**Smart Governance for Heritage Tourism Destinations: Contextual Factors and
Destination Management Organization Perspectives**

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Abstract
The sustainable development of tourism is a major concern for destination management
organisations (DMOs) in heritage tourism. Smart tourism advocates claim that technologically-
driven innovations can help DMOs to optimise tourism development by addressing issues such
as carrying capacity, stakeholder management and community involvement. This study
enhances the understanding of smart tourism governance (SG), showing how contextual factors
affect DMO perspectives of SG. A mixed-methods approach was used to investigate heritage
tourism destinations in the United Kingdom. The results demonstrate that well-established
DMOs do not perceive SG as potentially beneficial, as they already perform well in many areas
in which SG promises improvements, such as citizen engagement, decision-making, and
stakeholder engagement. Despite this, this research highlights the aspects of SG that these
destinations can take advantage of as social inclusion, environmental performance and the
provision of citizen-centric services. All of these can help heritage tourism destinations to
optimise their tourism development. This research additionally demonstrates the effect of
contextual factors, such as the level of public-sector support for tourism and the growing
influence of non-tourism stakeholders in destination management, on DMO perceptions of SG
and makes recommendations for how developments in the use of SG by DMOs can be made,
in light of these.

Keywords: Smart governance, Heritage destinations, Contextual factors, Optimisation, Smart
tourism, United Kingdom

Introduction

Tourism is a valuable context in which to study governance as it lies at intersections of the public, private and community sectors. For tourism destinations, governance consists of setting and developing rules and mechanisms for policy and its implementation, by involving institutions and individuals (Pechlaner et al., 2010). During the COVID-19 pandemic, governance has received renewed attention, as governments at all levels have responded to the crisis. In this regard, for example, Janssen & van der Voort (2020) emphasise the potential of adaptive governance.

Scholl and Al Awadhi (2016) define Smart Governance (SG) as a method for employing intelligent and adaptive techniques in governance, along with activities to enhance monitoring and decision-making. SG is also defined as the ability to enhance decision-making through a combination of Information Communication Technologies (ICT) and collaborative governance (Pereira et al., 2018). In the mainstream "smart" literature, governance is seen as a crucial aspect for the successful implementation of smart city strategies (Albino et al., 2015; Caragliu et al., 2011; Mills et al. 2015; A. J. Meijer et al., 2016; Bolívar and Meijer 2016; A. Meijer and Bolívar 2016).

Although smart tourism is attracting increasing attention from industry and academia (Del Chiappa & Baggio, 2015; Mandić & Garbin Praničević, 2019; Sigala & Marinidis, 2012), the concept of SG has not been significantly addressed in tourism studies. In tourism, SG relates to public actions aiming to transform destinations into innovative and resilient systems, which will be capable of maintaining core functions in the face of diverse pressures. The concept is primarily studied as a component of destination management or planning, with recent systematic reviews revealing that most research has focused on tourist experiences, and the adoption of technology (Baggio et al., 2020; Johnson & Samakovlis, 2019; Mehraliyev et al., 2020; Ye et al., 2020).

Tourism destinations experience multiple pressures related to, inter alia, carrying capacity, growth, sustainable use of natural and cultural assets, and local communities, which have recently been discussed as overtourism (Adie et al., 2019; Dodds & Butler, 2019; Milano et al., 2019b; Seraphin et al., 2018). Studies addressing overtourism reflect on its causes and consequences, including tourism growth (Higgins-Desbiolles, 2020; Higgins-Desbiolles et al., 2019), overcrowding (Namberger et al., 2019), tourism-phobia and tourist-phobia (Milano et al., 2019b; Seraphin et al., 2019; Taş Gürsoy, 2019), tourism planning and development (Panayiotopoulos & Pisano, 2019; Sarantakou & Terkenli, 2019; Seraphin et al., 2018); as well as discussing potential solutions including, strategies to enhance community resilience (Cheer et al., 2019; Cheung & Li, 2019), sustainable degrowth (Cheung & Li, 2019; Milano et al., 2019a), visitor management (Goodwin, 2019), optimisation (Oklevik et al. 2019; Mandić, 2021), and smart approaches to tourism development (Koens et al. 2019). Several scholars have discussed the threats that overtourism represent for heritage sites in particular (for example, Adie et al., 2019; Rasoolimanesh et al., 2019); however, the focus of the majority of this research is on the perceptions of local communities of the impacts of tourism development. This study adds to the growing literature on overtourism through a consideration of the governance aspects of this phenomenon, which, along with the growth of tourism and the concentration of tourists, has been identified by Capocchi et al. (2019) as one of its three key components.

This study responds to calls for renewed research on tourism governance (Joppe, 2018) and is among the first to examine the potential contribution of SG to mitigating pressures of excessive

tourism development, through a focus on heritage tourism destinations. The aim of this research was to analyse the role of SG in the optimisation of tourism development, and to test the influence of heritage-destination specific contextual factors on Destination Management Organization (DMO) attitudes towards different aspects of SG.

The optimisation of tourism is an alternative to the maximisation of tourist numbers, which focuses on stabilising or reducing tourist numbers to increase yield (Dolnicar, 2014). Previous optimisation research has primarily focused on the analysis of tourism demand (Oklevik et al., 2019). This study examines the role of tourism governance in optimisation, in particular the importance of stakeholder relationship in the transition from maximising to optimising tourism development (Jenkins, 2020; Mandić, 2021). Here, optimisation is defined as a heritage tourism destination governance approach that seeks to deliver policy responses to increase value for stakeholders within a destination system, with particular reference to addressing pressures of overtourism. The relationship between smart tourism and overtourism is an emerging issue (Coca-Stefaniak, 2019), but the governance aspects of this relationship are less well understood, especially in an era of light-touch governance and a trend towards minimal state interventions in tourism (Kennell, 2020; Koens et al., 2018). This study contributes to our understanding of the implementation of SG in tourism, by highlighting the significance of context to the development of SG for heritage tourism destinations.

The focus is on an extended sample of England's Historic Cities (EHC) network, a partnership of destinations in the United Kingdom brought together by common products, challenges and interests. All of these are significant international heritage tourism destinations, receiving in excess of four million visits each, every year. Heritage tourism in the UK is a world-leading segment, with multiple mature destinations (Oxford Economics, 2016). Long-established destinations with active DMOs are more likely to innovate in governance and can be a valuable sample from which to draw conclusions about smart governance to apply elsewhere. Additionally, this study has implications for the competitiveness of tourism in the UK.

Although the UK is a historically important destination for international tourism and received in excess of forty million visits in 2019 (Visit Britain, 2020), it only ranks sixth in the world for competitiveness overall and is the lowest-ranked destination in Europe for price competitiveness. The UK is the only country in Western Europe to decline in competitiveness in the most recent available World Economic Forum data, and has seen significant drops in scores for its cultural and natural resources (WEF, 2019). The effective optimisation of tourism development through smart tourism and governance offers the UK a potential pathway to regaining its competitive advantages in global tourism. The study builds on pragmatism as a research paradigm, responding to the idea that research design should privilege the most effective ways of answering research questions over philosophical assumptions (Khoo-Lattimore et al., 2019; Iaquinto, 2018). We used sequential quantitative and qualitative analysis to investigate and interpret our data and to generate meaning (Molina-Azorín & Font, 2015) in a field of research where single method approaches (primarily quantitative studies) have dominated (Mehraliyev et al., 2019). To develop our conclusions, a mixed-methods analysis was carried out using Importance-Performance Analysis (IPA) and regression, as well as qualitative interviews with DMO leaders.

Literature Review

Smart Tourism Destinations

Research into smart tourism has been growing since the term 'smart' emerged in the literature

on urban development and ICT in the early 2000s (Johnson & Samakovlis, 2015). The term is used to signal the intelligence and connectivity of technologies, frequently based on sensors and advanced ICT, including machine learning, wireless communication, cloud computing and autonomous systems (Baggio et al., 2020; Jovcic, 2019). In tourism, smart is most often used in a destination context, drawing on innovations in 'smart cities' (Buhalis & Amaranggana, 2014) where smart technology is integrated with urban infrastructure to optimising resource production and consumption (Gretzel et al., 2015a), to benefit businesses, government and citizens. The increasing presence of technologies such as mobile applications, social media, virtual reality, and augmented reality offers opportunities for the enhancement of tourist experiences (Ye at al., 2020).

Smart tourism promises to align the interests of complex webs of stakeholders and tourists in a destination through technology (Jovcic, 2019; Shaifee et al., 2019). However, as Buhalis and Amaranggana (2014: 561) have pointed out, under this paradigm, 'there is only little room for the technologically illiterate and the poor within destinations'. Boes et al. (2015) argue that the key dimensions of smart-ness for destinations are leadership, innovation and social capital, assigning technology a secondary role, and emphasising the importance of governance. This emphasis is echoed by Coca-Stefaniak (2020), who highlights the need for smart destinations to become 'wise' through the inclusion of urban sustainability issues in their approaches. Issues of digital inclusion, privacy concerns have also been raised in the analysis of smart tourism, as tourists leave behind a substantial 'digital footprint' on their travels, which can be exploited commercially by the business (Gretzel et al., 2015b). The nature of 'always-on', data-driven tourist experiences has led researchers to argue that the most appropriate role for smart technology in destinations is in the optimisation of tourism, rather than in promoting the encroachment of technology into tourist experiences (Coca-Stefaniak, 2019), which may result in an 'e-lienation' (Tribe & Mkono, 2017) that disconnects tourists from authentic experiences. For smart tourism development to proceed in ways that optimise tourism development, with regard to concerns of privacy and the primacy of the tourism experience, it is necessary for the governance of tourism destinations to adapt to the new smart paradigm.

Smart Governance and Cultural Heritage Tourism

Despite researchers highlighting the importance of governance for smart cities (Bolívar & Meijer, 2016; Fernandez-Anez et al., 2018; Lopes, 2017; A. Meijer & Bolívar, 2016; Pereira et al., 2018; Scholl & Scholl, 2014; Scholl & AlAwadhi, 2016), and smart tourism (Gretzel et al. 2015a; Gretzel et al. 2015b; Sigala 2017; Buhalis and Leung 2018) there continues to be a debate about what smart governance is.

Bolívar & Meijer's (2016) smart governance model encompasses *defining elements*, *aspired outcomes* and *strategies*; while Ruhlandt (2018) proposes a smart governance framework integrating *components*, *measurements*, *contextual factors* and *outcomes*. Both conceptualisations share stresses on norms, policies, practices, information, technologies and human capital (Alawadhi & Scholl, 2016). Smart governance is also affected by city-specific factors (Ruhlandt, 2018), and primarily dependent on what local stakeholders consider to be relevant (A. Meijer & Bolívar, 2016). Although different smart governance models show some convergence, it is clear that every city is a story for itself. That means that their governance approach is determined by goals agreed by local actors and the degree of collaborative and inclusive exchange between local government, organised interests and citizens (Nesti, 2018). There is no consensus regarding what smart governance outcomes are and how they should be defined. Lin, Zhang, & Geertman (2015) define them as "short term" and "long term" objectives, Kourtit, Nijkamp, & Arribas (2012) base them on potential

economic, environmental and social impacts, and Bolívar & Meijer (2016) as first, second and third-order outcomes.

Smart governance has to cope with complexity and uncertainty, and by doing so, it can build local competencies and support resilience (Scholl & Scholl, 2014). This can be challenging in heritage tourism destinations, where the optimisation of tourism interlaces with governance and smart tourism priorities, such as the broadening of tourist experiences by connecting tourists to residents, businesses and a city's heritage (Buhalis & Leung, 2018), or the development of sustainable, innovative and inclusive tourism (Ávila et al., 2015). The preservation of, and engagement with, cultural heritage is established as a crucial aspect of society (Hawkes, 2001), and cultural heritage tourism is an important sector of the tourism industry in many destinations (Kennell, 2013; Martinez-Perez et al., 2018; McKercher, 2020). The globally increasing tourist interest in enjoying authentic cultural experiences has encouraged policymakers to create durable policy paths for exploiting cultural assets in a sustainable, creative and resilient way (Panagiotopoulou et al., 2018). In this process, smart tourism governance could play an essential role, and it is essential to understand the contextual factors that could influence this.

Contextual factors affecting the smart governance of heritage tourism destinations

An important factor affecting the governance of heritage tourism destinations is that their heritage performs multiple functions for different stakeholders, only some of whom will be related to tourism (Imon, 2017). For example, in their analysis of the development of tourism in the Spanish city of Santiago De Compostela, Fernańdez et al. (2016:283) explain that it is a '… polysemic space: it defines a sacred space, a modern-day pilgrimage route and a cultural tourism itinerary'. Dragouni & Fouseki (2018) further this analysis in their study of Kastoria, Greece, by explaining the 'heritage values' held by destination stakeholders. They explain that values ascribed to heritage by communities can have an impact on what is possible when making decisions about tourism development, a view echoed by Yildirim (2015) in a comparative study of the challenges of sustainable urban heritage management between Turkey and the United Arab Emirates. Ripp et al. (2011) insist that, for sustainable management in urban heritage destinations, the views of all stakeholders must be incorporated into local governance and development frameworks.

An issue influencing governance in heritage tourism is the presence of international institutional arrangements that are typical for heritage destinations, but less common in other kinds of destination. Chau et al. (2018) examined institutional arrangements for urban heritage in the USA, UK, Serbia, China and Hong Kong and found that in all these locations, international factors were a key consideration, in particular where UNESCO World Heritage Sites were present. Kurz et al. (2014) described these as 'vertical' governance arrangements that involve the top-down imposition of values, with implications for local decision-making. Jones & Ponzini (2018) explain that although this may not involve, for example, UNESCO exercising direct control, that they are still able to influence governance. For example, Burgos-Vigna (2017) highlights that the process of attaining UNESCO World Heritage City status for Quito, Peru, led to the emergence of 'highly specialised players' in the city's governance who were effective in working within these new international institutional arrangements. Ripp & Rodwell (2015) list thirty-seven' international texts' that have influenced the development of heritage cities from 1932 to 2014, including treaties, conventions and policies. Pino (2018) cites the particular influence of UNESCO and ICOMOS in this regard, arguing that these two organisations have added international dimensions to urban heritage governance since the 1970s.

In the United Kingdom, which is the focus of this paper, additional factors affect the governance of heritage tourism. Since the government's spending review of 2010, public sector financial support for tourism and its governance has been significantly cut, affecting local authorities, DMOs and national tourism organisations (Coles et al., 2012, 2014; Kennell & Chaperon, 2013). Decision making has thus been constrained by the availability of financial and human resources, as DMOs have developed new strategies of resource and knowledge-sharing in response to this, which in some cases has entailed DMOs losing staff or closing altogether (Coles et al., 2012; Williams & Hristov, 2018).

Institutional arrangements (Dredge & Jamal, 2015) for tourism governance in the UK have been subject to restructuring that has accompanied the transition to a neoliberal economy (Hassan et al., 2020) and which has exemplified the 'shift from government to governance' (Bramwell & Lane, 2011: 411) including the growth of public-private-partnerships for tourism (Bahaire & Elliot-White, 1999; Chaperon, 2017). Connelly (2007) has linked these shifts in governance to an increasing international emphasis on urban competitiveness, and a consequent urban entrepreneurialism. Within this context, the role of many DMOs in the UK is now to lead and influence visitor-focused activity in destinations, rather than to control destination management and marketing (Hristov & Petrova, 2018; Hristov & Ramkissoon, 2016). This has been accompanied by a proliferation of new entrants to the destination management landscape, with attendant new stakeholder management issues, including Local Enterprise Partnerships (LEP) (Kennell & Chaperon, 2010) and Business Improvement Districts (BID) (Chaperon et al., 2016). Paddison & Walmsley (2018) sound a note of caution about the effectiveness of these new governance arrangements, arguing that the increasing role for the private sector and new stakeholders has led to a weakening of accountability and a democratic deficit in decision making. A similar complexity was observed by Stevenson, Airey, & Miller (2008), who saw the increasing complication of institutional arrangements in tourism as leading to a lack of clarity about decision making and the aims of tourism policy. This research analyses the influence of these contextual factors (hereafter, CF) on perceptions of smart governance in heritage tourism destinations in the UK.

The literature reviewed for this research has focused on three main areas of relevance. Firstly, the smart tourism destination concept was explained to set an overall context for this study. Although there has been significant growth in the smart tourism literature since its foundations in the early 2000s, this review has shown that significant debates remain about some of its key components' value or desirability. This research contributes to these debates through an analysis of the smart governance of tourism in one particular context, that of heritage destinations. Relevant literature on smart governance and cultural heritage tourism was reviewed in order to situate this research more concretely in this context, and it was noted that the local specificities of destinations were recognised as critical elements of the successful implementation of smart governance. Conceptual approaches toward smart governance stress the importance of the contextual factors, and the final part of this literature review identified and analysed these for cultural heritage destinations in the UK. The literature reviewed in this section was used to inform the methodology for this research, including the design of the research instruments explained below.

Methodology

Sample

The initial purposive sample for this study included the DMOs of thirteen of England's most significant heritage tourism destinations: Bath, Canterbury, Cambridge, Chester, Carlisle, Durham, Greenwich, Lancaster, Lincoln, Oxford, Salisbury, Stratford and York, who together make up the England's Historic Cities (EHC) network. This network has existed for over eighteen years and 'Its purpose is to share information, find solutions to common challenges, benchmark performance, champion the heritage product of England and facilitate the joint activity, all to maximise the potential of the cities' visitor economies' (EHC, 2017: 1). Membership of the network is limited to destinations which meet a set of criteria: Having a historic city or town as the focus of the destination; receiving more than four million visitors per annum; experiencing more than 200 million pounds per annum of visitor spending and; sharing a common aim of maximising the economic impacts of tourism whilst managing its negative impacts. The DMO in each city was contacted and asked to participate in this research. All DMOs except one agreed to participate. Unfortunately, the city of Salisbury could not participate as they were engaged in recovery following a terrorist incident, so the sample was extended to include the City of London, Truro and Worcester, heritage destinations in England who had associated with the EHC network through a joint international heritage tourism marketing campaign, 'England's Originals' (Visit Britain, 2018). The final sample encompassed all 15 EHC included in England's Originals' campaign.

The sample was selected to be able to draw conclusions from significant international heritage tourism destinations, which should be at the forefront of innovative and impactful approaches to optimising tourism development. This research discusses the role of the public sector and the potential of smart governance in the optimisation of tourism development, which can be achieved only by cooperation between the public sector and other stakeholders. The long-standing importance of heritage tourism to the UK's tourism industry means that these destinations have well-established DMOs with experience of managing the optimisation issues that are now being discussed as overtourism. In addition, the UK sees widespread political and business interest in smart cities (CBRE, 2018; Connected Places Catapult, 2020), meaning that it provides a useful context within which to investigate the intersections of these with heritage tourism.

Methods

This research combined Importance-Performance Analysis (IPA) with a phase of qualitative interviews, to deepen the analysis of the quantitative data. This approach is typical of an explanatory mixed methods research design (Cresswell & Plano-Clark, 2017), where qualitative findings are used to interpret and expand on the quantitative stage. Sequential implementation, featuring the equivalent status of both methods, and the quantitative part as the first stage, is particularly useful where there is likely to be diversity in the quantitative findings and where topics are novel and lack established analysis frameworks, such as in the new research topic of smart governance in heritage destinations. We paid attention to theoretical sensitivity to yield explanations that best reflect the reality of the phenomenon under investugation (Hall and Callery, 2001) and to reflexivity within this approach (Khoo-Lattimore et al., 2019), particularly regarding the second, qualitative phase explained below.

Importance-performance analysis

IPA is used in organisational contexts as a strategic management tool that can be used to identifty strategic priorities, to prioritise the deployment of scarce resources to where they are needed most, and to harmonise strategic efforts to enhance competitiveness (Azzopardi & Nash, 2013). It places perceptions of organisational performance and the importance of

performance in these areas on to a two-dimensional plot to identify areas of strategic concentration (Martilla & James, 1977). This plot provides four categories or quadrants to set priorities when allocating limited resources (Sever, 2015). The quadrants are typically referred to as Q1 (keep up the good work), Q2 (possible overkill), Q3 (low priority), and Q4 (concentrate here) (Figure 1).

Figure 1. The standard IPA plot
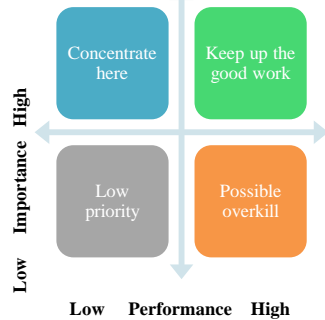
Introduced by Martilla & James (1977), IPA has been applied in a range of contexts in tourism marketing, including perceptions, satisfaction, service quality, preferences, customer management and online reviews (Bi et al., 2019; Deng, 2007; DiPietro et al., 2019; Lee, 2015; Wang et al., 2016a; Yuan et al., 2018; Zhang & Chow, 2004; Ziegler et al., 2012; Garbin Praničević & Mandić, 2020), and management, e.g. sustainable tourism, destination competitiveness, planning, job satisfaction and hospitality (Albayrak et al., 2018; Coghlan, 2012; Frauman & Banks, 2011; Lai & Hitchcock, 2016; Murdy & Pike, 2012; Pan, 2015; Sörensson & von Friedrichs, 2013; Zhang & Chan, 2016).

Recently, researchers have combined IPA with Importance-Performance Competitors Analysis (Albayrak et al., 2018), Three-factor theory (Lai & Hitchcock, 2016), Fuzzy comprehensive evaluation method and Analytic hierarchy process (Wang et al., 2016b), and have inaugurated an asymmetric IPA approach (Yuan et al., 2018). Because of its user-friendliness and potential value for tourism management and planning, IPA-related conceptual and methodological issues have been extensively addressed by several researchers, including Abalo, Varela, & Manzano (2007); Azzopardi & Nash (2013); Lai & Hitchcock (2015); Oh (2001); Sever (2015) and Taplin (2012). The conclusions drawn from these studies were essential for this research, as they identify that IPA could be a valuable tool for supporting tourism management decisions if certain limitations are addressed.

Lai & Hitchcock (2015) considered general questions and specific challenges related to the implementation of IPA in tourism and proposed a research framework involving the introduction of new steps within the analysis that have not been mentioned in previous studies. Their proposed improvements, including those related to questionnaire design, data collection, use of scales, descriptive, reliability and validity analysis, a measure of the level of importance and measure of the gaps between importance and performance scores have been applied in the current study. Considering the aim of this research and inherent discontinuity in the inferred priorities (Lai & Hitchcock, 2016) and discriminating thresholds (Sever, 2015) as a limitation of the method, related to the interpretation of the analysis, we also included a phase of

qualitative interviews with selected EHC DMOs.

Questionnaire design and data collection

A questionnaire (see appendix A) was used to measure the perceptions of DMOs regarding the importance and performance of smart governance for the optimisation of tourism development. The questionnaire included twenty-two questions on the smart governance categories (SGC) identified by Bolívar & Meijer (2016), i.e. six elements, twelve outcomes, and four strategies (Table 2), and the five CF identified in the literature review (Table 4). Bolivar & Meijer's (2016) SG model resulted from a systematic review of the literature and subsequent analysis by a panel of experts from European local governments. The conceptualisation suggests that SG is a process in which strategies for implementation meet elements, i.e. concrete governmental actions, to deliver outcomes at local levels. With this model, the authors eliminated the previously observed overlap in SG dimensions and included innovation - often mentioned in the literature but never acknowledged as a constitutive element of SG. Ruhlandt (2018) acknowledged the contribution of Bolivar & Meijer (2016) to the understanding of the phenomenon and emphasised the lack of focus on CF regarding SG as its primary flaw. A strong understanding of CF is essential to implement SG, as smart solutions cannot be copied but need to be assessed on their merits for different contexts and adapted appropriately (A. J. Meijer et al., 2016). Given the novel nature of this study, which focuses on SG in heritage destinations, the CF proposed and discussed are drawn from the literature review and reflect the authors' understanding of the local context. Respondents were asked to rate the level of importance of the twenty-two items on a 7-point Likert scale, with 1 as "Not at all important", and 7 as "Extremely important". They were then asked to rate the level of their destinations' performances against the same attributes on a 7-point Likert scale, with 1 as "Very low performance", and 7 as "Extremely high performance". Finally, respondents indicated the level of importance of the five CF on a 7-point Likert scale. The use of a 7 point scale was based on Lai & Hitchcock`s (2015) guidelines for applying IPA.

Because this research does not propose new SGC but instead explores an established SG framework in a new context, there was no need to conduct reliability and validity analysis of attributes (Lai & Hitchcock, 2015). To obtain information on the understanding of the questionnaire, relevance errors, technical errors and other issues, three university professors participated in a cognitive pre-test (Presser et al. 2004). The final version of the questionnaire was sent via Google forms to the Chief Executives, or other nominated senior staff, of the DMOs (hereafter CEO). The data were collected from March to August 2019.

Findings

The implementation of IPA

IPA assumes that the levels of importance of SGC are different (Lai and Hitchcock, 2015). This assumption was confirmed using a univariate output test of within-subjects effects using IBM SPSS20, which showed significant differences in the level of importance of attributes (F = 5,786, p-value <0,000) (Table 1).

Table 1. Test of within-subject effects

	Type III Sum of Squares	df	Mean Square	F	Sig.

Importance	Sphericity Assumed	105,806	21	5,038	5,786	,000
	Greenhouse-Geisser	105,806	4,908	21,559	5,786	,000
	Huynh-Feldt	105,806	7,877	13,433	5,786	,000
	Lower-bound	105,806	1	105,806	5,786	,031
Error (Importance)	Sphericity Assumed	256,012	294	0,871		
	Greenhouse-Geisser	256,012	68,708	3,726		
	Huynh-Feldt	256,012	110,271	2,322		
	Lower-bound	256,012	14	18,287		

Measure: Measure_1

Source: conducted research

O'Neill & Palmer (2004) suggest using paired-sample t-tests to evaluate where mean performance scores differ significantly from mean importance scores. Subsequently, only those SGCs with significant IP gaps are retained for further analysis. Table 2 shows the results of the paired-sample t-tests. The p-values for all SGCs except O2 (*Readiness for disaster management*) and O9 (*Highly educated citizens*) are significant; these two attributes were excluded from I-P mapping and further analysis. In most cases, IP gaps were substantial, i.e. <1. The most significant gaps are for the three strategies for implementation of SG (*The adaptation of technology by DMOs; Legislation to stimulate smart destination development; An overall vision for a smart destination*), one SG element (*Effective decision-making*), and one SG outcome (*Social inclusion*). Considering the mean importance score (Table 2), the most crucial SGC are smart governance elements: a partnership between DMOs and stakeholders (E1); smart decision making (E3) and; coordination of stakeholders within the destination (E2).

Table 2. The paired sample t-test (7-point Likert scale)

SGC	Importance		Performance		Difference				Ranking	Data-centred quadrants
	Mean	S.D.	Mean	S.D.	Mean	S.D.	* t-Value	Sig. (2-tailed)		
E1	6.933	.258	5.800	1.207	1.133	1.246	3.523	.003	13	Keep up the good work
E2	6.733	.458	5.133	1.302	1.600	1.352	4.583	.000	8	Keep up the good work
E3	6.733	.594	5.067	1.387	1.667	1.291	5.000	.000	2	Keep up the good work
E4	5.800	.941	4.133	1.060	1.667	1.447	4.459	.001	6	Low priority
E5	5.600	1.056	4.067	1.100	1.533	1.727	3.440	.004	9	Low priority
E6	5.733	1.100	4.200	1.265	1.533	1.457	4.075	.001	9	Low priority
O1	6.067	1.280	4.933	1.280	1.133	1.302	3.371	.005	14	Keep up the good work
O2	5.467	1.060	4.867	1.125	0.600	1.352	1.718	*.108*		
O3	5.667	1.113	4.800	1.207	0.867	1.125	2.982	.010	16	Possible overkill
O4	5.800	1.146	4.733	1.163	1.067	1.335	3.096	.008	15	Possible overkill

	(a)		(b)		(c)		t	Sig.	Ranking	
O5	6.133	1.246	5.600	1.242	0.533	1.125	1.835	.088	21	Keep up the good work
O6	6.533	.743	5.800	0.775	0.733	1.163	2.442	.028	18	Keep up the good work
O7	6.400	.632	4.733	1.100	1.667	0.816	7.906	.000	2	Keep up the good work
O8	6.000	.655	4.600	0.737	1.400	0.632	8.573	.000	11	Concentrate here
O9	5.267	1.100	4.867	1.187	0.400	1.298	1.193	*.253*		
O10	5.667	.976	5.067	0.961	0.600	1.242	1.871	.082	19	Possible overkill
O11	6.267	.704	4.867	1.125	1.400	1.298	4.176	.001	11	Keep up the good work
O12	6.400	.828	5.600	0.828	0.800	0.561	5.527	.000	17	Keep up the good work
S1	4.933	1.223	3.267	1.163	1.667	1.447	4.459	.001	2	Low priority
S2	5.000	1.363	3.400	1.549	1.600	1.352	4.583	.000	7	Low priority
S3	5.200	1.320	3.533	1.187	1.667	1.543	4.183	.001	2	Low priority
S4	5.267	1.033	3.533	1.407	1.733	1.387	4.840	.000	1	Low priority
GM	5.891		4.664							

*Paired Samples Test for each smart governance category
(a) Performance: Mean value, questions asked as "Please rate your PERFORMANCE..." on a -point scale, where 1 means "Very low performances", and 7 means "Extremely high performances."
(b) Importance: Mean value, questions asked as "Please rate the IMPORTANCE..." on a 7-point scale, where 1 means "Not at all important", and 7 means "Extremely important."
(c) Difference: Importance - performance gap
Ranking: the ranking of the smart governance categories based on IP gaps
Smart governance categories:
ELEMENTS: **E1**: Partnerships between the DMO and other stakeholders; **E2**: Coordination of the work of stakeholders within the destination; **E3**: Effective decision-making; **E4**: The adoption of technology by the DMO; **E5**: Use of technology in the destination; **E6**: Innovation capacity in the destination.
OUTCOMES: **O1**: Public sector efficiency; **O2**: Readiness for disaster management; **O3**: Citizen-centric services; **O4**: Interaction with citizens; **O5**: Destination Branding; **O6**: Economic growth; **O7**: Social inclusion; **O8**: Environmental performance; **O9**: Highly educated citizens; **O10**: Growth of tourism receipts; **O11**: Sustainability of tourism development; **O12**: Sustainable use of heritage.
STRATEGIES: **S1**: Legislation to stimulate smart destination developments; **S2**: Policies for stimulating smart destination initiatives and projects; **S3**: An overall vision for a smart destination; **S4**: Organisational transformations toward smart governance in the destination.

Source: conducted research

Subsequently, SGCs with significant gaps were plotted on the IPA grid. Because direct measures of importance perform better than correlation-based and regression-based measures (Bacon, 2003; Lee, 2015), a data centred quadrant with means as crosshairs of the IP grid was used. To improve the interpretation, the iso-priority diagonal line (Azzopardi & Nash, 2013), a line where all points on it have equal priorities for improvement, i.e. I=P, was used.

The plot (Figure 2) splits SGCs into four areas, using axes derived from the means of aggregated importance attributes and aggregated performance attributes. Comparison of the aggregate mean scores for each SGC suggests that the performance values of 20 SGCs did not exceed importance values (negative disconfirmation). All of the SGCs are placed above the Iso-priority line. IP mapping places nine out of the twenty SGCs into the first quadrant (Keep up the good work), three into the second (Possible overkill), seven into the third (Low priority),

and one attribute into the fourth (Focus here).

The majority of smart governance outcomes (O1; O5; O6; O7; O11; O12), including *sustainable tourism development, destination branding and sustainable use of heritage*, as well as the first three SG elements (E1; E2; E3) referring to *decision making and communication with stakeholders within a destination,* are in the "Keep up the good work" quadrant. *Interaction with citizens,* as well as *citizens' centred service* and *growth of tourism receipts*, are in the "Possible overkill" quadrant. This high performance regarding interaction and citizen related services indicate that quality of life is a priority in these destinations. However, the placing of *growth of tourism receipts* in the overkill quadrant might indicate worries that the DMOs are losing control over tourism development, as this contains attributes that are of low importance to the respondent, yet which perform strongly (Sever 2015). The "Low priority" quadrant contains all strategies for achieving SG and three SG elements (E4; E5; E6), referring to the *adaptation and use of technology in the destination* and its *innovation potential*. This suggests that these DMOs engage in traditional approaches to destination management and do not see a need for developing into a smart destination to achieve their goals. Only one SGC, *environmental performance* (O8), was in the "Concentrate here" quadrant. As such, this outcome is underperforming and a threat to the optimisation of tourism, which should be a priority in future tourism development.

Figure 2. IP Mapping for EHC destinations (Iso-priority diagonal line and data centred line)
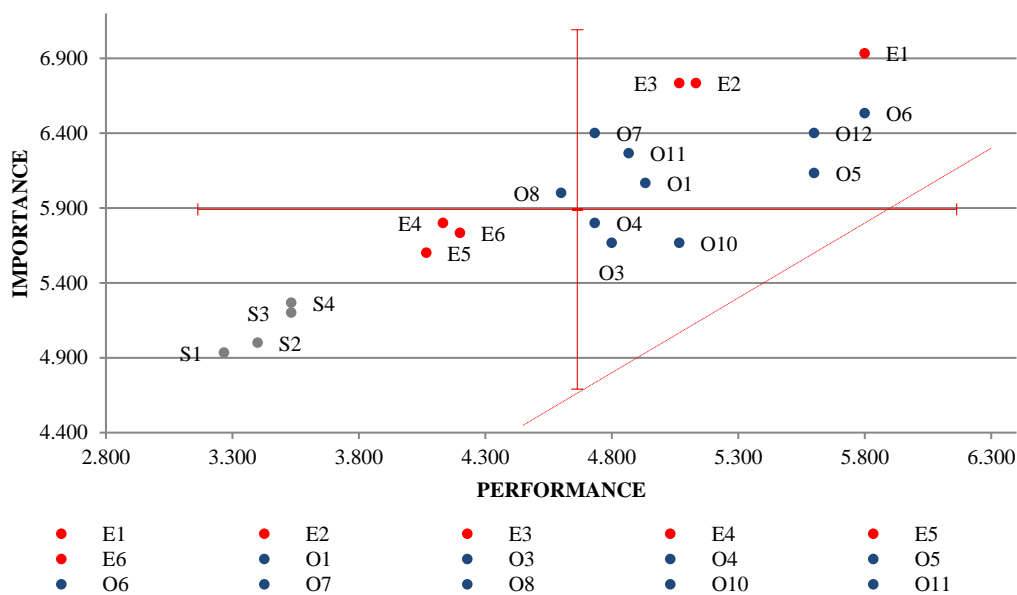
Source: conducted research

Table 3 shows a cross-destination comparison, suggesting that there are significant differences in the perception of SG elements, outcomes and strategies between destinations. For SG elements, the majority of the destinations place the first three (*a partnership between DMOs, coordination of stakeholders* and *decision making*) into the quadrant, "Keep up the good work". The remaining three elements (*an adaptation of technology, use of technology* and *innovation capacity*) are placed into the "Low priority" and "Concentrate here" quadrants. These results substantially differ from the aggregated results presented in Table 1 and Figure 1. Moreover, they highlight the importance of adaptation and the use of technology for achieving governance outcomes. It should be noted that Oxford and Carlisle have placed all of the SG elements in the

first quadrant, and Cambridge has placed the majority in the fourth.

For SG outcomes, Lancashire, Durham, Carlisle, and Worcester place the majority into the "Keep up the good work" quadrant. *Social inclusion, environmental performances* and *citizens centric services* are most often placed into the "Concentrate here" quadrant. Attitudes regarding the perception of *growth of tourism receipts* differ, i.e. responses are in all four quadrants. However, considering the *sustainability of tourism development*, most destinations are satisfied with their performance. The exceptions are Cambridge, Bath and York, with perceptions that there is significant room for improvement. All destinations (except Stratford and Greenwich) consider that the *heritage is used sustainably*.

SG strategies are generally plotted into the third quadrant. Exceptions are Truro, Canterbury, and Oxford, which place most of the strategies into the fourth, "Concentrate here" quadrant. It is also valuable to note that Lincoln and Carlisle have already initiated the transformation toward the smart destination concept, by developing the *policies for stimulating smart destination initiatives and projects* and by initiating the *organisational transformation towards smart governance in the destination*.

Table 3. The IP mapping, data centred quadrant approach, the cross-destination comparison

	Greenwich	Lincoln	City of London	Truro	Lancashire	Stratford	Cambridge	Durham	Canterbury	Bath	Oxford	Carlisle	Worcester	Chester	York
Smart governance ELEMENTS															
							I								
Partnerships between the DMO and other stakeholders	I	I	I	I	I	I	V	I	I	I	I	I	I	I	I
				I		I	I							I	
Coordination of the work of stakeholders within the destination	I	I	I	V	I	V	V	I	I	I	I	I	I	V	I
				II			I			I				I	
Effective decision-making	I	I	I	I	I	I	V	I	I	V	I	I	I	V	I
	II					II	I		I	I			I	II	I
The adoption of technology by the DMO	I	I	III	II	II	I	V	I	V	V	I	I	V	I	V
	II	I		II	II	II	I		I	I			I	II	II
Use of technology in the destination	I	V	II	I	I	I	V	II	V	V	I	I	V	I	I
	II	I		II		I		II	I	II			I	II	I
Innovation capacity in the destination	I	V	II	I	II	V	I	I	V	I	I	I	V	I	V
Smart governance OUTCOMES															
		II				II			I	I	I				II
Public sector efficiency	II	I	I	I	I	I	I	I	V	V	V	I	I	II	I
				I		I			II	II	II				II
Citizen-centric services	II	II	I	V	I	V	I	I	I	I	I	I	I	I	I
				II		I			II	I	I				I
Interaction with citizens	II	II	I	I	I	V	II	I	I	V	V	I	I	I	V
						I	II								
Destination Branding	II	II	III	I	I	V	I	I	I	I	I	I	I	I	I
Economic growth	I	II	II	I	I	I	I	I	I	I	I	I	I	I	I
	I			I			I				I			I	II
Social inclusion	V	I	I	V	I	I	V	I	I	I	V	I	I	V	I
	II					I			I	I				I	II
Environmental performance	I	I	I	I	I	V	I	I	V	V	I	II	I	V	I
									II	I	II	I			
Growth of tourism receipts	II	II	II	II	I	I	I	V	I	V	I	I	I	I	I
	II								I		I				I
Sustainability of tourism development	I	I	I	I	I	I	V	I	II	V	I	I	I	I	V

							II					I					
Sustainable use of heritage	I	I	I	I	I	V	I	I	I	I	I	I	I	I	I
Smart governance STRATEGIES															
Legislation to stimulate smart destination developments	II	II		I		II	II	II	I	II	I	I	II	II	II
	I	I	II	V	II	I	I	I	V	I	V	V	I	I	I
Policies for stimulating smart destination initiatives and projects	II	II		I	II	II	II	II	I	II	I		II	II	II
	I	I	I	V	I	I	I	I	V	I	V	I	I	I	I
An overall vision for a smart destination	I	II		I	II	II	II	II	I	II		I	II	I	I
	V	I	II	V	I	I	I	I	V	I	I	V	I	V	V
Organisational transformations toward smart governance in the destination	I	II		I	II	II	II	II	I	II	I		II	II	II
	V	I	I	V	I	I	I	I	V	I	V	I	I	I	I

I = Keep up the good work; II = Possible overkill; III = Low priority; IV = Concentrate here

Source: conducted research

The validation of Contextual factors

Looking at the mean importance scores, the most important CF affecting smart governance in these heritage tourism destinations are a *reduction in public sector support and funding* (6.13) and the *influence of partnership arrangements* (6.07). Figure 3 suggests that differences between destinations do exist. For example, in the case of Carlisle, the *reduction in public sector support and funding* does not seem to be influencing smart governance, yet on the other hand, *the influence of partnership arrangements* and *of non-tourism stakeholders who are connected to heritage sites* appears to be vital. The *influence of international institutional arrangements* is perceived as the least important factor for the development of smart governance, while the perceptions of *the influence of new visitor economy stakeholders* vary from extremely important (Lancashire, Carlisle) to not that important (Stratford, Cambridge, Canterbury).

Figure 3. DMO perceptions of the importance of the proposed contextual factors on the smart governance of destinations
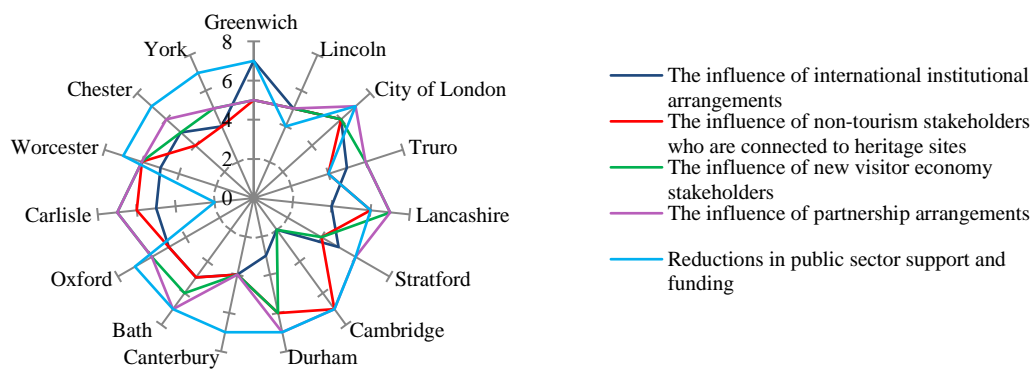
Source: conducted research

To analyse the impact of the proposed CF on the perception of the importance of smart governance in these destinations and their actual performances, two multiple linear regression models were constructed, with mean importance scores and performance scores as dependent variables.

$$a) \quad y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \varepsilon$$

where y refers to the mean importance score in the first model, and mean performance score in the second model; α represents the constant; x_1, x_2, x_3, x_4, and x_5 represent five CF, with $\beta_1 \ldots \beta_5$ representing the corresponding coefficients, and ε represents the residual error.

Table four shows the results of the ordinary least squares (OLS) estimates of the regression models for those SGCs which are significantly interrelated with at least one of the five proposed CF. In each of the specifications, the mean-variance inflation factor (VIF) is one, while Durbin Watson statistic values are within the critical threshold, which suggests that multicollinearity and autocorrelation are not present. OLS was used to estimate the regression models and the Stepwise entry method. The values of the coefficient of determination are highly satisfactory across the specifications, exceeding the value of 0.5 (Mooi & Sarstedt, 2011). The F-test values in all models are significant, i.e. p≤0.05, which indicates the models individually have a good fit.

Three (CF1; CF3; CF4) out of five proposed CF can be related to the perception of the importance of five SGCs: one SG element (*the adaptation of technology by the DMO*), and four SG outcomes (*citizens-centred services; growth of tourism receipts; sustainability of tourism development*, and; *sustainable use of heritage*). CF1, *the influence of international institutional arrangements* has a negative impact on the perception of the importance of the adaptation of technology by DMOs and the sustainable use of heritage. On the other hand, CF3 and C4, *the influence of new visitor economy stakeholders*, and *the influence of partnership arrangements* have a significant and positive impact on the perception of the importance of the remaining three SG outcomes, *citizens-centred services, growth of tourism receipts* and *sustainability of tourism development*.

Table 4. The influence of contextual factors on the perception of importance and performance regarding smart governance categories (OLS estimate of regression model)

	Dependent variable – PERCEPTION OF IMPORTANCE					Dependent variable – PERCEPTION OF PERFORMANCE											
	E4	O3	O10	O11	O12	E1	E2	E3	E4	E5	E6	O1	O3	O4	O8	O11	S4
CF1	-0,517***	-	-	-	-0,587***	-	-	-	-	-	-	-	-	-	-	-	0,547***
CF2	-	-	-	-	-	-	-	-	-	-	0,547**	0,740**	0,801**	0,777**	0,666**	-	-
CF3	-	-	0,548**	-	-	0,855***	0,652**	0,665**	0,644**	0,688**	-	-	-	-	-	0,770**	-
CF4	-	0,757**	-	0,605**	-	-0,510***	-	-	-	-	-	-	-	-	-	-	-
CF5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

N	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
R	0,517	0,757	0,548	0,605	0,587	0,841	0,652	0,665	0,644	0,688	0,547	0,74	0,801	0,777	0,066	0,77	0,547
Adj. R2	0,215	0,54	0,247	0,318	0,294	0,659	0,38	0,399	0,369	0,432	0,246	0,513	0,613	0,574	0,4	0,562	0,245
F	5,099	17,42	5,581	7,523	6,842	9,644	9,591	10,29	9,197	11,65	5,56	15,73	23,20	19,83	10,34	18,95	5,551
p-value	0,004	0,001	0,035	0,017	0,021	0,009	0,008	0,007	0,1	0,005	0,035	0,002	0,000	0,001	0,007	0,001	0,035
Max VIF	1	1	1	1	1	1,119	1	1	1	1	1	1	1	1	1	1	1
D.W.	1,689	1,653	1,41	1,047	1,794	2,244	2,014	2,719	2,765	2,254	2,025	2,663	2,557	2,672	2,17	2,217	2,109
Std. Error	0,183	0,21	0,175	0,162	0,158	0,705	1,025	0,223	0,174	0,172	0,296	0,241	0,203	0,205	0,154	0,154	0,278

***p< 0.001; **p<0.05; *p<0.1; OLS estimates of different specifications of the regression model, Variable enter method: Stepwise

CF1: The influence of international institutional arrangements
CF2: The influence of non-tourism stakeholders who are connected to heritage sites
CF3: The influence of new visitor economy stakeholders
CF4: The influence of partnership arrangements
CF5: Reductions in public sector support and funding

Source: conducted research

Regarding the influence of the proposed CF on performance, most of the SG elements are interrelated positively with CF3, while most of the SG outcomes are interrelated positively with CF2, which makes them in overall the most influential CF. The *influence of non-tourism stakeholders who are connected to heritage sites* relates positively with the performances regarding the following SGCs: *innovation capacity in the destination*; *public sector efficiency*; *citizen-centric services*; *interaction with citizens*; and *environmental performance*. On the other hand, the *influence of new visitor economy stakeholders* positively influenced performance for: a *partnership between the DMO and other stakeholders*; *coordination of the work of stakeholders within the destination*; *effective decision-making*; *the adaptation of technology by the DMO; the use of technology in the destination*; and *sustainability of tourism development*. The performances regarding the first SG element, *partnerships between the DMO and other stakeholders*, is negatively interrelated with CF4, *the influence of partnership arrangements*. The *organisational transformations toward smart governance in the destination* (S4) are positively interrelated with the *influence of international institutional arrangements* (CF1).

Subsequent analysis and discussion

The final stage of this research involved carrying out a set of interviews (see Appendix B) with purposively sampled CEOs of a selection of DMOs from the sample, chosen because the responses that they had given were aligned with areas of ambiguity in the quantitative findings. The interviews were thematically designed (Kvale 2008) to address only the identified issues, including the relationships between governance, technology and the sustainability of tourism; the extent of effective partnership working, especially with diverse stakeholders; the impact of reductions in public sector support for tourism on governance and; the adoption of technology.

To this end, six DMOs were selected for interviews, all of whom agreed to participate. The semi-structured interviews (Ritchie et al., 2013) were carried out by telephone and recorded, later transcribed, and then analysed using a thematic content analysis approach (Berg 2007). The interviews were designed with regard to the reflexive nature of research (Khoo-Lattimore et al., 2019), with an awareness of both the interviewers' positionality as an 'expert' on the issues involved, and the need to learn from the lived experiences of destination management professionals in the field. Additionally, questions were phrased to prompt context-rich, open answers from respondents, that it was hoped would make the findings of the research relevant and useful for a tourism industry audience. During the conversations, the researcher remained neutral, setting aside their own views to listen and learn from a respondent's perspective. The process outlined by Nowell et al. (2017) for thematic analysis was followed, which adapts the trustworthiness criteria of Lincoln and Guba (1985). The resultant themes that structure the analysis below were reviewed by both authors to enhance the trustworthiness of the qualitative aspects of our mixed-methods approach. All interviewee responses are reported anonymously due to the sensitive and often politicised nature of tourism governance and are identified as R1-R6. In this section, the quantitative and qualitative data is mixed in accordance with our research design, and we discuss our findings with respect to the literature on smart governance and tourism.

A key finding from the IPA is that only one SGC was placed into the 'concentrate here' quadrant overall by respondents, that of *environmental performance*. Additionally, there was variability in perceptions of *sustainable tourism development*, with three destinations placing this in the "concentrate here" quadrant and one attributing it to the "low priority" quadrant. Because of this, and the importance given in the smart tourism literature to achieving sustainable development outcomes (Ávila et al., 2015, Buhalis & Leung, 2018), respondents were asked for the views on this topic.

Most respondents used the language of overtourism (Dodds & Butler, 2019) to explain the issues that they were facing, a discourse that has become prevalent in heritage tourism management (Adie et al., 2019; Seraphin et al., 2018). Although, a common response was that this was a limited concern that applied '*at certain times of the year*' (R2), and another explaining that '*In the summer, on weekends…then yes, but these are small moments aren't they?*' One respondent noted that '*The talk is about overtourism. It is the same with many heritage destinations; there are occasions of too many people being in the same place at the same time, which for me is just about management*'. Another explained that '*[sustainability for us] is more around dispersal and dispersal management*' (R4). Common to all of the destinations was the tension between the growth of tourism and the realities of managing this within a heritage setting:

> '*Tourism has been growing at a rate of around 7% per year…the real concern was that we had a city with effectively a medieval streetscape, it is a market town, it is very compact, but has an international reputation, and it physically can't cope…it is struggling to cope, with the growth that we're experiencing*' (R1)

A consensus emerged that issues of overtourism were manageable by the DMOs using techniques such as signage and destination management plans and by addressing problems such as parking and information provision. Wider issues of sustainability were mostly the priorities of other stakeholders, especially local authorities and residents. This was not seen as something that DMOs had a lot of agency to address, with one respondent explaining that '*Everyone keeps declaring a carbon emergency, everyone says we've got be carbon neutral by 2050. Ok. How? We need guidance and help*' (R6). These findings help to explain the responses to the survey,

where DMOs identified *environmental performance* as an area requiring future concentration of effort and resources, but *sustainable tourism development* receiving variable scores.

The SGCs rated most highly by the DMOs were those related to partnership working and coordination. These were areas that were important, but also where DMOs rated their performance most highly. Analysis of the importance of the CF showed that the *influence of partnership arrangements* was an important CF in determining attitudes towards smart governance. These are orthodox areas of work for DMOs (Pike & Page 2014), but as the literature on smart tourism and SG emphasises the further benefits that taking a 'smart' approach can bring (Gretzel et al., 2015a; Nesti, 2018), respondents were asked to explain more about how they perceived these elements in relation to smart governance.

All respondents expressed the opinion that their DMO had effective mechanisms for working with their stakeholders. For example, R2 explained that '*We've got a really tight steering group for our DMP…but for developing a DMP the stakeholder engagement has to go much, much broader than that.*' One CEO summed up their approach as '*You're the conductor but the city is the orchestra, you have a plan, but it's not your plan* (R1). Although all respondents saw their destinations as presenting challenges in partnership working, mostly because of the presence of '*so many different, siloed organisations*' (R3), working on these issues was clearly seen as '*a natural part*' (R1) of what DMOs do. Further, the outcomes of these efforts were evaluated positively. R6 argued that the DMO played a key role in discussions at multiple levels: '*We engage with huge numbers of small businesses, and then back to other bodies like the Business Improvement District and the local authority*'. R4 clarified that '*We have most of the key players coming together and we don't ever have any major disagreements. You might have differences of opinion on detail, but there's always a majority view.*' Notwithstanding this positive evaluation, the influence of international and other large stakeholders was seen as important. One CEO stated that:

> '*The UNESCO WHS Group…it does have a big influence on our work,…positive and negative. On the plus side, it keeps the place beautiful; on the downside, it makes doing anything very, very difficult.*' (R5)

Yet, for another DMO, the main stakeholder challenge was with '*The developers, they are the big ones…they can put millions in….but nobody finds them easy to work with*' (R2). None of the respondents saw a role for smart approaches in helping them to develop the partnership aspects of their governance and were confident that they were already performing well in this regard.

The *reduction of public sector support* for tourism was the most important CF influencing perceptions of SG, but there was considerable variation between destinations regarding this factor. Additionally, the SG elements *public sector efficiency* and the *growth of tourism receipts* received diverse rankings. Despite this, the SG *economic growth* was placed into the 'keep up the good work' quadrant, emphasising that DMOs see the importance of this and consider themselves to be performing well. Given the recent changes to public funding and support of DMOs in the UK (Coles et al., 2012, 2014; Kennell & Chaperon, 2013), respondents were asked for the views on these issues.

As with the survey responses, there were a diversity of explanations about the relationship between each DMO and the local authorities that they sit within. Respondents saw public sector austerity as impacting on their organisations but in different ways. R2 emphasised that they had been through a restructuring and divorced from public sector support '*very much following the economic downturn*', whilst another DMO who remained within a public sector framework

explained that '*The city council, as part of economic development, has always had a focus on tourism, and tourism support, and pushing out the offer, because we've got a lot of businesses in that sector and we need to look after them*' (R1). There was consensus that the economic impacts of tourism were the driving force behind the work of DMOs, but opinions were divided on whether support for tourism was seen as a worthwhile investment by the local state. R3 argued that '*At the end of the day, without local authority investment to maintain the destination… it's just not sustainable*'. At the same time, R6 believed that '*[the local authority] sees tourism as a potential cash cow*'. All CEOs saw a key part of their role as arguing for support from the local authority with one explaining that '*We can be a tickets and tours organisation if you want, but if you want a strategic tourism operation you've got to pay for it*' (R2). These responses help to explain why all DMOs in the survey emphasised the importance of *economic growth* to their work, but also why the *reduction of public sector support for tourism* was shown to be the most important CF; regardless of the extent to which DMOs are dependent on public funding, their relationship with the public sector is vital.

Respondents placed all technological elements of SG and all strategies for SG into the 'low priority' quadrant. As the practice of SG involves the integration of technological innovation with decision-making (Pereira et al., 2018), this suggests that the DMOs did not see SG as an area of value to their work. Given the rising numbers of other types of tourism destinations and cities that are pursuing 'smart' strategies, respondents were asked about this to investigate whether there was anything significant about this type of destination that produced this result.

Although all respondents spoke positively about technological innovations in their destinations, they had not previously considered how the 'smart' movement could have an impact on governance. As R2 explained, '*smart and governance aren't words that we normally put together. I'm familiar with smart tourism and smart cities, but smart governance isn't something I've thought about*'. Respondents were keen to discuss specific technological developments in their destinations, such as footfall cameras, 5G pilots, data analytics, and sensor technology to help manage peak flows of visitors. However, none were implementing these projects as part of a 'smart destination' strategy or considering how these could influence their governance beyond operational concerns. Data deficiencies were consistently identified in marketing, with one CEO reporting that '*We haven't got any data really on who our visitors are, not really. Certain data we can draw down from Visit Britain that gives us some idea, but it's just ad hoc*' (R1). Another described their organisation as '*very data-poor*' (R3). Tourism businesses were regarded by most respondents as needing support to engage with technology-driven developments, and not being '*early adopters*' (R4). One CEO summarised '*Historically, the business has been slow to adopt change here, you have to be careful to not scare the horses and have a lot of patience*' (R5). All respondents said that they were either using, or had tried to use, destination management software, which aggregated data from partners in a dashboard format, but that there remained significant problems in getting timely and accurate data from their partners, including small businesses and larger partners such as transport providers and hotels. Another significant barrier to developing this approach was seen as the human resources investment that was required; at least' *half a person*' (R5) from within already stretched DMO teams. From these interviews, it became clear that the lack of priority given to technologies and strategies for SG was not a reflection of a lack of interest from the DMOs, all of whom could see some benefit of these approaches in their work, but was related to difficulties in implementing these approaches with partners in the destination and with the resources that are currently available.

Conclusions

Theoretical and practical implications

IPA results demonstrate negative disconfirmation for all significant SGCs, suggesting that performance values did not exceed importance values. One interpretation of this is that SG is still new to these destinations, reinforcing the need for education and knowledge sharing, as well as increased cooperation between heritage DMOs and academia. The analysis revealed high performance from EHC destinations regarding interaction with citizens, decision-making and communication with stakeholders. These results are consistent with Castelnovo, Misuraca, and Savoldelli (2016), who point out citizen engagement as a cornerstone of smart city governance and suggest increasing the participation and importance of community in the creation and management of public value. The destinations in this sample are established tourism destinations with well-established partnerships and stakeholder engagement strategies. It is clear from this research that smart approaches which emphasise improvements to stakeholder engagement and partnership working will not be attractive to these types of DMOs, who have become very adept at this aspect of their governance.

This study demonstrates that social inclusion, environmental performances and citizen-centric services are the priority potential SG outcomes for heritage destinations. These are second and third-order outcomes focused on the position of public sector services vis-a-vis other stakeholders (Bolívar & Meijer, 2016). Heritage DMOs consider themselves to be very good at managing overtourism issues using traditional techniques but see issues to do with environmental performance and the climate emergency as difficult to engage with. There is scope here for smart approaches to generate data and aid decision making in an SG framework to help DMOs to understand and manage the environmental aspects of the optimisation of tourism in their destination. These findings are the first empirical evidence supporting the need for a destination-design-driven approach to tourism governance in heritage destinations dealing with excessive tourism, proposed by Koens et al. (2019).

One of the most important contributions of this study is that it highlights the significance of context to the development of SG for tourism and provides an analysis of the influence of CF on perceptions of SG. The lack of empirical evidence of the influence of CF was previously highlighted by Ruhlandt (2018), and very few studies theorise about or measure the potential role of CF, meaning that empirical evidence of the connection between SG and CF has been lacking. This study confirms that DMO perceptions of smart governance in heritage destinations are influenced by international institutional arrangements, new visitor economy stakeholders, partnership arrangements, and non-tourism stakeholders who are connected to heritage sites. The DMOs additionally emphasised the importance of public sector support for tourism. Regardless of the degree to which DMOs are still part of the public sector, or have been spun out to become more independent, the relationship with the public sector is vital for all of their work and affects their perceptions of smart governance. Thus, for smart governance to be implemented in these destinations, it will need to be cognizant of this relationship and to provide benefits that enhances this. The conclusions of this analysis are pivotal as they mark a shift from a smart city-focused understanding of SG to the contextual adaptation of SG for tourism destinations. Thus, the findings suggest several new avenues for research concerning the factors influencing SG in different destinations types.

Finally, this study contributes to our understanding of the implementation of smart governance in heritage destinations. The results show that DMOs in heritage tourism destinations view technological innovations positively and are involved in lots of individual projects. However,

these are not joined up into smart strategies, and they find getting partners to take part and provide data challenging. DMOs do not see this as negatively impacting on their governance outcomes; however, as they consider themselves to already have good partnership working practices and to perform well in this regard. These findings underline the limitations of European policies for the development of smart tourism, where the majority of initiatives are related to increasing innovation and competitiveness of the destinations through the development of smart end-user applications. On the other hand, in Australia, for example, policies focus mainly on smart governance and the use of open data (Ivars-baidal et al., 2017), which can provide incentives for implementation. In practical terms, this means that, for SG to be implemented in these historic European destinations, the emphasis does not need to be on changing the perception of DMOs, but on improving the skills and capacity of partners to provide data and use smart platforms. In the UK context, the problems facing the destination in terms of competitiveness (Visit Britain, 2020; WEF, 2020) and the need to increase the value, if not volume, of international tourist arrivals through optimisation, could be partially addressed through the implementation of smart tourism and smart governance approaches. However, this research shows the need to consider the local context for this implementation and cautions against 'off-the shelf' approaches to smart tourism.

Research limitations

As with all research, this study presents the limitations of transferability and generalisability. This study serves as an explorative case focusing on heritage destinations in the UK, meaning further research is needed to investigate the applicability of these findings to other types of tourism destinations. Despite this, the destinations included in the sample are part of a world-leading heritage tourism offer in the UK (Oxford Economics, 2016), with well-established DMOs and so do provide a valuable sample from which to draw conclusions about smart governance in heritage tourism that could be applied elsewhere. The CF identified in the literature review for this research are drawn from a range of international studies, with only one (reductions in public sector funding) being specifically drawn from the UK context. Furthermore, it could be argued that although full sampling was used (Lai, 2015), the small sample size of 15 EHC DMOs is another limitation of the study. Considering that small sample might deliver biased results, the qualitative analysis was employed to develop and complement the results obtained from quantitative analysis (Molina-Azorín and Font, 2015). Thus, the qualitative part helped to improve the understanding of the specific context of the analysis, and elaboration and clarification of the results from the quantitative method. Although this step helped to improve the interpretation of the results, the limitation of the small sample remained and should be acknowledged. The third limitation relates to the interpretation of the results of the IPA analysis. It is possible to question the interpretation of the relevance of the position of the SG categories in the IP Map, which are close to the data centred lines. To overcome this methodological shortcoming (Sever, 2015), we applied an exploratory mixed methods design, including interviews with selected DMO CEOs.

Research agenda

The findings presented here provide a starting point for further examination of SG in heritage destinations. A challenge for future research will be to identify the theoretical framework for heritage tourism in different settings, as well as to introduce the concepts of carrying capacity, crowding and visitor experience to the smart governance agenda, in order to link it more clearly to the optimisation of tourism development. Furthermore, considering the heritage context of these results, interesting future research lines should include studies on larger samples of different types of destinations. Finally, the global crisis affecting the tourism industry caused

by the COVID-19 pandemic, means that tourism destinations will need to radically re-think many aspects of their work in relation to the optimisation of tourism. For heritage tourism destinations, specific challenges will be faced, including difficulties in adapting protected or otherwise significant monuments, buildings and streetscapes, and in creating tourism experiences that both reflect the 'new normal' of tourism and maintain the authenticity of heritage experiences. Although some have predicted the pandemic offers an opportunity to reconsider the nature of global tourism (Ioannides & Gyimóthy, 2020) and that this may involve reduction tourism flows that can mitigate the overtourism problem facing many heritage destinations (Fletcher, Mas, Blázquez-Salom & Blanco-Romero, 2020; Gössling, Scott & Hall, 2020), this reduction could have enormous implications for economic growth and tourism-supported employment. In this context, smart tourism approaches may help to generate and interpret data that can help to optimise tourism in heritage destinations, and carrying out additional research into how this can be used to aid tourism governance should be seen as a priority.

References

Abalo, J., Varela, J., & Manzano, V. (2007). Importance values for Importance-Performance Analysis: A formula for spreading out values derived from preference rankings. *Journal of Business Research*, *60*(2), 115–121. https://doi.org/10.1016/j.jbusres.2006.10.009

Adie, B. A., Falk, M., & Savioli, M. (2019). Overtourism as a perceived threat to cultural heritage in Europe. *Current Issues in Tourism*, *0*(0), 1–5. https://doi.org/10.1080/13683500.2019.1687661

Alawadhi, S., & Scholl, H. J. (2016). Smart governance: A cross-case analysis of smart city initiatives. *Proceedings of the Annual Hawaii International Conference on System Sciences*, *2016-March*(c), 2953–2963. https://doi.org/10.1109/HICSS.2016.370

Albayrak, T., Caber, M., Rosario González-Rodríguez, M., & Aksu, A. (2018). Analysis of destination competitiveness by IPA and IPCA methods: The case of Costa Brava, Spain against Antalya, Turkey. *Tourism Management Perspectives*, *28*(July), 53–61. https://doi.org/10.1016/j.tmp.2018.07.005

Albino, V., Berardi, U., & Dangelico, R. M. (2015). Smart cities: Definitions, dimensions, performance, and initiatives. *Journal of Urban Technology*, *22*(1), 1–19. https://doi.org/10.1080/10630732.2014.942092

Ávila, A. L. de, Lancis, E., García, S., Alcantud, A., García, B., & Muñoz, N. (n.d.). *The "Smart Destinations Report: building the future."*

Azzopardi, E., & Nash, R. (2013). A critical evaluation of importance-performance analysis. *Tourism Management*, *35*, 222–233. https://doi.org/10.1016/j.tourman.2012.07.007

Bacon, D. R. (2003). A comparison of approaches to importance-performance analysis. *International Journal of Market Research*, *45*(1), 55–71.

Baggio, R., Micera, R., & Del Chiappa, G. (2020). Smart tourism destinations: a critical reflection. *Journal of Hospitality and Tourism Technology*. DOI 10.1108/JHTT-01-2019-0011

Bahaire, T., & Elliot-White, M. (1999). Community participation in tourism planning and development in the historic city of York, England. *Current Issues in Tourism*, *2*(2–3), 243–276. https://doi.org/10.1080/13683509908667854

Beeton, S. (2006). *COMMUNITY DEVELOPMENT through TOURISM*. Landlinks Press, Australia.

Bi, J. W., Liu, Y., Fan, Z. P., & Zhang, J. (2019). Wisdom of crowds: Conducting importance-performance analysis (IPA) through online reviews. *Tourism Management*, *70*(March 2018), 460–478. https://doi.org/10.1016/j.tourman.2018.09.010

Boes, K., Buhalis, D., & Inversini, A. (2015). Conceptualising smart tourism destination dimensions. In *Information and communication technologies in tourism 2015* (pp. 391-403). Springer, Cham.

Bolívar, M. P. R., & Meijer, A. J. (2016). Smart Governance: Using a Literature Review and Empirical Analysis to Build a Research Model. *Social Science Computer Review*, *34*(6), 673–692. https://doi.org/10.1177/0894439315611088

Bramwell, B., & Lane, B. (2011). Critical research on the governance of tourism and sustainability. *Journal of Sustainable Tourism*, *19*(4–5), 411–421. https://doi.org/10.1080/09669582.2011.580586

Buhalis, D., & Amaranggana, A. (2014). Smart tourism destinations. In *Information and communication technologies in tourism 2014* (pp. 553-564). Springer, Cham.

Buhalis, D., & Leung, R. (2018). International Journal of Hospitality Management Smart hospitality — Interconnectivity and interoperability towards an ecosystem. *International Journal of Hospitality Management*, *71*(March 2017), 41–50. https://doi.org/10.1016/j.ijhm.2017.11.011

Burgos-Vigna, D. (2017). Quito, a World Heritage City or a city to live in?: Right to the city and right to heritage in the 'Good Living State.' *City*, *21*(5), 550–567. https://doi.org/10.1080/13604813.2017.1374774

Capocchi, A., Vallone, C., Pierotti, M., & Amaduzzi, A. (2019). Overtourism: A literature review to assess implications and future perspectives. *Sustainability*, *11*(12), 3303.

Caragliu, A., del Bo, C., & Nijkamp, P. (2011). Smart cities in Europe. *Journal of Urban Technology*, *18*(2), 65–82. https://doi.org/10.1080/10630732.2011.601117

Castelnovo, W., Misuraca, G., & Savoldelli, A. (2016). Smart Cities Governance: The Need for a Holistic Approach to Assessing Urban Participatory Policy Making. *Social Science Computer Review*, *34*(6), 724–739. https://doi.org/10.1177/0894439315611103

Castro Fernańdez, B. M., Lois González, R. C., & Lopez, L. (2016). Historic city, tourism performance and development: The balance of social behaviours in the city of Santiago de Compostela (Spain). *Tourism and Hospitality Research*, *16*(3), 282–293. https://doi.org/10.1177/1467358415578473

Chaperon, S. (2017). Tourism industry responses to public-private partnership arrangements for destination management organisations in small island economies: A case study of Jersey, Channel Islands. *International Journal of Tourism Policy*, *7*(1), 23–41. https://doi.org/10.1504/IJTP.2017.082767

Chaperon, S., Coca-stefaniak, J. A., & Kennell, J. (2016). Business improvement districts and the visitor economy. *University of Greenwich*, *February*, 1–13.

Chau, K. W., Choy, L. H. T., & Lee, H. Y. (2018). Institutional arrangements for urban conservation. *Journal of Housing and the Built Environment*, *33*(3), 455–463. https://doi.org/10.1007/s10901-018-9609-2

Cheer, J. M., Milano, C., & Novelli, M. (2019). Tourism and community resilience in the Anthropocene: accentuating temporal overtourism. Journal of Sustainable Tourism, 27(4), 554–572. https://doi.org/10.1080/09669582.2019.1578363

Cheung, K. S., & Li, L. H. (2019). Understanding visitor–resident relations in overtourism: developing resilience for sustainable tourism. Journal of Sustainable Tourism, 27(8), 1197–1216. https://doi.org/10.1080/09669582.2019.1606815

Coca-Stefaniak, J. A. (2019). Marketing smart tourism cities–a strategic dilemma. *International Journal of Tourism Cities*. 5 (4): 513-518

Coca-Stefaniak, J.A. (2020), "Beyond smart tourism cities – towards a new generation of "wise" tourism destinations", Journal of Tourism Futures, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JTF-11-2019-0130

Coghlan, A. (2012). Facilitating reef tourism management through an innovative importance-performance analysis method. *Tourism Management*, *33*(4), 767–775. https://doi.org/10.1016/j.tourman.2011.08.010

Coles, T., Dinan, C., & Hutchison, F. (2012). May we live in less interesting times? Changing public sector support for tourism in England during the sovereign debt crisis. *Journal of Destination Marketing and Management*, *1*(1–2), 4–7. https://doi.org/10.1016/j.jdmm.2012.05.004

Coles, T., Dinan, C., & Hutchison, F. C. (2014). Tourism and the public sector in England since 2010: a disorderly transition? *Current Issues in Tourism*, *17*(3), 247–279. https://doi.org/10.1080/13683500.2012.733356

Connelly, G. (2007). Testing governance - A research agenda for exploring urban tourism competitiveness policy: The case of Liverpool 1980-2000. In *Tourism Geographies* (Vol. 9, Issue 1). https://doi.org/10.1080/14616680601092931

Del Chiappa, G., & Baggio, R. (2015). Knowledge transfer in smart tourism destinations: Analysing the effects of a network structure. *Journal of Destination Marketing and Management*, *4*(3), 145–150. https://doi.org/10.1016/j.jdmm.2015.02.001

Deng, W. (2007). Using a revised importance-performance analysis approach: The case of Taiwanese hot springs tourism. *Tourism Management*, *28*(5), 1274–1284. https://doi.org/10.1016/j.tourman.2006.07.010

DiPietro, R. B., Levitt, J. A., Taylor, S., & Nierop, T. (2019). First-time and repeat tourists' perceptions of authentic Aruban restaurants: An importance-performance competitor analysis. *Journal of Destination Marketing and Management*, *14*(November 2018), 100366. https://doi.org/10.1016/j.jdmm.2019.100366

Dodds, R., & Butler, R. (2019). The phenomena of overtourism: A review. *International Journal of Tourism Cities*, Vol. 5 No. 4, pp. 519-528.

Dolnicar, S. (2014). Market segmentation approaches in tourism. In S. McCabe (Ed.), The Routledge handbook of tourism marketing (pp. 197–208). London: Routledge.

Dragouni, M., & Fouseki, K. (2018). Drivers of community participation in heritage tourism planning: an empirical investigation. *Journal of Heritage Tourism*, *13*(3), 237–256. https://doi.org/10.1080/1743873X.2017.1310214

Dredge, D., & Jamal, T. (2015). Progress in tourism planning and policy: A post-structural perspective on knowledge production. *Tourism Management*, *51*, 285–297. https://doi.org/10.1016/j.tourman.2015.06.002

Fernandez-Anez, V., Fernández-Güell, J. M., & Giffinger, R. (2018). Smart City implementation and discourses: An integrated conceptual model. The case of Vienna. *Cities*, *78*(November), 4–16. https://doi.org/10.1016/j.cities.2017.12.004

Frauman, E., & Banks, S. (2011). Gateway community resident perceptions of tourism development: Incorporating Importance-Performance Analysis into a Limits of Acceptable Change framework. *Tourism Management*, *32*(1), 128–140. https://doi.org/10.1016/j.tourman.2010.01.013

Goodwin, H. (2019). Overtourism : Causes , Symptoms and Treatment. April, 110–114.

Hall, W. A., & Callery, P. (2001). Enhancing the rigor of grounded theory: Incorporating reflexivity and relationality. Qualitative Health Research, 11(2), 257–272. https://doi.org/10.1177/104973201129119082

Higgins-Desbiolles, F. (2020). The "war over tourism": challenges to sustainable tourism in the tourism academy after COVID-19. Journal of Sustainable Tourism, 0(0), 1–19. https://doi.org/10.1080/09669582.2020.1803334

Higgins-Desbiolles, F., Carnicelli, S., Krolikowski, C., Wijesinghe, G., & Boluk, K. (2019). Degrowing tourism: rethinking tourism. Journal of Sustainable Tourism, 27(12), 1926–

1944. https://doi.org/10.1080/09669582.2019.1601732

Praničević, D. G., & Mandić, A. (2020). ICTs in the hospitality industry: An importance-performance analysis among small family-owned hotels. TOURISM: An International Interdisciplinary Journal, 68(2), 221–234. https://doi.org/https://doi.org/10.37741/t.68.2.9

Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015a). *Smart tourism : foundations and developments*. 179–188. https://doi.org/10.1007/s12525-015-0196-8

Gretzel, U., Werthner, H., Koo, C., & Lamsfus, C. (2015b). Conceptual foundations for understanding smart tourism ecosystems. *Computers in Human Behavior*, *50*, 558–563. https://doi.org/10.1016/j.chb.2015.03.043

Hawkes, J. (2001). The Fourth Pillar of Sustainability: Culture's essential role in public planning. *Common Ground*, *May*, 80. http://www.culturaldevelopment.net.au/community/Downloads/HawkesJon(2001)TheFourthPillarOfSustainability.pdf

Hristov, D., & Petrova, P. (2018). Destination management plans–a new approach to managing destinations in England: evidence from Milton Keynes. *Current Issues in Tourism*, *21*(2), 133–153. https://doi.org/10.1080/13683500.2015.1070800

Hristov, D., & Ramkissoon, H. (2016). Leadership in destination management organisations. *Annals of Tourism Research*, *61*, 230–234. https://doi.org/10.1016/j.annals.2016.08.005

Iaquinto, BL (2018) A Mixed Methods Approach in Tourism Research. In Qualitative Methods in Tourism Research: Theory and Practice, Hillman, W and Radel, K (eds), Channel View: Bristol; 224-247

Imon, S. S. (2017). Cultural heritage management under tourism pressure. *Worldwide Hospitality and Tourism Themes*. Vol. 9 No. 3, pp. 335-348

Ivars-baidal, J. A., Celdrán-bernabeu, M. A., Mazón, J., Perles-ivars, Á. F., Celdrán- *Current* bernabeu, M. A., & Mazón, J. (2017). *Issues in Tourism Smart destinations and the evolution of ICTs : a new scenario for destination management ? 3500*(October). https://doi.org/10.1080/13683500.2017.1388771

Janssen, M., & van der Voort, H. (2020). Agile and adaptive governance in crisis response: Lessons from the COVID-19 pandemic. *International Journal of Information Management*, *55*, 102180.

Jenkins, C. L. (2020). The role of government in the tourism sector in developing countries: a perspective article. *Tourism Review*, *75*(1), 203–206. https://doi.org/10.1108/TR-04-2019-0142

Johnson, A. G., & Samakovlis, I. (2019). A bibliometric analysis of knowledge development in smart tourism research. *Journal of Hospitality and Tourism Technology*. 10 (4): 600-623

Jones, Z. M., & Ponzini, D. (2018). Mega-events and the Preservation of Urban Heritage: Literature Gaps, Potential Overlaps, and a Call for Further Research. *Journal of Planning Literature*, *33*(4), 433–450. https://doi.org/10.1177/0885412218779603

Joppe, M. (2018). Tourism policy and governance: Quo vadis?. *Tourism management perspectives*, *25*, 201-204.

Jovicic, D. Z. (2019). From the traditional understanding of tourism destination to the smart tourism destination. *Current Issues in Tourism*, *22*(3), 276-282.

Kennell, J. (2020). Tourism policy research after the COVID-19 pandemic: reconsidering the role of the state in tourism. *Skyline Business Journal*, *16*(1), 68-72.

Kennell, J., & Chaperon, S. (2010). 5 . Seaside Towns and Local Enterprise Partnerships : Domestic Tourism in a Core Periphery Context. *Tourism*, *January*, 5–5.

Kennell, J., & Chaperon, S. (2013). Analysis of the UK Government's 2011 tourism policy.

Cultural Trends, 22(3–4), 278–284. https://doi.org/10.1080/09548963.2013.819662

Koens, K., Postma, A., & Papp, B. (2018). Is overtourism overused? Understanding the impact of tourism in a city context. *Sustainability*, *10*(12), 4384.

Koens, K., Melissen, F., Mayer, I., & Aall, C. (2019). The Smart City Hospitality Framework: Creating a foundation for collaborative reflections on overtourism that support destination design. *Journal of Destination Marketing and Management*, *August*, 100376. https://doi.org/10.1016/j.jdmm.2019.100376

Kourtit, K., Nijkamp, P., & Arribas, D. (2012). Smart cities in perspective - a comparative European study by means of self-organising maps. *Innovation*, *25*(2), 229–246. https://doi.org/10.1080/13511610.2012.660330

Kuo, C. M., Chen, L. C., & Lin, S. Y. (2010). Exploring the relationship between hotel-based service attribute importance and customer satisfaction at international conferences in Taiwan. *Journal of Convention and Event Tourism*, *11*(4), 293–313. https://doi.org/10.1080/15470148.2010.533073

Kurz, P., Ruland, G., & Zech, S. (2014). Towards governance for the management of cultural landscapes. *European Spatial Research and Policy*, *21*(2), 67–82. https://doi.org/10.1515/esrp-2015-0005

Lai, I. K. W., & Hitchcock, M. (2015). Importance-performance analysis in tourism: A framework for researchers. *Tourism Management*, *48*, 242–267. https://doi.org/10.1016/j.tourman.2014.11.008

Lai, I. K. W., & Hitchcock, M. (2016). A comparison of service quality attributes for stand-alone and resort-based luxury hotels in Macau: 3-Dimensional importance-performance analysis. *Tourism Management*, *55*, 139–159. https://doi.org/10.1016/j.tourman.2016.01.007

Khoo-Lattimore, C., Mura, P., & Yung, R. (2019). The time has come: a systematic literature review of mixed methods research in tourism. Current Issues in Tourism, 22(13), 1531–1550. https://doi.org/10.1080/13683500.2017.1406900

Lee, H. S. (2015). Measurement of visitors' satisfaction with public zoos in Korea using importance-performance analysis. *Tourism Management*, *47*, 251–260. https://doi.org/10.1016/j.tourman.2014.10.006

Lin, Y., Zhang, X., & Geertman, S. (2015). Toward smart governance and social sustainability for Chinese migrant communities. *Journal of Cleaner Production*, *107*, 389–399. https://doi.org/10.1016/j.jclepro.2014.12.074

Lincoln, Y., & Guba, E. G. (1985). Naturalistic inquiry. Newbury Park, CA: Sage

Lopes, N. V. (2017). Smart governance: A key factor for smart cities implementation. *2017 IEEE International Conference on Smart Grid and Smart Cities, ICSGSC 2017*, 277–282. https://doi.org/10.1109/ICSGSC.2017.8038591

Mandić, A., & Garbin Praničević, D. (2019). Progress on the role of ICTs in establishing destination appeal: Implications for smart tourism destination development. *Journal of Hospitality and Tourism Technology*. https://doi.org/10.1108/JHTT-06-2018-0047

Mandić, A. (2021). Optimisation of tourism development in destinations: An approach used to alleviate the impacts of overtourism in the Mediterranean region. In A. Spenceley (Ed.), Handbook for Sustainable Tourism Practitioners (pp. 347–366). UK: Edward Elgar Publishing.

Martilla, J. A., & James, J. C. (2019). *Importance-Performance Analysis*. *41*(1), 77–79.

Mehraliyev, F., Choi, Y., & Köseoglu, M. A. (2019). Progress on smart tourism research. *Journal of Hospitality and Tourism Technology*. 10 (4): 522-538

Mehraliyev, F., Chan, I. C. C., Choi, Y., Koseoglu, M. A., & Law, R. (2020). A state-of-the-art review of smart tourism research. *Journal of Travel & Tourism Marketing*, *37*(1), 78-

91.

Meijer, A., & Bolívar, M. P. R. (2016). Governing the smart city: a review of the literature on smart urban governance. *International Review of Administrative Sciences*, *82*(2), 392–408. https://doi.org/10.1177/0020852314564308

Meijer, A. J., Gil-Garcia, J. R., & Bolívar, M. P. R. (2016). Smart City Research: Contextual Conditions, Governance Models, and Public Value Assessment. *Social Science Computer Review*, *34*(6), 647–656. https://doi.org/10.1177/0894439315618890

Milano, C., Novelli, M., & Cheer, J. M. (2019a). Overtourism and degrowth: a social movements perspective. *Journal of Sustainable Tourism*, *27*(12), 1857–1875. https://doi.org/10.1080/09669582.2019.1650054

Milano, C., Novelli, M., & Cheer, J. M. (2019b). Overtourism and Tourismphobia: A Journey Through Four Decades of Tourism Development, Planning and Local Concerns. *Tourism Planning and Development*, *16*(4), 353–357. https://doi.org/10.1080/21568316.2019.1599604

Mills, M., Weeks, R., Pressey, R. L., Gleason, M. G., Eisma-Osorio, R. L., Lombard, A. T., Harris, J. M., Killmer, A. B., White, A., & Morrison, T. H. (2015). Real-world progress in overcoming the challenges of adaptive spatial planning in marine protected areas. *Biological Conservation*, *181*, 54–63. https://doi.org/10.1016/j.biocon.2014.10.028

Molina-Azorín, J. F., & Font, X. (2016). Mixed methods in sustainable tourism research: an analysis of prevalence, designs and application in JOST (2005–2014). Journal of Sustainable Tourism, 24(4), 549–573. https://doi.org/10.1080/09669582.2015.1073739

Mooi, E., & Sarstedt, M. (2011). A Concise Guide to Market Research. In *A Concise Guide to Market Research The Process, Data, and Methods Using IBM SPSS Statistics*. Springer Heidelberg Dordrecht London New York. https://doi.org/10.1007/978-3-642-12541-6

Murdy, S., & Pike, S. (2012). Perceptions of visitor relationship marketing opportunities by destination marketers: An importance-performance analysis. *Tourism Management*, *33*(5), 1281–1285. https://doi.org/10.1016/j.tourman.2011.11.024

Namberger, P., Jackisch, S., Schmude, J., & Karl, M. (2019). Overcrowding, Overtourism and Local Level Disturbance: How Much Can Munich Handle? *Tourism Planning and Development*, *0*(0), 1–21. https://doi.org/10.1080/21568316.2019.1595706

Nesti, G. (2018). Defining and assessing the transformational nature of smart city governance: Insights from four European cases. *International Review of Administrative Sciences*. https://doi.org/10.1177/0020852318757063

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, *16*(1), 1609406917733847.

O'Neill, M. A., & Palmer, A. (2004). Importance-performance analysis: A useful tool for directing continuous quality improvement in higher education. *Quality Assurance in Education*, *12*(1), 39–52. https://doi.org/10.1108/09684880410517423

Oh, H. (2001). *Revisiting importance – performance analysis. 22*(February 2000), 617–627.

Oklevik, O., Gössling, S., Hall, C. M., Steen Jacobsen, J. K., Grøtte, I. P., & McCabe, S. (2019). Overtourism, optimisation, and destination performance indicators: a case study of activities in Fjord Norway. *Journal of Sustainable Tourism*, *27*(12), 1804–1824. https://doi.org/10.1080/09669582.2018.1533020

Oxford Economics. (2016). The Impact of Heritage Toursm for the UK Economy. Oxford. Oxford Economics.

Paddison, B., & Walmsley, A. (2018). New Public Management in tourism: a case study of York. *Journal of Sustainable Tourism*, *26*(6), 910–926.

https://doi.org/10.1080/09669582.2018.1425696

Pan, F. C. (2015). Practical application of importance-performance analysis in determining critical job satisfaction factors of a tourist hotel. *Tourism Management*, *46*, 84–91. https://doi.org/10.1016/j.tourman.2014.06.004

Panagiotopoulou, M., Somarakis, G., & Stratigea, A. (2018). Smartening up Participatory Cultural Tourism Planning in Historical City Centers. *Journal of Urban Technology*, *0*(0), 1–24. https://doi.org/10.1080/10630732.2018.1528540

Panayiotopoulos, A., & Pisano, C. (2019). Overtourism Dystopias and Socialist Utopias: Towards an Urban Armature for Dubrovnik*. Tourism Planning and Development, 0(0), 1–18. https://doi.org/10.1080/21568316.2019.1569123

Pechlaner, H., Ruhanen, L., Scott, N., Ritchie, B., & Tkaczynski, A. (2010). Governance: a review and synthesis of the literature. *Tourism Review*, *65*(4), 4–16. https://doi.org/10.1108/16605371011093836

Pereira, G. V., Parycek, P., Falco, E., & Kleinhans, R. (2018). Smart governance in the context of smart cities: A literature review. *Information Polity*, *23*(2), 143–162. https://doi.org/10.3233/IP-170067

Pino, J. M. (2018). The new holistic paradigm and the sustainability of historic cities in Spain: An approach based on the World Heritage Cities. *Sustainability (Switzerland)*, *10*(7). https://doi.org/10.3390/su10072301

Rasoolimanesh, S. M., Taheri, B., Gannon, M., Vafaei-Zadeh, A., & Hanifah, H. (2019). Does living in the vicinity of heritage tourism sites influence residents' perceptions and attitudes? *Journal of Sustainable Tourism*, *27*(9), 1295–1317. https://doi.org/10.1080/09669582.2019.1618863

Ripp, M., Eidenschink, U., & Milz, C. (2011). Strategies, policies and tools for an integrated World Heritage management approach: Experiences from the city of Regensburg. *Facilities*, *29*(7), 286–302. https://doi.org/10.1108/02632771111130906

Ripp, M., & Rodwell, D. (2015). The geography of urban heritage. *Historic Environment: Policy and Practice*, *6*(3), 240–276. https://doi.org/10.1080/17567505.2015.1100362

Ruhlandt, R. W. S. (2018). The governance of smart cities: A systematic literature review. *Cities*, *81*(February), 1–23. https://doi.org/10.1016/j.cities.2018.02.014

Sarantakou, E., & Terkenli, T. S. (2019). Non-Institutionalised Forms of Tourism Accommodation and Overtourism Impacts on the Landscape: The Case of Santorini, Greece *. *Tourism Planning and Development*, *0*(0), 1–23. https://doi.org/10.1080/21568316.2019.1569122

Scholl, Hans J, & Scholl, M. C. (2014). *Smart Governance: A Roadmap for Research and Practice*. *1*. https://doi.org/10.9776/14060

Scholl, Hans Jochen, & AlAwadhi, S. (2016). Smart governance as key to multi-jurisdictional smart city initiatives: The case of the eCityGov Alliance. *Social Science Information*, *55*(2), 255–277. https://doi.org/10.1177/0539018416629230

Seraphin, H., Sheeran, P., & Pilato, M. (2018). Over-tourism and the fall of Venice as a destination. *Journal of Destination Marketing & Management*, *9*, 374-376.

Seraphin, H., Ivanov, S., Dosquet, F., & Bourliataux-Lajoinie, S. (2019). Archetypes of locals in destinations victim of overtourism. Journal of Hospitality and Tourism Management, December, 0–1. https://doi.org/10.1016/j.jhtm.2019.12.001

Sever, I. (2015). Importance-performance analysis: A valid management tool? *Tourism Management*, *48*, 43–53. https://doi.org/10.1016/j.tourman.2014.10.022

Shafiee, S., Ghatari, A. R., Hasanzadeh, A., & Jahanyan, S. (2019). Developing a model for sustainable smart tourism destinations: A systematic review. *Tourism Management Perspectives*, *31*, 287-300.

Sigala, M. (2017). New technologies in tourism : From multi-disciplinary to anti-disciplinary advances and trajectories. *Tourism Management Perspectives*, *December*, 1–5. https://doi.org/10.1016/j.tmp.2017.12.003

Sigala, M., & Marinidis, D. (2012). E-Democracy and web 2.0: A framework enabling DMOs to engage stakeholders in collaborative destination management. *Tourism Analysis*, *17*(2), 105–120. https://doi.org/10.3727/108354212X13330406124052

Sörensson, A., & von Friedrichs, Y. (2013). An importance-performance analysis of sustainable tourism: A comparison between international and national tourists. *Journal of Destination Marketing and Management*, *2*(1), 14–21. https://doi.org/10.1016/j.jdmm.2012.11.002

Stevenson, N., Airey, D., & Miller, G. (2008). Tourism Policy Making:. The Policymakers' Perspectives. *Annals of Tourism Research*, *35*(3), 732–750. https://doi.org/10.1016/j.annals.2008.05.002

Taplin, R. H. (2012). Competitive importance-performance analysis of an Australian wildlife park. *Tourism Management*, *33*(1), 29–37. https://doi.org/10.1016/j.tourman.2011.01.020

Taş Gürsoy, İ. (2019). Beauty and the Beast: A Fairy Tale of Tourismphobia. *Tourism Planning and Development*, *8316*. https://doi.org/10.1080/21568316.2019.1582086

Tyler, D., & Dinan, C. (2001). The role of interested groups in England's emerging tourism policy network. *Current Issues in Tourism*, *4*(2–4), 210–252. https://doi.org/10.1080/13683500108667888

Tribe, J., & Mkono, M. (2017). Not such smart tourism? The concept of e-lienation. *Annals of Tourism Research*, *66*, 105-115.

Visit Britain (2020) *2019 Snapshot*.Available from: https://www.visitbritain.org/2019-snapshot

Wang, X., Li, X. R., Zhen, F., & Zhang, J. H. (2016a). How smart is your tourist attraction?: Measuring tourist preferences of smart tourism attractions via a FCEM-AHP and IPA approach. *Tourism Management*, *54*, 309–320. https://doi.org/10.1016/j.tourman.2015.12.003

Wang, X., Li, X. R., Zhen, F., & Zhang, J. H. (2016b). How smart is your tourist attraction?: Measuring tourist preferences of smart tourism attractions via a FCEM-AHP and IPA approach. *Tourism Management*, *54*, 309–320. https://doi.org/10.1016/j.tourman.2015.12.003

WEF (2019) *The Travel & Tourism Competitiveness Report 2019: Travel and Tourism at a Tipping Point*. Geneva. World Economic Forum

Williams, N., & Hristov, D. (2018). An examination of DMO network identity using Exponential Random Graph Models. *Tourism management*, 68 , 177-186.

Ye, B. H., Ye, H., & Law, R. (2020). Systematic Review of Smart Tourism Research. *Sustainability*, *12*(8), 3401.

Yildirim, A. E. (2015). The changing role of urban heritage: Governance and stakeholders' perceptions in Turkey and the United Arab Emirates. *Metu Journal of the Faculty of Architecture*, *32*(1), 121–145. https://doi.org/10.4305/METU.JFA.2015.1.7

Yuan, J., Deng, J., Pierskalla, C., & King, B. (2018). Urban tourism attributes and overall satisfaction: An asymmetric impact-performance analysis. *Urban Forestry and Urban Greening*, *30*, 169–181. https://doi.org/10.1016/j.ufug.2018.02.006

Zhang, H. Q., & Chow, I. (2004). Application of importance-performance model in tour guides' performance: Evidence from mainland Chinese outbound visitors in Hong Kong. *Tourism Management*, *25*(1), 81–91. https://doi.org/10.1016/S0261-5177(03)00064-5

Zhang, S., & Chan, C. S. (2016). Nature-based tourism development in Hong Kong: Importance-Performance perceptions of local residents and tourists. *Tourism*

Management Perspectives, *20*, 38–46. https://doi.org/10.1016/j.tmp.2016.07.002

Ziegler, J., Dearden, P., & Rollins, R. (2012). But are tourists satisfied? Importance-performance analysis of the whale shark tourism industry on Isla Holbox, Mexico. *Tourism Management*, *33*(3), 692–701. https://doi.org/10.1016/j.tourman.2011.08.004