participating in a kayaking trip, a difference between the two groups was found for escaping personal and social pressures (O'Connell's, 2010). See Figure 1 for the complete list of motives involves in this research. The additional four added motivations (coloured blue) derived from Crompton (1979), Naidoo et al., (2015) and Pizam et al. (2004).

The questions considering motives are asked using a 5 item Likert scale. With this scale participants can indicate to what extent they agree or disagree with a certain question asked about a specific motive. The 5 items are ranged as follow: strongly disagree – degree – neutral – agree – strongly agree. For the analysis of all variables, SPSS software was used. Before starting to analyse, a preliminary examination of the data was performed to detect any missing data and outliers. To test whether the questionnaire of the 18 motivational variables were reliable, the Cronbach's Alpha was calculated. It had a reliability of  $\alpha = 0.802$ . Cronbach's Alpha above 0.7 is considered as acceptable, between 0.8 and 0.9 it is even seen as good and above 0.9 it is considered as excellent reliable (Field, 2009). Meaning that the questionnaire of current study can be considered as good reliable. At last, to test significant differences between the baby boomer and millennial active sport tourists exist, Pearson's Chi-square tests were used.

Figure 1: Motivators for adventure activity travellers  
(adapted from Buckley, 2012)

Internal, performance of activity		
Motivation	Coding SPSS	Explanation
Thrill & Sensation	[ThrillSensation]	Adrenalin, excitement
Fear	[OvercomeFears]	Overcoming fear
Control	[PhysicalMentalControl]	Maintaining physical and mental control of one's body
Skills	[EnhanceSkills]	Using expertise to perform very difficult tasks
Achieve	[Challenge]	Overcoming challenges to reach difficult goals
Fitness	[ImproveHealth]	Activity simply as a way to keep physically fit
Risk	[Risk]	[Danger as a direct motivation]
Adrenalin	[Adrenalin]	Enjoying the adrenalin that comes with this activities
New	[New]	Trying new things
Fun & Enjoyment	[Fun]	Enjoying the specific activities
Internal/external, place in nature		
Nature	[BeautyNature]	Appreciation of beauty
Art	[Artistic]	Perception of activity as artistic
Spirit	[Spiritual]	Activity as spiritual experience
External, social position		
Friends	[Social]	Enjoyment in sharing and activity with others
Image	[Image]	Enhancing how one is perceived by others
Escape	[Escape]	Change from routine of home or work
Compete	[Compete]	[Competition against others]
Relieve/Refresh	[Relieve]	Relieve from stress and tension/to relax and refresh.

## 4 RESULTS

A total of 262 participants were tested existing out of a total of 138 millennial active sport tourist (with an average age of 27,01 years) and 124 baby boomer active sort tourists (with an average age of 58,76).

A significant difference between the millennial and baby boomer active sport tourists was found for the following variables: for the preference for competition related trips ( $\alpha = 0.018$ ), for being more event or hobbyist active sport tourist ( $\alpha = 0.015$ ), for gender ( $\alpha = 0.000$ ), for education level ( $\alpha = 0.000$ ), for marital status ( $\alpha = 0.000$ ) and for income ( $\alpha = 0.000$ ). Analysing the crosstabs of these variables the factors representing the two groups can be described as follow: 10,9% of the millennials prefers a competition related trip, whereby only 3,3% of the baby boomers do.

For both groups the highest preference is however for an active sport holiday without any form of competition (89,1%/96,7%). Event or hobbyist for the Millennials: 5,1% event, 73,5% hobbyist, 21,3% both. For the baby boomers: 0,8% events, 86,2% hobbyist, 13% both. Also here it can be seen that the highest preference is hobby related, however a significant different number of millennials go on an event active sport trip (as well). For gender, the group of millennials included 50 males and 88 females, and the group of baby boomers of 80 males and 43 females. In percentage this is: Millennials = 36,2% male / 63,8% female; baby boomers: 65,0% male / 35% female.

Looking at education, the median value for millennials was 7 = University Master's degree, with an interquartile range of 2 and a percentage of 48,2%. For the baby boomer the median value was 5 = Higher vocational education / HBO, with an interquartile range of 2 and a percentage of 40,3%. Considering the marital status, the median value for

millennials was 3 = Partner, not living together and without kids, with an interquartile range of 4 and a percentage of 20,3%. For the baby boomer the median value was 8 = married, with kids (not living at home), with an interquartile range of 3 and a percentage of 49,2%. For income, percentages are more dispersed, whereby the income of the millennials were more on the lower end and for the baby boomers more on the higher end.

No significant difference was found for the times a year millennials and baby boomers go on an active sport related trip, for the preference for self-organised or non-self-organised trips and for the fitness status. With 46,6% of the total amount of participants going ones a year and 49,6% of the participants going two to four times a year on an active sport related trip, almost all having a preference for the self-organised trips (93,5%). Concerning the fitness status, both the millennials and the baby boomers showed their highest percentages for the answer of performing sport 1-2 times a week (40,6% & 54,0%) and 3-4 times a week (47,8% & 39,5%).

Concerning the 18 motivational questions, the questionnaire was considered good reliable, with a Cronbach's  $\alpha = 0.802$ . Outcome showed that for the millennials the most important motivations were: fun (4,75), beauty of nature (4,39), social (4,26), relieve (4,04), escape (3,88), thrill & sensation (3,88), challenge (3,87) and adrenalin (3,57) having a mean value above 3,5 whereby the 3 stands for neutral opinion about the motivation and 4 stands for agreeing on the motivation. To a less extend also the motivations new (3,46), enhance skills (3,09), improve health (3,07) and physical and mental control (3,01) show to more than neutral important having a value between 3 and 3,5.

Not important motivators for the millennials were shown to be the motivations of risk (2,58), artistic (2,47), compete (1,89), overcoming fears (1,77), spiritual (1,74) and image (1,64). For the baby boomers only 5 motivations had a value above 3,5, being Fun (4,73), beauty of nature (4,39), social (4,01), improve health (3,84) and relieve (3,81). To a less extend the motivations escape (3,29), physical and mental control (3,06), thrill & sensation (3,06) and challenge (3,06) show to more than neutral important having a value between 3 and 3,5.

Not important motivators for the baby boomers were shown to be the motivations of new (2,77), adrenalin (2,63), artistic (2,26), risk (1,75), enhance skills (2,54), compete (1,52), overcoming fears (1,23), spiritual (1,83) and image (1,44).

In order to compare the two groups, chi square tests were used. See Figure 2. In some cases, the first assumption of chi-square tests of sample size was violated, showing more than 20% of the contingency cells with an expected value of less than 5. In case this assumption was violated, the outcome of the Likelihood Ratio test was used and in case the assumption was met the outcome of the Pearson Chi-Square test was used.

A significant difference between the millennial and baby boomer active sport tourists was found for 11 of the 18 motivations: thrill & sensation ( $\alpha = 0.000$ ), adrenalin ( $\alpha = 0.000$ ), overcome fears ( $\alpha = 0.000$ ), enhance skills ( $\alpha = 0.003$ ), challenge ( $\alpha = 0.000$ ), improve health ( $\alpha = 0.000$ ), risk ( $\alpha = 0.000$ ), image ( $\alpha = 0.044$ ), escape ( $\alpha = 0.002$ ), compete ( $\alpha = 0.013$ ) and new ( $\alpha = 0.000$ ).

Figure 2: Motivators for millennials & baby boomer active sport participants

Motivational variable	Mean Value Millennials	Mean Value Baby Boomers
ThrillSensation*	3,88	3,06
Adrenalin*	3,57	2,63
OvercomeFears*	1,77	1,23
PhysicalMentalControl	3,01	3,06
EnhanceSkills*	3,09	2,54
Challenge*	3,87	3,06
ImproveHealth*	3,07	3,84
Risk*	2,58	1,75
BeautyNature	4,39	4,39
Artistic	2,47	2,26
Spiritual	1,74	1,85
Social	4,26	4,01
Image*	1,64	1,44
Escape*	3,88	3,29
Compete*	1,89	1,52
New*	3,46	2,77
Fun	4,75	4,73
Relieve	4,04	3,81

\* significant different values, likelihood ratio test and Pearson correlation chi-square test

## 5 ANALYSIS AND DISCUSSION

Findings of current study are considered to be significant due to an extensive growth seen for both the millennial and baby boomers generation in the active sport tourism market and considering the fact that limited understanding of the characteristics, needs and motives was contradicting this enormous growth in the market. Differences were found between the millennial and the baby boomer active sport tourists. At first, differences are found for several social-economic characteristics. On the one hand, the baby boomer active sport tourists showed to be mostly male, on average having finished a higher vocational education, mostly being married, having kids not living at home and mostly having a high income of >€ 3.500. On the other hand, the millennials showed to be more female, having a high education level of mostly a university master's degree, having different marital statuses (but mostly without kids) and having a lower income, mostly under € 2.500,- a month.

These differences are considered to be important to take in mind for tourism practitioners due the fact that changes happening in the circumstances of a individuals personal life change the value of people given to a certain trip (Goodnow, 2005; Wong et al. 2008). With the statistics performed in current research no conclusions can be made about the link between the specific social-economic characteristics other than age, and the motivations tested to go on an active sport tourism trip. For future studies it may therefore be very interesting to have a better look at which social-economic characteristics contribute to which specific motivations of active sport tourists.

Next to the social-economic characteristics also a big difference was found concerning the motivations tested in current research between millennial and the baby boomer active sport tourists, whereby 11 of the 18 motivations tested showed to be significantly different. Most important significant different motivations were concerning the motivations 'escaping from daily routine of home or work',

'thrill & sensation', 'overcoming certain challenges', 'adrenalin' and 'keeping or improving health', whereby the first four were significantly more important for the millennial than for the baby boomer active sport tourists and the last motivation the other way around, being more important for the baby boomer active sport tourists. Thus, two different groups can be characterized when talking about sport active tourism, with each having their own specific needs and motives concerning active sport related trips.

This conclusion is important considering the recommendations that can be given to the professionals working in the branch of active sport tourism and other researchers investigating the active sport tourists. As mentioned in literature, to be able to make research easier and to go deeper into the consumers profile, segmenting a certain consumer market was considered to be an effective tool (Chen, 2003; Park & Yoon, 2009). To consider two groups as two different segments these two groups each have to have a clear group identity, easily observable and similar within one group, but different from the clear identity of the other group (Wilkie, 1994). Due to the differences found between the millennial and the baby boomer active sport tourists, these two groups may be also be seen as two different market segments in future.

Being considered as two different market segment, distinct marketing strategies by tourism practitioners will be needed. Considering that different customer segments may also be reached differently, they may require different types of customer relationships and they may also be willing to pay differently for the products offered (Goodnow, 2005; Osterwalder A. & Peigner, 2010). Added to this, knowing these differences can help tourist practitioners to satisfy future demand and can also help to better match their products with their specific needs (Hungenberg et al., 2016). Identifying the factors that differentiate them can also help companies to organize their propagation, their design elements, their process and their communication content (Collins, 1999).

Some recommendations can be suggested to tourism practitioners are:

- A good look should be given at the type of active sport tourism activities offered. Professionals that are working with mostly one of the two generations should offer more products that match well with the motivations most mentioned within that group. The active sport tourism activities for millennials for example may be more focused on more risky activities with higher level of thrill & sensation and adrenalin involved and whereby certain challenges exist that a customer can beat. The active sport tourism activities for baby boomers may be more focused on health-related activities, helping the baby boomers to keep or to improve their health.
- Professionals that are targeting both groups can of course offer both types of activities, however it may be useful for them to separate the two types of activities. The clear separation can help professionals to create a good strategy to reach the two groups differently and by creating different types of customer relationships. Making a clear separation may create higher value for the products from the consumer, also making them willing to pay more.

- Last recommendation may not only be about the product, but also about the marketing and promotion of the products. Companies should organize their strategies according to the different content they are offering to the different target markets. The difference between millennials and baby boomers in their motivation for escaping from daily routine of home or work, may hereby also be an important motivation to use for promotion and content marketing.

## 6 CONCLUSIONS AND LIMITATIONS

Although the outcome of current study can help professionals working in the branch of active sport tourism, some limitations should also be considered when interpretation the results. The first limitation hereby is concerning the sample taken from the population. Considering that all participants mentioned to have a European nationality and considering the fact that 96% of the participants filled in the Dutch survey instead of the English version, it may be concluded that most participants in current study also had a Dutch nationality. Outcomes of current study may therefore not be generalised to other nationalities considering that cultural and nationality differences do influence the choices tourists make regarding their holiday (Mahika, 2011). Further research including or comparing different nationalities should therefore be performed to make more general conclusions considering the characteristics, needs and motivations of active sport tourist all over the world.

Secondly, considering the sample size, no saturation point has been calculated for current research, thereby making it not sure if the sample is a good representative of the total population (Creswell, 2013; Field, 2009; Walle, 1997).

Thirdly, by performing only quantitative research and using surveys, outcomes may be simplified and less detailed compared to qualitative research. Although this objective way of collecting data is said to always represent the truth, it may not always present the whole truth. Social and historical backgrounds for example, which are also said to influence behaviour and motives, are not measurable using surveys and are thereby left behind in current study (Johnson, Onwuegbuzie & Turner, 2007; Chatzigeorgiou, 2017). Qualitative research may therefore be performed in further studies to investigate whether certain specific motivations are missing in the current data. Another disadvantages of using surveys, is that the meanings of questions cannot be discussed and questions may have been misinterpreted or misunderstood, this may have let to unintended biases and wrong conclusions made in current study. This may again be solved by performing qualitative research in further.

A fifth limitation is concerning the data collection and the data analysis. Due to the fact that only active sport tourists were interviewed, no comparisons could be made between the travellers that do go on an active sport related trip and the ones that do not. Next to that, due to time limitations, in current research only the differences between the millennial and baby boomer active sport tourists were tested using chi-square tests. With these chi-square tests comparing two age groups, no conclusions can be made concerning the link between other social-economic and health related characteristics and specific motivations of active sport

travellers. Further research should therefore go deeper in the possibilities of also performing two-way ANOVA analyses and logistic regressions to be able to conclude which social-economic variables are most related to the which motivations (Field, 2009).

Last consideration being, although clear differences have been seen between the millennial and baby boomer active sport tourists in current research, not much studies considering this topic have been done before and more research is needed to be able to validate the outcome.

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# Of routes and corridors: Challenges and opportunities for Silk Road destinations in the southern Caucasus

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## Abstract

**Purpose:** Under the title of Belt-and-Road-Initiative (BRI), China has launched a global development program, which spans many regions and sectors. Tourism initiatives in particular, can occupy an interlinking position between infrastructure and services, and between global and local projects. This paper addresses the problem of the global-local link by critically examining a case at the southern Caucasus, as tourism is considered as a key industry for economic diversification in all three countries examined.

**Methods:** Based on a mixed qualitative and quantitative approach, the study is about critically investigating the current state of challenges and opportunities for tourism-induced, integrated regional development, with particular focus on potential obstacles for regional and national destination competitiveness.

**Results:** Results reveal that the BRI offers a basis for export-diversification in tourism and non-tourism economic sectors. Azerbaijan has the potential to integrate BRI activities into its local economic system but depends highly on the development of the Trans-Eurasian Corridor and the readiness of local entrepreneurs and institutions to support and extend development initiatives.

**Implications:** The implementation of the BRI offers a significant opportunity for many rural regions to proactively benefit from increasing tourism demand, by linking local initiatives and industries with tourism-related projects embedded in the BRI.

**Keywords:** destination management, competitiveness, belt-and-road-initiative, new silk road, Azerbaijan

**JEL Classification:** L80, M10, Z33

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## 1 INTRODUCTION

The Ancient Silk Road (ASR) of the 1st century AD nowadays serves as a popular framework of reference for big infrastructure development projects under the label of the “Belt and Road Initiative” (BRI) or the “New Silk Road” (NSR; Wong and Lye, 2014). The BRI was initiated by the Peoples Republic of China in 2013. Since then, 123 countries officially joined the idea of linking countries along with the ASR via several infrastructure and development projects, for a considerable share: railways, harbours, roads, but also telecommunication (Belt and Road Portal, 2019). Although no official plan exists that defines the single projects, certain corridors are sketched between China and Europe, but also routes that include a Maritime Silk Road or a Polar Silk Road through the seas (Wong and Lye, 2014; Deepak, 2018). The positive intention proclaimed by the Chinese Government to increase the connectivity between countries

in Central Asia, Caucasus and Europe (Zhang, 2016) is discussed critically from a European perspective (Barisitz, 2017). Nevertheless, developing countries between Asia and Europe see high potentials for economic development while acting as a transit country (Blanchard and Flint, 2017:223). The degree of participation for transit countries so far remains uncertain in terms of limited value for the domestic market and own production or missing participation in infrastructure construction and planning (Pechlaner et al., 2019).

Although many issues remain vague, the introduction of new infrastructure should increase the connectivity between certain countries or spots, as long as logistic services are operated upon it. One economic sector that is likely to benefit specifically from infrastructure is tourism (Pechlaner et al., 2019). Coined under terms as “New” or “Modern” Silk Road these initiatives revive the classic concept of cultural routes as multi-functional pipelines or corridors for transnational





exchange of goods, people, ideas, knowledge and values (see Zabbini, 2012:62). With the "UNWTO Silk Road Programme" on a global scale and the "Modern Silk Road Route" (MSRR) on a regional scale, two major development projects in tourism referencing the ASR are currently planned to be realized.

Within the Trans-Eurasian-Corridor that links East Asia and Western Europe, the Southern Caucasus can serve as a central hub. Infrastructure projects like the Baku-Tbilisi-Kars Railway highlight the importance of this route and aim to improve logistics between Azerbaijan, Georgia and Turkey. The "Modern Silk Road Route", conceived as a purely tourism-related project, is concurrently developed with the BRI by a transnational consortium of tourist agencies and focusses on route development in Turkey, Azerbaijan, Kazakhstan and Kyrgyzstan. Azerbaijan must therefore be considered a focal point for both Silk Road-related initiatives with respective consequences for its economic development potential in general and its tourism-related development in particular.

A look on the geographic characteristics of the currently existing system of Azerbaijani destinations, reveals that many of the countries' existing tourist regions will be directly affected by both the tourism and non-tourism related projects in the framework of the BRI (Schuhbert et al., 2020). This raises the question what consequences there are to be expected for the country and more specifically: in what extent these initiatives may affect/be affected by the current state of competitiveness of Azerbaijan as a tourist destination?

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## 2 LITERATURE REVIEW

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From the perspective of symbolic-constructivist and spatial-economic approaches, cultural tourist routes such as the planned MSRR qualify as destinations of a higher order (Schuhbert et al., 2020). The respective contributions address partially different conditions for this qualification, but ultimately, they converge in the idea that tourist routes are products of spatio-functional networking processes among destinations of different hierarchical status. While symbolic concepts describe the constitution of these systems as the result of socio-psychological construction processes of visitors and suppliers/decision-makers, spatial-economic theories in the traditions of Perroux (1967), Lasuen (1973) and Miossec (1976) conceive (systems of) tourist destinations as networks of growth poles or regional-sectoral clusters with physical and mental infrastructures as transfer media for tangible and intangible resources (see Porter 2008, Schuhbert, 2018).

As the spatial delimitation of this system is therefore dependent on the respective perception of individual visitor-types and destination stakeholders, tourist routes are practically subject to the same blurred border-phenomenon as usual lower-order destinations (cmp. Pechlaner, 2002:2; Asero et al., 2015:751). This in turn aggravates the constitution and strategic positioning of these destinations as a "spatial competitive unit" in the market (cmp. Bieger, 2008:56). The high level of internal complexity in these multi-destination-systems (Schuhbert et al., 2020) represents a special challenge for strategic destination-development and -management. Over the past two decades, a substantial

amount of strategy-theoretic literature has been produced on this subject (see Fischer, 2009:17-29 for a partial overview). In the past decade, resource-based approaches (RBV) such as the study by Fischer (2009) have become quite influential in the modelling of destination competitiveness, this especially applies to contributions from the Relational-View (RV). This view follows the argumentation that the major source for the competitive advantage of destinations lies in their (dynamic) capability to establish internal and external network-relationships that are configured in such a way, that an optimal balance of variety and integration of complementary collective resources is facilitated. Representing resources of a higher order, dynamic capabilities can be helpful in identification, assembly, modification and use of lower-order capabilities from a broad spectrum of destination stakeholders and thus usually occur as a set of absorptive capabilities (cmp. Roberts et al., 2012; Thomas & Wood, 2015).

Dynamic capabilities are frequently associated with company competitiveness, but with the advent of the RV are also more and more attributed to the network level (cmp. Dyer & Singh, 1998). However, empirical proof of their occurrence in a tourist destination is very scarce - even in some of the most competitive destinations of Southern Europe (cmp. Fischer, 2009). Nevertheless, systematic collective investments in and management of key resources such as knowledge and (core-)competences has a positive effect on destination competitiveness as it allows to source the mostly tacit, inimitable knowledge from the local destination context (Sotiriadis & Shen, 2017; Del Chiappa et al., 2018; Ozseker, 2018; Mombeuil, 2018; Trunfio & Campana, 2019; cmp. the contrary case of the Chinese hotel business in Tongjian et al, 2013).

Actor-centric approaches to destination competitiveness can be considered complementary to the approach of the RV as they i.e. describe the composition of destination networks (in terms of diversity of participating partners and competences) as a major factor. From the perspective of the Actor-centric Institutionalism Approach, competitive advantages described by the RV are therefore bound on the one hand to the emergence of Social Capital as a driver for self-organization of destination actors and on the other hand on adequate (political) pressure on the destination actors in order to sharpen their perception on networking potentials and their willingness to put it collaboratively into value.

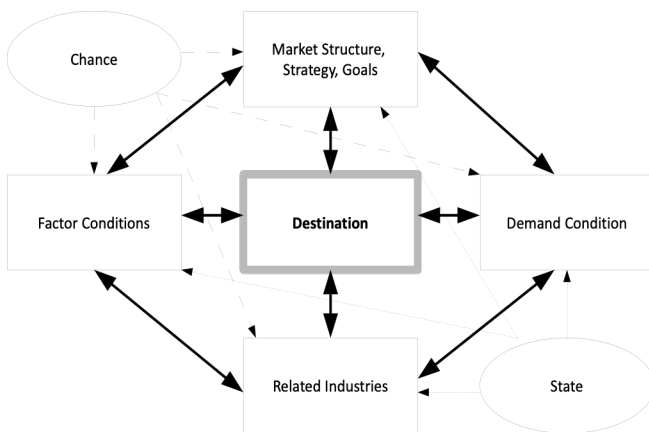
The destination-specific mixture of Social Capital and power-structures have been recently discussed as main contributors for the activation of network relations (Nunkoo, 2019). Anchored in the local context of the destination and driven by coopetition, differently configured networks use to span various geographical levels simultaneously thus creating a rich resource base i.e. for the absorption of innovative knowledge (Ozseker, 2018; Trunfio & Campana, 2019).

However, case studies from Southern Europe show, that tourist destinations have deficits in the cognitive, structural (Sainaghi & Baggio, 2014) and relational (Raich, 2006; Fischer, 2009) constitution of their Social Capital base. Consequently, the networks of these destinations are not very densely knit at all geographical levels and thus suboptimally configured in their propensity to sustain the emergence of

innovative knowledge and destination competitiveness. Here, Ozseker (2018) models the creation of innovative knowledge as a function of knowledge acquisition and conversion from and throughout the network thus integrating the idea of dynamic capabilities. Arguing from the perspective of constructivist system-theory, Schuhbert (2013) explains the rather low levels of cooperativeness and innovativeness in tourist destinations (Hjalager, 2010) as a dampening effect from corporate and regional "competitive cultures" on the dynamic capabilities of destinations. As the main platform-operator between Social Capital and Organisational Learning (cmp. Roberts et al., 2012) organizational culture, besides ICT, Social Capital and organizational structures (cmp. Trunfio & Campana, 2019), has been empirically tested as a major knowledge infrastructure capability for the absorption of network-based knowledge that boosts the competitiveness of individual tourist companies and destinations (cmp. for companies e.g. Jogaratnam et al., 2006; Kantén et al., 2015; for destinations e.g. Schuhbert et al., 2020) This especially applies to culture-types that enable a strong entrepreneurial orientation (Raich, 2006).

The market-based approach in the tradition of contributions by Porter (2008) and others, is frequently described as a counter-approach to the RBV and related concepts, as major sources for competitive advantage are located here in the capacity of entrepreneurs (and also on an aggregate level: of regional-sectoral clusters) to segment the market for the best conditions to successfully position product-market-combinations. Here, the best conditions are usually provided by those segments that offer low levels of competitive pressure and strong demand-sided growth dynamics. Over a considerable amount of time, first or early movers can build up competitive advantage for example via isolation-barriers towards competitors.

Figure 1. "Diamond" model of destination competitiveness, as conceived by Pechlaner (2002:10)



As Schuhbert (2013) points out, the aforementioned approaches are not mutually exclusive and share a lot of logical interfaces. The conceptual framework of Porters approach to cluster competitiveness, also known as the "Diamond", has therefore been influential for a multitude of studies on destination competitiveness (cmp. Fischer, 2009:96; Ritchie and Crouch, 2003:14-16; Pechlaner, 2002; Ozseker, 2018).

### 3 RESEARCH METHODOLOGY

Porter's "Diamond" has wide acceptance as an analytical tool for destination competitiveness - even across the various instances of strategy theory; it also qualifies as a framework for the analysis of the current competitive state of the destination of Azerbaijan, as this approach supports the systematic identification of shortages and potentials that may be influenced by the Belt and Road Initiative. While the Diamond shows considerable advantages in the identification of factors influencing the creation of value (the main indicator for the measurement of competitiveness), the methodical operationalization of the approach is subject to scientific discussion. A partial template could be found in Freyers (2011:308) analytical architecture for the assessment of strategic advantages in tourism marketing that shall be applied in the following in a strongly condensed form.

As a primary data source for analysis, established ranking instruments of the World Economic Forum (WEF) shall be used, that are basically in line with the "Diamond" logic but are also subject to its various conceptual shortages, especially with respect to socio-psychological factors (see Bathelt and Glückler 2012: 247). To compensate these shortages, a combination of qualitative and quantitative approaches seems apt for this purpose, as it keeps up with the WEF methodology, which also relies on mixed methods.

The assessment of the research question shall be built in the following upon a short review of the latest WEF rankings in reference to the "Diamond". The rankings will be complemented by a GABEK-analysis of 15 expert interviews, realized in summer 2018 in the Republic of Azerbaijan with representatives from the private (tourism and tourism-related) sector and public sector. The semi-standardized guideline-interviews were generally based upon the dimensions of the Diamond but also integrated a qualitative, socio-psychologically oriented guideline-concept. The analysis of the transcribed materials aimed at the isolation of mental maps/engrams associated with the opportunities and challenges around the New Silk Road initiatives, as these aspects are major parts in any strategic analysis concept (cmp. Freyer, 2011:308-316).

GABEK (holistic handling of complexity) provides structured processes and semi-automatic steps for the analysis of the qualitative data. In terms of content analysis, it systematizes individual interview statements and allows a coherent interpretation based on keywords, network graphs, causalities and evaluations. GABEK therefore allows a qualitative content analysis in an illustrative way by remaining very close to the original data (Pechlaner & Volgger, 2012: 929-932; Volgger et al., 2017; Zelger 2002). These criteria compared with an open interview guideline, are key to choose GABEK also for the sensitive study of the BRI.

Further on, a coherence-analysis was performed by use of the software WINRELAN (see Zelger, 2002:73-93). Identified key engrams associated with opportunities and challenges are depicted in Figure 2. They represent basic hypotheses of the interviewed actors on strengths, weaknesses, opportunities and threats with regard to the BRI and MSRR initiatives in a condensed form and therefore provide aggregated information on actors' perceptions on the specific

interactions of the "Diamond" components on the case of Azerbaijan

## 4 FINDINGS AND ANALYSIS

### 4.1 The role of the state

Most WEF indicators standing in relation with the order-political function of the Azerbaijani government (cmp. Pechlaner, 2002:71) are located in the (upper) middle field of the ranking. The general institutional and tourism-related business environment as well as health-, security- and education policies have been substantially improved in the past years, but the macro-economic framework conditions have suffered during the recent oil crisis. As a consequence of the accompanying devaluation of the national currency, the destination has gained comparative cost-advantages in the service-sector (see also factor conditions). Simplification of visa-procedures has improved the openness of the system, but open trade policies are still in deficit (WEF, 2017a:13,90-91; WEF, 2017b:54-55).

Interview partners noticed the improvements on several occasions, but a critical consensus lies in the perception that the business environment requires further development for optimal exploitation of the BRI/NSR potentials. On the one hand, this concerns further liberalization of trade, especially in the field of Air Service Agreements with international airlines, as flights are considered too expensive (especially in comparison with Georgia comparative advantage in this field, see also tab. 1). On the other hand, continuing efforts are demanded to simplify the border regimes and logistics at the transit to Georgia and other BRI/NSR partner-countries. In this context, the political problems between Azerbaijan and Armenia are frequently stated by national and foreign tour-operators to be an obstacle, as the market potential for package-tours combining all three countries of the Southern Caucasus is considered substantial. In addition, inbound tourism promotion is seen as a major shortage compared to Georgia (see also table. 1).

An inadequate tourism development policy that favours the concentration of investments on the metropolitan area of Absheron is also subject to criticism: "...not everything should be in the Baku city or Absheron region, especially in the regions we need some support from the government side. To stimulate that the entrepreneurs do their business there. Otherwise we cannot do something. [...] Azerbaijan GDP, almost 70 percent goes to the Absheron region, other 25-30% to other regions. It is not fair [...]. That is why we need the development of the regions" (F25). The Belt and Road- or New Silk Road Initiative is described here as an opportunity to realign some of the economic growth from the Baku Metropolitan Area to the regions, to stop spatial polarization and for optimization of trade, but also for cultural relationships with partner countries. To this end, regional administrative bodies are seen in a responsible role, even though a too direct public intervention in business processes is not supported (see also Schuhbert et al., 2020 and Karimov, 2015:49).

### 4.2 Factor conditions

The rankings show a substantial improvement in the allocation-efficiency of labour- and goods-market as a result of liberalization policies (see also Karimov, 2015:40). In combination with progress in the education system, the hiring of qualified employees becomes easier for Azerbaijani tourism companies but deficits in staff training undermine this success. As there are still high business costs, especially in the field of construction, insufficient access to venture capital and investment credits are a problem for many tourism businesses, even though the rankings improved in recent years.

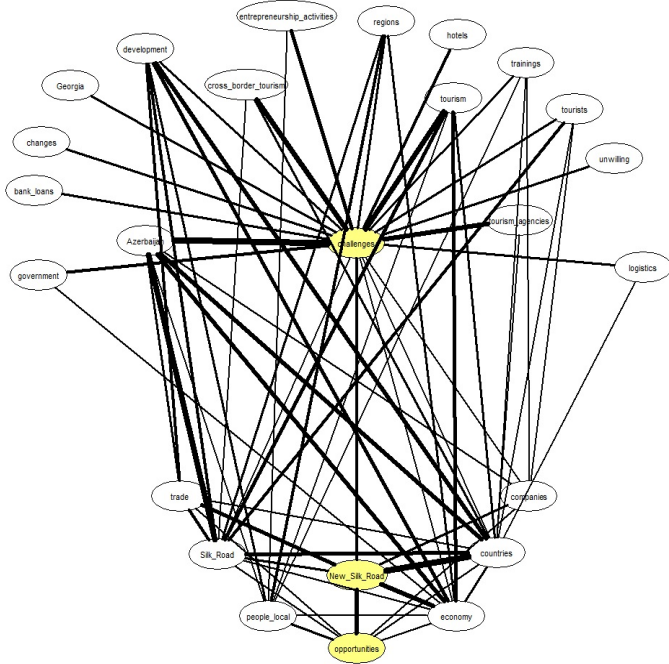
*Table 1. Rankings for Azerbaijan (A) and Georgia (G) of WEFs Global Competitiveness Index (GCI) and Travel and Tourism Competitiveness Index (TTCI) aligned with dimensions of the "Diamond" (WEF, 2017 a & b)*

State	Rank A/G	Source	Factor Conditions	Rank A/G	Source
Business environment	57/22	TTCI 2017	Natural resources	109/106	TTCI 2017
Prioritization of T&T	49/41	TTCI 2017	Cultural resources	69/81	TTCI 2017
International openness	77/66	TTCI 2017	Human resources & labour market	30/51	TTCI 2017
Health and hygiene	37/36	TTCI 2017	Financial market development	79/63	GCI 2017
Safety and security	35/29	TTCI 2017	Goods market efficiency	31/50	GCI 2017
Institutions	33/50	GCI 2017	Ground & port infrastructure	49/63	TTCI 2017
Macroeconom. environment	65/48	GCI 2017	Air transport infrastructure	77/90	TTCI 2017
Higher education & training	68/87	GCI 2017	Tourist service infrastructure	89/70	TTCI 2017
<b>Related Industries</b>	<b>Rank A/G</b>	<b>Source</b>	<b>Market Structure, Strategy, Goals</b>	<b>Rank A/G</b>	<b>Source</b>
Local supplier quantity	70/129	GCI 2017	Price competitiveness	31/66	TTCI 2017
Local supplier quality	49/115	GCI 2017	Environmental sustainability	81/42	TTCI 2017
Value chain breadth	31/75	GCI 2017	ICT Readiness	50/67	TTCI 2017
State of cluster development	35/127	GCI 2017	Market Size	63/100	GCI 2017
<b>Demand Conditions</b>	<b>Rank A/G</b>	<b>Source</b>	<b>Innovation</b>	<b>33/118</b>	<b>GCI 2017</b>
Buyer sophistication	24/85	GCI 2017	Business sophistication	40/99	GCI 2017

The problems of access to skilled labour and investment capital are also addressed in the interviews. Comments underline that the availability of qualified staff does not keep up with the recently dynamic development of tourism demand and supply. As a consequence of the abovementioned fact, that tourism companies do not substantially invest in professional staff trainings, massive competition for skilled labour and high levels of employee-fluctuation are observed: "...because I'm traveling Azerbaijan's regions for 4 years and implementing these trainings, and especially the remote places and Ancient Silk Road places or Modern Silk Road places, I see big, big problems in preparing, educating, vocational education of tourism people" (L11). Inadequate access to bank loans, high-interest rates, a lack of guarantees and funding lines (e.g. provided by state) are described as major reasons for the insufficient availability of investment capital. The interviews confirm that this situation is a strong burden, especially for young entrepreneurs - despite of the fact that the quantity of tourism start-ups increased in recent years: "...for tourism as I know for now, there is no special credits for tourism sector. There are some, how to say, some credits with low percentage[...] do you know the percentage here? Bank percentage it is unbelievable for you, I do not know, you cannot imagine that. As I know in Germany, two-three percent, but for here, 26, 25 sometimes 32 percent. It is a lot of money. In this case [...], it is high risky; to earn money and to return this credit is impossible for us" (F42).

As Karimov (2015:45) states, even though national funds are available for support of entrepreneurs (such as the NFES, provided by the Ministry of Economy and Industry), most small and medium enterprises in Azerbaijani tourism industry do not financially profit enough from it to take private investments in larger scaled tourism development projects. This evaluation is also confirmed by the expert interviews.

Fig. 2. GABEK model of main engrams connected to challenges and potentials of the New Silk Road



The infrastructural improvements have been noticed by the interviewees and are usually described as opportunities for regional development (see also Karimov, 2015:49). This especially applies to the Baku-Tbilisi-Kars Railway that was initially established as a major infrastructural component of the BRI: "... a lot of places create an opportunity for the development of the tourism, so not only in Baku and region of Azerbaijan, but also to Georgia, Russia and Turkey, with help of Baku-Tbilisi-Kars to Europe" (J13).

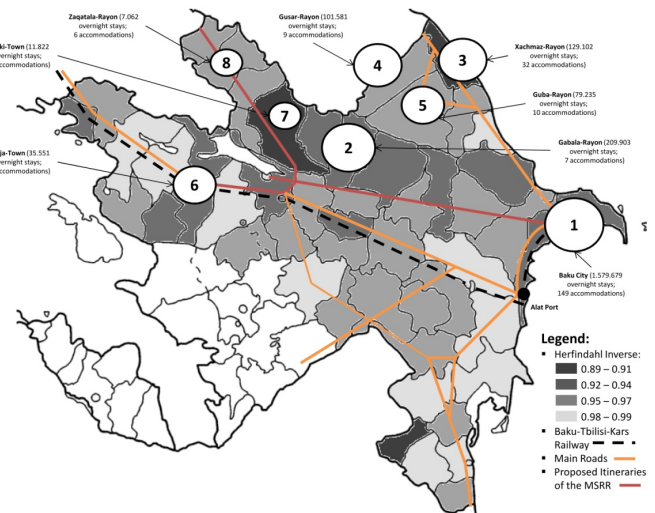
While the tourist service infrastructure, especially hotels and tourist agencies, has developed quantitatively over the past few years, the over-proportional increase of demand resulted in overcompensation of the newly created capacities. As a consequence, the supply of qualitatively diverse accommodation has been described as a problem, especially in the regions (see also Karimov, 2015:52). This in turn results locally in high occupation rates and limited competition (see below). The absence of outdoor-infrastructures and related services has been criticized on the part of foreign tour operators but the potential to link the more developed regional destinations of Sheki and Gabala with the Baku Metropolitan Area via BRI/NSR-related projects (such as the MSRR), is highlighted by the agencies as well. The opportunity to link various and different cultural and territorial identities in- and outside of Azerbaijan along the route is perceived as a necessary step towards appreciation of cultural resources (cmp. tab. 1) on the one hand and towards

economic network-creation among existing tourist attractions/destinations on the other hand: "...because the better connections we have with these countries, the better chances we have to establish different economical types. So, it's not going to be only about tourism, not only about trading, it can be so much more. And again, for me, the major highlight is the cultural exchange, the exchange between these countries which are part of it" (D31).

### 4.3 Related industries

The GCI rankings in table 1 indicate a considerable degree of diversification and sectoral value-chain-development in the Azerbaijani economy. But these figures can be misleading when taking into account, that the lion share of the economy (more than 80% of economic activities in 2012) is attributed to the oil-sector - concentrated on the Absheron peninsula. As a consequence, economic diversification is rather limited in the regions, even though foreign and governmental investments substantially increased here between 2003 and 2013 (see Karimov, 2015). Other industries with relevance (e.g. as suppliers) for tourism such as the construction business, the agribusiness, cultural facilities, information and communication, retail trade and financial services (see Freyer, 2011:25), have substantially profited from the State Development Programs of the past 15 years (Karimov, 2015:44-49). Anyway, those regions that are supposed to be directly affected by tourism-related BRI/NSR-projects, such as the MSRR, often belong to those parts of Azerbaijan with still only a limited share of industrial production and therefore show an even lower level of economic diversifica-

Fig. 3. Hierarchy of destinations in Azerbaijan and regional economic diversification measured by Herfindahl-Inverse (taken from: Schuhbert et al., 2020)



tion in comparison to other regions. Value-chain linkages of core tourism providers such as accommodation, tour operators, entertainment- and transport companies are usually strongest with national energy and food suppliers (Schuhbert et al., 2020). Regions with substantial agricultural productivity and -output, such as the Sheki-Zaqatala Economic Region could therefore profit from Silk Road-related extension of inter-sectoral value chains with tourism - especially as silk production is among those manufacturing

industries that have been recently revived in the region (Karimov, 2015:42; expert interviews). As a consequence, many interview partners see primarily agriculture, trade and logistics as most profiting industries of the BRI/NSR besides tourism: "...I want to remind you that tourism gathers together a lot of branches of economy. Firstly transportation, as I mentioned earlier railways, ships, buses, planes. Secondly, food industry can be improved. We can give example of organizing restaurants and such places. Tourism industry can open new work places. New guides also can work in these new places. As you know there are tourism departments in higher education institutions are operating in this regard" (J65).

#### 4.4 Demand conditions

As the TTCI and GCI rankings are primarily supply-oriented, little information is available on demand conditions from this source. In line with Porters (2008:190-192) argumentation, the sophistication and diversification of customers in psychographic dimensions such as needs, previous experiences, attitudes, values, knowledge, expectations and resulting consumer behaviour serves as a main catalyzer for the upgrading of business processes that may result in an increase of competitiveness. In this respect, high consumer sophistication levels expressed in the GCI (see table1) point to favourable conditions in Azerbaijan in this regard.

In the case of tourism demand, a study by Arnegger & Mayer (2015) on the incoming-segment revealed a beginning shift of the pleasure periphery of major Western European and Eastern (mostly China and India) source market towards the Southern Caucasus, resulting in a 22% increase of tourist arrivals since 2012. The incoming tourists are mostly characterized as well educated, travel-experienced consumers of middle age with high requirements in the fields of price-service-relations, security, comfort, service quality, variety of tourism attractions and activities (with a focus on culture/sightseeing) as well as with a focus on sustainability (Arnegger & Mayer, 2015: 32-34, 46 et sqq.). A more psychographically oriented study on the domestic-segment in the destination of Guba-Xachmaz (Schuhbert, 2018) revealed a substantial experience-orientation in combination with interest in historical themes among the Azerbaijani population, which opens up potentials for internal demand on NSR-related cultural tourist routes (see also Schuhbert et al., 2020). A limitation lies here in the fact, that neither the incoming- nor the domestic tourist groups make extensive use of package-products limiting the scope of potential value chains and managerial influence on user experience.

Even though the BRI/NSR has currently only minor influence on the travel motives of incoming guests, a rising interest is noticed in the expert interviews as a result of marketing efforts from tour operators and partial projects such as the MSRR. Their exact share is difficult to calculate, but as only 10 % of the incoming guests use to leave the Baku Metropolitan Area (Arnegger & Mayer, 2015; Karimov, 2015:49), it must be very limited. A consensus on the ideal-typical profile of the BRI/NSR-related incoming guests reads like this: "...it will be mostly cultural. And ages will range from 44-65. Something like that, because those are the people that actually are interested in the history and they would like

to have that experience. That is a slow past tourist. They slowly enjoy the ride. I had those tourists before from Paris. They were like relax don't tell me too much. Just tell me what is most important. Let's cook and eat and drink wine.[...] Those are the people who come maybe five times a year. First to discover, second to live it for themselves. They will refuse the program, they will say: let me just go back to the places I was one year before and see maybe something new and discover for myself" (I52).

Against this background, New Silk Road travellers are expected to be looking for an authentic combination of sensual and learning-experience with a holistic interest in rural everyday-lifestyles (local arts and crafts, agriculture etc.), outdoor-activities, culinary and events. The comfort requirements (see above) are expected to be on a moderate level for this visitor group. Especially for visitors from neighbouring countries, the discovery of common cultural roots and cultural diversity are seen as major catalyzers for experience value alongside the NSR.

#### 4.5 Market structure, strategy and goals

As the levels of innovativeness and business sophistication are constantly on the rise in Azerbaijan's GCI-rankings over the past few years, a basic mechanism for "up-grading" of the countries' general economic system seems to be in place. For the case of the Azerbaijani tourism sector, the contributions by Schuhbert (2018) and Schuhbert et al. (2020) point to only a moderate alignment of tourism businesses to competitive business strategies. A majority of tourism companies show a rather conservative, introverted entrepreneurial attire within the framework of their corporate cultures thus potentially limiting corporate dynamic capabilities. Where competitive strategies apply, competition is less oriented on price but on quality and regional product innovations of lower scale due to financial problems (see above). Strategic networking is concentrated on trans-regional relationships between regional destinations and the Baku Metropolitan Area as a means for improvement of access to state-of-the-art knowledge. In general, cooperation and collective resource-integration is but rather limited due to a prevailing opportunistic action-orientation, inadequate strategic and entrepreneurial vision and a lack of strong public or private tourism associations in the regions (cmp. literature review). Public institutions are furthermore reluctant to make investments into regional network-development and destination management.

Accordingly, the discussion of NSR-related challenges on the part of the experts concentrates here on the nature of competition and the lack of coordination and collaborative promotion. Thus, a main reason for relatively moderate levels of competition among the hotels is seen in the overcompensation of increases in supply by demand, resulting in pricing advantages and reduced competitive pressure on part of the hotels: "...but people coming even the hotels are mostly full, they do not think about to be member of some association or to do something else for their future, for their businesses" (F19). Even though competitive pressure is currently perceived low in accommodation and other tourism industries, sectoral diversification is constantly on the rise with shrinking margins for the evasion of

competition: "...every tourism agency had their own market focus and it was all very diverse. On the one hand, it's okay because there are not many overlaps as with many competitors for each market. But on the other hand the country didn't [...] have a clear vision and a policy. So it wasn't a one way -one policy for development, which is now changing" (D52).

## 5 FURTHER DISCUSSION

The analysis of the four dimensions of the "Diamond" shows that Azerbaijan's tourism-system indeed offers valid potentials to make use of tourism- and non-tourism related BRI/NSR-projects within the Trans-Eurasian Corridor when it comes to overcoming the system-inherent obstacles for the development of destination competitiveness. Although local effects of the BRI for transit countries are difficult to evaluate at the moment (Pechlaner et al., 2019), accessibility, variety and costs of supplier inputs (e.g. construction materials, food, arts & crafts, outdoor and event equipment etc.) and production factors (capital, skilled workers, technologies etc.) are most likely to be improved for those regional tourist destinations that are supposed to be spatially linked to BRI-embedded itineraries such as the MSRR. Regional-economic growth can be stimulated by extension of the existing, but so far very limited, linkages between tourism and related industries at the local, regional, national and transnational level. This may widen up the input-sources, stimulate economic diversification and reduction of imports in the long term. Apart from the role of the BRI/NSR as pipelines for factor- and input-provision, the infrastructural component of the BRI offers a basis for export-diversification in tourism- and non-tourism related terms.

Facing all these opportunities, the question remains if the rural tourist destinations of Azerbaijan that are directly affected by tourism-related BRI/NSR projects, such as Sheki, Zaqatala, Gakh, Gabala or Ismayili, are indeed prepared to make full use of these potentials. If the future proves that indeed mostly (foreign and domestic) experience-oriented cultural tourists are the main user group of general and tourist infrastructures associated with the New Silk Road, service quality will pose a much higher obstacle for the competitiveness of these destinations as it is today. As studies from the German market show (Rudolph, 2007), related customers satisfaction requires high levels of professionalism in the staging of experiences and theme-marketing. This in turn relies on optimal coordination and networking among destination service providers (including public stakeholders), community spirit and profound dynamic creative-, entrepreneurial- and planning-capabilities (see literature review).

The results of this study locate the primary challenges in these points. As the TCI rankings have been subject to criticism for their lack of socio-psychological perspectives (Schuhbert, 2013) and the GCI rankings on innovativeness are not directly applicable to tourism due to their one-sided focus in R&D expenditures (cmp. Thomas & Wood, 2015) further comparative analysis is required on the conditions for intangible resource creation (such as innovative knowledge) at the sub- and the transnational level of the MSRR. The present study has once more shown, that mixed

qualitative/quantitative methods can be a promising way to mutually compensate respective weaknesses.

A special focus of further benchmark analyses should be on the interaction of Social Capital and organizational culture as the findings here suggest considerable obstacles for destination competitiveness and thus successful inclusion in the MSRR. Another research focus should be on more detailed analysis of physical resource conditions, especially on research stewardship and capital accessibility within the Azerbaijani tourism sector.

## 6 CONCLUSIONS

As an international tourist destination, Azerbaijan shows some deficits when it comes to its functionality as a knowledge-creating, innovative system. Applying a cross-cutting perspective through the multiple views of strategy theory, this study identified shortages in the tangible and intangible resource-base of the destination. Facing high quality expectations on the customer side, these weaknesses pose major challenges to overcome for proper integration in the proposed transnational tourism routes.

From a market-based perspective, rural Azerbaijan currently only has a competitive advantage in price-sensitive incoming-segments with lower quality expectations, while urban Azerbaijan mostly attracts business travellers. A lack of multi-spatial networking, dynamic process-, infrastructural- and financial capabilities combined with inaccurate management structures limits destination competitiveness in this segment and thus the given potential to tap into the stream of experience-oriented cultural tourists that are supposed to shift their interest toward the Caucasus region with the rise of NSR-related cultural routes in the next decade.

Successful integration of the BRI/NSR in the sense of making tourism a tool for regional economic development in the Southern Caucasus is here fundamentally bound to the establishment of institutionalized structures for strategic destination management at the local, regional, national and transnational levels that facilitates a proper knowledge- and resource-management.

A first approach on the transnational level has already been made with the establishment of the MSRR-consortium (see above). This could be further professionalized into a transnational destination management organization following the example of the RETOSA in Southern Africa, the ETC or the Caribbean States. Downstream from the macro- to the micro-level through identification and setup of complementary resources (e.g. start-up funding) and vice versa upstream by nurturing Social Capital, integrated infrastructure for destination management could facilitate the spawning of further economic corridors (cmp. Raich, 2006; Nunkoo, 2019) and embedded tourist-routes from the main BRI/NSR to other regions of the Southern Caucasus and Azerbaijan (such as the already well-developed region of Guba-Xachmaz). This would indeed qualify tourism as the primary catalyzer for rural economic development that it is supposed to be (Karimov, 2015:39).



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# Generating reliable tourist accommodation statistics: Bootstrapping regression model for overdispersed long-tailed data

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## Abstract

**Purpose:** Few studies have applied count data analysis to tourist accommodation data. This study was undertaken to investigate the characteristics and to seek for the most fitting models for population total estimation in relation to tourist accommodation data.

**Methods:** Based on the data of 10,503 hotels, obtained from by a nationwide Japanese survey, the bootstrap resampling method was applied for re-randomisation of the data. Training and test sets were derived by randomly splitting each of the bootstrap samples. Six count models were fitted to the training set and validated with the test set. Bootstrap distributions for parameters of significance were used for model evaluation.

**Results:** The outcome variable (number of guests), was found to be heterogenous, over dispersed and long-tailed, with excessive zero counts. The hurdle negative binomial and zero-inflated negative binomial models outperformed the other models. The accuracy (se) of the estimation of total guests with training sets that ranged from 5% to 85%, was from 3.7 to 0.4 respectively. Results appear little overestimated.

**Implications:** Findings indicated that the integration of the bootstrap resampling method and count regression provide a statistical tool for generating reliable tourist accommodation statistics. The use of bootstrap would help to detect and correct the bias of the estimation.

**Keywords:** tourism statistics, bootstrap, count regression, heterogeneity, over dispersed data, zero-inflated data

**JEL Classification:** C4, L8, C24, Z3

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## 1 INTRODUCTION

Count data regression, which is regression for discrete, non-negative integer data, has a long history in academic literature. Count data analysis was first introduced by Bortkiewicz (1898), in his work “The Law of Small Numbers”; in one example, he showed that the number of

Prussian army soldiers who died after being kicked by a horse followed a Poisson (1837) distribution, where the conditional mean and variance were equal. Unobserved heterogeneity can lead to a longer right tail and/or under- or overdispersion; extensions of the Poisson distribution, such as negative binomial (NB), Poisson-inverse Gaussian, Sichel, and Delaporte distributions, wherein additional parameters are added to a single-parameter distribution, may be more



suitable in such cases. Additionally, depending on the data generation process (DGP), excessive zero counts may arise. Thus, the regression model most suitable for a given DGP, e.g. zero-inflated, hurdle, truncated, or censored, depends on the problem.

It is well-known, in literature, that statistical data and statistical methods are important in every practical and academic fields (Hand, 2008). In economic development in general, statistical data and statistical methods are considered as pivotal tools to support policy decision making. Sanga (2011) even stressed the role of statistical data and methods as essential basic for poverty reduction strategies. Tourism have recognised as one of the largest economic industry in the world. According to WTTC (2019), tourism industry contributed approximate 10.3% of global GDP and one in ten jobs around the world as total impact. The contribution is projected to continue increasing in the next ten years. It is expected that, many countries have been developing their tourism statistical database for aiding the planning, management, and policy making. However, there is a lack of information on how the statistical database was developed and how good quality the data are. The utilisation of poor-quality statistical data, and the in-appropriate method may be an obstacle to the development goal or even leads to the failure of policy implementation in practice; and it is a reason of unsatisfactory works for publication in academia (Fonton & Hounkonnou, 2011; Zepp, 2011).

As few studies recognised using count regression in tourist accommodation data (see in literature review section for more details), the overall objective of the current study was to attempt to find an appropriate statistical method that support to develop a high-quality accommodation statistical data. The specific objectives of the study were as follows: firstly, to investigate the characteristics of count data pertaining to tourist accommodation facilities, and determine the most suitable non-econometric count model for estimating the total number of guests staying at all hotels in Japan; secondly, to examine the performance of count models for estimating guest numbers based on various-sized subsamples; and finally, to emphasise the advantages of the bootstrap resampling method for model selection, evaluation, and validation, in the context of tourist accommodation statistics. The remainder of the paper is organised as follows. In the next section, the literature review, wherein the focal points will be count data regression and bootstrap technique, will be presented. The study data and the methodology used for the analysis in the following section. The key findings of the study, including the best-fitting model will be presented in the analysis result section. The performance of that model is then demonstrated using various sizes of test sets. Finally, the further discussions, implications and conclusions of the study will be presented.

## 2 LITERATURE REVIEW

The application of count data regression in both non-econometrics and econometrics, including single and mixed distributions integrated into one- or two-part regression models, has been widely documented in a variety of research fields. In the political field, King (1988) employed statistical models to show the number of United States (US) House

representatives who switched political parties each year over the period 1802–1876; the event counting process followed the Poisson law. Research has shown that among ordinary least square (OLS), logarithmic OLS, and Poisson regression, the latter is superior, in terms of efficiency, consistency, and bias, for analysing event count data. Count regression techniques have also been applied in biological research fields. For example, Alves et al. (2013) suggested that “standing crop line transect counts” was superior to other methods, in terms of precision, accuracy, and efficiency, for estimating the density of red deer in Lousã, Central Portugal. In the medical and healthcare fields, Deb and Trivedi (1997) used econometric count regression when analysing data of the US National Medical Expenditure Survey of 1987–1988; their analysis, which applied certain statistical selection criteria, argued that the mixture model, i.e. a hurdle model that extended the standard NB, is preferable for describing unobserved heterogeneity. In another study, Deb and Trivedi (2002) demonstrated the superior performance of econometric count regression for distinguishing groups of “ill” and “healthy” patients according to their need to see a doctor (high or low; data provided by the RAND Health Insurance Experiment, USA). In social, psychological, and economic research fields, many scholars, including Duarte and Escario, (2006), Hausman et al., (1984), and Solis-Trapala and Farewell, (2005) successfully applied generalised econometric count modelling to account for covariates in observations of various phenomena.

In tourism, count models have been used to some extent. Many researchers have applied standard count regression models, with various extensions, to analyse tourism data generated by on-site surveys. Martínez-Espiñeira and Amoako-Tuffour (2008) utilised Poisson, NB, and truncated models to analyse overdispersed data pertaining to tourist trips to Gros Morne National Park in Newfoundland, New Zealand. A comparison of typical count models for analysing data on recreational fishing trips in Pantanal, Brazil was conducted by Shrestha et al. (2002). Another notable example comes from Grogger and Carson (1991), who analysed count data generated from a survey of 1,063 Alaskan households, where the data were truncated by removing the samples of all households that did not take at least one fishing trip; the data were well-fitted to their truncated NB model.

The common characteristic of count data generated by on-site surveys is that the interviewees are present at the site, thus leading to truncation and endogenous stratification. The modelling in such cases requires considerable care to avoid overestimates. This phenomenon was mentioned by Yen and Adamowicz (1993) in their analysis of count data pertaining to tourism demand in Alberta, Canada in 1981. The issue of truncated count data can be addressed by improving the sampling or correcting for truncation. For instance, household and off-site survey methods can improve the truncation issue; however, household and off-site surveys are more expensive than on-site ones, and the DGP of off-site surveys may produce more zero counts, which must be addressed by specific analysis techniques such as hurdle and zero-inflated models. Thus, researchers must choose the appropriate survey type and analysis method, based on their understanding of the trade-offs between approaches. To date, few studies in the literature have applied count data analysis to tourist accommodation data.

The bootstrap resampling method (B. Efron, 1979) is well-known with great advantages. The first is that, bootstrap is considered as an intuitive and practical in applications since it “is a data-based simulation method for statistical inference” (Bradley Efron & Tibshirani, 1994:5) for confidence interval. The second, bootstrap provides more accurate estimation of confidence interval than other standard interval which obtained from sample variance with assumption that sample is normally distributed. In reality, in many cases wherein the normality is violated, the standard estimation of the confidence interval, which relying on the sample variance, becomes impossible; this is when bootstrap comes in and appears outperformed other standard methods (DiCiccio & Efron, 1996). Finally, bootstrap is powerful in detecting bias of estimation and support to correct the biased estimation (Carpenter & Bithell, 2000).

Although, the bootstrap has been used by many researchers in numerous fields of study, this technique has been applied in few studies related to tourism. Palmer Pol et al. (2006) pointed out that based on 1790 academic articles, which sourced from 12 relevant tourism journals covering the period 1998-2002, there was no article utilised bootstrap methods. The finding indicated the big gap in tourism research at the time, and that might be a fertile area for applications of bootstrap in tourism. Later time, there were several studies found in tourism that utilised bootstrap methods. For example, Pol et al. (2006) first applied the bootstrap method to 2001 survey data for the Balearic Islands, to evaluate the fundamental variables associated with tourist expenditure. Chou (2013) examined the relationship between spending by tourists and economic growth in 10 countries via panel data analysis. Assaf et al. (2010) and Assaf and Agbola (2011) evaluated the efficiency of a total of 78 hotels in Taiwan and Australia, in the periods 2004-2008 and 2004-2007, respectively, using meta-frontier and data envelopment analysis (DEA) approaches, respectively. Chen and Fomby (1999) and Gergaud et al. (2018) compared the performance of different models of Hawaiian tourism and assessed the impact of terrorism events on wine tourism in France, respectively; both studies employed time series models. All of the above-mentioned studies utilised a bootstrap technique to generate mean, variance, skewness, and interquartile range data for the parameters of interest. Although bootstrap has been acknowledged few in tourism studies, it is, as far as our knowledge, not yet recognised in tourist accommodation data. This study attempts to investigate the characteristics of the tourist accommodation data and seek for an appropriate statistical model to support the development of high-quality tourist accommodation statistics.

### 3 METHODOLOGY AND DATA

The current study aims to identify the most appropriate statistical model that can estimate reliable tourist accommodation statistics. In order to develop the national accommodation statistical database, the Japan Tourism Agency (JTA), under the direction of the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) of Japan, conducted a national survey focusing on the operating accommodation facilities. Clustered sampling was utilised

relying on the sampling frame of 49,850 accommodation facilities, i.e. hotels, registered in Japan nationwide (JTA, MLIT, 2016). The clusters were set up as prefectural administrative territories. The accommodation survey was expected to obtain 35% of total hotels in the sampling frame, wherein hotels for survey were randomly selected at each cluster. The survey questionnaires; beside the items for trip purpose, guest categories, etc., included four major items to ask for the total guests stayed in one month, the number of rooms, capacity of the hotels, and the number of employees working for the hotels. The survey obtained 10,530 respondents in total. After removing the missing values of the four major items, the data achieved 10,503 tourist accommodation facilities (i.e. hotels) throughout Japan. The outcome variable was the number of guests (Guests.Persons) staying at each property in December 2016. Data also included three other variables, namely the number of rooms, guest capacity, and number of employees. During the DGP, many zero counts were observed, with each indicating that no guests stayed at given hotels during the 1-month study period. Table 1 provides a statistical summary of the data; 6.3% of the hotels had no guests. The highest number of guests at a single hotel was almost 100,000; the variance ( $3,230^2 = 104.33 \text{ } 105$ ) differed significantly from the mean (1,681.29), suggesting that the data were zero-inflated, overdispersed, and long-tailed. Figure 1, truncated at value of 5,000, shows a histogram of the response variable

Table 1. Definition and statistical summary of variables of interest

Variable name	Explanations	Mean	Standard deviation	Min-Max
Guests.Persons	Total number of guests staying at the accommodation properties in December 2016	1,681.29	3,230.00	0–98,281
Rooms	Total number of rooms in the accommodation properties	65.76	103.95	1–3,560
Capacity	Capacity of the accommodation properties, defined as the total number of guests that can be accommodated simultaneously	150.99	228.40	2–6,424
Employees	Number of employees at the accommodation properties	36.04	74.11	1–1,964

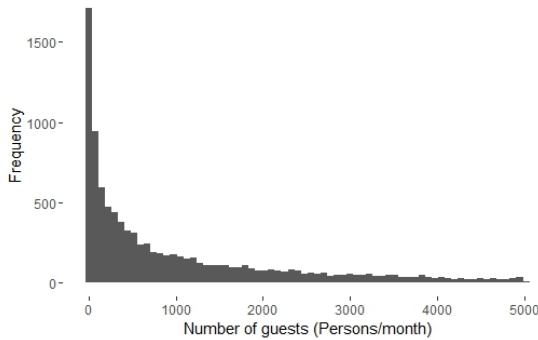
The first step in the analysis is to determine which explanatory variable is the most important for obtaining a good model fit. To achieve this, we used Pearson's correlation coefficient between the explanatory and outcome variable [ $r = \text{cov}(x,y) / \sqrt{[\text{var}(x)\text{var}(y)]}$ ]. The results, shown in Figure 2, indicated that the outcome variable was most strongly correlated with Rooms ( $r = 0.89$ ; 95% confidence interval [CI], 0.886–0.894), followed by Capacity ( $r = 0.88$ ; 95% CI, 0.873–0.882) and Employees ( $r = 0.68$ ; 95% CI, 0.673–0.693). Furthermore, Rooms, Capacity, and Employees were strongly correlated with each other, suggesting a high possibility of multicollinearity if they were included together in the same model. Thus, to avoid the negative effects of multicollinearity on model precision and bias, only Rooms was retained as an explanatory variable; the other two variables were excluded. The correlation between the outcome variable (Guests.Persons) and explanatory variable (Rooms) was linear (Figure 2); furthermore, in the count regression, the link function is in logarithmic form, in that the mean of the response variable is expressed according to the explanatory variable on an exponential scale. The explanatory variable was transformed into a logarithmic scale to maintain the linear correlation between the variables. In addition, in the scatter plot Guests.Persons ~ Rooms (the top-

left scatter plot panel in Figure 2), the variance of outcome variable, Guests.Persons, tended to vary in wider range as Rooms increased, suggesting the existence of heterogeneity. The treatment of heterogeneity was also taken into account in the specification of count model.

The procedure for bootstrap resampling and regression analyses was as follows.

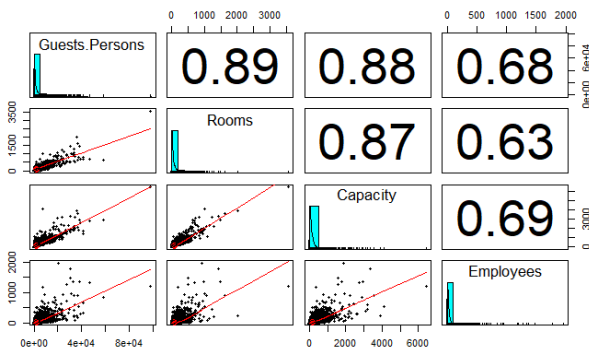
Step 1: To identify the best-fitting model, the bootstrap method (B. Efron, 1979) was used to create a random subsample of data with a size equal to that of the original sample. The training set and test set, which were 85% and 15% the size of the original sample, respectively, were derived by randomly splitting the subsample.

Figure 1. Distribution of guests (truncated at 5000) staying at the surveyed accommodation properties, December 2016



Step 2: In total, six models, which represented various combinations of three types of generalised count regression model (one-part, zero-inflated, and hurdle), with one of two distributions (Poisson or NB), were fitted to the training set. The model parameters were derived by a log-likelihood estimator. As described in the preceding section, the data were zero-excessive, long-tailed, and overdispersed. The Poisson distribution, having a single parameter, may not be sufficiently flexible to describe real-world data. The NB distribution, a well-known gamma–Poisson mixture, contains two parameters, shape and scale, that have additional flexibility for describing discrete, real-world data. Nevertheless, Poisson distribution models were also taken into account, to ensure that the most suitable model was identified.

Figure 2. Pearson's correlation coefficients for the outcome variable and explanatory variables



Integrating the explanatory variable (Rooms) into Poisson and NB distributions allows the mean value of guests at

hotels to vary at different levels of Rooms, which partially controls for heterogeneity. In practice, the accommodation data in this study showed a long-tailed distribution, existence of heterogeneity, and the zero counts were excessive. Thus, we employed two-part models, modified from basic count models, consisting of hurdle and zero-inflated parts; such models were first introduced by Mullahy (1986) to analyse the National Survey of Personal Health Practices and Consequences, Wave II (USA) (Mullahy, 1986) and Australian Health Survey 1977–1978 (Mullahy, 1997) data; the ability of the model to capture both underdispersion and overdispersion was demonstrated in their works. Furthermore, the heterogeneity was also modelled by allowing the dispersion parameter varied with the explanatory variable.

The hurdle model considers the probability,  $f_1(0)$ , of zeros; and  $(1 - f_1(0)) * f_2(y) / (1 - f_2(0))$ , which is associated with truncation, denotes the probability of positive counts. The hurdle model allows different processes for specifying zero and the truncated part. The zero-inflated model uses a separate component for calculating the probability of a zero count, in the same fashion as the hurdle model. In this study, in both the hurdle and zero-inflated models, we applied a logarithmic link function to the part of the model concerned with zero counts, and Poisson and NB distributions to the part concerned with positive counts.

Estimates of the model parameters and the criteria for model evaluation, e.g. the Akaike information criterion ( $AIC = -2\ln L + 2k$ ; Akaike, 1973), Bayesian information criterion ( $BIC = -2\ln L + (\ln n)k$ ) and log-likelihood criterion were obtained. The raw residual (RR) were used as basic goodness-of-fit criteria. The heterogeneity of the accommodation data was explored with studentised and standardised residual analyses. The analysis was implemented with R language. R package glmmTMB of Brooks et al. (2017) was utilised for count regression.

Step 3: Using the model obtained in Step 2, the difference between the total value of estimated- ( $\hat{y}_i$ ) and observed- ( $y_i$ ) guests in the test set ( $\frac{\sum \hat{y}_i - \sum y_i}{\sum \hat{y}_i}$ ) can be employed as an indicator of model performance.

We repeated Steps 1–3 with B bootstrap iterations to yield the distribution of the variables of interest and their 95% CIs. Some researchers have suggested a minimum number of iterations when using the bootstrap method to construct the CI. Hall (1986) argued that B should depend on the sample size and precision of the CIs. Simar & Wilson (2007) took B to be 2,000 in their two-stage, semi-parametric regression model of 322 US banks.

In this study, we used 10,000 bootstrap iterations to fit each model, and for model validation to ensure reliable simulation results. Model selection was based on comparison of the AIC, Bayesian information criterion (BIC), log-likelihood values among the six models. The RR analyses were performed to determine the goodness of fit of the models. Data heterogeneity was detected using a studentised residual values, derived by dividing the RR by residual standard deviation, and standardised residuals, derived by dividing the RR by its standard deviation. Given that the AIC, BIC, and log-likelihood are all Gaussian, a two-sample t-test was preferable for comparison of their mean values.

#### 4 RESULTS AND ANALYSIS

A single parameter distribution, i.e. Poisson distribution, was less suitable for the dataset compared with a two-parameter distribution, i.e. NB. Three models with a Poisson distribution, namely Poisson, zero-inflated Poisson, and hurdle Poisson models, showed a poor fit; their AIC, BIC, and RMS values were much higher than those of models with an NB distribution, while their log-likelihood values were much lower (Table 2 and Figure 3). The t-test was used to compare model evaluation criteria among NB, zero-inflated NB (ZINB), and hurdle NB (HNB) models; the NB model showed a poorer fit compared with the ZINB and HNB models. The HNB model was slightly better than the ZINB model in terms of the AIC value, which was 13.1 lower (two-sample t-test,  $p = 0.086$ ), as was the BIC (two-sample t-test,  $p = 0.086$ ); meanwhile, the log-likelihood was 6.54 higher (two-sample t-test,  $p = 0.086$ ).

Table 2. Evaluation criteria of three models with Poisson distributions

	Poisson	Zero-inflated Poisson (ZIP)	Hurdle Poisson (HP)
AIC (95% CI) $10^6$	4.57 (4.33 to 4.85)	4.31 (4.07 to 4.58)	4.31 (4.07 to 4.57)
BIC (95% CI) $10^6$	4.57 (4.33 to 4.85)	4.31 (4.07 to 4.58)	4.31 (4.07 to 4.57)
Log-likelihood (95% CI) $10^6$	-2.29 (-2.42 to -2.17)	-2.16 (-2.29 to -2.03)	-2.15 (-2.28 to -2.03)

AIC: Akaike information criterion; BIC: Bayesian information criterion; CI: confidence interval.

Figure 3. Model evaluation criteria of three models with a negative binomial (NB) distribution: negbin: negative binomial (NB); hurdle.negbin: hurdle NB (HNB); zeroinfl.negbin: zero-inflated NB (ZINB); AIC: Akaike information criterion; BIC: Bayesian information criterion

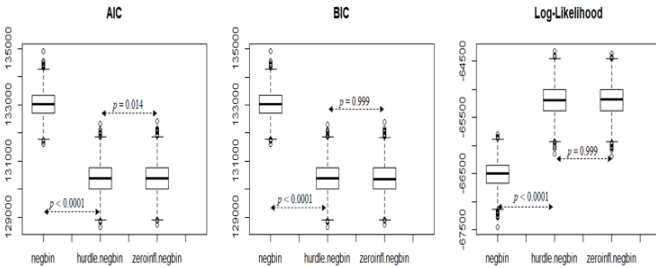
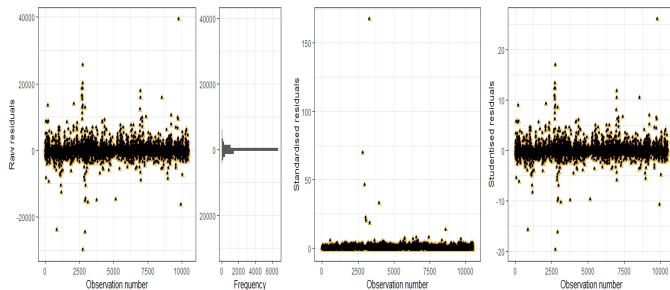


Figure 4. Residual distribution of the HNB and ZINB model. Black-circle points: Residuals of HNB; Orange-triangle points: Residuals of ZINB



The standardised residual analysis results, shown in Figure 4, illustrate that many hotels had a markedly higher or lower number of guests than average (i.e. relative to other hotels with the same number of rooms). We detected 721 (6.8%), 377 (3.6%), and 18 (0.2%) observations with RRs that were

1.5, 2, and 5 times higher, respectively, than the standard deviation. Especially, there were 6 observations with RRs that were 20 to 170 times higher than the standard deviation. Studentised residual analysis (Figure 4) indicated that there were approximately 604 (5.7%), 345 (3.3%), and 55 (0.5%) observations with RRs that were 1.5, 2.0, and 5.0 times higher, respectively, than the standard deviation values. Some cases (16) had exceptionally high RRs, i.e. 10 times higher than the standard deviations. These results clearly confirm the significant heterogeneity in such count data. The difference between residuals of HNB and ZINB were not statistically significant, and the results of heterogeneity detection based on RRs of HNB and ZINB were consistent.

Table 3. Coefficients of the HNB and ZINB model

	Part 1: Conditional model		Part 2: Zero-inflated model		Dispersion model	
	Intercept	log (Rooms)	Intercept	log (Rooms)	Intercept	log (Rooms)
HNB	2.85*** (2.77 to 2.95)	1.08*** (1.06 to 1.09)	0.55*** (0.34 to 0.76)	-1.27*** (-1.38 to -1.18)	-1.44*** (-1.66 to -1.26)	0.57*** (0.52 to 0.62)
ZINB	2.85*** (2.77 to 2.95)	1.08*** (1.06 to 1.09)	-0.13 (-0.46 to 1.07)	-1.06*** (-1.18 to -0.95)	-1.44*** (-1.66 to -1.26)	0.57*** (0.52 to 0.62)

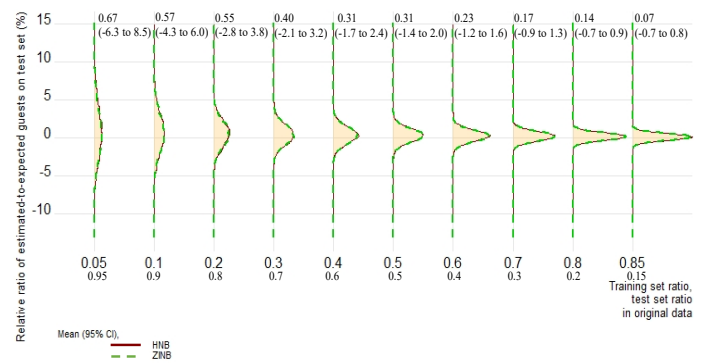
\*\*\*, Statistically significant at  $p < 0.05$ ,  $0.01$  and  $0.0001$ , respectively.

HNB: hurdle negative binomial; ZINB: zero-inflated negative binomial; CI: confidence interval.

(95% CI): The figures in the parentheses indicate 95% confidence interval.

To test the performance of the HNB and ZINB models in estimating the total guest population with various-sized samples, 10 scenarios were validated with 10 different sizes of test sets corresponding to 10 different sizes of training set obtained from randomly splitting the original sample. The two models were fitted to the training sets, which varied from 5% (525 observations) to 85% (8,925 observations); the estimates of total guest population were yielded by applying the fitted models to test sets that contained the remaining samples of the original data. Generally, increasing the sample size of the training set led to more accurate estimates of the total number of guests of the test set.

Figure 5. Performance of the HNB and ZINB models with respect to validation of the test set



For a training set containing 85% of the original sample data, the estimated total number of guests, in average, differed by 0.07% (95% CI, -0.7% to 0.8%) from the observed total. When the training set contained only 5% (525 hotels) of the data from the original sample, the validation demonstrated good performance (0.67% difference between estimated and observed number of guests; 95% CI, -6.3% to 8.5%). Both HNB and ZINB illustrated the same capability in validation process (Figure 5). It was also found that, based on the estimates of coefficients of HNB and ZINB presented as in Table 3, the dispersion of tourist accommodation data was



significant and it increased as the scale (e.g. the number of rooms) of the hotels increased.

## 5 DISCUSSION AND IMPLICATIONS

Although several studies have applied count data analysis to tourism (Grogger & Carson, 1991; Martínez-Espíñeira & Amoako-Tuffour, 2008; Shrestha et al., 2002; Yen & Adamowicz, 1993), few have specifically examined tourist accommodation data using this method. This study provided some insight into the complexities of count data analysis when applied to tourism accommodation data. It was found that the accommodation count data were over-dispersed, zero-excessive, and long-tailed. High heterogeneity was recognised in the data. The two-parameter distribution, i.e. NB integrated into a two-part hurdle (HNB) and zero-inflated (ZINB) models outperformed the other count models. The HNB and ZINB slightly overestimated the number of guests. Calibration refers to how accurately a model estimates the size of a population, as measured by the ratio between the estimated and observed population.

The total number of guests, in average, was found to be overestimated by 0.07% (95% CI, -0.7% to 0.8%) with the test set that used 85% of the original sample, indicating excellent validation performance. Regarding the sample size, previous studies using count data analysis relied on the sampling of several hundreds to thousands of samples. For instance, Pohlmeier & Ulrich (1995), Deb & Trivedi (1997), Bulmer (1974), Solis-Trapala & Farewell (2005), and Taylor (1967) analysed sample sizes of 5,096, 4,406, 924, 651, and 623, respectively. Especially, Arbous & Sichel (1954) analysed absenteeism data based on only 248 observations. In this study, we analysed the data of 10,503 hotels throughout Japan, to ensure reliability and accuracy of the analysis.

The HNB and ZINB models could be important for the further development of tourist accommodation statistics. In some countries, such as France (Insee, 2017), Spain (INE, 2017), the United Kingdom (Visitbritain, 2018), Japan (JTA, MLIT, 2016), Thailand (NSO-Thailand, 2016), and Vietnam (GSO-VN, 2011), the total number of guests staying in tourist accommodation facilities are estimated using a linear estimator. i.e. the mean of guests stayed obtained from sample data multiplied by the “expansion rate”, which is defined as the ratio between the total population size and the sample size.

Accommodation data are typically stratified, where different strata represent accommodation or region types (e.g. provinces or, for lower strata, cities and/or districts). Estimates of the total number of guests per stratum are commonly required. The linear estimator can be applied in the same manner to each stratum; this method is easy to implement but may be less precise, or even infeasible for lower strata if data samples for these strata are not available or are missing. Regression can be used to overcome these issues, given its ability to control for heterogeneity to some extent and interpolate the total count for a given stratum based on the available data.

Heterogeneity was noted in the accommodation data used. The reasons for the heterogeneity have yet to be elucidated in this study; however, there are several plausible explanations.

For example, the data were obtained from various areas of Japan, in which tourism demand may differ according to seasonality. Even within the same region, hotels vary in terms of design and business strategy, which may lead to a degree of heterogeneity. For instance, December may be a high-demand period in some areas, whereas in other areas having hotels of the same size, occupancy may be low, or they may even be empty.

As alluded to above, the variety in accommodation types may also lead to heterogeneity. For example, a traditional type of accommodation known as “Ryokan” has large rooms that can accommodate many guests simultaneously, as can the accommodation facilities of sports or training centres, such as large huts in mountainous areas designed for hikers and mountain climbers; these can in fact host several dozen to hundreds of people in one room and thus differ considerably from regular hotels, in which rooms are commonly designed for single-, double-, or triple-occupancy. Additionally, some hotels provide substantial discount packages, whereas others do not. Interestingly, two-part count models can distinguish zero demand from non-zero demand for lodging units, as well as uncover errors due to heterogeneity. Including more explanatory variables and/or stratifying the data can minimise heterogeneity.

The bootstrap resampling method can play a key role in model selection and validation, and in detecting overestimation. The AIC, BIC, and log-likelihood values (Figure 3) indicated that one may make a wrong selection between the HNB and the ZINB model if their selection criteria were compared based on single-time modelling. Furthermore, it can be difficult for the HNB and ZINB models to detect under- or overestimation with single-time validation. Fitting and validating model with arbitrary B bootstrap sub-samples (in this study,  $B = 10,000$ ), representing the vast of possible samples of the population, provides B models.

With each model, one set of model coefficients, model selection and model validation criteria were derived. The six models generated herein were compared in terms of the AIC, BIC, and log-likelihood values by t-test (Figure 3), and the results tended to support the HNB and ZINB models (Figure 5); moreover, overestimation was well-recognised by the bootstrap method, suggesting the estimate of population total, i.e. total guests, should be corrected. Bradley Efron & Tibshirani (1994:138) recommended a method to correct the parameters of interest, which a bias-corrected estimator is determined by subtracting the estimate of population total by the estimate of bias. For example, let  $\hat{G}$  denotes for the estimate of total guests,  $(\text{bias})^{\wedge}$  denotes for the estimate of bias (e.g. 0.5%), then the bias-corrected estimate of total guests would be  $G^{-} = \hat{G}(1 - (\text{bias})^{\wedge}) = 0.995\hat{G}$ .

Non-econometric HNB and ZINB models should prove useful for deriving reliable accommodation statistics. We recommend the integrating bootstrap resampling and count regression for reliable tourist accommodation statistics which strongly support decision making process in tourism planning, management, monitoring and evaluating the policy implementations.

The findings of this study, on one hand, could be used directly to estimate the total guests stayed by relying on a random sample drawn from the finite population of accommodation facilities, which is widely known as design-based estimation

## 6 CONCLUSIONS AND FURTHER RESEARCH

Some countries (GSO-VN, 2011; INE, 2017; Insee, 2017; JTA, MLIT, 2016; NSO-Thailand, 2016; Visitbritain, 2018), as stated previously, have been using a linear estimator to estimate the population total (i.e. total guests), Australia (ABS, 2016) have been utilising time series analysis to estimate the total guests based on tourist accommodation survey. The estimation of total guests of a month of the later year will be inferred based on the information of the same month of the previous year with updated information, for example the annual percentage change of guests, the seasonal adjustment, etc. The limitation of this study is that the performance of the count regression has not been compared with the other methods have been applying in such countries in various circumstances (e.g. small and large population, alternatives of sampling schemes). Further research needs to be carried out to elaborate those issues.

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# Social media for cultural communication: A critical investigation of museums' Instagram practices

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## Abstract

**Purpose:** The purpose of the study is to investigate the use of Instagram by museums in the Greek cultural scene. Specifically, the study focuses on examining the use of Instagram by museum communication professionals and aims at carrying out a twofold investigation: Firstly, if and how the Instagram is used to reach out to their visitors and secondly, the public response to this type of communication.

**Methods:** A list of all archaeological museums in Greece was obtained and related Instagram accounts were retrieved. The dataset structure was enhanced by eleven variables, which were measured and visualized by a descriptive statistics analysis. Inter-variable correlations, normality and equality tests were also performed. Moreover, a linear predictive model for the number of museum tags was investigated.

**Results:** Only one museum in Greece maintains an Instagram account. Visitors usually tag museum exhibits or people and exhibits on the photographs they upload on their personal accounts. T-tests and Mann-Whitney U tests revealed equal distributions for all variables between central and peripheral museums.

**Implications:** Museum officials have not seized the opportunity offered by social media and especially Instagram today. Their importance seems to be underestimated. With respect to the linear model derived, results suggest that more features should be surveyed; this could be the subject of future research studies.

**Keywords:** social media, communication, digital marketing, Instagram, multiple regression

**JEL Classification:** N7, L82, D83

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## 1 INTRODUCTION

Social media platforms seem to be popular with consumers and businesses as they provide new opportunities for interactivity and connectivity for both. Social media are described as “content that has been created by its audience” (Comm, 2009) and they are characterized by user-generated content (DeNardis, 2014). Social media are defined as “a group of internet-based applications that build on the ideological and technical foundations of Web 2.0 that allow the creation and exchange of user generated content” (Kaplan and Haenlein, 2010:61). They are used for the development of social connections, using highly available and scalable

publishing methods (Sajid, 2016) changing the ways society consumes and contributes to the creation of information (Hays, Pages and Buhalis, 2013).

Interactivity, connectivity and sharing are the most important features offered by social media. “Interactivity is defined in terms of the immediacy of the responsiveness and the degree to which the communication resembles human discourse” (Liu and Shrum, 2002:54). Social media interactivity can take place via desktop computer, laptop, mobile phone or a personal digital assistant of the iPod (Grover and Stewart, 2010).

Connectivity is also one of the characteristics of social media. “Social media have increased individuals’ connectivity and enabled users’ direct participation” (Chou, Hunt, Beckjord,



Moser and Hessee, 2009:2). Organizations can maintain “an ongoing dialogue with customers by exploiting the connectivity, content creation and sharing functionalities of social media” (Cabiddu, Carlo and Piccoli, 2014:187). This application gives the opportunity to users to be online and to be always connected. That means that they can share each other’s content.

Sharing is another application that helps companies and organisations to gain publicity (Kietzman, Hermkens, McCarthy and Silvestre, 2011). It is common for users to share posts on their wall. As Kirtis and Karahan (2011) claim, the social media user can create and comment on blogs, share contents or communicate with friends via social networking sites like Facebook or the earlier MySpace. On the other hand, other media like YouTube give users the opportunity to make and share different videos with different sets of friends (Lange, 2007).

More than two billion users all over the world use social media. In Table 1 (redrawn from <https://www.statista.com/statistics/272014/>) there is a list showing the number of registered users for each platform.

*Table 1. Registered users for social media platforms (in millions, May 2020)*

Facebook – 2,498	WeChat – 1,165	QZone – 517	SnapChat – 398
YouTube – 2,000	Instagram – 1,000	Sina Weibo – 516	Twitter – 386
WhatsApp – 2,000	TikTok – 800	Reddit – 430	Pinterest – 366
FB Messenger – 1,300	QQ – 731	Kuaishou – 400	

Social media has become a key factor in the way that cultural organizations communicate with their public, as they are able to support the marketing of performing arts organizations. It continues to gain prominence in communication campaigns due to the high levels of public usage and public involvement with organizations on social media sites (Waters and Jones, 2011). Many museums have started using different forms of social media, such as social networking, podcasting, and blogging (Russo and Peacock, 2009), as they allow museums to move their activities into the digital space while also reinforcing their reputation in terms of cultural authority and authenticity (Dearolph, 2014).

As Russo, Watkins and Smith (2009:153) argue, “social media offer young people agency previously unavailable in informal learning environments in order to explore complex responses to and participation with cultural content”. Museums mostly use social media to promote event listings, reminders and to reach larger or newer audiences (Fletcher and Lee, 2012) and for engaging their audiences (Zafiroopoulos et al 2015). With social media, museums are facilitated in distributing information to their visitors and creating opportunities for them to learn about and interact with each other (Chung, Marcketti and Fiore 2014). Stuedahl and Smørdal (2011) believe that social media have been adopted by museums to help visitors interact with museum exhibits themselves. For museums, this could mean that they have to cater for the needs of an informed, potentially demanding and more difficult to satisfy public.

The goal of this research is to describe how museums utilize social media and especially Instagram as a platform, so as to identify the most effective tools for public engagement. As there is limited research about the use of Instagram in the Greek cultural environment, this research attempts to fill the

gap regarding the use of social media as a communication and marketing tool by cultural organizations such as the Greek archaeological museums.

## 2 LITERATURE REVIEW

Photos are a means of communication and as Miranda (2013) claims, most of the museums have removed the barriers to taking photographs in their buildings. Most cultural organizations take photographs of collections, as professionals believe it is important to engage visitors with photographs (Edwards and Sigrid Lien, 2014). Photographs posted by museum visitors with positive attitudes to the museum help raise the museum’s popularity and accessibility to its future visitors (Stylianou-Lambert, 2017). Brooklyn Museum, realising the importance of enhancing visitor experience through photos, uses photos, blogs and videos in order to be connected with its online visitors (Black, 2012). In their study about the use of Flickr in cultural institutions, Beaudoin and Bosshard (2012) showed that most of the images were posted by individual users and by cultural organisations. The images posted included recent events of the institutions or images of the exhibits of the museum.

Facebook and Instagram now dominate the social media use landscape. Instagram is one of the fastest growing social networks globally among young people. In terms of what users can do with the use of Instagram in museums is to communicate their experiences through both choice of photo subjects and ways they choose to modify and present them (Weilenmann, Hillman and Jungselius, 2013).

As Instagram is a relatively new form of communication (Hu, Manikonda and Kambhampati, 2014) it gives users the opportunity to communicate their experiences through photos (Weilenmann, Hillman and Jungselius, 2013). Instagram is an online photo-album that was launched in 2010 (Hochman and Manovich, 2013); it enables users to take photos and videos with their mobile devices, perform some basic processing by applying digital filters and share them on a variety of social media platforms. As every moment counts, or at least so it seems through the eyes of social media users (Hochman and Schwartz, 2012). Instagram is ‘an application that combines and makes use of smartphones with cameras, offers the possibility of constant access to social media, thus enabling easy sharing of images of people’s lives’ (Araújo, Corrêa, da Silva, Prates and Meira, 2014:20).

As a social network, Instagram allows users to create a personal profile and build relationships by following other users, thus creating asymmetrical relationships (Zappavigna, 2016). The larger the number of followers an individual has, the greater their perceived social influence (Jin and Phua, 2014). A key idea behind the application is to share photographs and videos by using a hashtag (#) so that other users can find the photographs (Sheldon and Bryant, 2016). Users can also choose to tag an image or video during the publishing process, either independently as they wish to describe it or by following a predetermined dictionary of tags (Schwartz and Halegoua, 2014). They can also use the @ symbol, when adding captions thereby mentioning other users. This effectively links their posts to the referenced

user's account, before posting them (Hu, Manikonda and Kambhampati, 2014).

Instagram expands the array of aspects of everyday life that become organized in relation to flows of images. Navigation seems to be natural. Users interact with the screen of a smartphone and can see the photographs uploaded (Carah and Shaul, 2016). The online photography facility, such as uploading photos, as provided by Instagram, is a symbol of the reality that the user experiences as a mobile digital citizen. In some social media, photographs have become a central element to the post that is uploaded but in Facebook and Instagram, photographs are used as a point of reference as users can also make comments, likes and sometimes sharing (Budge and Barnes, 2017).

A key Instagram function, launched in 2016, is Instagram Stories. With Instagram Stories, users have the ability to create a digital photo story with all their daily highlights. This shared image and video experience can also be enhanced by e.g. using drawing tools and embedding stickers and emoticons in order to make it more appealing (Veissi, 2017). Instagram Stories last 24 hours before they disappear from a users' profile. In terms of Instagram use in the museums, Instagram is used as a medium for the visitors in order to communicate their experiences in museums. (Weilenmann, Hillman and Jungselius, 2013).

As Instagram is quite a new medium in the context of cultural organizations there is not much published work about the use of the medium in the museums. A few studies appear in Flickr too. Weilenmann, Hillman and Jungselius (2013) focused on Gothenburg natural history museum and its visitors' experience. They extracted 222 Instagram posts and performed 14 interviews with the visiting Instagrammers, highlighting the reasons contributing to their postings. Lazaridou, Vrana and Paschaloudis, in their work in 2017 about the use of Instagram in museums and galleries, suggest the use of the application by museums so that they can enhance their internet presence and reach further to more potential visitors (Lazaridou, Vrana and Paschaloudis, 2017). In 2017, Budge and Burness analyzed visual and textual posts by Instagrammers, related to their experience. They argue that museum visitors post on Instagram guided by their experience and draw attention to exhibition objects (Budge and Burness 2017). The following year, Budge and Burness (2018) expanded their research in the Museum of Contemporary Art in Sydney, Australia. Their study aimed at investigating the visitor's Instagram posts using the museum geotag. The results showed that visitors were keenly engaged with the objects while they were communicating them through their photos.

Suess (2018) referred to the use of Instagram by visitors to the Gerhard Richter exhibition at the Queensland Gallery of Modern Art. The results of his work showed that Instagram lets visitors to surpass the physical space and enhance their aesthetic experience. Villarspesa and Wowokowych (2020:11) "examined people's behaviours using Snapchat and Instagram stories. Social ephemeral photography is often motivated by capturing a feeling, an aesthetically pleasing museum object, sharing an experience, and building self-identity".

### 3 METHODOLOGY OF THE STUDY

The dataset was constructed by initially visiting the Hellenic Ministry of Culture webpage and extracting the names of all archaeological museums in Greece, yielding a list of 125 museums. The next step involved searching Instagram for the museum accounts and their web presence, either on their own websites, if any, (owned) or hosted under The Ministry of Culture, the respective Archaeological Ephorate or Municipality (hosted). The process revealed that only the Acropolis Museum in Athens maintains an active Instagram account. At this point however, each museum's type of website (owned or hosted) was recorded as well as the number of different social media platforms they are engaged in, creating two dataset variables. Website variable values were coded as 0 for no presence, 1 for a hosted website and 2 for a dedicated, owned website. For the social media presence variable, we encountered cases with 0-3 different platforms. Three additional dataset variables were introduced for the geographical region the museums belong to (coded with numbers 1 to 13 in ascending order of population), the actual region population (in thousands) and a binary variable that characterizes a museum as being central (Athens or Thessaloniki, coded as 1) or peripheral (rest of Greece, coded as 0). This research methodology was developed for the purpose of this study and it can be justified as it is expected that generating and measuring variables related to web presence and other social media engagement, as well as region related variables will provide a basis for quantifying each museum's impact to the public and resulting user interaction.

As stated above, the Acropolis Museum is the only archaeological museum maintaining an Instagram account. This does not mean however that the museums do not appear at all on Instagram-mediated dialogue. In fact, for quite a few of them the name-search on Instagram returned location and hashtag results. There were 72 museums with location results and 53 with no location results, which were discarded from the dataset and the rest of the analysis. For the 72 museums, a note of the occurrences where the museum is tagged was taken, distinguishing between five different categories with respect to the image content: exhibits, people, people and exhibits, outdoor scenes and other. Overall, the dataset consists of 72 observations and 11 variables, tagged and the related five content categories, website and social media and the three region related variables.

### 4 FINDINGS AND DISCUSSION

A statistical analysis of the constructed dataset was performed leveraging Python (Anaconda distribution) in an interactive Jupyter notebook. The .csv file was read into a Pandas dataframe object (first five rows are shown on Table 2), enabling rapid calculation of descriptive statistics measures and execution of more advanced statistical tests. It is noticed at this point, that there are museums that returned location results with no tagging occurrences though.

Table 2. First five rows of the dataset

tagged	exhibits	people exhibits	people	outdoor	other	website	social media	region	population	central
9	0	6	2	1	0	1	1	9	621	0
0	0	0	0	0	0	2	0	3	282	0
9	4	1	1	3	0	1	0	10	680	0
0	0	0	0	0	0	2	2	10	680	0
122	0	0	0	0	0	2	2	13	3812	1

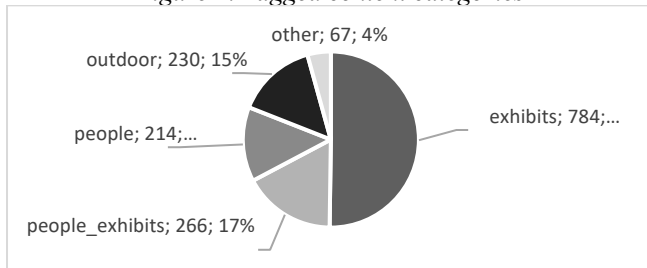
Understanding the dataset and gaining insight on its structure is crucial and has to be established (aided by descriptive statistics and various visualizations) before proceeding with hypothesis testing and more advanced methods. As an example, Table 3 depicts the pairwise Pearson correlation table, where it is noticed that all correlations are positive. This is of course partially due to the specific coding scheme chosen, e.g. for region.

Table 3. Pairwise Pearson correlation table

	tagged	exhibits	people exhibits	people	outdoor	other	website	social media	region	population	central
tagged	1	0.922	0.905	0.825	0.808	0.783	0.218	0.201	0.316	0.293	0.481
exhibits	0.922	1	0.828	0.742	0.721	0.682	0.114	0.201	0.261	0.217	0.397
people exhibits	0.905	0.828	1	0.841	0.82	0.868	0.196	0.156	0.205	0.148	0.371
people	0.825	0.742	0.841	1	0.79	0.744	0.215	0.221	0.266	0.184	0.283
outdoor	0.808	0.721	0.82	0.79	1	0.68	0.133	0.208	0.288	0.3	0.286
other	0.783	0.682	0.868	0.744	0.68	1	0.236	0.131	0.208	0.133	0.3
website	0.218	0.114	0.196	0.215	0.133	0.236	1	0.105	0.079	0.017	0.047
social media	0.201	0.201	0.156	0.221	0.208	0.131	0.105	1	0.239	0.119	0.117
region	0.316	0.261	0.205	0.266	0.288	0.208	0.079	0.239	1	0.796	0.498
population	0.293	0.217	0.148	0.184	0.3	0.133	0.017	0.119	0.796	1	0.696
central	0.481	0.397	0.371	0.283	0.286	0.3	0.047	0.117	0.498	0.696	1

According to Cohen's standard, inter-variable correlations can be interpreted as weak [0.1–0.29], intermediate [0.3–0.49] and strong [0.5–1]. Following this scheme, different levels of positive correlations between the variables can be identified, e.g. tagged is in strong positive relation with all content categories (exhibits 0.922, people exhibits 0.905, people 0.825, outdoor 0.808, other 0.703) which is somewhat expected as tagged is the sum of the five content categories. This ordering of the coefficients is however, indicative of people's tagging behavior and preferences, i.e. exhibits rather than outdoor scenes. Figure 1 displays the tagged categories as a percentage of the total number of tags that the museums have received. Out of the 1561 total tags, 50% of them are exhibits, while the other four categories account for the 17%, 15%, 14% and 4% of the total tags respectively.

Figure 1. Tagged content categories



Variable tagged is also in weak (to moderate) positive relation with website, social media and population. The correlations in Table 3 were calculated with the pandas “corr” function passing “pearson” as the method to use. Some further experimentation with the non-parametric (more details on normality given later) tests Spearman and Kendall revealed that the variables tagged and population are uncorrelated (retain H0) at 0.95 significance level (Spearman coefficient 0.222,  $p=0.061$ , Kendall coefficient 0.164,  $p=0.063$ ). The mean, standard deviation and Tukey 5-number

summary for all variables are shown on Table 4 below. The museum of Thessaloniki is the one mostly tagged (350), followed by the museum of Piraeus (196), the museum of Heraklion (139) and the Acropolis museum in Athens (122). These are all large Greek cities and one might expect some degree of correlation with the region population. This however has not been verified as seen previously, at least to a significantly large extent.

Table 4. Mean, standard deviation and 5-number summary for dataset variables

	tagged	exhibits	people exhibits	people	outdoor	other	website	social media	region	population	central
count	72	72	72	72	72	72	72	72	72	72	72
mean	23.375	10.889	3.694	2.972	3.194	0.931	1.222	1.986	7.639	1041.597	0.097
std	51.735	27.692	10.819	5.862	6.553	3.854	0.451	1.25	3.465	1184.355	0.298
min	0	0	0	0	0	0	0	0	1	198	0
25%	0	0	0	0	0	0	1	1	4	309	0
50%	9	2.5	1	0.5	1	0	1	3	7	582	0
75%	17.25	7.25	3.25	4	4	0	1	3	11	731	0
max	350	155	87	38	40	30	2	3	13	3812	1

The skew of the variable distributions has also been calculated. All of the variables have positive skewed distributions (ranging from 6.713 for people\_exhibits variable to 0.174 for region variable) apart from the social\_media variable (-0.685). This has also been verified by also looking at the histogram and density plots (not shown here). The presence of outliers is apparent especially with the box-whisker plots (again not shown here). This fact, combined with the small sample size, may have some undesired effects in the statistical analysis further on but for the scope of this contribution, no outlier elimination process was employed.

At this point, normality tests were conducted for the variable distributions, employing the Shapiro-Wilk Test and the D'Agostino K2 Test. In some cases, a power transform like Box-Cox was utilized. Results showed that tagged, exhibits, social\_media, region and population follow a Gaussian-like distribution, whereas the rest of the variables are non-Gaussian distributed. Following these normality tests, independent T-tests were employed for the Gaussian variables and Mann-Whitney U tests for the non-Gaussian ones to argue about the similarity or the difference between central and peripheral museums. All tests have revealed similar distributions. Results at the 0.95 level are summarized on Table 5.

Table 5. Central and peripheral museum differences

variable	test type	distributions	Statistic	p-value
tagged	T-test ind.	Same (retain H0)	1.644	0.151
exhibits	T-test ind.	Same (retain H0)	1.373	0.218
social media	T-test ind.	Same (retain H0)	1.074	0.315
people exhibits	Mann-Whitney U	Same (retain H0)	224.500	0.480
people	Mann-Whitney U	Same (retain H0)	198.000	0.277
outdoor	Mann-Whitney U	Same (retain H0)	198.000	0.280
other	Mann-Whitney U	Same (retain H0)	196.000	0.182
website	Mann-Whitney U	Same (retain H0)	212.500	0.357

A popular effect size measure for quantifying the difference between groups is the Cohen's d measure. In this case, the central and peripheral groups have been shown to be similar. As an example, the Cohen's d measure was calculated for the case of tagged variable and found a score of 1.827, which can be interpreted as very large (according to initial interpretations by Cohen, subsequently expanded by

Sawilowsky, 2009). Thus, it can be argued that with a very large effect size measure, the T-test result holds firm. The final objective under investigation is to model the number of tags each museum receives, based on region population, social media presence and website status as predictors. Multiple linear regression was carried out in RStudio (within Anaconda environment as well). After loading the .csv formatted dataset the linear model was built and its coefficients displayed (Table 6).

Table 6. Three-predictor model

```
> myData <- read.csv('ig_museums_nozeros_r.csv')
> head(myData,5)
  tagged exhibits people_exhibits people outdoor other website social_media region population central
1      9         0             6      2         1      0         1      9         621      0
2      0         0             1      0         0      0         2      0         282      0
3      9         4             1      1         3      0         2      0         680      0
4      0         0             0      0         0      0         2      2         680      0
5     122        0             0      0         0      0         2      2         3812     1
> model <- lm(tagged ~ website + social_media + population, data = myData)
> summary(model)

Call:
lm(formula = tagged ~ website + social_media + population, data = myData)

Residuals:
    Min       1Q   Median       3Q      Max
-57.508  -21.606   -4.306    2.883   292.871

Coefficients:
(Intercept)  -28.887178  18.721888  -1.543   0.1275
website       22.659369  12.874590   1.760   0.0829
social_media   6.111904   4.677305   1.311   0.1943
population    0.011894   0.004911   2.422   0.0181 *

Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 48.66 on 68 degrees of freedom
Multiple R-squared:  0.1328
F-statistic: 4.088 on 3 and 68 DF, p-value: 0.009948
```

It can be seen that p-value of the F-statistic is 0.009948, meaning that; at least, one of the predictor variables is significantly related to the outcome variable. To see which predictor variables are significant, the coefficients table can be examined, which shows the estimate of regression beta coefficients and the associated t-statistic and p-values. For a given predictor, the t-statistic evaluates whether or not there is significant association between the predictor and the outcome variable, i.e. whether the beta coefficient of the predictor is significantly different from zero. In this case, it is observed that population is significant at the 0.05 level and website at 0.1 level, while social media as a feature is not significant and could be removed from our model as redundant. The website predictor could be removed as well but it was chosen to be retained. Doing so, it can be demonstrated that for the new two-predictor model (Table 7) its significance has increased, remaining however above the 0.05 threshold.

Table 7. Two-predictor model

```
> model <- lm(tagged ~ website + population, data = myData)
> summary(model)

Call:
lm(formula = tagged ~ website + population, data = myData)

Residuals:
    Min       1Q   Median       3Q      Max
-53.007  -20.604   -8.380    4.231   297.088

Coefficients:
(Intercept)  -19.649126  17.435250  -1.127   0.264
website       24.417210  12.871090   1.897   0.062
population    0.012654   0.004902   2.582   0.012 *

Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 48.91 on 69 degrees of freedom
Multiple R-squared:  0.1314
F-statistic: 5.218 on 2 and 69 DF, p-value: 0.007756
```

Thus, the model equation can be written as:

$$\text{tagged} = -19.649 + 24.417 \cdot \text{website} + 0.013 \cdot \text{population}$$

The model confidence intervals could have been calculated with the R function confint(model) but are not shown here as the website predictor is retained as well. In multiple linear regression, R2 represents the correlation coefficient between the observed values of the outcome variable (y) and the fitted (i.e., predicted) values of y. A problem with the R2 is that, when more variables are introduced to the model, R2 always increases. This happens even in cases when these predictors

have a weak association with the response (Gareth, Witten, Hastie and Tibshirani, 2014:79-80). A solution is to adjust the R2 (Adjusted R Square) by taking into account the number of predictor variables. Here, the adjusted R2 value suggests that only 11% of the variance in the measure of tagged can be predicted by website status and region population. Therefore, as a conclusion, the model is rather unsatisfactory and other features should be surveyed.

The findings of the study are in accordance with the relative literature which shows that visitors are primarily engaged with the objects as most of the visitors of our sample gave emphasis to photographs of exhibits. The paper tried to explore the role of subjectification in the choice of the visitors and examine how visual choices could affect the visitor's impression of the museum. The study seeks to alert museums to the importance of using social media as a means of promoting museums and their exhibits. It is evident that Instagram, largely based around image, constitutes a very important visual information provision channel.

Certain limitations were detected when the data was collected. One of the limitations of the study was that it focused on the image content without associating it with the user comments. It would be interesting to extract text (together with other metadata) of all posts in an automated manner and perform, for example, sentiment analysis on this corpus. Moreover, the study focused only on archeological museums; it would be interesting to extend our sample and include other Greek museums, e.g. folk, nautical and others. Apart from a larger sample, more variables could be introduced into it, e.g. number of monthly/annual actual visitors. Variables related to followers, following and number of posts would prove extremely valuable; these, however, are not available, as archaeological museums in Greece do not maintain Instagram accounts.

## 5 CONCLUSIONS

The findings of this research indicate that most of the museums use at least one to three social media platforms for communication and marketing reasons. That means that with the use of social media, museums have the choice to illuminate and explore some tensions, such as, to highlight knotty juxtapositions, to share public experiences and private engagements and personal and communal pasts with their visitors provided their use is framed and understood in alignment (Kidd, 2011).

Only the Acropolis Museum has an official Instagram page. The rest of the archeological museums can be found only through location by tags made by Instagram users. What Instagram users do is that they find the location of the museums through Instagram and they upload their photos. That, of course, could increase the museum publicity. Overall, museum officials have not seized the opportunity that social media and especially Instagram offer today; their importance seems to be underestimated.

Even though the study of Draskalaki et al (2020) found that in an Archeological Museum there is limited interaction between exhibits and visitors, in our study most of the uploaded photos include museum exhibits. This, according to Budge and Burness (2017), means that attention to exhibition content is specifically drawn by objects. Some people though,

upload photos of themselves along with the exhibits – those people could be influencers. As influencer marketing is partly viral marketing (Chatzigeorgiou 2017), museums can exploit these posts in order to reach and attract more visitors. Finally, as the statistical analysis has shown, there is no significant difference related to the locations of the museums, as both major archeological museums in Athens and Thessaloniki, as well as museums in the Greek province have similar distributions in all the dataset variables.

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# Tourism development through landscape theming: Exploring Art Nouveau experiences in Brussels

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## Abstract

**Purpose:** This study aims to present and explore the landscape approach as an innovative management model for heritage tourism, applied to the case of the Brussels Art Nouveau heritage. The main objective of this paper is to gain insight in discrepancies regarding visions on the tourism potential of the Brussels' Art Nouveau and the Art Nouveau patrimony's integration within a (themed) tourism landscape.

**Methods:** The research used an appropriate methodological approach for each of the stakeholder groups. The survey among visitors (N=105) was organized in the heart of Brussels and analyzed with statistical techniques (cross tabling and associations). Interviews (5) were conducted with key informants (policymakers, heritage managers and the Brussels DMO), after which content analysis was applied to the transcripts.

**Results:** The research resulted in an innovative perspective to increase common ground between a landscape centered perspective with a focus on heritage and a tourism landscape centered approach. The research deduced several hidden mismatches in perception and appreciation of the Art Nouveau and showed that there are major information and promotion problems, fostered by politically influenced fragmentation and lack of collaboration.

**Implications:** By gaining insight in the visitor experience of a tourism product's potential, valuable knowledge is created for DMO's. The implementation of a themed landscape approach has the dual potential to increase the consistency of the heritage while developing a higher level of tourist experience.

**Keywords:** Art Nouveau, Brussels, landscape, theming, heritage tourism, tourism destination

**JEL Classification:** L82, Z33

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## 1 INTRODUCTION

When asked about the planned tourism activities, Brussels' visitors seldom mention the Art Nouveau heritage as demonstrated by this research's survey. However, the Brussels destination management organization, further referred to as DMO, still claims the title of 'European Capital of Art Nouveau' even though the Brussels Capital Region is confronted with a fragmented Art Nouveau heritage that is scattered throughout the metropolitan area. The latter is reinforced by a large number of present actors, objectives, interests and power relations. Furthermore, it is questionable whether it is recommended to stimulate further the commodification of vulnerable heritage such as individual, often small scale and fully furnished buildings in Art

Nouveau style. The lack of common ground between heritage/architecture and tourism creates an extremely precarious situation. The innovative application of a themed landscape approach, however, may trigger the development or further utilization of the tourism potential and creates an opportunity to strengthen the common ground between a landscape-centered approach or heritage perspective and a tourism-centered approach or tourism commodification perspective (Gravari-Barbas, 2017; Vanneste, Vandeputte, & Poesen, 2016; De Ridder & Vanneste, 2019). Through the exploration of the (themed) landscape approach, this research aims at representing an impetus in the creation of an integrated, multidisciplinary framework that fosters the consistency of a scattered heritage. It enables one to shed a distinct light on the unique Art Nouveau patrimony while allowing to address and overcome the hurdles concerning





overtourism, simplification of meaning, and fragmentation of management.

The tourism potential of Art Nouveau heritage was researched within the Brussels Capital Region through a mixed-methods approach and from the perspective of the visitors and the point of view of the policymakers and heritage managers involved with Art Nouveau heritage and tourism management. The first research question of this paper relates to whether or not the Brussels' Art Nouveau can be considered a tourism-themed landscape. The second research question looks into the tourism potential, more specifically whether this is fully exploited.

The main objective of this paper is to gain insight in discrepancies regarding visions on the tourism potential of the Brussels' Art Nouveau and the Art Nouveau patrimony's integration within a (themed) tourism landscape. This research provides a momentum to contextualize, within the urban tissue, and to evaluate a heritage from a tourism perspective that is partly underestimated and partly overestimated, depending on the stakeholders. Additionally, the use of a landscape approach, allows one to map distinctive perspectives, attitudes, and visions that contributed to the shaping of the environment in which the Art Nouveau heritage is embedded. Therefore, an additional objective of the research presented here was to develop recommendations that could stimulate (more) holistic and inclusive strategies among heritage and tourism managers, striving towards an optimal balance between conservation and commodification. Moreover, it was aimed to develop suggestions that can contribute to the visitors' tourism experiences while keeping in mind the carrying capacity of the patrimony. If one manages to overcome the aforementioned obstacles, momentum can be created for the destination to possess and to valorize a heritage that comprises regional, national and even international touristic recognition and reputation.

## 2 LITERATURE REVIEW

### 2.1 Landscapes

Landscapes imply a spatial and visual entity (Naveh & Lieberman, 1994; Glikson, 1965) and form a holistic network of natural and socio-cultural elements that are intertwined, interact and evolve in mutual relationships (Burmil & Enis, 2004; Edensor & Kothari, 2004; Stoffelen & Vanneste, 2015). It is an artificial concept that integrates several functions, meanings, and aspects (Antrop, 2006; Burmil & Enis, 2004) and allows for the combining and interpretation of the qualities of the past, the present, and the future.

Furthermore, it expresses local identity and offers points of reference to visitors (Antrop, 2006; Markwell, Stevenson, & Rowe, 2004). A landscape is a product of continuous dynamic interaction between natural processes and human activity and is simultaneously produced and consumed by different stakeholders on different locations and levels (Stoffelen & Vanneste, 2015). Consequently, a landscape is never neutral as it contains multiple socially constructed symbolic layers and cultural images with intangible meaning and content (Isachenko, 2009). Because of its pluralistic and diversified nature, it is crucial to acknowledge and involve all relevant types of stakeholders, networks, and their power during the creation of a landscape as well as to lead and plan

the landscapes' development (Aitchison, MacLeod, & Shaw, 2000; Jansen-Verbeke, 2009). The inherent balancing act of power will determine the intensity and direction of the benefits of commodification (Stoffelen & Vanneste, 2015). Therefore, it is necessary to understand and map hidden processes and determinants that shape and influence the landscape such as contradicting visions and aims of different stakeholder groups. Keeping the latter in mind, a landscape offering a framework for an inclusive, integrated and holistic approach for a diversified and heterogeneous system in which a touristic dimension exists, cannot be taken for granted.

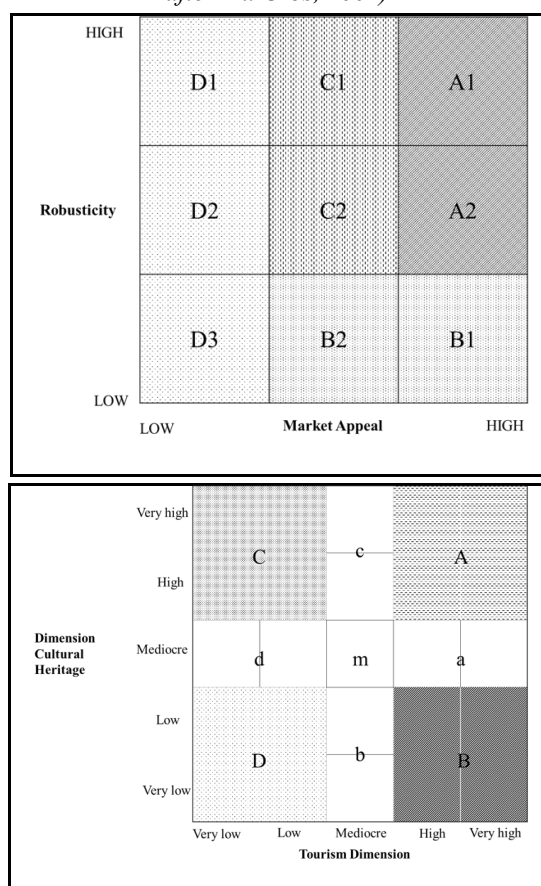
### 2.2 Tourismscape

The integration of a tourism dimension within a landscape goes with the creation of a tourism landscape. However, research regarding this matter remains fragmented as there is a lack of an integrated and multidisciplinary framework that creates a common ground for both landscape and tourism. A tourism-centered perception highlights commodification for tourism goals and allows to create a recognizable destination image (Aitchison et al., 2000; Ringer, 1998; Saarinen, 2004; Stoffelen & Vanneste, 2015). The focus lies on the overall attractiveness of the destination for tourists and the 'primary tourist products' or the resources such as heritage which are only a link in the system (Russo & Van Der Borg, 2002). Such an approach can result in the alienation of the landscape and its users from sense and meaning, and may trigger conflicts. A landscape-centered approach, however, highlights sustainable conservation and preservation of the landscape's resources while prioritizing the tangible and physical elements of the landscape (Aitchison et al., 2000; Stoffelen & Vanneste, 2015). Within this approach, the complexity of the tourism perspective is minimalized. One way to create common ground and dialogue between these two perspectives can be derived from the Du Cros model which puts a typical landscape dimension –robusticity or (cultural) heritage- and a typical tourism dimension –market appeal- in mutual relationship, trying to estimate the balance between the two (du Cros & McKercher, 2001). The conceptualization and analytical approach of the tension between the architectural focus on cultural, physical and tangible aspects on the one hand and the field of tourism on the other hand (McKercher & Ho, 2006) helps to identify the complexities of the relationship between heritage and tourism within the spatial context of a destination. Furthermore, the model or framework is flexible enough to extend the matrix for more detail (Figure 1). Although the stakeholders and contexts are diverse, existing elements and fields of tension can be similar such as robusticity versus vulnerability as well as presence of management. The constructionist process behind it with inherent commodification, institutionalization and constitutive power relations are well described in the model by Stoffelen and Vanneste (2015).

When merging tourism, the architectural heritage and the landscape aspect, the model allows one to create a continuum between the characteristics and distinctive features of both the tourism-centered and landscape-centered approach. However, a symbiosis between conservation and preservation of heritage and tourism development is not guaranteed (Ashworth, 1988). Tourism can function as an intermediary in the creation of spatial and mental layers

active within the landscape (Isachenko, 2009) while commodifying and institutionalizing the local resources for the use of tourism, provided that the integration of the sense of place and the different inherent meanings by acknowledging the active power relations and linked stakeholders are taken into account. Hence reducing possible latent conflicts and empowering the implementation of relevant network structures. Moreover, the reflection on tangible elements within the landscape stimulates a structuring role within the creation of the tourism product. A heritage site is not a stand-alone entity, but an element situated within a broader whole. Deconstructing the content of the landscape and the possibility to discover and acknowledge the role of context, enhances the interpretation of the heritage (Markwell, Stevenson, & Rowe, 2004) and thus, the tourism product.

Figure 1. Top: the Du Cros matrix, estimating the relationship between the continuum of robusticity and market appeal (Du Cros, 2001:168). Bottom: adaption of the matrix, to allow more detailed information (own version after Du Cros, 2001)



A1-A2 ideal minimal to moderate conservation measures  
 B1 – B2: visitation restricted or discouraged OR strict conservation & visitor management measures  
 C1 – C2: Optimizing market appeal (secondary attractions)  
 D2 - D3: Preserved for reasons other than

One of the major hurdles is the translation of the model into a real methodology that allows one to estimate the tourism potential of the (themed) tourism landscape and more precisely, the value of the heritage for tourism. Therefore, a combination of the du-Cros Model (du Cros & McKercher,

2001) and the Tourism Potential Audit Tool (McKercher & Ho, 2006) is valuable as the Tourism Potential Audit Tool proposes measurable criteria via a survey. The survey questions, leading to the quantification of the criteria can be adapted according to the destination and the specific context (McKercher & Ho, 2006). The model and accompanying tool might not be the most performative in quantitative terms but the combination is one of the very few that facilitates the researcher in finding the balance between preservation and commodification of the cultural resources. On the one hand, deconstructing the robusticity aspect allows one to estimate the needs for conservation management, cultural values and the physical carrying capacity perspective. On the other hand the market appeal dimension is decomposed in product values and experience related values while trying to quantify the different aspects by means of Likert scales for the appreciating of respondents. Crossing robusticity and market appeal results in a matrix (Figure 1) that allows one to estimate which kind of strategy and form of management (conservation or tourism development) is needed for a particular destination or tourism landscape and to attain long-term sustainable heritage site development. The model however, lacks a dimension regarding stakeholders, partnerships and power relations which implies that additional, rather qualitative research is needed to grasp the impact of processes behind the (lack of) structuring of the tourism landscape or the heritage landscape alike.

### 2.3 Urban landscape and themed landscape

An urban setting is a space where built constructions predominate and large numbers of activities, functions and people are interwoven and grouped. It can consist of significant historical stratification combined with cultural and natural values (UNESCO, 2011; Van Mechelen, 2006). The urban landscape possesses multiple performative, architectural and tangible aspects (Edensor & Kothari, 2004) which are the foundations for the creation of the thematization of the landscape. Thematization implies the meaningful positioning of a destination through a theme (Sternberg, 1997) that potentially incorporates points of reference and the landscape's distinctive identity (Aitchison et al. 2000). Furthermore, it is an opportunity to link the past with the present in an innovative manner while stimulating creative developments within the themed landscape (Aitchison et al. 2000). Themed urban landscapes can link the elements of heritage throughout the cityscape (Markwell et al. 2004). Including architecture as a central theme within a landscape, stimulates the urban identity as well as the protection of the heritage through the positioning within a sustainable cultural context (Prentice, 2001). The latter needs to be an inherent part of the tourism strategy (Savage, Huang, & Chang, 2004). Architecture as a tourism product fuels cultural appreciation and is linked to authenticity, participation, encounter and the need to understand (Prentice, 2001). A themed landscape is not merely a summary of the historical elements in the present but a processed pattern with added value (Ashworth, 1988).

Selection, interpretation and packaging are crucial in the creation of a themed tourism product (Markwell et al. 2004) as well as permeability through gateways, legibility, signage (Tiesdell, Oc, & Heath, 1996; Aitchison et al., 2000), planning and organization. It is therefore important to find

the balance between a condensed and manageable theme versus its several complicated layers and subtleties (Ashworth, 1988). The composition of the content is a crucial aspect as it must include present narratives, perspectives and interpretations (Dove, 1997; Prentice, 2001; Markwell et al., 2004). Failing to acknowledge all stakeholders involved increases the risk to present a simplified and selective thematization and will result in a lack of sense of place and community (Markwell et al. 2004). However, if one is successful in doing so and due to the uniqueness and the specific identity of the urban landscape, one can stimulate the rediscovery of architecture as well as making the intangible visible (Lasansky, 2004; Ockman, 2004; Aitchison et al., 2000).

#### **2.4 Art Nouveau as a theming topic for the Brussels heritage and tourism landscape**

Theming by using architectural styles is common and dangerous at the same time. Many thematic routes on diverse scales are based on architectural styles or famous architects. There are many international routes, such as the European Route of Brick Gothic or the Réseau Art Nouveau Network which is certified as Cultural Route of the Council of Europe in 2014. On a more regional or local scale, one can mention the Wooden Architecture Route in Malopolska (Poland) or the Gaudi Route in Barcelona. The danger might take the form of a hyper-aestheticization which finally affects authenticity such as in Old Quebec (Gravari-Barbas, 2019) or even a Disneyfication such as the French Quarter of New Orleans (Souther, 2007).

As for the Brussels's Art Nouveau heritage, its expressive and artistic style emerged in the late 19th century and is considered as a response to the spirit of the time (Howard, 1996; Krastins, 2006). The founding of Belgium in 1830 led to a specific context in which this style developed. Therefore, the Belgian style Art Nouveau is characterized by a certain sense of optimism and softness but at the same time it is vivid, cosmopolitan and energetic. Therefore, Art Nouveau and Brussels constitute a intertwined reality that underpins Brussels identity with more than 500 public and private buildings in the Art Nouveau style spread over the Brussels Capital Region while the BANAD festival<sup>1</sup> (former Biennial on Art Nouveau and Art Déco) attracts around 30.000 visitors annually and the Horta Museum (one of the four major townhouses of the Architect Victor Horta on the UNESCO world heritage list<sup>2</sup>) welcomes yearly ca. 67.000 visitors. Undoubtedly, the Brussels Art Nouveau heritage has tourism potential. Nevertheless, the hardware consists of many private houses that are not open to the public and/or have a low carrying capacity. Many assets such as House Saint-Cyr (Square Ambiorix), the Hotel Solvay (Avenue Louise), Hotel Tassel (P.E. Jansonstreet) and the somewhat nameless houses such as the one in the Rue Africaine are gems of small format and unsuitable for large visitors' groups (Figure 2b, c, d). Even the residence of Victor Horta, which was converted into the present Horta Museum (Figure 2a), is vulnerable and subject to strict visitors management in order to limit damage and optimize the visitors experience. This illustrates that the

heritage-tourism nexus only allows a limited number of creative solutions.

*Figure 2. Different Art Nouveau buildings in Brussels*



*Source: D. Vanneste, 2017*

Currently, a themed Art Nouveau walk exists in Brussels. This walk however, mostly highlights the more famous Art Nouveau buildings that were converted into museums such as the Comics museum in the former Warehouse Waucquez and the Museum of Music Instruments in the former Warehouse Old England. The themed walk barely takes into account elements that form a vital part of the Brussels urban landscape (such as the ponds of the commune of Ixelles) or the numerous renowned Art Nouveau architects, other than Victor Horta, such as Hankar, Van de Velde, Van Rysselberghe, and Blérot for example, who had their own style within the art movement and all contributed to the Brussels landscape.

It is interesting to notice that the Art Nouveau in Brussels gained an exceptional momentum because of the optimism and dynamism of a young and flourishing state and therefore Art Nouveau is also, to some extent, a political statement. With Brussels becoming the 'Capital of Europe', from 1958 onwards, European administrations and departments moved into Brussels and started to occupy dedicated buildings for the European Parliament, and the European Council to name a few. New quarters with new symbolic architecture tended to dominate the Brussels urban scene and eurocrats started to play a role in mediating Brussels as a destination (Jansen-Verbeke, Vandenbroucke, & Tielen, 2005). As a result of

<sup>1</sup> <https://www.banad.brussels/en/>

<sup>2</sup> <http://whc.unesco.org/en/list/1005>

enlargement, Brussels may consolidate and eventually strengthen its position as a destination for business tourism which might explain why the political symbolism of the 19<sup>th</sup> and early 20<sup>th</sup>-century urban scene in Brussels tends to lose its importance or is subject to fading appreciation.

### 3 METHODOLOGY

The methodological part of this mixed-methods study contains two main components focusing on visitors, policymakers and heritage managers related to the Brussels Art Nouveau tourism landscape. Firstly, a quantitative face-to-face survey, which was made available in Dutch, French, and English, integrated the perspectives of both stakeholder groups. By means of a non-probability sampling, using convenience sampling within stratified sampling, 105(n) respondents were asked to indicate on a five-point Likert scale whether they perceive the Brussels Art Nouveau heritage as typical, dominant, and/or part of the identity of the city. Other keywords intended to capture the respondent's perception of the Brussels Art Nouveau as a (developed) tourism product. The five keywords (typical, dominant, identity, tourism product, developed product) were distilled from the literature concerning themed landscapes, urban landscapes and tourism landscapes and made an attempt to translate the abstract concepts into meaningful and comprehensible terms. They represent some potential values of the tourism landscape that, in terms of concepts, are close to the general visitors' discourse and understanding.

The Brussels Capital Region welcomed 1,3 million recreational visitors in 2016 (Visit Brussels, 2016). Nevertheless, the results from the respondents' survey provide a clear perception of the answers to the initial research questions. In order to be certain the survey was only distributed to visitors who were potentially exposed to Art Nouveau, the strata was the Musical Instruments Museum (Kunstberg, the center of Brussels) which is a marker building in Art Nouveau style. Furthermore, the researchers joined two guided tours.

Secondly, it was questioned what the possible (dis)advantages of such touristic themed landscape, applied to the Art Nouveau heritage, could be. By analogy with the composition of the keywords, these questions, tackling the Art Nouveau as a tourism product and tourism landscape, were also derived from the core literature in order to obtain questions that could be formulated clearly and understandable. Linear associations were reviewed to examine whether or not the prior visitation of the Art Nouveau heritage is related to the perception of the heritage as a landscape and its tourism potential.

As this study intends to transcend a purely qualitative discourse through the modeling of tourism potential, including strengths and weaknesses, part two of the survey inquired the tourism potential of the Brussels' Art Nouveau and was called 'the quick round', confronting the respondents with twenty statements using a five-point Likert scale. The presented statements, as well as the plotting of the scores of the Art Nouveau heritage, is based on the model and measurable criteria as presented respectively by Du Cros (2001) and McKercher and Ho (2006). However, to be as tailored for the specific context as possible, some adjustments

were made to the measurable criteria as well as a reinterpretation of the Du Cros (2001) model. The questions were translated to match the Brussels' Art Nouveau framework and the main dimensions were separately presented by a matrix to avoid the balancing out of significant differences. Furthermore, instead of three possible matrix scores (Low – Mediocre – High), a categorization of five possible scores was introduced, thus allowing a very detailed positioning, resulting in a specific interpretation and linked strategic recommendations. A third adaption concerns the mapping of social interactions as presented by Jansen-Verbeke (2009) to complement the conceptualization of geo-tourism (Stoffelen & Vanneste, 2015) and the measurable criteria (McKercher and Ho, 2006). Subsequently, a principal component analysis was carried out in order to reveal different dimensions and variety in visitors' perceptions of heritage and urban landscapes. This allows one to evaluate the set of measurable criteria and to find out which variables are relevant to the visitors in evaluating the tourism potential of the Art Nouveau heritage (De Ridder & Vanneste, 2019). This is valuable knowledge for DMO's in the journey to construct qualitative tourism experiences.

The qualitative part of the research consists of five semi-structured interviews in French and Dutch with expert stakeholders related to the policy and heritage management concerning the Brussels' Art Nouveau. These stakeholders were selected based on their position within relevant organizations which, each within their own area of expertise, have an influence on the Art Nouveau heritage in the Capital Region, whether it be from a tourism perspective or a more landscape-centered perspective. These respondents were first asked to complete the survey after which the researchers shared the results from the visitors' survey with them. Subsequently, content analysis was carried out to compose a set of visions and interpretations from the policymakers and heritage managers.

### 4 FINDINGS AND DISCUSSION

The study shows that, in general, visitors do not consider the Brussels' Art Nouveau heritage as an urban-themed landscape nor as a tourism-themed landscape. Nevertheless, a significant difference was found between respondents who visited Art Nouveau in Brussels or had the intention to do so and those who did not (Table 1). Those who visited Art Nouveau do consider it as a part of the urban identity while those who did not visit Art Nouveau, clearly do not. A large share of the visitors agree that Art Nouveau has tourism potential, particularly amongst those who visited Art Nouveau or had the intention to do so, but do not consider it a well-developed product yet.

Contrary to the visitors, the stakeholders related to policy, as well as the management do consider the Brussels' Art Nouveau heritage as an urban and tourism-themed landscape. All five policymakers and heritage managers state that Art Nouveau is "something very typical and dominant" for the Brussels' landscape and that "it is definitively a part of the city's identity", in addition to "the theme that is already well-developed". Therefore, and especially from a policy point of view, it is interesting to get insight into the reasons why

visitors do or do not visit the Art Nouveau heritage in Brussels (Table 2).

*Table 1. Link between visiting Art Nouveau buildings and value for the Brussels' urban landscape (Linear associations)*

Value (3 point Likert scale: 1 = strongly disagree – 5 = strongly agree)	Q: did you visit Art Nouveau or do you have the intention to visit Art Nouveau		
	Assoc. Visit/Value Prob value*	% (strongly) agree & who visited AN/total	% (strongly) agree & who didn't visit AN/total
1. "AN** is Typical"	0,0003	26%	12%
2. "AN is Dominant"	0,0003	14%	3%
3. "AN is part of the Identity"	< 0,0001	35%	12%
4. "AN has Potential as a tourism product"	< 0,0001	43%	40%
5. "AN is we well developed tourism product"	0,3	13%	9%
6. There a enough information on AN	0,2	10%	5%

\*Association according to a Mantel-Haenszel test: significant  $p$  in bold

\*\* 'Art Nouveau' has been abbreviated by 'AN'

Source: own survey (N=105)

*Table 2. Reasons for (not) visiting the Brussels Art Nouveau heritage*

#### Reasons for visiting the Brussels Art Nouveau heritage (45,70%)

We did an organised Art Nouveau tour because we are architects

It is nice and fun to visit, by walking through the city (translated from Dutch: "Het is mooi en leuk om te bezoeken, door doorheen de stad te wandelen")

I have visited the Music Instruments Museum and saw that it is Art Nouveau, so I will visit the Victor Horta museum (translated from French: "J'ai déjà visitée le MIM et j'ai vu que ça c'est de l'Art Nouveau donc je vais encore visiter le musée Horta")

I look at it because I'm interested (translated from Dutch: "Ik bekijk het uit interesse")

I am interested in architecture and as historian also interested in Art Nouveau and art history in Brussels (translated from Dutch: "Ik ben geïnteresseerd in architectuur en als historicus ook geïnteresseerd in Art Nouveau en de kunstgeschiedenis van Brussel")

#### Reasons for not visiting the Brussels Art Nouveau heritage (54,30%)

Very little is known about it, so we didn't plan to visit Art Nouveau. There is no broad promotion, that's why (translated from Dutch: "Er is zeer weinig over bekend dus we hebben niet voorzien om Art Nouveau te bezoeken, er is geen brede aantrekkende promotie, daarom")

No, I'm not really interested in architecture

We don't know it and don't think it is typical for Brussels, I'd rather say Ghent or Bruges

It is not really touristic for me. I don't see Art Nouveau as a tourism activity (translated from French: "C'est pas vraiment touristique pour moi. Je ne vois l'Art Nouveau pas comme activité touristique")

We know about it but didn't know that there is a lot of it in Brussels (translated from Dutch: "We kennen het van zien maar wisten niet date r daar veel van in Brussel is")

Source: Own survey (N=105) from open questions

Visitors pointed out multiple reasons to visit the Art Nouveau heritage in Brussels, such as personal interest, a prior guided tour that triggered them to explore more or a visit to the Music Instruments Museum in Art Nouveau style which made them curious to discover other Art Nouveau highlights. Reasons for not visiting the Art Nouveau heritage can be attributed to a lack of interest in architecture in general or the fact that the visitors were not aware of this style's presence in the Brussels Capital Region. Of the 45,70% of the visitors who indicated that they already visited the Art Nouveau heritage, 21% pointed out that they did this by means of a guided tour or walk throughout the city. This demonstrates the need for an approach that manages to position the heritage as a coherent whole within the touristic field. Of the visitors

who did not visit the Art Nouveau heritage (yet) (54,30%), 30% stated that they did not know it. The appreciation of Art Nouveau for its tourism potential is endorsed by the popularity of the guided Art Nouveau tours provided by an association of Brussels residents. These thematic and guided tours are by far the most popular.

The cultural dimension of the Art Nouveau heritage being stronger than the tourism dimension is confirmed by the scores on statements representing the different dimensions: cultural values, physical values, market appeal and product design (du Cros & McKercher, 2001) (Table 3).

*Table 3. Statements for the assessment of tourism potential: 5-point Likert scale means and standard deviations*

Statements	Mean*(M)	Std Dev
<b>CULTURAL HERITAGE DIMENSION</b>	<b>3,54</b>	
<b>A) Cultural values &amp; significance</b>	<b>3,65</b>	<b>0,35</b>
1. "The AN heritage can withstand visitation without having its cultural values damaged." <sup>1</sup>	3,44	
2. "The historical value of the Brussels' AN heritage is high." <sup>1</sup>	4,08	
3. "The AN heritage is rare within Brussels as a destination." <sup>1</sup>	3,27	
4. "The Brussels' AN heritage is of an international cultural importance." <sup>1</sup>	4,08	
5. "The residents of the private AN properties in Brussels should not be included within the tourism vision and policy regarding AN." <sup>2</sup>	3,41	
<b>B) Physical values – Robusticity</b>	<b>3,44</b>	<b>0,61</b>
6. "The significance of the Brussels' AN is impacted by a lack of accessibility." <sup>2</sup>	2,56	
7. "The Brussels' AN heritage is perceived as authentic." <sup>1</sup>	4,37	
8. "The significance of the Brussels' AN is impacted by a poor physical condition." <sup>2</sup>	3,38	
9. "There are few visitors, which detracts the cultural value of the Brussels' AN." <sup>2</sup>	3,10	
10. "Repair works on the Brussels' AN heritage have a negative effect on its authenticity." <sup>2</sup>	3,80	
<b>TOURISM DIMENSION</b>	<b>3,05</b>	
<b>C) Market appeal</b>	<b>3,46</b>	<b>0,78</b>
11. "The centre of Brussels is associated with culture and heritage." <sup>1</sup>	4,46	
12. "There are too many visitors to allow a person to emotionally bond with the Brussels' AN heritage." <sup>2</sup>	4,02	
13. "The Brussels' AN heritage does not possess the potential to provide the visitors with interesting experiences <sup>2</sup>	3,64	
14. "The organisation of the tourism regarding Brussels' AN heritage is focused on its cultural value." <sup>1</sup>	2,32	
15. "There is qualitative interpretation available that allows the visitor to gain more insight in the Brussels' AN heritage <sup>1</sup>	2,86	
<b>D) Product design</b>	<b>2,64</b>	<b>0,64</b>
16. "The significance of the Brussels' AN heritage is high because of the intensive promotion of its value." <sup>1</sup>	1,95	
17. "The Brussels' AN heritage is big enough to attract and retain visitors for a 'longer period'. <sup>1</sup>	3,49	
18. "The Brussels' AN heritage is scattered throughout the city which makes it not worthwhile to visit." <sup>2</sup>	3,01	
19. "There is little information available about the Brussels' AN heritage." <sup>2</sup>	1,83	
20. "It is interesting to visit other types of heritage in the Brussels' city centre." <sup>2</sup>	2,90	

\*Coding of statement appreciations, ranging:

1= for positive statements from strongly disagree (1) to fully agree (5) on a 5 point Likert scale

2= for negative statements from strongly disagree (5) to fully agree (1) on a 5 point Likert scale

Note: 'Art Nouveau' has been abbreviated by 'AN'

Source: Own survey (N=105)

Table 3 illustrates the attempt to summarize the scores per statement into an overall score for the dimension by taking the average of scores per statement. It is clear that cultural value and significance is key (score 3,65) and that the dimension regarding product design is lagging behind (score 2,64). It is particularly interesting to notice that the Brussels Art Nouveau is perceived as 'authentic', with a high historical value and international cultural importance. Furthermore, the adapted and applied Tourism Potential Tool reveals that visitors believe the Brussels' Art Nouveau heritage consists of high physical values implying they consider it as being robust while this might not be the case. These opinions are very valuable to create or improve a projected image of the Brussels Art Nouveau as it is perceived as such. On the other hand, promotion and information seem deficient and need urgent attention. The interesting element is that stakeholders from policy and management, once again, are convinced they are doing well.



This is demonstrated by a policymaker pointing out that Art Nouveau is “already very well known, simply because of its existence”. Upon confrontation with the survey results, indicating the lack of strategical promotion and information, it was mentioned that “this is the responsibility of each individual organization that works with Art Nouveau heritage in Brussels”.

*Table 4. Advantages and disadvantages of the Brussels' Art Nouveau heritage as a tourism product and landscape according to visitors*

**Advantages of Brussels' Art Nouveau heritage as a tourism product and landscape**

It is great, it teaches people the value of heritage

It is unique and entirely Belgian (translated from Dutch: “Het is uniek en puur Belgisch”)

It is really a way to get to know Brussels from another perspective (translated from French: “C'est vraiment un moyen de connaître Bruxelles sous un autre angle”)

It is an interesting activity for tourists, especially in October, when the houses are opened to the public (translated from Dutch: “Het is een interessante activiteit voor toeristen, zeker in oktober, wanneer de huizen worden opengesteld voor het publiek”)

It is a very original tourism product (translated from Dutch: “Het is een zeer origineel toeristisch product”)

If you would put more focus on Art Nouveau, you will get more attention from a broader public even if they are not so much interested in architecture

It is a [tourism] product with a great architectural value (translated from Dutch: “Het is een [toeristisch] product met een grote architecturale waarde”)

Although there are a lot of Art Nouveau houses, they are always original and surprising (translated from Dutch: “Hoewel er veel Art Nouveau huizen zijn, blijven ze steeds origineel en verrassend”)

The Art Nouveau landscape is a great way to discover and explore Brussels

The fact that the offer is fragmented, makes it a nice opportunity to explore the city

**Disadvantages of Brussels' Art Nouveau heritage as a tourism product and landscape**

Art Nouveau as a tourism product is not accessible (translated from French: “L'Art Nouveau comme produit touristique n'est pas accessible”)

There is a lot of competition, for example from other cities that have the same and where the offer is potentially better developed (translated from French: “Il y a beaucoup de compétition, par exemple des autres villes qui ont ça aussi et peut-être le produit là est plus développé”)

I think it is too fragile to function for tourism

This heritage as a tourism attraction can be of key importance for Belgium but it is just not known

It is a pity that the nice museums and buildings are often located in less nice neighbourhoods

The tourism product needs more info. For example: signalisation that focusses on the history and importance of the building (translated from French: “Le produit touristique a besoin plus d'info. Par exemple: des signes qui mettent le focus sur l'histoire et l'importance du bâtiment”)

Commodification, potential degradation (translated from Dutch: “Commodificatie, potentiële degradatie”)

I think it is rather scattered too much to be a cohesive landscape

The offer has been destroyed and therefore, it is hard to develop the offer as a tourism product (translated from French: “L'offre a été détruite et comme ça, c'est dur à développer l'offre comme produit touristique”)

There is more need to emphasize the cultural value of the offer

*Source: own survey (N=105) from open questions*

The interviews, surveys and following discourse analysis, therefore, reveal a discrepancy between the promotion of the Art Nouveau legacy as a tourism product and the representation of this heritage ‘in the field’. Considering the

Art Nouveau heritage is embedded in a specific time and space-related context, the promotion, however, prioritizes the so-called Art Nouveau headliners increasing further fragmentation and simplification of the narrative. The latter may reinforce the visitor's perception that the heritage is scattered throughout the city. This is, amongst others, illustrated by some of the disadvantages of the Brussels' Art Nouveau heritage as a tourism product, according to the visitors (Table 4).

This mismatch between visitors' perceptions and experiences and local policymakers and management experts can be tackled by bridging misconceptions on both side and trying to integrate the Art Nouveau heritage into a themed, mutually managed heritage and tourism landscape. Therefore, respondents were asked to explicitly enumerate advantages and disadvantages concerning the Art Nouveau heritage as a tourism product and tourism landscape. They came up with a myriad of opinions and ideas from which a number were selected based on their value for tourism development, themed landscape development, as well as heritage valorization and commodification (Table 4).

Regarding the advantages of the Brussels' Art Nouveau heritage as a tourism product and landscape, visitors point out its inherent cultural and architectural value. The latter in combination with its originality and potential to function as an alternative way to explore the destination, contributes to the tourism potential according to the visitors. However, issues regarding accessibility (public versus private buildings), fragility, external factors such as cleanliness and safety of less touristic areas and competition with other destinations with potentially more well-developed offers (for example Horta in Brussels versus Gaudí in Barcelona), are considerable disadvantages of the Art Nouveau heritage within a tourism context that were pointed out by respondents.

Furthermore, the visitors addressed the need for more qualitative interpretation. However, the question arises whether or not this tourism potential needs to be developed to the fullest extent possible as the risk of overexploitation or simplification of the narrative could be a threat to this particular heritage. Crucial factors that, amongst others, determine the success in the creational process of a themed landscape are the level of cooperation and the type of information flow. In the case of the Brussels' Art Nouveau, there is no or hardly any, cooperation between the municipalities while the necessary bottom-up information flow, gathered by organizations active in the field, gets lost in the process. Furthermore, the importance of tourism as an asset is underestimated by the formal institutions and the road towards the realization of tourism potential differs substantially between public and private organizations. This is shown through the prioritization of actions regarding more common themes, such as the construction of the interactive Belgian Beer World in the former stock exchange building, located in the very heart of the city<sup>3</sup>. This is, according to the director of a private organization that organizes guided Art Nouveau tours “once again, a missed opportunity for Art Nouveau”.

This results in a serious mismatch of information. The fragmentation and differentiation of actors may hinder the

<sup>3</sup> <https://belgium.beertourism.com>

further development of the Brussels' Art Nouveau as a tourism themed landscape. The way the organizations in the field sense and observe Art Nouveau as a tourism product differs radically from the decisions put in place by the region and its DMO. The lack of a formal or informal platform reinforces this mismatch of perspectives while hindering any possible form of coherence between actors. A clear illustration of this is the statement from a private organization in the field pointing out that "the Brussels DMO lacks ambition regarding Art Nouveau" because "they are mostly commercial profiles selling products while they should be selling content instead". Additionally, "working together is difficult because of the regional interest and the political dimensions" pointing out the complex geopolitical situation of the Brussels Capital Region in Belgium.

Finally, this research reveals that both stakeholder groups, visitors and local policymakers and managers, lack the capacity to integrate the Art Nouveau heritage in a broader urban context, except maybe for those who developed the Art Nouveau guided tours. The integration of sites in terms of spreading visitors in space and time and therefore in spreading pressure and fueling robusticity is not well considered by the policy side as focus remains largely on headliners and the well-known city center. However, visitors and stakeholders active within the private field indicate the need for more information and guidance to see that Art Nouveau is part of a larger urban reality in past and present. "The integration of the Art Nouveau heritage within a themed tourism landscape could further stimulate this", as stated by the coordinator of the regional Art Nouveau network.

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## 5 CONCLUSIONS AND RECOMMENDATIONS

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Although the interpretation and content of a themed landscape are subjective, as it represents a social construct, the landscape itself plays an indirect but crucial role in the regional socio-economic development through tourism. Because of its multiple functions and characteristics, the landscape serves as a suitable framework to examine the tourism dimension and to take into consideration elements that could have been overlooked. However, there is no one-size-fits-all approach when it comes to applying a (themed) landscape perspective. Implementing a themed landscape approach implies more than merely adding up similar elements fitting a particular theme. It requires engagement, stakeholders, narratives, planning and a holistic approach. The lack of integration can result in a lack of coordination, structured actors' networks and systematic dialogue, while increasing further simplification and fragmentation. This can hinder the positioning of the heritage in a broader context and reduce its capacity as a lever for (sustainable) tourism development. The landscape itself is a suitable matrix for integration and embeddedness. Such an approach can respond to the problematic subject of the commodification of the Brussels Art Nouveau heritage not being considered as typical, known or part of the city's identity by the majority of visitors, and therefore not a tourism product prioritized for visiting.

Furthermore, this study revealed the existing discrepancy between different crucial stakeholders regarding the city's Art Nouveau heritage. The themed landscape allows to

suggest a method to integrate several perspectives and overcomes discrepancies. The discrepancy in promoting the Art Nouveau heritage hinders a unified positioning. Consolidated promotion can focus on the themed heritage landscape while using the significance and meaning of it as a starting point. Moreover, existing information on the subject requires improvement. Promotional campaigns must highlight the international cultural values of the Brussels Art Nouveau as well as respond to its visual nature intrinsically linked with the urban landscape. These actions can trigger the alignment of multiple stakeholder perspectives while helping to spread the visitors geographically. Thoughtful tourism promotion also increases public awareness regarding the meaning of cultural heritage. In doing so, both dimensions will reinforce each other and the inherent value of Brussels Art Nouveau heritage for tourism will get more recognition from a larger public.

The study reveals that the Brussels Art Nouveau heritage possesses a tourism potential that is tangible, even for those visitors who did not visit Art Nouveau buildings or did not have the intention to do so. A lack of collaborative development initiatives but also some kind of self-satisfied idea that one is doing well are significant hurdles. It takes creative development initiatives through management measures that take into account the specificity of the landscape and the heritage itself, overcoming the political pillarization of the same management. The need for more qualitative interpretation and emotional attachment can be dealt with through the integration of an Art Nouveau experience center where tourism can take on the role of educator and raise awareness about the wider Brussels context in past and present. Integration of specific visitor management measures and indirect selection of visitors based on the desired level of informational intensity of their visit can positively benefit the carrying capacity of the heritage as visitors get spread throughout space due to and facilitated by the scattered heritage. This will reduce the risk of simplification and pressure on the touristic highlights such as the Horta Museum, as the Art Nouveau narrative will be embedded in a broader package with particular attention for social, political and economic characteristics of the Capital Region and the whole of Belgium for that matter. It is important that this set of measures triggers increased cooperation between different stakeholders while acknowledging and integrating the complex interactions between tourism and landscape features which very much implies bridging competencies for tourism, planning and culture which are fully regionalized and attributed at different policy levels. In order for the visitor to be able to critically analyze the proposed interpretations of the tourism-themed landscape, it is necessary to include different narratives and perspectives and to translate them in an integrated manner to an interpretation that embodies these different identities that come together in the Capital Region of Brussels. This reinforces the acknowledgment and involvement of the local community while stimulating understanding of Brussels as a living entity and its sense of place.

Brussels's DMO is a crucial actor that has the inherent power to act as a mediator and in setting up a network structure that embeds regional, federal and even supranational levels while offering support and development to the private

organizations in the field that shape the tourism offer. Additionally, it needs to address the financial support of investors, while operationalizing the tourism strategy and opening up dialogue to guarantee efficient and effective information flows. There is a need for in-depth and frequent dialogue, enabled by an embedded and institutionalized network structure based on a holistic and inclusive strategy concerning the Brussels Art Nouveau that strives towards a well-thought-out and sustainable tourism strategy for this particular asset. As long as there is a lack of a unitary strategy, the Brussels Art Nouveau heritage cannot be seen as a coherent system and related landscape. Consequently, it will remain fragmented and relatively unknown to visitors and even to locals, being beyond the scope of public awareness.

The confrontation of the visions and opinions of different stakeholder groups, in this case visitors and policymakers and managers, using an appropriate mix of (quantitative and qualitative) methods proves that a multifaceted, comprehensive method to contextualize heritage within a broader framework reveals new insights concerning, among others, unnoticed discrepancies while reducing the risk of simplification of the narrative. Additionally, it creates an impetus in finding the right balance between commodification, valorization and conservation or, in line with the Du Cros model, between the heritage-oriented concern about robusticity and the tourism-oriented concern for market appeal. Furthermore, adapting the landscape approach to a specific context allows one to verify and acknowledge all crucial stakeholders while working on the common ground between parties.

Future research can develop this approach by involving residents and tourism entrepreneurs, refine specific management measures following the tourism potential score, improving the Tourism Potential Audit Tool with more and sharper statements and, of course, repeating the methodology for a more extended survey which allows more complex (multivariate) analysis.

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## RESEARCH NOTE

# Escape rooms as tourist attractions: Enhancing visitors' experience through new technologies

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## Abstract

**Purpose:** This paper aims to assess the impact of new technologies on escape room visitors' experience based on the analysis of online reviews. Over the last five years, real-life escape rooms have become popular tourist attractions in many European cities. Growing competition stimulates the escape room providers to search for new experience design strategies. One of the new strategies assumes the active use of new technologies, including special effects and virtual reality technologies.

**Methods:** The present study is based on the evidence from Claustrophobia, one of the leading European technologically advanced escape room providers. The empirical part of the study includes a semi-structured interview with the company's co-founder and an analysis of 746 visitors' reviews posted on TripAdvisor.

**Results:** The results show that technologically sophisticated escape rooms create a more authentic tourist experience with a deeper immersion in the escape room theme. At the same time, technical failures and bugs can reduce visitors' satisfaction.

**Implications:** These results suggest that high-tech escape rooms could become more attractive tourist attractions only if their owners can invest substantial funds in maintaining the technical level and staff training. High-tech escape room providers need to maintain high expenditures for technical support and staff training in order to build a sustainable positive visitors' experience.

**Keywords:** escape room, tourist experience, experience design, content analysis

**JEL Classification:** L82, M31, Z33

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## 1 INTRODUCTION

Real-life escape rooms are relatively new recreational activities. The first escape room was opened in Tokyo in 2007 (Nicholson, 2016). Since 2013, this type of business has been actively developing in such European cities as Budapest, London, Moscow, Athens, Istanbul, and others (Dilek and Dilek Kulakoglu, 2018). Real-life escape rooms are a relatively new recreational activity. Usually, an escape room is a team game in which players have to solve several puzzles in order to leave the room in a limited amount of time (Nicholson, 2016; Kolar, 2017).

Despite their short history, escape rooms became important tourist attractions (Stasiak, 2019). Recent studies show that escape rooms provide a brand-new type of immersive tourist experience (Kolar, 2017) and thus, attract new tourists to destinations (Dilek and Dilek Kulakoglu, 2018; Bakhsheshi, 2019).

Currently, the escape rooms market is rapidly changing. The growing number of escape room providers intensifies competition and turns the market from the "blue ocean" into the "red ocean" (Gündüz, 2018; Stasiak, 2019). Growing competition stimulates the escape room providers to search for new solutions and new experience design strategies (Gündüz, 2018). One of the new strategies assumes the active use of innovative technological solutions such as special effects (SFX) and virtual reality (VR). This paper aims to assess the impact of new technologies on escape room visitors' experience based on the evidence from Claustrophobia, one of the leading European technologically advanced escape room providers.

## 2 LITERATURE REVIEW

Theoretical concepts of experience economy (Pine & Gilmore, 1998) and experiential marketing (Schmitt, 1999)

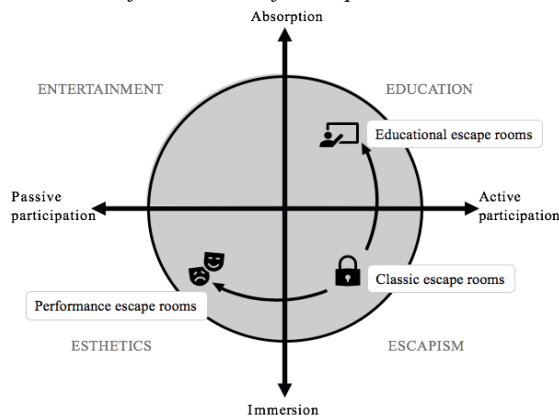


were proposed in the late 1990s and since then gained widespread recognition in business and research (Schmitt, 2011). Researchers have shown the wide applicability of these concepts in tourism, and experience became one of the key concepts in travel and tourism studies (Oh et al., 2007, Ek et al., 2008). In particular, empirical studies have focused on the visitors' experiences for various tourist attractions such as restaurants (Jin et al., 2012), museums (Radder and Han, 2015), and hotels (Knutson et al., 2009). These studies show that a well-developed experience design can positively affect visitors' satisfaction and behavioral intentions to revisit or to recommend an attraction.

Escape rooms along with theme parks are almost perfect examples of places built on principles drawn from Pine & Gilmore's experience economy concept (Pine & Gilmore, 2002). Moreover, in terms of the business model, escape rooms belong to the most "experience-based" types of activities involving the sale of experience as a distinct economic offering (Pine & Gilmore, 2016; Misirlis et al., 2018). This means that escape rooms have reached the highest level of the economic value progression where a company provides visitors not services but memorable events that engage each individual in a personal way (Pine & Gilmore, 2016; Vaz et al., 2017).

From the point of view of Pine & Gilmore's four realms of an experience model (Pine & Gilmore, 1998) classic "puzzle-solving" escape room can be sorted to escapism that involves both active participation and a great immersion into the experience (Bodnár, 2019). Escapist type of experience perfectly matches what is happening in the escape room: players have both to immerse themselves in the room's story (for example, feel like Sherlock Holmes) and to actively participate in the creation of their own experience (for example by solving puzzles to find out the murderer's name). However, in recent years, new types of escape rooms have emerged that provide other types of experience (Figure 1). On the one hand, educational escape rooms in schools, colleges, and universities (Wise et al., 2018; Cain, 2019; Kinio et al., 2019) provide an educational experience with less significant immersion, but in some cases with more active participation. On the other hand, escape rooms that include a performance with actors often involve less active participation combined with deeper immersion (players can solve fewer puzzles in search of a murderer, but they can meet him face to face).

Figure 1. Escape rooms within the Pine & Gilmore (1998) four realms of an experience



Until recently, there was a lack of research examining the experiences of escape rooms' visitors. According to the literature review in a paper published in mid-2018 (Kolar and Čáter, 2018), there were only two academic papers on escape rooms. In 2015, Nicholson conducted a global survey of escape rooms' owners (Nicholson, 2016). This paper presented an analysis of escape rooms mainly in terms of their features and business strategies. Nicholson's survey also allowed him to collect some information about escape rooms' visitors, but only from the point of view of their socio-demographic characteristics, rather than experiences. Two years later, Kolar published the first study of escape room visitors' experience based on netnographic research (Kolar, 2017). This study included the content analysis of TripAdvisor reviews posted by visitors of two leading escape room providers in New York and Budapest. Based on the analysis, Kolar concluded that experience rooms provide new, unique, and fun experiences through challenging activities (puzzles) and social interaction during the game (teamwork).

Several new escape room studies have appeared in the last three years. Some of these researches analyze the phenomenon of escape room from the supply side with the focus on escape room providers' business and marketing strategies (Gündüz, 2018; Wójcik-Augustyniak & Multan, 2020), but most research focused on visitors' experience (Dilek and Dilek Kulakoglu, 2018; Pink et al., 2019; Stasiak, 2019). These "experience-focused" surveys based on data from three different countries (Turkey, Malaysia, and Poland respectively) generally confirmed Kolar's findings on escape rooms as a source of rather new and authentic experience with the important role of cognitive activity and social interaction.

Currently, there are three substantial research gaps in the field of escape room researches:

1. There are no studies analyzing both the supply side (escape room providers) and the demand side (visitors) of the escape rooms.
2. There are no studies with a focus on high-tech escape rooms or other types of escape rooms, which are shifting from standard "puzzle-solving" game design (e.g. performance-included rooms or action rooms).
3. There are no studies with detailed analysis of visitors' negative reviews.

This study aims to fill these gaps by discussing the impact of innovative business strategy on visitors' experience.

### 3 METHODOLOGY AND STUDY DESIGN

The empirical part of the study is based on the case of Claustrophobia, one of the leading European technologically advanced escape room providers. This company was founded in 2013 in Moscow and currently manages more than 100 escape rooms in seven countries. Claustrophobia ranks 11th in the global rating of the best escape room providers (Top Escape Rooms Project, 2019). This is the highest position not only among Russian companies but also among all escape room providers from emerging markets.

According to the company's corporate mission, Claustrophobia wants to raise escape rooms to a new quality level with a higher degree of immersion (Claustrophobia,

2019). This brand-new level of immersion arises from “latest technologies” used by the company in all of its rooms and locations (TripAdvisor, 2020).

When developing and managing escape rooms, Claustrophobia follows all five-key experience-design principles proposed by Pine & Gilmore (Pine & Gilmore, 1998). Table 1 contains the implications of these principles in Claustrophobia's rooms.

*Table 1. Experience-design principles in Claustrophobia's rooms*

Principle	Application example
Theme the experience	Each escape room is built around a "legend", usually developed based on plots of popular books and movies.
Create positive cues	Various sound and light SFX, revealing the "legend" and enhancing players' immersion
Eliminate negative cues	Strong online quality control system that allows head office to receive feedback from players within a few minutes after the end of the game
Mix in memorabilia	Unique branded souvenir bracelets awarded to players who successfully escaped from the room
Engage physical senses	Visual, sound and tactile stimuli in each room, olfactory stimuli in some rooms (for example, in the room "Perfume")

Source: Pine & Gilmore, 1998

The Claustrophobia case gives us a piece of evidence to find the answer to the following research questions (RQ):  
RQ1. Can new technologies change escape room visitors' experience?

RQ2. Can new technologies give a competitive advantage to escape room providers?

The methodology of the study is based on an analysis of Claustrophobia visitors' online reviews posted on TripAdvisor and a semi-structured interview with the company's co-founder. These methods were separately used in previous escape room studies (Kolar 2017, Dilek and Dilek Kulakoglu, 2018; Gündüz, 2018; Chenini & Touaiti, 2018). A more detailed description of the methods and data used will be presented below.

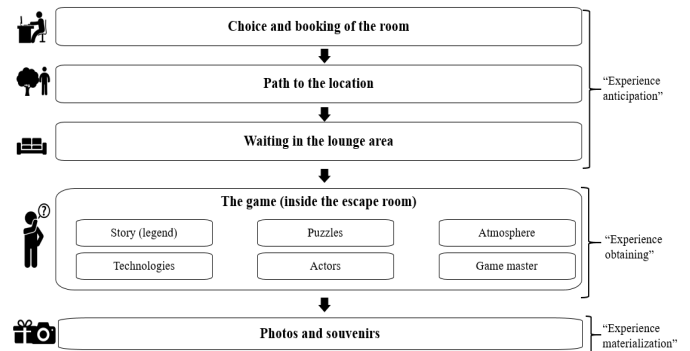
The first phase of the study was based on a semi-structured interview with one of the company's co-founder. The interview included questions about the company's value proposition, its points of difference, and key aspects of customer experience management. This interview and the analysis of the relevant literature allows developing a list of stages and cues that create visitors' experience before, during, and after experience room game (Figure 2).

The second phase of the study includes a content analysis of Claustrophobia visitors' reviews. This method involves assigning thematic codes to individual reviews, depending on their content, followed by a quantitative assessment of various parameters (for example, the frequency of individual codes in a sample of reviews).

Content analysis was based on the reviews posted on Tripadvisor web service for Claustrophobia's escape rooms located in Moscow. Tripadvisor is one of the most popular global tourist portals that is widely used in similar studies (Vásquez, 2011, Khoo et al., 2017).

At the time of access (February 2019), Claustrophobia's Moscow rooms had 746 reviews in Russian and in English. 684 of them were positive, while 62 were negative. Positive and negative reviews were studied separately.

*Figure 2. Stages and concepts of experience creation in escape rooms*



The content analysis of visitors' reviews was conducted using a special software QDA Miner in combination with the manual procedure of coding for assuring the quality of research results. QDA Miner is a qualitative and mixed-method data analysis software package (LaPan, 2013) that allows various manual and computer-assisted options for coding and text analyzing. Recent tourism and hospitality research often use this package as a tool for analyzing online reviews (Egresi & Prakash, 2019; Li & Ryan, 2020).

In addition to the experience creation concepts presented above, three additional groups of codes were added:

Concepts and topics from previous escape room experience studies (Kolar, 2017; Dilek and Dilek Kulakoglu, 2018; Pink et al., 2019) such as “fun”, “fear”, “teamwork” etc.

Codes for behavioral intentions (“revisit” and “recommend”). These two intentions traditionally regarded as adequate metrics of stated loyalty for tourist attractions and destinations (Oppermann, 2000; Yoon & Uysal, 2005; Meleddu et al., 2015).

Marketing features (“price” and “service quality / customer orientation”). These features were not included in the previous escape rooms studies, but they were used in studies of other tourist attractions such as restaurants (Gan et al., 2017) and museums (Alexander et al., 2015).

The analysis included the calculation of two indicators: frequency of codes and co-occurrence of codes. Frequency of codes shows what share of reviews with a particular code in the sample:

$$Frequency (code A) = \frac{Number\ of\ reviews\ with\ code\ A}{Total\ number\ of\ reviews\ (sample\ size)} \quad (1)$$

The co-occurrence of codes was estimated based on the Jaccard Index. This index is calculated as the ratio of the number of reviews containing two codes to the number of reviews containing at least one of the codes:

$$Jaccard\ Index (code\ A, code\ B) = \frac{Number\ of\ reviews\ (code\ A \cap code\ B)}{Number\ of\ reviews\ (code\ A \cup code\ B)} \quad (2)$$

## 4 FINDINGS AND DISCUSSION

The co-founder of the company said during his interview: “We don't like escape rooms where you have to solve a set of puzzles to open many locks. Therefore, we decided to do everything differently. In our rooms, we use dramatic scenarios and unexpected technological hints to create for a

visitor a completely immersive atmosphere". Thus, it was possible to expect a more frequent mention of the atmosphere and technologies compared to riddles in the positive feedback from visitors. Table 2 summarizes the key factors that form a positive experience of Claustrophobia visitors.

Table 2. Frequency of codes in positive reviews

Concept (code)	Count (number of cases)	Relevance (% of cases)
Like	632	92.40%
Recommend	259	37.90%
Atmosphere	250	36.50%
Interest	244	35.70%
Puzzles	208	30.40%
Fun	201	29.40%
Revisit	193	28.20%
Game master	191	27.80%
Story	161	23.50%
Customer orientation	152	22.20%
Teamwork	138	20.20%
Brainpower	124	18.10%
Difficult	79	11.50%
Technologies	69	10.10%
Fear	58	8.50%
Lounge area	53	7.70%
Booking	50	7.30%
Price	48	7.00%
Location	44	6.40%
Medium	40	5.80%
Easy	30	4.40%
Photo souvenirs	27	3.90%
Actors	22	3.20%
Fit skills	22	3.20%

Source: authors' calculations using QDA Data Miner software

The analysis of the data presented in Table 1 shows that the escape room's atmosphere is the most frequently mentioned positive cue that shapes the visitors' experience. This result differs from the results obtained in the previous studies based on reviews of the "classic" escape rooms' visitors where most frequently mentioned concepts was "fun" (Kolar, 2017), "game" (Dilek and Dilek Kulakoglu, 2018) and "puzzle" (Stasiak, 2019). Moreover, in the Claustrophobia visitors' reviews, a new concept of "Technologies" was found. This concept is mentioned much less frequently than the "Atmosphere", which can be explained by the fact that visitors are more focused on the results of technologies (i.e., the review is more likely to contain a reference to "immersion in the atmosphere of a vampire castle" than to "special lighting effects depicting a vampire castle").

The analysis of concepts' co-occurrence presented in Table 3 shows a close relationship between the "Atmosphere" and the "Story" concepts. This may mean that the Claustrophobia room's atmosphere includes both the well-developed story (often based on a plot from books or movies) and special effects creating the effect of full immersion to this story. This type of experience with a high level of authenticity and immersion is closer to the experience of immersive theatres' visitors (Biggin, 2017). According to the insight from the company's co-founder interview, the company believes that "immersive performance is the thing that will definitely develop in the future" and try to use cues from an immersive theatre in the escape rooms.

Table 3. Co-occurrence of codes in positive reviews (Jaccard Index)

	Actors	Atmosphere	Comback	Customer_ orientation	Difficult	Easy	Fear	Fun	Interest	Brainpower	Story	Like	Location	Medium	Mixed	Game_master	Photo_souvenirs	Fit_skills	Price	Puzzles	Lounge_area	Recommend	Booking	Teamwork	Technologies
Actors	1.00	0.08	0.01	0.02	0.00	0.00	0.16	0.02	0.02	0.00	0.08	0.04	0.02	0.02	0.00	0.02	0.02	0.02	0.05	0.01	0.04	0.06	0.00	0.00	0.01
Atmosphere	0.08	1.00	0.17	0.24	0.09	0.07	0.19	0.20	0.24	0.14	0.48	0.35	0.05	0.08	0.08	0.08	0.24	0.04	0.05	0.05	0.31	0.10	0.25	0.03	0.15
Comback	0.01	0.17	1.00	0.17	0.08	0.04	0.04	0.18	0.18	0.14	0.12	0.29	0.05	0.04	0.03	0.21	0.05	0.02	0.06	0.17	0.06	0.15	0.09	0.14	0.05
Customer_ orientation	0.02	0.24	0.17	1.00	0.12	0.05	0.09	0.16	0.16	0.13	0.19	0.22	0.09	0.07	0.06	0.64	0.07	0.06	0.06	0.20	0.17	0.14	0.07	0.11	0.10
Difficult	0.00	0.09	0.08	0.12	1.00	0.04	0.04	0.07	0.12	0.10	0.09	0.10	0.04	0.01	0.12	0.14	0.03	0.01	0.04	0.15	0.07	0.09	0.02	0.09	0.09
Easy	0.00	0.07	0.04	0.05	0.04	1.00	0.06	0.04	0.04	0.03	0.05	0.04	0.03	0.03	0.03	0.09	0.05	0.04	0.02	0.04	0.06	0.03	0.03	0.08	0.05
Fear	0.16	0.19	0.04	0.09	0.06	1.00	0.09	0.09	0.03	0.15	0.08	0.03	0.04	0.06	0.10	0.04	0.04	0.05	0.06	0.05	0.08	0.03	0.05	0.05	0.05
Fun	0.02	0.20	0.18	0.16	0.07	0.04	0.09	1.00	0.33	0.13	0.16	0.30	0.05	0.05	0.04	0.18	0.03	0.01	0.07	0.16	0.06	0.19	0.04	0.14	0.06
Interest	0.02	0.24	0.18	0.16	0.12	0.04	0.09	0.33	1.00	0.16	0.19	0.34	0.05	0.06	0.09	0.18	0.04	0.03	0.06	0.25	0.09	0.24	0.05	0.14	0.10
Brainpower	0.00	0.14	0.14	0.13	0.10	0.03	0.03	0.13	0.16	1.00	0.11	0.19	0.08	0.03	0.04	0.15	0.03	0.06	0.06	0.21	0.09	0.14	0.06	0.21	0.08
Story	0.08	0.48	0.12	0.19	0.09	0.05	0.15	0.16	0.19	0.11	1.00	0.22	0.06	0.08	0.10	0.20	0.05	0.07	0.05	0.25	0.08	0.21	0.03	0.10	0.16
Like	0.04	0.35	0.29	0.22	0.10	0.04	0.08	0.30	0.34	0.19	0.22	1.00	0.06	0.05	0.00	0.27	0.04	0.03	0.07	0.28	0.08	0.39	0.08	0.21	0.09
Location	0.02	0.05	0.05	0.09	0.04	0.03	0.03	0.05	0.05	0.08	0.06	0.06	1.00	0.08	0.04	0.10	0.03	0.02	0.05	0.08	0.10	0.05	0.08	0.10	0.07
Medium	0.02	0.08	0.04	0.07	0.01	0.03	0.04	0.05	0.06	0.03	0.08	0.05	0.08	1.00	0.07	0.06	0.02	0.09	0.02	0.07	0.05	0.06	0.05	0.06	0.12
Mixed	0.00	0.08	0.03	0.06	0.12	0.09	0.06	0.04	0.09	0.04	0.10	0.00	0.04	0.07	1.00	0.07	0.00	0.09	0.02	0.10	0.04	0.03	0.02	0.04	0.10
Game_master	0.02	0.24	0.21	0.64	0.14	0.05	0.10	0.18	0.18	0.15	0.20	0.27	0.10	0.06	0.07	1.00	0.05	0.06	0.06	0.24	0.15	0.16	0.07	0.13	0.12
Photo_souvenirs	0.02	0.04	0.05	0.07	0.03	0.04	0.03	0.04	0.03	0.05	0.04	0.03	0.02	0.00	0.05	1.00	0.04	0.12	0.03	0.10	0.06	0.07	0.04	0.07	0.07
Fit_skills	0.02	0.05	0.02	0.06	0.01	0.02	0.04	0.01	0.03	0.06	0.07	0.03	0.02	0.09	0.09	0.06	1.00	0.01	0.06	0.07	0.03	0.01	0.07	0.07	0.07
Price	0.05	0.05	0.06	0.06	0.04	0.04	0.05	0.07	0.06	0.06	0.05	0.07	0.05	0.02	0.02	0.06	0.12	0.01	1.00	0.05	0.06	0.08	0.07	0.07	0.05
Puzzles	0.01	0.31	0.17	0.20	0.15	0.06	0.06	0.16	0.25	0.21	0.25	0.28	0.08	0.07	0.10	0.24	0.03	0.06	0.05	1.00	0.07	0.22	0.04	0.17	0.12
Lounge_area	0.04	0.10	0.06	0.17	0.07	0.03	0.05	0.06	0.09	0.09	0.08	0.10	0.05	0.04	0.15	0.10	0.07	0.06	0.07	1.00	0.07	0.07	0.07	0.05	0.09
Recommend	0.06	0.25	0.15	0.14	0.09	0.03	0.08	0.19	0.24	0.14	0.21	0.39	0.05	0.06	0.03	0.16	0.06	0.03	0.08	0.22	0.07	1.00	0.05	0.19	0.09
Booking	0.00	0.03	0.09	0.07	0.02	0.08	0.03	0.04	0.05	0.06	0.03	0.08	0.08	0.05	0.02	0.07	0.07	0.01	0.07	0.04	0.07	0.05	1.00	0.07	0.03
Teamwork	0.00	0.15	0.14	0.11	0.09	0.05	0.05	0.14	0.14	0.21	0.10	0.21	0.10	0.06	0.04	0.13	0.04	0.07	0.07	0.17	0.17	0.19	0.07	1.00	0.06
Technologies	0.01	0.12	0.05	0.10	0.09	0.02	0.05	0.06	0.10	0.08	0.16	0.09	0.07	0.12	0.10	0.12	0.07	0.07	0.05	0.12	0.05	0.09	0.03	0.06	1.00

Source: authors' calculations using QDA Data Miner software

At the same time, the use of new technologies can form negative visitors' experience. Table 4 shows that "Technologies" are among the three most mentioned concepts in negative reviews.

Table 4. Frequency of codes in negative reviews

Concept (code)	Count (number of cases)	Relevance (% of cases)
Game master	22	35.50%
Puzzles	17	27.40%
Technologies	16	25.80%
Atmosphere	12	19.40%
Booking	9	14.50%
Lounge area	8	12.90%
Story	5	8.00%
Location	3	4.80%
Actors	2	3.20%
Photo souvenirs	2	3.20%

Source: authors' calculations using QDA Data Miner software

As a rule, this happens due to technical breakdowns and bugs inside the escape room. One of the reviewers wrote as follows: "In the middle of the game, the equipment broke down in the room. Our game master came to us in order to fix it, and the atmosphere of the room simply disappeared". The results indicate a dilemma faced by providers of escape rooms focused on the use of new technologies. On the one hand, the use of new technologies in escape rooms enhances visitors' experience by making it more authentic and immersive. This new type of experience can potentially give a competitive advantage to an escape room provider and make it more attractive for novelty-seeking tourists (Lee & Crompton, 1992). On the other hand, problems associated with the use of technological solutions can reduce the visitors' satisfaction: a significant share of negative reviews relates to various technical failures and bugs. This happens even despite the fact that Claustrophobia is taking a set of measures aimed at preventing failures, including staff training, creation of its own R&D department, and development of quality management system covering its own and franchised locations.



The creation of high-tech escape rooms is associated with high investments not only in technology but also in related business processes. However, these investments play a crucial role: without them, technologies will lead to visitors' dissatisfaction rather than their new experiences. Thus, the competitive advantage of escape rooms is provided not by new technologies themselves, but by the proper customer experience management based on these technologies.

## 5 CONCLUSIONS, LIMITATIONS AND FURTHER RESEARCH

The content analysis of online reviews allows identifying key factors that form experience, satisfaction, and behavioral intentions of Claustrophobia visitors. While original escape room experience is usually based on fun, teamwork, and puzzle-solving (Kolar 2017; Dilek and Kulakoglu 2018; Stasiak, 2019), for Claustrophobia it is the atmosphere that became a most frequently mentioned factor creating positive visitors' experience. The escape room's atmosphere includes the well-developed story and special effects creating the effect of full immersion into this story. As a result, atmospheric escape rooms positively influence customer satisfaction and loyalty in relation to the intention to revisit and the intention to recommend. At the same time, the use of technologically sophisticated special effects can reduce visitors' satisfaction due to various technical failures and bugs. This means that high-tech escape room providers need to maintain high expenditures for technical support and staff training in order to build a sustainable positive visitors' experience.

This research has certain limitations that guide directions for further research. Firstly, the results based on the evidence from only one high-tech escape room provider. A comparative study of the visitors' experience of two or more providers can give additional insights. Secondly, the empirical study covers only escape rooms located in Moscow, Russia. Additional data from various countries and cities where Claustrophobia's franchise partners are located could show cross-cultural differences in the visitors' perception of high-tech escape rooms. Thirdly, the content analysis of online reviews in this paper does not focus on the characteristics of reviewers such as gender, age, or region of residence. Further research would benefit from the detailed analysis of interconnections between escape room visitors' characteristics and their experience. Finally, the study includes a relatively small sample of negative online reviews. This problem arose because most online reviews of escape rooms are quite positive. Alternative research methods (such as focus groups or interviews) could give a deeper understanding of factors that form the negative experience of escape room visitors.

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## BOOK REVIEW

# Tourism and Resilience

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**JEL Classification:** L83, Q57

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## 1 BOOK REVIEW

In a world castigated by the new virus outbreak COVID19, where global tourism seems to be dying, resilience is a beacon of light in the dark seas of uncertainty and panic. In this new edited book project, Richard Butler, a leading scholar who does not need the previous presentation, proffers an innovating diagnosis about the role played by resiliency in the tourism industry. The book contains six sections and 17 chapters, which share a similar common-thread argumentation. The first introductory section explores the dichotomies of resiliency to be empirically applied to sustainable tourism. The second section deals with the problems of governance and political stability while the third discusses the different community's responses to disaster. The fourth section denotes four interesting chapters which focus on how insular destinations and ecologically protected areas develop more resilient options to the ecological crisis the world faces today. The fifth section focuses mainly on resilience as a new political reality. Lastly, the conclusion -in charge of the editor- formulates some interesting points towards a more sustainable industry. Butler starts from the premise though promising shortly, tourism is impracticable in sustainable terms. The tension between resilience and sustainability seems evident. After all, resilience, a term which corresponds with adaptation, contradicts the essence of the precautionary doctrine, a theory finely-encrypted into the idea of sustainability that reportedly prepares communities to future risks.

As the previous backdrop, the book is conceptually oriented to highlight the methodological inconsistencies of tourism as a sustainable industry while laying the foundations to a new understanding of resilience in the years to come. The second chapter, which is authored by Marta Berbes-Blazquez and Noel Scott, reviews the different families of theories on resilience, as well as their efficacy to alleviate the negative effects of climate change. Researchers distinguish ecological resilience from engineering resilience. The former

signals to the capacity of any system to keep homeostasis (a mixed balance), whereas the latter connotes to the timeframe the system stabilizes itself. In consonance with this, the third chapter (Alan Lew et al) discusses the conceptual discrepancies between adaptation and conservation, a hot-debate which remains open to date. As the authors agree, reactions to emergencies are pretty different depending on the event is underway or has not happened. In view of this, the SCR (scale, change and resilience) model offers a fertile ground to be applicable in post-disaster contexts.

In the fourth chapter, Esteban Ruiz Ballesteros dissects the complexity of sustainability and the resulting hypotheses that have historically led scholars to a puzzling situation (or gridlock point). To wit, community-based tourism facilitates a better organization of resources and adaptability in high uncertainty landscapes. In this vein, Valerie Sheppard -in the fifth chapter- argue convincingly that among factors that enhance resilience range from technological information to strong institutional management (governance) without mentioning the educational capital which creates a pro-active atmosphere of cooperation.

Models above-explained not always bode well for developing economies or nations located geographically the global South. This is the case why it is necessary to discuss study-cases and examples originated in other regions. This point leads Jeremy Buultjens, Iraj Ratnayake & Athula Gnanapala to study the industry of tourism in Sri Lanka, which recently has recovered from a civil war of years, and a devastating Tsunami. Authors evaluate Sri Lanka's tourism experience with disaster-management and the derived strategies in the fields of human rights, climate change and the economic stagnation. The eighth chapter -Sussane Becken & Bijan Khazan- calls the attention on the complex intersection among tourism, disaster and resilience. Over the years, scholars believed that the tourism industry was notably sensitive to disasters, but climate change showed precisely the opposite. Today's policy-makers recommend firm steps to develop resiliency as an alternative adaptation to a crisis which is far from being solved. It is important not to lose sight





of the fact that governments should coordinate efforts and investments in disaster preparedness. Bruno Abegg, Robert Steiger & Lisa Trawoger (in the eighth chapter) provide with a snapshot on the gap between science and tourism sector respecting climate change. Based on the Alpine region, they hold the thesis that the industry shows certain optimism to adapt the negative effects of climate change, which is considered a distant threat, while experts are centered on a precautionary logic.

The tenth chapter, elegantly written by Janet Cochrane, interrogates further the future of national parks in the UK and the government programs to protect the British ecosystems. A similar concern can be found in the chapter authored by Jennifer Strickland Munro (eleventh chapter) who indicates the protected areas represent a synergic and multiple sub-systems which are formed by different stakeholders who protect their particular interests. Having said this, protected areas and visitors have a difficult communion in practice. Still further, the problem of governance, resilience and islands are widely covered in the successive twelfth and thirteenth chapters. While Arjen Alberts & Godfrey Baldachino turn the lens to the Caribbean islands, Maria Amoano delves in the remoteness of Pitcairn Islands. Although from different perspectives, both chapters converge in the same diagnosis. Small islands are not only vulnerable to disasters but the situation aggravates when tourism is the only affordable economic activity. High degrees of economic openness, concentration and dependency are the key factors that condition small islands' resilience.

The fourteenth chapter (Harold Goodwin) delves into the crucial role of ethical responsibility to perform resilient destinations. He toys with the belief that the social contract, adjoined to the communal trust of stakeholders, gives a convincing answer to the ecological crisis the industry is going through today. Glenn McCartney speaks us of the future of Casino tourism in Macao, an ever-growing destination which developed greater accessibility to mainland China. The author offers a competitive-based model to understand the relation between Macao and China. The future of resilience as a new political reality is the main topic analyzed by Professor Jonathan Pugh (from Newcastle University, England). In this respect, Pugh deciphers the dilemmas of resilience which is portrayed as a certain model in a hyper-mobile world where institutions paradoxically fail to give clear answers to lay-people. Per his viewpoint, resilience surfaced as a post-liberal episteme aimed at grasping post-modernist cosmologies. Pugh places the concept under the critical lens of scrutiny because of two main reasons. On one hand, the concept has become buzzword applicable to many incomparable contexts and cultures. On another, resilience-related narratives confer the responsibility to deal the Global south with issues created by the Global North. In the final chapter, Butler concludes with a short review of each chapter, stressing in the main contributions and limitations in the study –and the subsequent understanding- of resilience.

It is safe to say this reviewed book, at least for this reviewer, should be seen a compilation of high-quality chapters, written by well-distinguished scholars who are worried on the future of tourism in the next years. The multicultural approach that

the book introduces is certainly supported by the origin of authors, who comes from the four corners of the globe, each one intellectually dotted with a different perspective or national-character, but what is more important, Butler presents an organized volume with practical study-case which are pertinently accompanied by some critical lens of the problem.

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# Aims & Scope

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## AIMS

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The *Journal of Tourism, Heritage & Services Marketing* is an open-access, international, multi-disciplinary, refereed (double blind peer-reviewed) journal aiming to promote and enhance research in all fields of marketing in tourism, heritage and services management. The journal is intended for readers in the scholarly community who deal with different marketing sectors, both at macro and at micro level, as well as professionals in the industry. The *Journal of Tourism, Heritage & Services Marketing* provides a platform for debate and dissemination of research findings, new research areas and techniques, conceptual developments, and articles with practical application to any tourism, heritage, and services marketing segment. Besides research papers, the journal welcomes book reviews, conference reports, case studies, research notes and commentaries. The *Journal of Tourism, Heritage & Services Marketing* aims at:

- Disseminating and promoting research, good practice and innovation in all aspects of marketing in tourism, heritage and services to its prime audience including educators, researchers, post-graduate students, policy makers, and industry practitioners.
- Encouraging international scientific cooperation and understanding, and enhancing multi-disciplinary research across various marketing sectors.

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## SCOPE AND PEER-REVIEW POLICY

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The scope of the journal is international and all papers submitted are subject to an initial screening by a member of the journal's Senior Advisory Board, and subsequently by strict blind peer review by 3 anonymous international reviewers. The journal features conceptual and empirical papers, and editorial policy is to invite the submission of manuscripts from academics, researchers, post-graduate students, policy-makers and industry practitioners. The Editorial Board will be looking particularly for articles about new trends and developments within different sectors of marketing and the application of new ideas and developments that are likely to affect tourism, heritage and services in the future. Journal of Tourism, Heritage & Services Marketing also welcomes submission of manuscripts in areas that may not be directly tourism or heritage-related but cover a topic that is of interest to researchers, educators, policy-makers and practitioners in various fields of services marketing.

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- Contribution to the promotion of scientific knowledge in the greater multi-disciplinary field of marketing.
- Adequate and relevant literature review.
- Scientifically valid and reliable methodology.
- Clarity of writing.
- Acceptable quality of English language.

Journal of Tourism, Heritage & Services Marketing is published twice per year (in Spring and in Autumn). Each issue includes the following sections: editorial, full papers, research notes, case studies, book reviews, conference reports, industry viewpoints, and forthcoming events.

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Journal of Tourism, Heritage & Services Marketing is an Open Access journal, conforming fully to the Budapest Open Access Initiative (BOAI). Journal of Tourism, Heritage & Services Marketing has adopted the BOAI policy of "free availability on the public internet, permitting its users to read, download, copy, distribute, print, search, or link to the full texts of its articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, is to give authors control over the integrity of their work and the right to be properly acknowledged and cited".

# About JTHSM

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## ABOUT JTHSM

Journal of Tourism, Heritage & Services Marketing is an open access, international, multi-disciplinary, refereed (double blind peer-reviewed) journal aiming to promote and enhance research at both macro-economic and micro-economic levels of tourism, heritage and services marketing. The journal's ISSN is: 2529-1947.

The journal is published twice per year (in Winter and in Summer) and is owned and co-managed by two academic units of the School of Economics & Business of the International Hellenic University: the Program of Postgraduate Studies in Tourism Management & Organisation and the Research Laboratory in Tourism "Tourlab". The International Hellenic University is the third largest public (state-owned) university in Greece.

For more information and for any editorial enquiries, please contact with the Journal manager at: Mr. Panagiotis Papageorgiou, International Hellenic University, JTHSM Editorial Office, Program of Postgraduate Studies in Tourism Management, School of Economics & Business, P.O. Box 141, GR-57400, Thessaloniki, Greece. Phone: +30-2310-013450, E-mail: [editorial-office@jthsm.gr](mailto:editorial-office@jthsm.gr). For any other questions or for inquiries regarding submission of manuscripts, please contact with the Editor-in-Chief at: Prof. Evangelos Christou, International Hellenic University, School of Economics & Business, P.O. Box 141, GR-57400, Thessaloniki, Greece. Phone: +30-2310-013193, E-mail: [echristou@ihu.gr](mailto:echristou@ihu.gr)

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JTHSM has signed the Declaration on Research Assessment (DORA). DORA recognizes the need to improve the ways in which the outputs of scholarly research are evaluated. It is a worldwide initiative covering all scholarly disciplines and all key stakeholders including funders, publishers, professional societies, institutions, and researchers. JTHSM encourage all individuals and organizations who are interested in developing and promoting best practice in the assessment of scholarly research to sign DORA.

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This journal has adopted a comprehensive publication ethics and publication malpractice statement, composed using the publishing ethics resource kit and in compliance with Elsevier recommendations and COPE guidelines.

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All submissions should include author's (and all co-authors') ORCID (compulsory for all submissions since volume 5, issue 1, 2019).

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## PUBLICATION EXPENSES, FEES & REVENUE SOURCES

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The authors who may have a complaint against any of the aspects of their interaction with JTHSM should, in the first instance, write/e-mail to the Associate Editor. In case it does not resolve the issue, the complaint should be forwarded to the Editor-in-Chief. The Associate Editor and the Editor-in-Chief aim to acknowledge the complaint within 7 days after receiving it. In addition, they should explain to the author the procedure which they will be undertaking to resolve the matter.

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original article PDF will remain the same as the printed page and readers downloading the PDF will receive the original article plus amendment.

Amendments are published in the article category "Addenda and Errata" and will be further classified as an "Erratum", "Corrigendum", "Addendum" or "Retraction". All such amendments should be as concise as possible, containing only material strictly relevant to the contribution being corrected. In very rare circumstances, JTHSM also reserves the right to remove articles

**Errata** concern the amendment of mistakes introduced by the journal in editing or production, including errors of omission such as failure to make factual proof corrections requested by authors within the deadline provided by the journal and within journal policy. Errata are generally not published for simple, obvious typing errors, but are published when an apparently simple error is significant (for example, a greek mu for an 'm' in a unit, or a typing error in the corresponding author's email address).

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Readers wishing to draw the journal's attention to a significant published error should submit their comments as a "Letter to the Editor". Such "Letters to the Editor" will be carefully reviewed by unrelated and neutral referees. On editorial acceptance, the paper will be sent to the authors of the original paper to provide an opportunity for their early response.

**Addenda** are judged on the significance of the addition to the interpretation of the original publication. Addenda do not contradict the original publication, but if the authors inadvertently omitted significant information available to them at the time, this material will be published as an addendum after peer review.

**Retractions** are judged according to whether the main conclusion of the paper is seriously undermined as a result, for example, of subsequent information coming to light of which the authors were not aware at the time of publication. In the case of experimental papers, this can include e.g. further experiments by the authors or by others which do not confirm the main experimental conclusion of the original publication.

Readers wishing to draw the editors' attention to published work requiring retraction should first contact the authors of the original paper and then write to the journal, including copies of the correspondence with the authors (whether or not the correspondence has been answered). The editors will seek advice from reviewers if they judge that the information is likely to draw into question the main conclusions of the published paper.

Infringements of professional ethical codes, such as multiple submission, bogus claims of authorship, plagiarism, fraudulent use of data, or the like, will also result in an article being retracted.

All co-authors will be asked to agree to a retraction. In cases where some co-authors decline to sign a retraction, the editors reserve the right to publish the retraction with the dissenting author(s) identified.

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In these circumstances, while the bibliographic information (title and authors) will be retained online, the text will be replaced with a page indicating that the article has been removed for legal reasons.

# Journal Sections

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## EDITORIAL

The Editorial addresses issues of contemporary interest and provides a detailed introduction and commentary to the articles in the current issue. The editorial may be written by the Editor-in-Chief, the Associate Editor, or by any other member(s) of the Editorial Board. When appropriate, a “Guest Editorial” may be presented. However, the Journal of Tourism, Heritage & Services Marketing does not accept unsolicited editorials.

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## FULL (RESEARCH) PAPERS

For the Research Papers section, the Journal of Tourism, Heritage & Services Marketing invites full-length manuscripts (not longer than 8,000 words and not shorter than 4,500 words) excluding references, from a variety of marketing disciplines; these papers may be either empirical or conceptual, and will be subject to strict double blind peer review (by at least two anonymous referees). The decision for the final acceptance of the paper will be taken unanimously by the Editor and by the Associate Editor. The manuscripts submitted should provide original and/or innovative ideas or approaches or findings that eventually push the frontiers of knowledge. Purely descriptive accounts are not considered suitable for this section. Each paper should have the following structure: a) abstract, b) introduction (including an overall presentation of the issue to be examined and the aims and objectives of the paper), c) main body (including, where appropriate, the review of literature, the development of hypotheses and/or models, research methodology, presentation of findings, and analysis and discussion), d) conclusions (including also, where appropriate, recommendations, practical implications, limitations, and suggestions for further research), e) bibliography, f) acknowledgements, and g) appendices.

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## CASE STUDIES

Case Studies should be no longer than 3,500 words and not shorter than 2,000; these articles should be focusing on the detailed and critical presentation/review of real-life cases from the greater marketing sector, and must include – where appropriate – relevant references and bibliography. Case Studies should aim at disseminating information and/or good practices, combined with critical analysis of real examples. Purely descriptive accounts may be considered suitable for this section, provided that are well-justified and of interest to

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## RESEARCH NOTES

Research Notes should be no longer than 3,000 words and not shorter than 1,000; these papers may be either empirical or conceptual, and will be subject to blind peer review (by at least two anonymous referees). The decision for the final acceptance of the paper will be taken unanimously by the Editor and by the Associate Editor. The manuscripts submitted may present research-in-progress or may focus on the conceptual development of models and approaches that have not been proven yet through primary research. In all cases, the papers should provide original ideas, approaches or preliminary findings that are open to discussion. Purely descriptive accounts may be considered suitable for this section, provided that are well-justified and of interest to the readers of JTHSM. Each paper should have the following structure: a) abstract, b) introduction (including an overall presentation of the issue to be examined and the aims and objectives of the paper), c) main body (including, where appropriate, the review of literature, the development of hypotheses and/or models, research methodology, presentation of findings, and analysis and discussion), d) conclusions (including also, where appropriate, recommendations, practical implications, limitations, and suggestions for further research), e) bibliography, f) acknowledgements, and g) appendices.

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## BOOK REVIEWS

Book Reviews should be no longer than 1,500 words and not shorter than 1,000; these articles aim at presenting and critically reviewing books from the greater field of tourism, heritage, services and marketing. Most reviews should focus

on new publications, but older books are also welcome for presentation. Book Reviews are not subject to blind peer review; the decision for the final acceptance of the article will be taken unanimously by the Editor-in-Chief and by the Book & Conference Reviews Editor. Where appropriate, these articles may include references and bibliography. Books to be reviewed may be assigned to potential authors by the Book & Conference Reviews Editor, though JTHSM is also open to unsolicited suggestions for book reviews from interested parties.

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#### **CONFERENCE REPORTS**

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Conference Reports should be no longer than 2,000 words and not shorter than 1,000; these articles aim at presenting and critically reviewing conferences from the greater field of tourism, heritage, services and marketing. Most reports should focus on recent conferences (i.e., conferences that took place not before than three months from the date of manuscript submission), but older conferences are also welcome for presentation if appropriate. Conference Reports are not subject to blind peer review; the decision for the final acceptance of the article will be taken unanimously by the Editor-in-Chief and by the Book & Conference Reports Editor. Where appropriate, these articles may include references and bibliography. Conference reports may be assigned to potential authors by the Book & Conference Reports Editor, though JTHSM is also open to unsolicited suggestions for reports from interested parties.

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#### **INDUSTRY VIEWPOINTS**

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Industry Viewpoints should be no longer than 1,500 words and not shorter than 500; these articles may have a “commentary” form, and aim at presenting and discussing ideas, views and suggestions by practitioners (marketing industry professionals, marketing planners, policy makers, other marketing stakeholders, etc.). Through these articles, JTHSM provides a platform for the exchange of ideas and for developing closer links between academics and practitioners. Most viewpoints should focus on contemporary issues, but other issues are also welcome for presentation if appropriate. Industry Viewpoints are not subject to blind peer review; the decision for the final acceptance of the article will be taken unanimously by the Editor-in-Chief and by the Associate Editor. These articles may be assigned to potential authors by the editor, though JTHSM is also open to unsolicited contributions from interested parties.



# Notes for Authors

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All submissions should include author's and co-authors' – if any – ORCID (compulsory for all submissions since volume 5, issue 1, 2019).

Feedback regarding the submission of a manuscript (including the 3 anonymous reviewers' comments) will be provided to the author(s) within six weeks of the receipt of the manuscript. Submission of a manuscript will be held to imply that it contains original unpublished work not being considered for publication elsewhere at the same time. If appropriate, author(s) can correct first proofs. Manuscripts submitted to JTHSM, accepted for publication or not, cannot be returned to the author(s).

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## MANUSCRIPT LENGTH

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Full research Papers should be not longer than 8,000 words and not shorter than 4,500 words (excluding references). Research Notes should be no longer than 3,000 words and not shorter than 1,000. Case Studies should be no longer than 3,500 words and not shorter than 2,000. Book Reviews should be no longer than 1,500 words and not shorter than 1,000. Conference Reports should be no longer than 2,000 words and not shorter than 1,000. Industry Viewpoints should be no longer than 1,500 words and not shorter than 500. Manuscripts that do not fully conform to the above word limits (according to the type of the article) will be automatically rejected and should not be entered into the reviewing process.

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## MANUSCRIPT STYLE & PREPARATION

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All submissions (research papers, research notes, case studies, book reviews, conference reports, industry

viewpoints, and forthcoming events) must have a title of no more than 10 words.

Manuscripts should be double-line spaced, and have at least 2,5 cm (one-inch) margin on all four sides. Pages should be numbered consecutively.

The use of footnotes within the text is discouraged – use endnotes instead. Endnotes should be kept to a minimum, be used to provide additional comments and discussion, and should be numbered consecutively in the text and typed on a separate page at the end of the article.

Quotations must be taken accurately from the original source. Alterations to the quotations must be noted. Quotation marks (“ ”) are to be used to denote direct quotes. Inverted commas (‘ ’) should denote a quote within a quotation. If the quotation is less than 3 lines, then it should be included in the main text enclosed in quotation marks. If the quotation is more than 3 lines, then it should be separated from the main text and indented.

The name(s) of any sponsor(s) of the research contained in the manuscript, or any other acknowledgements, should appear at the very end of the manuscript.

Tables, figures and illustrations are to be included in the text and to be numbered consecutively (in Arabic numbers). Each table, figure or illustration must have a title.

The text should be organized under appropriate section headings, which, ideally, should not be more than 500-700 words apart.

The main body of the text should be written in Times New Roman letters, font size 12.

Section headings should be written in Arial letters, font size 12, and should be marked as follows: primary headings should be centered and typed in bold capitals and underlined; secondary headings should be typed with italic bold capital letters; other headings should be typed in capital letters. Authors are urged to write as concisely as possible, but not at the expense of clarity.

The preferred software for submission is Microsoft Word.

Authors submitting papers for publication should specify which section of the journal they wish their paper to be considered for: research papers, research notes, case studies, book reviews, conference reports, industry viewpoints, and forthcoming events.

Author(s) are responsible for preparing manuscripts which are clearly written in acceptable, scholarly English, and which contain no errors of spelling, grammar, or punctuation. Neither the Editorial Board nor the Publisher is responsible for correcting errors of spelling or grammar.

Where acronyms are used, their full expression should be given initially.

Authors are asked to ensure that there are no libelous implications in their work.

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## MANUSCRIPT PRESENTATION

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For submission, manuscripts of research papers, research notes and case studies should be arranged in the following order of presentation:

**First page:** title, subtitle (if required), author's name and surname, author's ORCID (compulsory for all submissions since volume 5, issue 1, 2019), affiliation, full postal address, telephone number and e-mail address. Respective names, affiliations, emails and addresses of co-author(s) should be clearly indicated. Also, include an abstract of not less than 100 and not more than 150 words and up to 5 keywords that identify article content. Also include a short biography of the author (about 25 words); in the case of co-author(s), the same details should also be included. All correspondence will be sent to the first named author, unless otherwise indicated.

**Second page:** title, an abstract of not more than 100 words and up to 5 keywords that identify article content. Do not include the author(s) details, affiliation(s), and biographies in this page.

**Subsequent pages:** the paper should begin on the third page and should not subsequently reveal the title or authors. In these pages should be included the main body of text (including tables, figures and illustrations); list of references; appendixes; and endnotes (numbered consecutively).

The author(s) should ensure that their names cannot be identified anywhere in the text.

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## GUIDANCE ON WRITING ABSTRACTS

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- **Purpose:** describes the objectives and hypotheses of the research.
- **Methods:** describes important features of your research design, data, and analysis. This may include the sample size, geographic location, demographics, variables, controls, conditions, tests, descriptions of research

design, details of sampling techniques, and data gathering procedures.

- **Results:** describes the key findings of the study, including experimental, correlational, or theoretical results. It may also provide a brief explanation of the results.
- **Implications:** show how the results connect to policy and practice, and provide suggestions for follow-up, future studies, or further analysis.

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