



Critical Review

Drivers and emerging innovations in knowledge-based destinations: Towards a research agenda

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ABSTRACT

Research on innovation in tourism is fragmented and confined to traditional paradigms. This critical review paper, which cross-fertilises and discusses the relevant literature in tourism and other theoretical domains, proposes an integrative theoretical framework of innovation in destinations. The paper identifies four emerging innovations – experience co-creation, smart destinations, e-participative governance and social innovation – as evolutionary, knowledge-driven phenomena that are generated by the interaction among four destination actors and facilitated by information and communication technologies (ICTs) and social capital. The discussion and conclusion present some theoretical advances as follows: local contexts matter in destination innovation when assuming a repository role of spatial and cross-sectorial knowledge; social capital and ICT infrastructures facilitate innovativeness and stakeholder engagement; and emerging innovations are pervasive and the holistic results of the collective knowledge of four destination actors and are facilitated by ICT and social capital. The paper offers avenues for future research and challenges that should be explored by academics, policy makers and destination managers.

1. Introduction

Understanding the drivers and the typologies of innovation in destinations represents one of the main challenges for academics, policy makers and managers who are called on to define the evolutionary process of tourism in the complexity of human-technology interaction. The phenomenon of innovation has been receiving increasing attention in tourism research for the last 10 years and is considered to be a key factor in the competitiveness and sustainability of enterprises, organisations and destinations (Gomezelj, 2016; Hjalager, 2010, 2015; Najda-Janoszka & Kopera, 2014; Ozseker, 2018; Pikkemaat, Peters, & Chan, 2018; Trunfio & Della Lucia, 2017; Zach & Hill, 2017). Although innovation is an emerging topic of research, and innovation in destinations has been recognised as one of the main drivers of local development, the existing studies are fragmented; tourism innovation remains an empty buzzword that is extremely fragmented and largely ignored, and it lacks a specific theoretical framework (Gomezelj, 2016; Hjalager, 2010; Rodriguez, Williams, & Hall, 2014).

Several papers emphasise the key role of information and communication technologies (ICTs) in innovative processes (Ali & Frew, 2014a,b; Buhalis & Law, 2008; Sigala, 2018), but technologies represent only a small part of the innovation drivers of the 'complex world' of destinations in which diverse actors interact; these actors are

influenced by the social, economic and political factors of the destination and/or region (Kuščer, Mihalič, & Pechlaner, 2017; Racherla, Hu, & Hyun, 2008) and generate multidimensional and unusual forms of innovation.

Considering the complexity of the tourism experience (Hall & Williams, 2008), which is co-created by the interaction among tourists, destination organisations and the local community, diverse forms of innovation can emerge and present new challenges for research on innovation in tourism destinations, in which human-technology interaction can play a significant role. New ways of thinking and interpreting tourism and innovation, including destination management, can capitalise on the connections between technological and societal changes (Paget, Dimanche, & Mounet, 2010) by emphasising the local contexts in which innovation is nurtured.

Innovation is a contextual process embedded in a geographical space (Krugman, 1991). The literature considers a destination as a local innovation system in which public and private actors (including the local community) generate a co-evolutionary process of innovation that is dynamically influenced by the spatial dimension (Flagestad, Hope, Svensson, & Nordin, 2005; Gomezelj, 2016; Ozseker, 2018). Geographical proximity creates virtuous circles among knowledge (generation, sharing and dissemination), collective innovativeness and pervasive innovation and generates spill-over effects (Boekema,

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Morgan, Bakkers, & Rutten, 2000; Camisón & Monfort-Mir, 2012).

Studies in diverse research fields – such as regional development, local systems of innovation, sociology, entrepreneurship and knowledge management – can advance the debate on innovation in destinations by combining the tourism theoretical domain with other conceptual frameworks in which local contexts play a significant role. This critical review paper aims to contribute to the debate on innovation in destinations, an emerging stream of research, by cross-fertilising diverse theoretical domains and proposing an integrated theoretical framework. This framework was constructed by adopting an integrative literature review as a useful research method for the emerging streams of research (Torraco, 2016) to discuss and integrate the existing fragmented studies of diverse research fields coherent with the destination management theoretical framework and to identify new challenges for research on innovation in tourism destinations.

This critical review paper proposes an overarching theoretical framework for innovation in knowledge-based destinations. The paper identifies four forms of innovation in destinations – namely, experience co-creation, smart destinations, e-participative governance and social innovation – as a result of the synergies among four destination actors, the learning process and knowledge sharing that are facilitated by social capital and ICT platforms. The discussion and conclusion present the theoretical advances attained by this exploratory analysis of destination innovation and offer avenues for future research and challenges that should be explored by academics, policy makers and destination managers.

2. Methodology

This research was built on an integrative literature review, as useful qualitative research for emerging research topics would benefit from a holistic conceptualisation and synthesis of the literature (Torraco, 2016; Xin, Tribe, & Chambers, 2013). This method has consistently been adopted by other studies in tourism research (Gyung Kim, Wang, & Mattila, 2010; Ozseker, 2018; Pearce, 2014).

The integrative literature review is a distinctive form of research that integrates the existing literature and explores new knowledge through reviews, discussions, critiques and syntheses that allow a comprehensive literature review or a reconceptualisation of the existing frameworks (Torraco, 2016). An integrative literature review differs from a systematic literature review because an integrative review can encompass any work design, with the implication that it is less standardised than a systematic review (Henly, 2015).

The integrative review follows the conceptual structuring of the research topic (Torraco, 2016, p. 415), organised around the main

concepts of the review topic, and provides a map in which the main concepts and streams of research have been connected (Fig. 1).

The work design used for this study consists of the literature that addresses the following nine concepts related to innovation in tourism destinations: (1) innovation in tourism research (three papers); (2) knowledge management and innovation in tourism local contexts (35 papers); (3) ICT infrastructures (13 papers); (4) social capital (nine papers); (5) political and institutional actors (13 papers); (6) destination management organisations (12 papers); (7) the local community (five papers); and (8) local firms (14 papers). The existing literature has discussed these nine concepts separately or as pairs but not all together, thus failing to cross-fertilise these diverse theoretical domains.

This methodology allows the design of a conceptual framework that describes innovation in destinations and defines a preliminary research agenda that poses “provocative questions and provides direction for future research” (Torraco, 2016, p. 421). The research follows two phases. The first, through an analysis of the literature on innovation in tourism research, examines the main topic through a critical analysis and deconstructs and reconstructs works in the literature. Although the papers analysed in this phase present a classification and review of tourism innovation, thereby opening up spaces for new avenues of research, they present some limitations in capturing the complexity of innovation in tourism destinations. In the second phase, the main topic identified in the first phase is cross-fertilised and synthesised with different theoretical domains considering several seminal papers to examine the topic’s ideas and concepts and proceed with a critical analysis.

The literature, including various theoretical and empirical studies (articles, books, book chapters and conference papers), has been organised by the main topics and is summarised in specific tables.

3. Typologies of innovations in tourism research

The phenomenon of tourism innovation has gained relevance in academic research in recent years and has intensified the debate on the typologies of innovation and the drivers of innovativeness (Camisón & Monfort-Mir, 2012; Hjalager, 2010, 2015; Martínez-Román, Tamayo, Gamero, & Romero, 2015). Following Schumpeter’s (1934) seminal classification of innovation, in which innovation can be interpreted as something ‘new’, as new or improved products, new production processes, new markets, new supply sources and new forms of organisation, scholars have introduced the concept of innovation and related classifications in diverse fields of research. From this perspective, innovation concerns the process of problem-solving and generating new ideas; however, it also requires the acceptance and implementation of

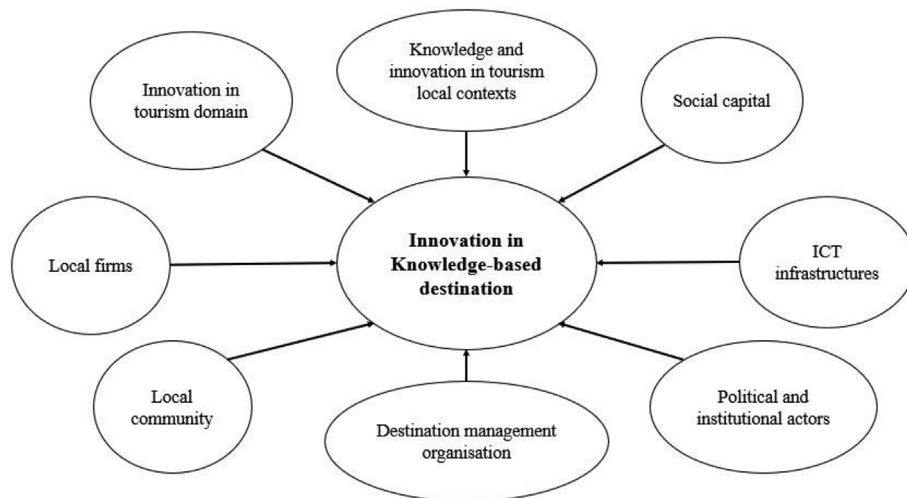


Fig. 1. The conceptual map of the innovations in knowledge-based destinations.

Table 1
Knowledge and innovation in tourism local contexts.

Concept	Authors	N. of studies
Knowledge management	Brauner and Becker (2006) Nonaka (1994) Nonaka and Nishiguchi (2001)	3
Knowledge management and innovation in local context	Asheim (1999) Asheim et al. (2007) Asheim and Gertler (2005) Beesley and Cooper (2008) Boekema et al. (2000) Lambooy (2005) Leydesdorff (2005) Roper and Love (2018)	8
Knowledge management in tourism domain	Badawy (2009) Baggio and Cooper (2010) Camisón and Monfort-Mir (2012) Carneiro (2000) Cooper (2006) Della Lucia and Trunfio (2018) Denicolai et al. (2010) Flagestad et al. (2005) Fuchs et al. (2013) Hall and Williams (2008) Hjalager (2010) Jamal and Jamroz (2006) Manniche and Testa (2018) Novelli et al. (2006) Ozseker (2018) Pikkemaat and Weiermair (2007) Pyo (2005) Racherla et al. (2008) Rodriguez et al. (2014) Ruhanen and Cooper (2004) Ruhanen et al. (2010) Shaw and Williams (2009) Svensson et al. (2005) Weidenfeld et al. (2010) Zach and Hill (2017)	24

processes, products, or services that involve the capacity to change or adapt (Kanter, 1983).

In this integrative literature review, only the following three articles address a review of the literature in tourism innovation and an analysis of the types of innovation that attempt to conceptualise this theoretical domain: 'A review of innovation research in tourism' (Hjalager, 2010), with 432 citations; '100 innovations that transformed tourism' (Hjalager, 2015), with 32 citations; and 'A systematic review of research on innovation in hospitality and tourism' (Gomezelj, 2016), with 57 citations.

Consistently, Hjalager's proposals of innovations in the tourism domain apply and consolidate Schumpeter's innovations (1934) and introduce specific innovations in tourism (Hjalager, 2010, 2015). Forms of innovation include the following (Hjalager, 2010): product or service innovations, as changes or new meanings of products or destinations are perceived by tourists to be new tourism experiences; process innovations, related to backstage activities, which often increase efficiency and productivity through technological investment and generate new combinations of processes; and managerial innovation, which impacts the organisational model and human resources management in

new ways to empower human resources and enhance productivity and workplace satisfaction. Management innovation occurs when new destination governance models, such as tourism boards or destination management organisations, are introduced to co-ordinate, integrate and manage diverse stakeholders in destination strategies and marketing. Institutional innovation has been interpreted as a new collaborative/organisational structure or legal framework that redirects or enhances local actors' actions and generates network forms that change the institutional logic and power relations. Furthermore, in a more recent work, Hjalager (2015) considers 100 innovations that have transformed tourism and identifies the following diverse categories of innovation: changing the product/service elements that create tourists' experiences and that increase the social and physical efficacy of the process; increasing the productivity and efficacy of tourism firms; building new destinations; enhancing mobility to and within destinations; enhancing opportunities to transfer and share information; and changing the institutional logic and power relations.

Gomezelj's (2016) study proposes a systematic literature review of innovation in tourism by analysing 152 papers that adopt diverse criteria, such as location, point of view, level of analysis, and the method and forms of innovation. The innovations discussed were classified considering the process as follows: general, institutional, product/service, knowledge importance, environmental process, entrepreneurial characteristics, green innovation, and managerial and theoretical. Applying a bibliometric analysis, Gomezelj identifies nine clusters of papers, namely, fundamental studies (literature reviews), the resource-based view and competitive advantage, organisational studies, networking, innovation in service, innovation systems, knowledge, management of organisational innovation and technology.

These fields of research are discussed at the following three levels of analysis: the micro-level or firm level, at which innovative ideas are developed by enterprises, clusters and networks and are analysed considering the ICT and knowledge role; the macro-level, at which the effects of innovation on society, regions and tourism destinations are discussed, including their determinants and barriers; and the general level, at which innovation systems, or the collaborative approach of different institutions, aim to improve destination or regional development or the interweaving of ideas developed in firm clusters and their implementation in destinations. Although innovation is an emerging topic in tourism research, it remains fragmented, with the word 'innovation' often used as a 'catchy tag' with several different definitions (Gomezelj, 2016).

The consolidated literature classifies the diverse typologies of innovation in the tourism domain by adopting the traditional Schumpeterian approach that characterises the manufacturing industry as mainly technology-driven, which describes innovation in the tourism industry (single organisation). The distinction between the different types of innovation (e.g. product innovation and process innovation) manifests limitations and grey areas in the tourism and hospitality domains (Toivonen & Tuominen, 2009) that impede the capture of the complexity of local tourism contexts but open spaces for new avenues of research.

4. Knowledge and innovation in local tourism contexts

Tourism destination is a complex domain in which numerous private and public actors interact influenced by the social, economic and political factors of the context, and they generate a holistic tourism experience embedded in a specific local context that involves tourists. This type of tourism complexity calls for an interdisciplinary perspective to propose an interpretation of innovation in tourism destinations as a pervasive and contextual phenomenon, considering how the value of the context can play a significant role in generating and sharing knowledge, which nurtures innovation (Table 1).

The richness of knowledge in context, as a public good that does not involve rivalry, influences local innovation and provides opportunities

at the spatial, sectorial and network levels (Roper & Love, 2018). This broader perspective considers the conjoint effect of local and sectorial influences, in which co-location and transversal networks drive the process of connectivity and knowledge sharing, which enhances innovation generation and dissemination. Accordingly, through the triple helix model of innovation (Leydesdorff, 2005), the local co-evolution of different actors generates a spiral of innovation and knowledge transfer among the networks of institutions, universities, firms and other actors through relations exchange.

Spatial proximity and concentration enhance learning through interaction (Asheim & Gertler, 2005; Boschma, 2005); transform local contexts, including tourism's local contexts, as specific learning systems in which collective innovativeness is nurtured by tacit and explicit knowledge; and create a dynamic spiral of knowledge conversion that leads to innovation (Boekema et al., 2000).

In the tourism domain, the literature unanimously argues that knowledge management plays a significant role in facilitating innovation and competitive advantage not only at the firm level but also at the network, cluster and destination levels (Baggio & Cooper, 2010; Flagestad et al., 2005; Fuchs, Abadzhiev, & Svensson, 2013; Manniche & Testa, 2018; Nonaka & Nishiguchi, 2001; Pyo, 2005; Racherla et al., 2008; Ruhanen & Cooper, 2004; Shaw & Williams, 2009).

A conceptual framework of the innovation process in destinations has been proposed that describes the role of the knowledge management theoretical framework in enhancing the comprehension of the destination innovation phenomenon (Ozseker, 2018). This framework explicates the process of innovation creation and management in destinations, which supports the knowledge and learning of multiple tourism-related agents at the local and national levels to define the following five stages (Ozseker, 2018): the development and sharing of tacit knowledge; the integration between tacit and explicit knowledge; the creation of innovative knowledge; the development of policies and strategies to transform knowledge into an innovation type; and the transfer and implementation of innovation.

The role of cognitive, social and relational factors embedded in context in tacit and codified knowledge generation, knowledge dissemination and knowledge sharing within firms, network and clusters is a significant determinant of knowledge-based innovation in destination (Asheim, 1999; Camisón & Monfort-Mir, 2012; Carneiro, 2000; Hjalager, 2010; Novelli, Schmitz, & Spencer, 2006; Rodriguez et al., 2014; Svensson, Nordin, & Flagestad, 2005).

Buzz and intensive face-to-face interactions between public and private actors (including the local community) nurtures the tacit knowledge (Nonaka, 1994) embedded in local contexts and the collective learning that enhances the iterative process and dynamic spiral of knowledge conversion in the collective innovative capacity that leads to innovation and a spill-over effect (Asheim, Coenen, & Vang, 2007; Boekema et al., 2000; Cooper, 2006; Flagestad et al., 2005).

The development and integration of explicit (e.g. ICT tools such as a destination management system, digital platforms, etc) and tacit knowledge represent a driver of innovation in destinations. Knowledge creation and the development of policies and strategies transform the destination into an incubator for the innovation of new products, new companies and new businesses at the local and regional levels (Dwyer, Edwards, Mistilis, Roman, & Scott, 2009; Hall & Williams, 2008; Kušcer & Mihalič, 2016; Pikkemaat & Weiermair, 2007; Weidenfeld, Williams, & Butler, 2010). The transfer of innovation to and the implementation of innovation at the destination require destination managers to develop core competences and dynamic capabilities (Denicolai, Cioccarelli, & Zucchella, 2010), including the ability to manage technology (Badawy, 2009) and to co-ordinate diverse actors.

Tourism destinations are ideal contexts for generating innovation through clusters and informal and formal networks in which heterogeneous private and public actors interact; this innovation combines individual and collective knowledge and activates the value co-creation process with tourists to enhance destination competitiveness (Baggio &

Cooper, 2010; Beesley & Cooper, 2008; Brauner & Becker, 2006; Jamal & Jamroz, 2006; Lambooy, 2005; Racherla et al., 2008; Zach & Hill, 2017).

Such forms of location-specific innovation are not easily transferable between places and are thus unique, which creates conditions for the defensible competitive advantage of the destination. Such examples and authentic and creative tourism or responsible tourism represent possible innovative forms of tourism in which tacit knowledge and collective learning can differentiate the destination (Della Lucia & Trunfio, 2018).

5. Innovation in knowledge-based destinations: actors, platforms and emerging innovations

The theoretical frameworks of knowledge-driven innovation in local contexts guide us to define the concept of the knowledge-based destination as “a social community that serves as an efficient vehicle for creating and transforming knowledge into economically rewarding products and services for its stakeholders in an innovative process that continually facilitates the growth of its regional economy” (Racherla et al., 2008, p. 412).

The knowledge-based destination summarises Nonaka and Konno's (1998) ‘ba’ concept. It represents the context in which collective and shared knowledge, both tacit and explicit, emerges through the interaction of diverse destination actors. ‘Ba’ provides the physical, virtual and cognitive spaces to create, develop, codify, share and disseminate collective knowledge and facilitates diverse forms of innovation in the destination.

The synergies among knowledge, collective learning and innovation are embedded in a specific local context and are activated by public and private actors, which creates conditions for a local system of innovation in which diverse learning systems enhance the opportunities to nurture tacit and explicit knowledge and facilitate collective innovation capacity (Flagestad et al., 2005). Consequently, collective innovation in the destination becomes a social process that transforms valuable individual and common knowledge through a learning system involving diverse actors that is facilitated by platforms that enhance knowledge sharing and communication processes (Nardelli, 2017; Sheehan, Vargas-Sánchez, Presenza, & Abbate, 2016; Sigala & Kyriakidou, 2015; Trunfio, Go, & Ferretti, 2012).

This critical review paper integrates existing but separate theoretical frameworks that describe the six drivers of four emerging innovations in knowledge-based destinations to reduce the grey areas in this emerging field of research. To overcome the traditional approach of innovation typologies, this paper attempts to capture the complexity of the local tourism context by identifying four emerging destination innovations as a holistic result of the collective and pervasive knowledge generated by the interaction among four destination actors – political actors (at the local, regional and national levels), destination management organisations, enterprises and local communities – which is facilitated by two platforms (Fig. 2).

The framework considers two platforms that facilitate innovation in knowledge-based destinations, namely, the ICT infrastructure, which the consolidated literature confirms as one of the drivers of innovation in tourism, and social capital, which is an underdeveloped field of research in innovation studies. The two platforms create destination conditions that facilitate interaction, define soft and hard connections, facilitate knowledge sharing among diverse public and private actors and drive innovation.

The four emerging innovations that result from the interaction and synergies among the six internal drivers of innovation in knowledge-based destinations are experience co-creation, smart destinations, e-participative governance and social innovation. The emerging innovations are presented in the following paragraphs that define the key questions creating possible avenues of research.

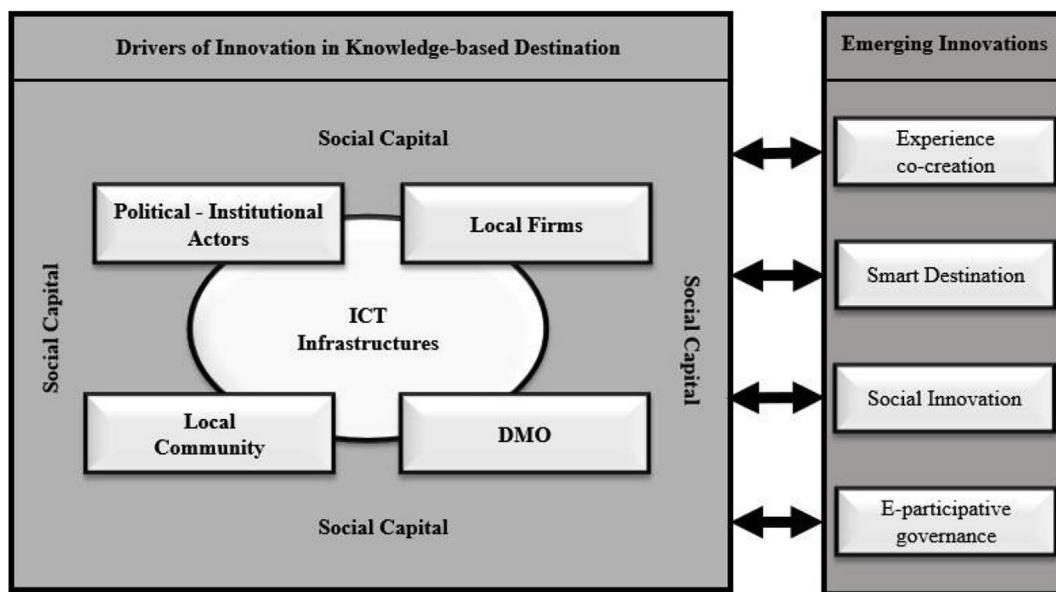


Fig. 2. Drivers and emerging innovations in knowledge-based destinations.

5.1. ICT infrastructures

In tourism as a knowledge-intensive industry, ICT has played a re-engineering role that changes the paradigm by which organisations, destinations and tourists communicate, collaborate and interact (Buhalis, 1998). ICT infrastructures have activated a process of restructuring traditional tourism products in the management of complex tourism experiences (Buhalis, 1998; Gretzel, Yuan, & Fesenmaier, 2000). Technological applications in the tourism sector can be summarised by considering the diverse opportunities for development that they have contributed to the creation of new firms (Sigala, 2018), including tourists sharing experiences on social media, decision support tools for firms, marketing intelligence sources, e-learning tools, automation tools, game changers, transformers of the tourism experience and co-creation platforms.

In the tourism domain, ICT infrastructures represent the drivers of innovation; they support managerial decision making and enhance openness and participation through their capacity to find new intermediation forms and develop their interactive interfaces between organisations and tourists (Ali & Frew, 2014a,b). Indeed, by removing the traditional barriers of communication and interaction, ICT has facilitated the recourse to new forms of creation, organisation and consumption (Boes, Buhalis, & Inversini, 2015; Buhalis & Law, 2008; Chen & Choi, 2004; Kietzmann, Hermkens, McCarthy, & Silvestre, 2011; Neuhofer, Buhalis, & Ladkin, 2012; Stamboulis & Skayannis, 2003; Trunfio et al., 2012). Different ICT-based tools used at the destination level generate pervasive knowledge and drive innovation through the presence of platform connections among political actors, destination management organisations (DMOs), enterprises and local communities (Buhalis & Amaranggana, 2015; Buhalis & Law, 2008; Hjalager, 2010; Racherla et al., 2008; Stamboulis & Skayannis, 2003). Examples of ICT-based tools include destination management systems, virtual and augmented reality, location-based services, computer simulations, intelligent transport systems, etc (Ali & Frew, 2014a,b; Gretzel et al., 2000).

Finally, the transition to the Web of Thought (Web 5.0) fosters innovation processes and enhances opportunities for co-creating destination value through the digital engagement of diverse stakeholders in social communication and knowledge sharing (Trunfio & Della Lucia, 2017). The following table systematises the studies of the main authors (see Table 2).

Table 2
ICT infrastructures.

Concept	Authors	N. of studies
ICTs in tourism	Buhalis (1998) Buhalis and Law (2008) Gretzel et al. (2000) Sigala (2018)	4
ICT in tourism experiences	Neuhofer et al. (2012) Stamboulis and Skayannis (2003)	2
ICTs-based tool	Ali and Frew (2014a, 2014b) Trunfio and Della Lucia (2017)	3
ICTs in tourism destination	Racherla et al. (2008) Trunfio et al. (2012)	2
Smart tourism destination	Boes et al. (2015) Buhalis and Amaranggana (2015)	2

5.2. Social capital

Social capital identifies a social structure based on norms, values, beliefs, trust and forms of interaction that facilitates tacit and codified knowledge sharing and generates collective actions (Bourdieu, 1986; Coleman, 1988; Putnam, 1993). The research on social capital has received increasing attention (Inkpen & Tsang, 2005) and has become an interdisciplinary topic that involves the social structure of societies, organisations, networks and local contexts, which creates opportunities to interpret its role in the destination.

Social capital in destinations can be analysed using three dimensions, namely, the structural, cognitive and relational dimensions (Go, Trunfio, & Della Lucia, 2013; Liu et al., 2014). The structural dimension of destination social capital describes the non-hierarchical and hierarchical connections among the diverse stakeholders and actors that enable the generation of interpersonal and inter-organisational interactions and that facilitate collective actions and co-ordination among community members. The cognitive dimension refers to the values, attitudes, norms, and beliefs that create obstacles to or opportunities for sharing knowledge about and collaborating in local development. The relational dimension is a critical aspect of social capital that identifies the trust among stakeholders.

The hard and soft linkages of social capital constitute an infrastructure in knowledge-based destinations that allows tacit and codified knowledge sharing and enhances the collaboration and co-creation among diverse destination actors – i.e. local governments, small

Table 3
Social capital.

Concept	Authors	N. of studies
Social capital	Bourdieu (1986) Coleman (1988) Inkpen and Tsang (2005) Putnam (1993)	4
Social capital in tourism destination	Go et al. (2013) Liu et al. (2014) Pérez-Luño et al. (2011) Zhou et al. (2017)	4
Social capital and innovation system	Macbeth et al. (2018)	1

businesses, residents and other stakeholders – which stimulate changes and nurture either incremental or radical innovations (Inkpen & Tsang, 2005; Liu et al., 2014; Macbeth, Carson, & Northcote, 2018; Pérez-luño, Medina, Lavado, & Rodríguez, 2011; Zhou, Chan, & Song, 2017). The following table systematises the studies of the main authors (see Table 3).

5.3. Political and institutional actors

The consolidated literature recognises the centrality of political and institutional actors in creating advantageous conditions for innovative tourism clusters and networks in destinations. Actors play the roles of co-ordinators, planners, legislators, regulators, stimulators, promoters and financiers of innovations in tourist destinations (Hall & Williams, 2008; Hjalager, 2010; Lin & Simmons, 2017; Rodríguez et al., 2014). Other functions of political and institutional actors include sharing educational resources among public and private actors to facilitate knowledge spill-overs (Hjalager, Huijbens, Nordin, & Flagestad, 2008), promoting networks and incubating tourist clusters, thereby reducing risk-financing or opportunism and free-riding (Decelle, 2006; Hjalager, 2010), facilitating market access to all tourist actors and activating innovation co-creation (Hall & Williams, 2008; Hjalager et al., 2008; Lin & Simmons, 2017; Mei, Arcodia, & Ruhanen, 2012) and increasing productive entrepreneurial initiatives and technology transfers (Hjalager, 2010; Pansiri, 2008; Pikkemaat & Weiermair, 2007).

In facilitating and guiding these processes, political actors attempt to search for the correct balance between innovation and community preservation in both planning and implementation. Political actors move towards polycentricity in effective policy formulation and implementation through a hybrid approach that reconciles the complex negotiation in a joint decision-making process in which policy agents, firms, residents, and other stakeholders participate in resolving common development problems (Lin & Simmons, 2017; Rodríguez et al., 2014). The following table systematises the studies of the main authors (see Table 4).

Table 4
Political and institutional actors.

Concept	Authors	N. of studies
Roles of coordinator and financier of innovation	Hall and Williams (2008) Hjalager (2010) Rodríguez et al. (2014)	3
Knowledge spill-over and incubator	Decelle (2006) Hjalager (2010) Hjalager et al. (2008) Mei et al. (2012) Rodríguez et al. (2014)	5
Entrepreneurial innovator	Hall and Williams (2008) Hjalager et al. (2008) Mei et al. (2012) Pansiri (2008) Pikkemaat and Weiermair (2007)	5

5.4. Destination management organisation

Traditionally, DMOs have had the legitimacy and competence to plan and manage destination development, including the co-ordination of marketing processes, to facilitate place brand building and to engage stakeholders in destination decision making.

The evolution of the DMO is changing the role played by stakeholders in destination management, shifting it towards the embedded governance model that reconciles the top-down and bottom-up perspectives (Go & Trunfio, 2011) and in which stakeholder co-ordination and integration results in participative models of destination management (Beritelli, 2011; Go et al., 2013; Kooiman, 2008; Li, Robinson, & Oriade, 2017; Pike & Page, 2014; Sheehan et al., 2016; Volgger & Pechlaner, 2014). Consequently, a DMO's legitimacy and institutional mechanisms, which are legitimised by political actors, are also derived from formal and informal interactions with diverse destination stakeholders based on destination social capital and knowledge sharing (Lin & Simmons, 2017; Quinlan & Marie, 2013).

In this redefined scenario, the DMO can play a new role and become a learning organisation that promotes the enhancement of trust and collaboration in social capital and the use of ICT infrastructures as intelligent platforms; this role enhances organisational, community and individual learning and knowledge sharing and guides stakeholders towards diverse forms of innovation (Hjalager, 2010; Pike & Page, 2014; Sheehan et al., 2016; Trunfio et al., 2012). The following table systematises the studies of the main authors (see Table 5).

5.5. Local community

The analysis of the possible influences of the local community on tourism development and destination competitiveness considers aspects strongly related to social capital, such as knowledge sharing, value and behavioural patterns, the quality of residents' lives, cultural identity and local community participation (Liu et al., 2014; Racherla et al., 2008; Rasoolimanesh, Ringle, Jaafar, & Ramayah, 2017). Different levels of local community participation, which range from manipulative participation to citizen power, influence the effectiveness and pervasiveness of destination decision making.

Although an active community role is becoming central in the academic debate, the manner in which it generates innovative processes in the destination remains an unexplored topic of research. Developing an innovative community requires creating conditions that encourage a shift from residents' passive to active roles in knowledge generation, knowledge sharing and open communication channels, as social networks among residents and other types of actors increase co-operation, co-ordination and integration and innovative proposals and actions (Racherla et al., 2008; Rasoolimanesh et al., 2017).

Table 5
Destination management organisation.

Concept	Authors	N. of studies
Governance models and stakeholders engagement	Beritelli (2011) Go and Trunfio (2011) Kooiman (2008) Lin and Simmons (2017) Pike and Page (2014) Quinlan and Marie (2013) Sheehan et al. (2016)	7
Social capital e Governance Destination management and innovation	Go et al. (2013) Hjalager (2010) Li et al. (2017) Trunfio et al. (2012) Volgger and Pechlaner (2014)	4

Table 6
Local community.

Concept	Authors	N. of studies
Local community participation	Rasoolimanesh et al. (2017) Tosun (2006) Zhang et al. (2013)	3
Social capital and local community participation	Liu et al. (2014)	1
Local community and knowledge-based destination	Racherla et al. (2008)	1

Community participation can be analysed in three forms: coercive, induced and spontaneous participation (Rasoolimanesh et al., 2017; Tosun, 2006; Zhang, Cole, & Chancellor, 2013). In coercive participation, local actors do not influence destination decision making; they assume a passive disposition and manifest a low level of interaction with key actors, such as government authorities and a restricted number of private actors who define the future of the destination (Zhang et al., 2013). Coercive participation limits the conditions for innovation, which is relegated to tokenism. In induced participation, the community does not control the decision-making process, but it has a consultative role, which manifests conditions for proposing or contributing to the destination innovation process. In spontaneous participation, local actors have a high ability to participate in decision making and to interact and co-ordinate with other actors, which presents opportunities for innovative processes. The following table systematises the studies of the main authors (see Table 6).

5.6. Local firms

Small and medium-sized enterprises (SMEs) in tourism destinations play a significant role in enacting creative destruction processes, and they contribute to dynamic knowledge regeneration and promote innovation (Gomezelj, 2016; Hjalager, 2010; Pikkemaat et al., 2018; Ryan, Mottiar, & Quinn, 2012; Zach & Hill, 2017). Drivers and forms of local company innovation can be diverse, such as new organisational forms, new marketing approaches and experiential services (Hall & Williams, 2008), ICT infrastructures that facilitate networking and collaboration in the tourism destination (Hjalager, 2010; Martínez-Román et al., 2015; Pikkemaat et al., 2018; Shaw & Williams, 2009; Zach, 2012) and promotion of social changes that impact the community and economic sectors (Lai, Morrison-Saunders, & Grimstad, 2017; Pikkemaat et al., 2018).

The entrepreneurial capability to innovate in a destination is determined by three factors (Hjalager, 2002, 2010; Martínez-Román et al., 2015; Thomas, Shaw, & Page, 2011). First, the geographical proximity effect allows for knowledge generation, i.e. the sharing and assimilation of new information, innovation and technologies by competitors, residents or policy agents, which reduces R&D investments and costs (Camisón & Monfort-Mir, 2012; Hjalager, 2010; Pikkemaat et al., 2018; Thomas et al., 2011). The second factor involves whether the organisational structure can innovate when presented with financial resources for R&D, a high level of deconcentration, a strategic orientation and high quality standards (Hall & Williams, 2008; Pikkemaat et al., 2018; Thomas et al., 2011). The third factor, human capital, represents the driving force that innovatively connects all organisational resources and creates synergies with networks and destinations, thereby reducing the risk of failure in the innovation processes (Martínez-Ros & Orfila-Sintes, 2012; Pikkemaat et al., 2018). Indeed, the entrepreneurial propensity to innovate is influenced by the co-operative relationships with other firms and is embedded in diverse innovation systems, such as tourism destinations (Martínez-Román et al., 2015). The following table systematises the studies of the main authors (see Table 7).

Table 7
Local firms.

Concept	Authors	N. of studies
SMEs management	Thomas et al. (2011)	1
SMEs in tourism	Hall and Williams (2008) Lai et al. (2017) Zach (2012)	3
SMEs role	Gomezelj (2016) Pikkemaat et al. (2018) Ryan et al. (2012) Zach and Hill (2017)	4
SMEs and innovation	Camisón and Monfort-Mir (2012) Hjalager (2002) Martínez-Román et al. (2015) Martínez-Ros and Orfila-Sintes (2012)	4
SMEs and knowledge management	Hjalager (2010) Shaw and Williams (2009)	2

6. Emerging innovations and research agenda

Our conceptual framework proposes the following four emerging innovations in knowledge-based destinations as the holistic result of six drivers (four actors and two platforms): experience co-creation, smart destinations, e-participative governance, and social innovation (Fig. 1).

6.1. Experience co-creation

After Pine and Gilmore's seminal work (1999), the experience economy became a pervasive subject and has come to involve diverse topics and fields of research, including the tourism domain, in which the paradigm of experience co-creation nurtures the process of innovation (Hjalager, 2010, 2015; Prahalad & Ramaswamy, 2004; Selstad, 2007; Stamboulis & Skayannis, 2003; Sørensen & Jensen, 2015).

Innovation in destinations, as a result of experience co-creation, emerges as the collective action of diverse actors and is facilitated and triggered by the elements of social capital – such as trust, openness, networking and collaboration – and technological tools.

ICT, e-tourism, virtual communities and gamification have reshaped the destination models (Buhalis & Law, 2008) to transform social interactions among destination actors and tourists in which experiences are dynamically co-created through stakeholder contributions, which thus defines a participatory approach to destination development (Trunfio & Della Lucia, 2019b). These technologies enable knowledge-based processes in destinations that are powered by user participation, openness and stakeholder engagement, making it possible to re-invent tourist experiences and enhance the differentiations among destinations (Buhalis & Amaranggana, 2013; Cabiddu, De Carlo, & Piccoli, 2014; Funilkul & Chutimaskul, 2009; Gretzel, Fesenmaier, Formica, & O'Leary, 2006; Munar, 2012; Neuhofer et al., 2012; Sigala & Marinidis, 2012; Trunfio & Della Lucia, 2017). These results require maintenance to keep the experience alive over time (Eide, Fuglsang, & Sundbo, 2017).

Experiential tourism, supported by social capital and ICT, poses significant challenges to reinterpreting the role of destination actors in generating innovation. Diverse questions emerge and create the following avenues for future investigations:

- How can DMOs and political actors exploit the disruptive power of ICT and digital platforms to facilitate knowledge sharing, trust and collaboration in the local community to enhance experience co-creation?
- How can social capital building and stakeholder engagement enhance the maintenance of experience innovation to support dynamic experience co-creation with tourists?

- How can actors capitalise on experience co-creation to generate value for stakeholders and destinations?

6.2. Smart destinations

A smart destination can be seen as part of the evolutionary concept of smart cities, in which interconnected technological tools – ICT infrastructures, the Internet of Things, cloud computing and end-user Internet service systems, and augmented and virtual reality – connect destination stakeholders, which enhances the opportunities to communicate, collaborate and nurture knowledge (Buhalis & Amarangana, 2013; Del Chiappa & Baggio, 2015; Gretzel, Sigala, Xiang, & Koo, 2015; Roche & Rajabifard, 2012; Trunfio et al., 2012). A smart destination creates opportunities to engage stakeholders in using ICT infrastructures dynamically as a neural system to allow knowledge sharing and the dispersing of innovation so that tourists can be included in the co-creation experience. Combining human capital, social capital and innovations, a smart destination combines efficiency with experience co-creation and sustainability (Gretzel et al., 2015). Regarding experience co-creation, a smart destination constitutes a pervasive innovation that includes diverse actors and stakeholders in the process and requires social capital that has the ability to facilitate knowledge sharing and trust.

Diverse questions relate to this innovation, which create the following avenues for future investigation:

- How can smart destinations enhance the interactions between hosts and guests in various phases (before, during and after travel) to thus improve their satisfaction?
- Can smart destinations create opportunities for new destination models in which technological and social platforms enhance the quality of life and sustainable development?
- How can DMOs and political actors create an inclusive process of smart destination building?

6.3. E-participative governance

The prevalent literature supports the shift towards forms of destination governance in which destination stakeholders' engagement plays a significant role and creates opportunities for innovation (Beritelli, 2011; Bramwell & Lane, 2011; Go et al., 2013; Go & Trunfio, 2011; Laws, Richins, Agrusa, & Scott, 2011; Ruhanen, Scott, Ritchie, & Tkaczynski, 2010).

The evolutionary process of destinations, where top-down governance models have been succeeded by hybrid models (Rodriguez et al., 2014) in which stakeholder engagement plays a significant role, has been accelerated by ICTs and digital platforms (Cabiddu, Lui, & Piccoli, 2013; Sigala & Marinidis, 2012; Trunfio & Della Lucia, 2019a). ICTs and digital platforms provide digital spaces to enhance stakeholder engagement in decision making, which reduces the boundaries among diverse actors (DMOs, local firms, political actors and the community). E-participative governance models represent an emerging destination innovation that creates new avenues for future research. Some possible key questions include the following:

- How can the power of ICTs and digital platforms be enhanced to facilitate stakeholder engagement in destination planning, co-ordination and collaboration?
- How can social capital be nurtured to facilitate community participation? Alternatively, how can e-participative governance impact social capital, transform culture, values, and so on, and consequently change the destination's identity?
- What roles exist for DMOs and local actors?

6.4. Social innovation

Social innovation has received increasing attention by diverse academic fields of research and in political-institutional debates as a pervasive topic that impacts both society and local firms. The recent literature reviews diverse streams of research and analyses phenomena from a multidisciplinary perspective to present diverse definitions and to identify the challenges and implications for social and local development (Choi & Majumdar, 2015; Gallouj, Rubalcaba, Toivonen, & Windrum, 2018; van der Have & Rubalcaba, 2016). Interesting implications for research on destination innovation emerge from these streams of research. In particular, Schumpeter's theories of entrepreneurship, social entrepreneurship and social innovation are closely related concepts, and organisational innovation impacts social wellbeing, which causes positive spill-over effects for society.

The multidisciplinary approach adopted in these studies allows for the consideration of social innovation as a new concept that produces social change (Swedberg, 2009) and introduces new solutions – products, services, models, processes, etc (Caulier-Grice, Davies, Patrick, & Norman, 2012) – that influence social capital (Neumeier, 2017), local development and knowledge capabilities (Choi & Majumdar, 2015; Gallouj et al., 2018; van der Have & Rubalcaba, 2016).

Social innovation involves both changes in the social capital structure (including relationships among diverse actors) and a new way to solve social imbalances, and it represents a novel social technology that creates social value (van der Have & Rubalcaba, 2016, p. 1932) to transform the destination patterns. This innovation influences attitudes, behaviour and the multiple levels of interactions of diverse actors in tourism destinations that involve unusual key players – such as local communities, non-profit and non-governmental organisations (NGOs), etc – in the exploitation and exploration of destination resources and opportunities of innovation.

Such forms of social innovation (e.g. a creative town driven by the local people, community-based tourism, social entrepreneurship involving disabled people in hospitality activities) can drive new destination models redefining the relationships among actors. New relationships among destination actors debunk the consolidated top-down process, and forms of soft power prevail, thereby upending the traditional relationships and roles in the destination architecture and power.

The following diverse challenges for future research have emerged:

- How can governance nurture social capital and entrepreneurship to facilitate diffused and successful social innovation?
- How do local community bottom-up processes activate social innovation to create new solutions and creative spaces? How do the local community and entrepreneurs interact in these processes?
- How can social innovation enhance opportunities to activate spontaneous stakeholder participation in the experience of co-creation and e-participative governance?
- How can social innovation drive a novel social technology that creates social value and reduce social imbalances in tourism destination?

7. Discussion and conclusion

Although academics and policy makers around the world consider innovation to be one of the main drivers of destination development and competitiveness, the research on innovation in tourism destinations is fragmented, manifests grey areas in the tourism domain (Gomezelj, 2016; Hjalager, 2010; Rodriguez et al., 2014) and lacks an integrative theoretical framework that can capture the complexity of the destinations in which diverse public and private actors interact.

This conceptual paper cross-fertilises and discusses the relevant literature in the tourism and other theoretical domains and proposes an integrative theoretical framework that interprets destination innovation

as a complex and evolutionary knowledge-driven phenomenon resulting from human (organisational)-technology interactions. This framework considers emerging innovations in knowledge-based destinations as a holistic and pervasive result of the collective knowledge generated by the interaction among four destination actors and facilitated by two platforms in a specific local context.

Although it mainly explores this emerging stream of research, this paper also presents some preliminary contributions to the theoretical debate on innovation in destinations.

First, the paper designates borders and differences among innovation in the tourism domain, innovation in the tourism destination and innovation in the knowledge-based destination. Innovation in the tourism domain, as defined by the consolidated literature, classifies the diverse typologies of innovation by adopting the traditional Schumpeterian approach and the lens of the manufacturing industry. This approach captures the forms of innovation at the level of the single tourism organisation/networks (e.g. product innovation and process innovation) and manifests certain grey areas in interpreting the tourism and hospitality domains (Gomezelj, 2016; Toivonen & Tuominen, 2009). This paper calls for overcoming the generic term of tourism innovation by defining specific research areas of innovation investigation, such as hospitality, destination, etc, in which a specific theoretical framework can be developed and consolidated. Consequently, innovation in destinations can follow the application of the traditional tourism innovation approach in which forms of innovation such as ICT tools (e.g. virtual reality, augmented reality, etc) do not embrace the complexity of the knowledge-based destination. Innovation in knowledge-based destinations, such as Nonaka and Konno's (1998) 'ba' concept, overcomes the borders of the single actors and/or ICT platform and emerges as the result of collective and shared knowledge, both tacit and explicit; this approach represents a holistic and pervasive result of human (organisational)-technology interactions.

Second, this paper argues that specific local contexts matter in destination innovation. Contexts assume a repository role of spatial and cross-sectorial knowledge generation and dissemination (Roper & Love, 2018), which drives the pervasive and emerging innovations of the destination. The destination represents a specific learning system based on the geographical dimensions and multiple tourism-related agents' interactions (Asheim & Gertler, 2005; Flagestad et al., 2005; Ozseker, 2018) to generate a dynamic spiral of knowledge sharing, collective innovativeness and pervasive innovation (Boekema et al., 2000). The destination's capacity to reach a high level of innovativeness is subject to the value in the context of six drivers of innovation, namely, four local public and private actors (political actors, DMOs, local firms and local communities) and two platforms (ICTs and social capital). The four actors can play diverse roles with varying amounts of authority in driving the four typologies of innovation to leverage social capital and ICT. This paper opens up new avenues of research through which to analyse the role of public and private actors in this dynamic spiral of knowledge sharing, collective innovativeness and pervasive innovation facilitated by technological platforms and social capital. The paper suggests the creation of local conditions to facilitate offline and online stakeholder engagement (Trunfio & Della Lucia, 2019a) as a key element to enhance knowledge generation, sharing and transformation to thus activate innovation processes at the destination.

Third, the integrative framework presented here overcomes the limited focus on technology-driven innovation at the destination and introduces to the theoretical debate the complementary role of social capital and ICT infrastructures in creating conditions that facilitate innovativeness, stakeholder engagement and bottom-up processes (Go & Trunfio, 2011) for pervasive and holistic destination innovation. The consolidated literature emphasises the disruptive role of ICT in the tourism innovation process but neglects the significant role of social capital. Social capital and ICT represent the structural, cognitive and technological platforms of the destination in which human/organisational and technological factors converge to facilitate interaction,

collaboration, trust building and knowledge sharing among the four diverse actors and to trigger the emergence of diverse forms of destination innovation. Accordingly, with the new way of thinking and interpreting tourism and innovation (Paget et al., 2010), this paper suggests capitalising on the connections between technological and societal changes in local contexts. It opens up a new scenario for the role of institutions and local actors in building social capital that can nurture innovation acceptance and innovativeness in local contexts to enhance the effectiveness of innovative ICT tools.

Fourth, this approach goes beyond the current innovation paradigms that analyse innovations in the tourism domain, which usually present traditional forms of innovation based on the manufacturing paradigm that are considered in a single and reductive way. The complexity of the tourism experience (Hall & Williams, 2008) co-created by the interaction between tourists and local actors is associated with the complex dynamic spiral of knowledge sharing, collective innovativeness and pervasive innovation (Boekema et al., 2000; Roper & Love, 2018), which requires a new interpretation of innovation in destinations.

This paper identifies four emerging innovations as the pervasive and holistic results of the collective knowledge generated by the interaction among four destination actors and facilitated by ICT infrastructures and social capital. Overcoming the traditional innovation paradigms, this integrated framework proposes advances in academic research that presents four destination innovations as the result of the convergence of diverse typologies of innovations that are transforming tourism and local contexts, specifically, experience co-creation, smart destinations, e-participative governance and social innovation. In these innovations, difficulties emerge in defining the borders between the diverse determinants and the emerging typologies of innovation because they are strongly interrelated (Camisón & Monfort-Mir, 2012; Gomezelj, 2016; Hjalager, 2015; Novelli et al., 2006), and a synergetic process intervenes between the determinants and the emerging innovation. All innovations are the intangible result of interdependences among the six determinants of destination innovations, and they simultaneously re-define the six determinants.

Finally, the preliminary key questions related to these four emerging innovations create avenues for future research and identify the challenges for academics, policy makers and destination managers to understand and strengthen the possible role of destination actors and their synergies in destination innovation under the conditions of knowledge-driven innovation in destinations.

Emerging innovations that influence behaviour and multiple levels of interactions of diverse actors create changes in the social capital structure and introduce new ways to co-create value in the context that drives new destination models. New destination models can be derived from emerging innovations and can be designed and analysed in future theoretical and empirical research. Emerging innovations, such as social innovation, can open up new scenarios in which unusual relationships among destination actors debunk the consolidated top-down process to create new patterns of relationships, influences and power beyond the six innovation drivers.

8. Limitations

This paper is not without limitations. First, this integrative literature review overlooks the phenomenon of innovation. As previous literature suggests, some papers adopt words such as 'creativity' or 'change' to debate innovation (Crossan & Apaydin, 2010). Consequently, the paper underestimates the 'soft' forms of innovation, such as creative cities, which are transforming the consolidated paradigms in destinations.

Second, the paper discusses four emerging innovations that represent a preliminary synthetic design of possible destination innovations to contribute to a research agenda for academics, policy makers and destination managers. This review does not aspire to be exhaustive, and other possible innovations can be identified, discussed and

validated by the theoretical research and empirical analysis in future papers.

Third, there are other external factors that influence the innovation process of destinations, including tourists, which are unexplored in this paper. Future research will overcome this limitation with a more holistic and comprehensive model in which tourist participation in knowledge generation and destination innovation processes can play a significant role.

Because this is still a relatively young field of research, further research is needed to underpin this conceptual framework and other diverse and related streams of research through theoretical contributions, in-depth case studies and empirical analysis, which would overcome this paper's limitations.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jdmm.2019.100370>.

References

- Ali, A., & Frew, A. J. (2014a). ICT for sustainable tourism: A challenging relationship? *Journal of Hospitality and Tourism Technology*, 5(1), 2–16.
- Ali, A., & Frew, A. J. (2014b). Technology innovation and applications in sustainable destination development. *Information Technology & Tourism*, 14(4), 265–290.
- Asheim, B. (1999). Innovation, social capital and regional clusters: On the importance of co-operation, interactive learning and localised knowledge in learning economies. *European Regional Science Association 39th European Congress*. Dublin, Ireland.
- Asheim, B., Coenen, L., & Vang, J. (2007). Face-to-face, buzz, and knowledge bases: Sociospatial implications for learning, innovation, and innovation policy. *Environment and Planning C: Government and Policy*, 25(5), 655–670.
- Asheim, B. T., & Gertler, M. S. (2005). The geography of innovation: Regional innovation systems. In J. Fagerberg, D. C. Mowery, & R. R. Nelson (Eds.), *The Oxford handbook of innovation* (pp. 291–317).
- Badawy, A. M. (2009). Technology management simply defined: A tweet plus two characters. *Journal of Engineering and Technology Management*, 26(4), 219–224.
- Baggio, R., & Cooper, C. (2010). Knowledge transfer in a tourism destination: The effects of a network structure. *The Service Industries Journal*, 30(8), 1–15.
- Beesley, L. G. A., & Cooper, C. (2008). Defining knowledge management (KM) activities: Towards consensus. *Journal of Knowledge Management*, 12(3), 48–62.
- Beritelli, P. (2011). Cooperation among prominent actors in a tourist destination. *Annals of Tourism Research*, 38(2), 607–629.
- Boekema, F., Morgan, K., Bakkers, S., & Rutten, R. (2000). *Knowledge, innovation and economic growth*. Cheltenham: Edward Elgar Publishing.
- Boes, K., Buhalis, D., & Inversini, A. (2015). Conceptualising smart tourism destination dimensions. In I. Tussyadiah, & A. Iversini (Eds.), *Information and communication technologies in tourism 2015* (pp. 391–403). Cham: Springer.
- Boschma, R. (2005). Proximity and Innovation: A Critical Assessment. *Regional Studies*, 39(1), 61–74.
- Bourdieu, P. (1986). The forms of capital: Education, culture, economy, and society. *Cultural Theory: An Anthology*, 1, 81–93.
- Bramwell, B., & Lane, B. (2011). Critical research on the governance of tourism and sustainability. *Journal of Sustainable Tourism*, 19(4–5), 411–421.
- Brauner, E., & Becker, A. (2006). Beyond knowledge sharing: The management of transactive knowledge systems. *Knowledge and Process Management*, 13(1), 62–71.
- Buhalis, D. (1998). Strategic use of information technologies in the tourism industry. *Tourism Management*, 19(5), 409–421.
- Buhalis, D., & Amaranggana, A. (2013). Smart tourism destinations. In Z. Xiang, & I. Tussyadiah (Eds.), *Information and communication technologies in tourism 2014* (pp. 553–564). Cham: Springer.
- Buhalis, D., & Amaranggana, A. (2015). Smart tourism destinations enhancing tourist experience through personalisation of services. In I. Tussyadiah, & A. Iversini (Eds.), *Information and communication technologies in tourism 2015* (pp. 377–389). Cham: Springer.
- Buhalis, D., & Law, R. (2008). Progress in information technology and tourism management: 20 years on and 10 years after the internet — the state of e-tourism research. *Tourism Management*, 29(4), 609–623.
- Cabiddu, F., De Carlo, M., & Piccoli, G. (2014). Social media affordances: Enabling customer engagement. *Annals of Tourism Research*, 48, 175–192.
- Cabiddu, F., Lui, T. W., & Piccoli, G. (2013). Managing value co-creation in the tourism industry. *Annals of Tourism Research*, 42, 86–107.
- Camisón, C., & Monfort-Mir, V. M. (2012). Measuring innovation in tourism from the Schumpeterian and the dynamic-capabilities perspectives. *Tourism Management*, 33(4), 776–789.
- Carneiro, A. (2000). How does knowledge management influence innovation and competitiveness? *Journal of Knowledge Management*, 4(2), 87–98.
- Caulier-Grice, J., Davies, A., Patrick, R., & Norman, W. (2012). Defining social innovation. A deliverable of the project: The theoretical, empirical and policy foundations for building social innovation. *Europe (TEPSIE), European Commission 7th Framework Programme*. Brussels: European Commission, DG Research.
- Chen, S., & Choi, C. J. (2004). Creating a knowledge-based city: The example of Hsinchu Science park. *Journal of Knowledge Management*, 8(5), 73–82.
- Choi, N., & Majumdar, S. (2015). Social innovation: Towards a conceptualisation. In S. Majumdar, N. Marakkath, & S. Guha (Eds.), *Technology and innovation for social change* (pp. 7–34). New Delhi: Springer.
- Coleman, S. (1988). *Aspects of symmetry: Selected erice lectures*. Cambridge: Cambridge University Press.
- Cooper, C. (2006). Knowledge management and tourism. *Annals of Tourism Research*, 33(1), 47–64.
- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47(6), 1154–1191.
- Decelle, X. (2006). A dynamic conceptual approach to innovation in tourism. In OECD (Ed.), *Innovation and growth in tourism* (pp. 85–106).
- Della Lucia, M., & Trunfio, M. (2018). The role of the private actor in cultural regeneration: Hybridizing cultural heritage with creativity in the city. *Cities*, 82, 35–44.
- Del Chiappa, G., & Baggio, R. (2015). Knowledge transfer in smart tourism destinations: Analyzing the effects of a network structure. *Journal of Destination Marketing & Management*, 4(3), 145–150.
- Denicolai, S., Cioccarelli, G., & Zucchella, A. (2010). Resource-based local development and networked core-competencies for tourism excellence. *Tourism Management*, 31(2), 260–266.
- Dwyer, L., Edwards, D., Mistilis, N., Roman, C., & Scott, N. (2009). Destination and enterprise management for a tourism future. *Tourism Management*, 30(1), 63–74.
- Eide, D., Fuglsang, L., & Sundbo, J. (2017). Management challenges with the maintenance of tourism experience concept innovations: Toward a new research agenda. *Tourism Management*, 63, 452–463.
- Flagestad, A., Hope, C. A., Svensson, B., & Nordin, S. (2005). The tourist destination: A local innovation system? The creation of a model. In P. Keller, & T. Bieger (Eds.), *Innovation in tourism-creating customer value* (pp. 245–259). Brainerd, MN: ALEST.
- Fuchs, M., Abadzhiev, A., & Svensson, B. (2013). A knowledge destination framework for tourism sustainability: A business intelligence application from Sweden. *Turizam: Mednarodni Znanstveno-Stručni Časopis*, 61(2), 121–148.
- Funilkul, S., & Chutimaskul, W. (2009). The framework for sustainable e-democracy development. *Transforming Government: People, Process and Policy*, 3(1), 16–31.
- Gallouj, F., Rubalcaba, L., Toivonen, M., & Windrum, P. (2018). Understanding social innovation in services industries. *Industry & Innovation*, 25(6), 551–569.
- Gomezeli, D. O. (2016). A systematic review of research on innovation in hospitality and tourism. *International Journal of Contemporary Hospitality Management*, 28(3), 516–558.
- Go, F. M., & Trunfio, M. (2011). E-Services governance in public and private sectors: A destination management organization perspective. In A. D'Atri, M. Ferrara, J. F. George, & P. Spagnoletti (Eds.), *Information technology and innovation trends in organizations* (pp. 11–19). Physica-Verlag HD.
- Go, F. M., Trunfio, M., & Della Lucia, M. (2013). Social capital and governance for sustainable rural development. *Studies in Agricultural Economics*, 115, 104–110.
- Gretzel, U., Fesenmaier, D. R., Formica, S., & O'Leary, J. T. (2006). Searching for the future: Challenges faced by destination marketing organizations. *Journal of Travel Research*, 45(2), 116–126.
- Gretzel, U., Sigala, M., Xiang, Z., & Koo, C. (2015). Smart tourism: Foundations and developments. *Electronic Markets*, 25, 179–188.
- Gretzel, U., Yuan, Y. L., & Fesenmaier, D. R. (2000). Preparing for the new economy: Advertising strategies and change in destination marketing organizations. *Journal of Travel Research*, 39(2), 146–156.
- Gyung Kim, M., Wang, C., & Mattila, A. S. (2010). The relationship between consumer complaining behavior and service recovery: An integrative review. *International Journal of Contemporary Hospitality Management*, 22(7), 975–991.
- Hall, C. M., & Williams, A. M. (2008). *Tourism and innovation*. London: Routledge.
- van der Have, R. P., & Rubalcaba, L. (2016). Social innovation research: An emerging area of innovation studies? *Research Policy*, 45(9), 1923–1935.
- Henly, S. J. (2015). *Routledge international handbook of advanced quantitative methods in nursing research*. Abingdon: Routledge.
- Hjalager, A. M. (2002). Repairing innovation defectiveness in tourism. *Tourism Management*, 23(5), 465–474.
- Hjalager, A. M. (2010). A review of innovation research in tourism. *Tourism Management*, 31(1), 1–12.
- Hjalager, A. M. (2015). 100 innovations that transformed tourism. *Journal of Travel Research*, 54(1), 3–21.
- Hjalager, A. M., Huijbens, E. H., Nordin, S., & Flagestad, A. (2008). *Innovation systems in Nordic tourism*. Copenhagen: Nordic Council of Ministers.
- Inkpen, A. C., & Tsang, E. W. (2005). Social capital, networks, and knowledge transfer. *Academy of Management Review*, 30(1), 146–165.
- Jamal, T., & Jamroz, U. (2006). Collaborative networks and partnerships for integrated destination management. In D. Buhalis, & C. Costa (Eds.), *Tourism management dynamics: Trends, management and tools* (pp. 164–172). Oxford: Routledge.
- Kanter, R. M. (1983). *The change masters: Binnovation and entrepreneurship in the American corporation*. New York, NY: Touchstone Book.
- Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54(3), 241–251.
- Kooiman, J. (2008). Exploring the concept of governability. *Journal of Comparative Policy Analysis: Research and Practice*, 10(2), 171–190.
- Krugman, P. (1991). Increasing returns and economic geography. *Journal of political economy*, 99(3), 483–499.
- Kuščer, K., & Mihalič, T. (2016). The impact of innovativeness on mountain destination development. In H. Pechlaler, & E. Innerhofer (Eds.), *Competence based innovation in hospitality and tourism 2015*. Aldershot: Gower Publishing.
- Kuščer, K., Mihalič, T., & Pechlaner, H. (2017). Innovation, sustainable tourism and environments in mountain destination development: A comparative analysis of Austria, Slovenia and Switzerland. *Journal of Sustainable Tourism*, 25(4), 489–504.
- Lai, P. H., Morrison-Saunders, A., & Grimstad, S. (2017). Operating small tourism firms in rural destinations: A social representations approach to examining how small tourism

- firms cope with non-tourism induced changes. *Tourism Management*, 58, 164–174.
- Lambooy, J. (2005). Innovation and knowledge: Theory and regional policy. *European Planning Studies*, 13(8), 1137–1152.
- Laws, E., Richins, H., Agrusa, J., & Scott, N. (2011). Tourist destination governance decision making: Complexity, dynamics and influences. In E. Laws, H. Richins, J. Agrusa, & N. Scott (Eds.). *Tourist destination governance practice, theory and issues* (pp. 83–90). Wallingford: CAB International.
- Leydesdorff, L. (2005). The triple helix model and the study of knowledge-based innovation systems. *International Journal of Contemporary Sociology*, 42(1), 1–16.
- Lin, D., & Simmonds, D. (2017). Structured inter-network collaboration: Public participation in tourism planning in Southern China. *Tourism Management*, 63, 315–328.
- Li, S. C. H., Robinson, P., & Oriade, A. (2017). Destination marketing: The use of technology since the millennium. *Journal of Destination Marketing & Management*, 6(2), 95–102.
- Liu, J., Qu, H., Huang, D., Chen, G., Yue, X., Zhao, X., et al. (2014). The role of social capital in encouraging residents' pro-environmental behaviors in community-based ecotourism. *Tourism Management*, 41, 190–201.
- Macbeth, J., Carson, D., & Northcote, J. (2018). Social capital, tourism and regional development: SPCC as a basis for innovation and sustainability. *Current Issues in Tourism*, 7(6), 502–522.
- Manniche, J., & Testa, S. (2018). Towards a multi-levelled social process perspective on firm innovation: Integrating micro, meso and macro concepts of knowledge creation. *Industry & Innovation*, 25(4), 365–388.
- Martínez-Román, J. A., Tamayo, J. A., Gámez, J., & Romero, J. E. (2015). Innovativeness and business performances in tourism SMEs. *Annals of Tourism Research*, 54, 118–135.
- Martínez-Ros, E., & Orfila-Sintes, F. (2012). Training plans, manager's characteristics and innovation in the accommodation industry. *International Journal of Hospitality Management*, 31, 686–694.
- Mei, Y. X., Arcodia, C., & Ruhanen, L. (2012). Towards tourism innovation: A critical review of public policies at the national level. *Tourism Management Perspectives*, 4, 92–105.
- Munar, A. M. (2012). Social media strategies and destination management. *Scandinavian Journal of Hospitality and Tourism*, 12(2), 101–120.
- Najda-Janoszka, M., & Kopera, S. (2014). Exploring barriers to innovation in tourism industry – the case of Southern Region of Poland. *Procedia: Social and Behavioral Sciences*, 110, 190–201.
- Nardelli, G. (2017). Innovation dialectics: An extended process perspective on innovation in services. *The Service Industries Journal*, 37(1), 31–56.
- Neuhofer, B., Buhalis, D., & Ladkin, A. (2012). Conceptualising technology enhanced destination experiences. *Journal of Destination Marketing and Management*, 1, 36–46.
- Neumeier, S. (2017). Social innovation in rural development: Identifying the key factors of success. *Geographical Journal*, 183(1), 34–46.
- Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1), 14–37.
- Nonaka, I., & Konno, N. (1998). The concept of “ba”: Building a foundation for knowledge creation. *California Management Review*, 40(3), 40–54.
- Nonaka, I., & Nishiguchi, T. (2001). *Knowledge emergence: Social, technical, and evolutionary dimensions of knowledge creation*. Oxford: Oxford University Press.
- Novelli, M., Schmitz, B., & Spencer, T. (2006). Networks, clusters and innovation in tourism: A UK experience. *Tourism Management*, 27(6), 1141–1152.
- Ozseker, D. B. (2018). Towards a model of destination innovation process: An integrative review. *The Service Industries Journal*, 39(3–4), 206–228.
- Paget, E., Dimanche, F., & Mounet, J. P. (2010). A tourism innovation case. An actor-network approach. *Annals of Tourism Research*, 37(3), 828–847.
- Pansiri, J. (2008). The effects of characteristics of partners on strategic alliance performance in the SME dominated travel sector. *Tourism Management*, 29(1), 101–115.
- Pearce, D. G. (2014). Toward an integrative conceptual framework of destinations. *Journal of Travel Research*, 53(2), 141–153.
- Pérez-luño, A., Medina, C. C., Lavado, A. C., & Rodríguez, G. C. (2011). How social capital and knowledge affect innovation. *Journal of Business Research*, 64(12), 1369–1376.
- Pike, S., & Page, S. J. (2014). Destination marketing organizations and destination marketing: A narrative analysis of the literature. *Tourism Management*, 41, 202–227.
- Pikkemaat, B., Peters, M., & Chan, C. S. (2018). Needs, drivers and barriers of innovation: The case of an alpine community-model destination. *Tourism Management Perspectives*, 25, 53–63.
- Pikkemaat, B., & Weiermair, K. (2007). Innovation through cooperation in destinations: First results of an empirical study in Austria. *Anatolia*, 18(1), 67–83.
- Pine, B. J., & Gilmore, J. H. (1999). *The experience economy: Work is theatre and every business a stage*. Boston, MA: Harvard Business Press.
- Prahalad, C. K., & Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5–14.
- Putnam, R. D. (1993). The prosperous community: Social capital and public life. *The American Prospect*, 13(4), 35–42.
- Pyo, S. (2005). Knowledge map for tourist destinations - needs and implications. *Tourism Management*, 26(4), 583–594.
- Quinlan, A., & Marie, A. (2013). Stakeholder engagement in destination management: A systematic review of literature. *9th Annual Tourism and Hospitality Research in Ireland Conference (THRIC)*. Galway, 6–7th June.
- Racherla, P., Hu, C., & Hyun, M. Y. (2008). Exploring the role of innovative technologies in building a knowledge-based destination. *Current Issues in Tourism*, 11(5), 407–428.
- Rasoolimanesh, S. M., Ringle, C. M., Jaafar, M., & Ramayah, T. (2017). Urban vs. rural destinations: Residents' perceptions, community participation and support for tourism development. *Tourism Management*, 60, 147–158.
- Roche, S., & Rajabifard, A. (2012). Sensing places' life to make city smarter. *ACM SIGKDD International workshop on urban computing* (pp. 41–46). ACM.
- Rodríguez, I., Williams, A. M., & Hall, C. M. (2014). Tourism innovation policy: Implementation and outcomes. *Annals of Tourism Research*, 49, 76–93.
- Roper, S., & Love, J. H. (2018). Knowledge context, learning and innovation: An integrating framework. *Industry & Innovation*, 25(4), 339–364.
- Ruhanen, L., & Cooper, C. (2004). Applying a knowledge management framework to tourism research. *Tourism Recreation Research*, 29(1), 83–87.
- Ruhanen, L., Scott, N., Ritchie, B., & Tkaczynski, A. (2010). Governance: A review and synthesis of the literature. *Tourism Review*, 65(4), 4–16.
- Ryan, T., Mottiar, Z., & Quinn, B. (2012). The dynamic role of entrepreneurs in destination development. *Tourism Planning and Development*, 9(2), 119–131.
- Schumpeter, J. A. (1934). *Change and the entrepreneur*. Essays of J.A. Schumpeter.
- Selstad, L. (2007). The social anthropology of the tourist experience. Exploring the “middle role”. *Scandinavian Journal of Hospitality and Tourism*, 7(1), 19–33.
- Shaw, G., & Williams, A. (2009). Knowledge transfer and management in tourism organisations: An emerging research agenda. *Tourism Management*, 30(3), 325–335.
- Sheehan, L., Vargas-Sánchez, A., Presenza, A., & Abbate, T. (2016). The use of intelligence in tourism destination management: An emerging role for DMOs. *International Journal of Tourism Research*, 18(6), 549–557.
- Sigala, M. (2018). New technologies in tourism: From multi-disciplinary to anti-disciplinary advances and trajectories. *Tourism Management Perspectives*, 25, 151–155.
- Sigala, M., & Kyriakidou, O. (2015). Creativity and innovation in the service sector. *Service Industries Journal*, 35(6), 297–302.
- 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.
- Sørensen, F., & Jensen, J. F. (2015). Value creation and knowledge development in tourism experience encounters. *Tourism Management*, 46, 336–346.
- Stamboulis, Y., & Skayannis, P. (2003). Innovation strategies and technology for experience-based tourism. *Tourism Management*, 24(1), 35–43.
- Svensson, B., Nordin, S., & Flagestad, A. (2005). A governance perspective on destination development-exploring partnerships, clusters and innovation systems. *Tourism Review*, 60(2), 32–37.
- Swedberg, R. (2009). *Principles of economic sociology*. Princeton, NJ: Princeton University Press.
- Thomas, R., Shaw, G., & Page, S. J. (2011). Understanding small firms in tourism: A perspective on research trends and challenges. *Tourism Management*, 32(5), 963–976.
- Toivonen, M., & Tuominen, T. (2009). Emergence of innovations in services. *The Service Industries Journal*, 29(7), 887–902.
- Torraco, R. J. (2016). Writing integrative literature reviews: Using the past and present to explore the future. *Human Resource Development Review*, 15(4), 404–428.
- Tosun, C. (2006). Expected nature of community participation in tourism development. *Tourism Management*, 27(3), 493–504.
- Trunfio, M., & Della Lucia, M. (2017). Toward web 5.0 in Italian Regional destination marketing. *Symphony Emerging Issues in Management*, 2, 60–75.
- Trunfio, M., & Della Lucia, M. (2019a). Engaging destination stakeholders in the digital era: The best practice of Italian Regional DMOs. *Journal of Hospitality & Tourism Research*, 43(3), 349–373.
- Trunfio, M., & Della Lucia, M. (2019b). Co-creating value in destination management leveraging on stakeholder engagement value. *e-Review of Tourism Research*, 16(2–3), 195–204.
- Trunfio, M., Go, F. M., & Ferretti, M. (2012). Disruptive innovation by smarter destination platform knowledge diffusion: Towards a theory of demand and supply governance. *Competition and innovation in tourism: New challenges in an uncertain environment* (pp. 461–480).
- Volgger, M., & Pechlaner, H. (2014). Requirements for destination management organizations in destination governance: Understanding DMO success. *Tourism Management*, 41, 64–75.
- Weidenfeld, A., Williams, A. M., & Butler, R. W. (2010). Knowledge transfer and innovation among attractions. *Annals of Tourism Research*, 37(3), 604–626.
- Xin, S., Tribe, J., & Chambers, D. (2013). Conceptual research in tourism. *Annals of Tourism Research*, 41, 66–88.
- Zach, F. (2012). Partners and innovation in American destination marketing organizations. *Journal of Travel Research*, 51(4), 412–425.
- Zach, F. J., & Hill, T. L. (2017). Network, knowledge and relationship impacts on innovation in tourism destinations. *Tourism Management*, 62, 196–207.
- Zhang, Y., Cole, T., & Chancellor, C. H. (2013). Residents' preferences for involvement in tourism development and influences from individual profiles. *Tourism Planning and Development*, 10(3), 267–284.
- Zhou, L., Chan, E., & Song, H. (2017). Social capital and entrepreneurial mobility in early-stage tourism development: A case from rural China. *Tourism Management*, 63, 338–350.

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