

INNOVATION IN CONTEMPORARY TOURISM – CHALLENGES AND POSSIBILITIES

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Abstract

Innovation is a key factor of competitiveness in nearly all industries. The shifting focus towards innovation of services is caused by the increasing role services play in developed economies. Today, tourism is undergoing a fundamental change which necessitates the ability for innovation. Tourism has a number of characteristics that specifically influence innovation. One such characteristic is the heterogeneous structure of the industry, which connects diverse actors and sectors, including businesses, consumers and the government. The paper aims to analyse innovation in tourism and its main trends using a literature review and examining different approaches and perspectives, with the goal of offering a synthesis of the findings and a point on which to base further research. The findings suggest that the collaborative environment fosters a joint approach to solving different challenges in tourism and recognizing innovation opportunities, and that the efficacy of such an undertaking far outweighs what the individual actors would be able to contribute by acting alone.

Key Words: *tourism, innovation, technology, collaboration*
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Introduction

Service sector dominates in contemporary conditions in developed countries. According to the European Central Bank (2017) in the Eurozone, the service sector accounts for 73.0% of gross domestic product in 2017, 79.5% in 2016 in the United States, and 69.3% in Japan in 2016. Similar situation is with employment - more than two thirds of employees are employed in the service sector in the EU (European Commission, 2017), and the participation of employees in the service sector in the United States was 80.3% in 2016 (United States Department of Labor, 2017). While gross domestic product and employment in agriculture, production, construction, mining and other branches of the primary and secondary sectors are stagnating or declining, service sector is rising, which also relates to the strong growth of tourism in the whole world. This is partly because production has become highly automated and efficient, production processes have been dramatically innovated over the past century, which mainly resulted in a decrease in workforce and an increase in productivity. Other trends also affected the growth of employees in services, including the development of technology and entrepreneurial activity, which led to the introduction of a number of new services, as well as increased interaction with customers and other stakeholders, which among other things led to the discovery of their needs and expectations and efforts to meet them.

Innovations are seen as a critical factor of competitive advantage and business success. Today, the rate of innovation is accelerating. According to the United Nations Economic and Social Council (2017), we live in the time of the fourth industrial revolution that is strongly building on the foundations of the expansion of information and communication technologies and is characterized by qualitatively different technologies and capabilities. Radical innovations and changes in many areas, including robotics and digital technologies, bio-technologies, nano-technologies, neuro-technologies and green technologies have been fueled by the growing capabilities of artificial intelligence systems that are rapidly progressing to autonomously address increasingly complex problems leading to an explosion of intelligence that will produce superintelligence (Agar, 2016). This was possible with a remarkable increase in computing power and significant cost reduction, fast-growing datasets, and advanced learning algorithms and other related areas.

Tourism is a service branch that is recording rapid growth. It is one of the largest industries in the world today, accounting for 9.9% of the world's total workforce and 10.4% of global GDP (WTTC, 2018). Many positive effects of tourism can be distinguished, including income growth, employment growth, currency inflow, investment stimulation, local communities development, the recovery and valorization of the declining areas in economic and social aspects, improving infrastructure, protecting and conserving natural, social and cultural heritage, social and educational function (Pedrana, 2013). On the other hand, tourism may have some negative effects, among which are: conflicts with local communities, unequal distribution of revenues, infrastructure costs, over-exploitation of natural resources, land conversion for tourism, disruptions and destruction of natural habitats, environmental pollution, etc. (Gebhard et al., 2009).

Modern tourism has been going through constant change and development, transforming itself through innovation (Zsnaroszcky, 2018). A number of works highlight the positive effects of innovation on the performance and value of tourism enterprises (Nikolau & Santa Maria, 2013; Szutowski, 2015; Čivre & Gomezelj, 2016). The need for innovation has almost become a precondition for survival, sustainability and future growth of companies operating in a highly competitive global market. However, the study of innovation in tourism is still in its infancy (Carvalho & Costa, 2011; Slivar et al., 2016). Studying innovation in tourism is further aggravated by some other service branches, bearing in mind the complexity and heterogeneous structure of the tourism industry that connects many participants and sectors, including businesses, customers and government. According to Aldebert et al. (2011), the tourism sector has undergone major changes with the development of technology and changes in the market and industry, including the evolution of the boundaries between competition and cooperation - while in the past the sector was organized through a fixed commissions system involving all agents from airline companies to travel agencies, today this system has dissolved, leading to a significant intensifying of competition. Thus, airlines and travel agencies can compete for the same customers, and new entrants can play a stronger role and introduce new rules, for example operators of mobile phones in the field of m-tourism (Aldebert et al., 2011).

Although innovations are critical to the business success of the innovation study, generally most attention is focussed on innovation in

manufacturing companies, with insufficient literature on tourism innovation (Alford & Duan, 2018). Traditionally, the literature on innovation has largely ignored innovation in service sector (Coombs & Miles, 2000; Leich et al., 2010). However, with the increasing role of services in the economies of developed countries since the 1990s, research into service innovation has seen significant growth (Carlborg et al., 2014). In the literature on innovations in tourism, innovations related to a company, a group of companies, or partners in the network and collaboration with customers can be highlighted as the main topics (Gomezelj, 2016; Marasco et al., 2018). In recent years, researchers have recognized the gap in the literature, so it is to be expected that with the growth of innovation studies in tourism, they will be established as a vital discipline with important research directions and application in tourism practice.

The paper is organized in five sections. After the first section (introduction), we consider the factors that influence the innovations in tourism in the second section. In the following sections we present innovations related to the company and a group of companies (network partners) and collaborative customers. The final section is the conclusion.

Factors that influence innovations in tourism

Different factors that are crucial for innovation in tourism can be identified. In the literature, globalization, competence, deregulation, technology development and changes in customer needs and expectations stand out (OECD, 2006; Carvalho & Costa, 2011). Globalization includes economic integration, policy transfer across national boundaries, knowledge transfer, cultural stability, reproduction, relationships and discourse of power; it is a global process, concept, revolution and the establishment of a global market (Nazef et al., 2006). Globalization is accompanied by deregulation and increasing competitiveness in tourism (Weiermair, 2004). Deregulation leads to the reduction or elimination of specific state rules and regulations in tourism and close economic sectors. The hypercompetition is increasing today, making the competition in a tourist market game more intense and aggressive than ever before.

One of the consequences of these trends is the growth of global alliances involving networks of businesses on different continents. The main catalyst for the growth of global alliances is the intense global competence in various production and service sectors (Rajnović, et al.,

2016). Tourism also witnesses the growth of international alliances among different actors including carriers, accommodation and catering sectors (Brondoni, 2016).

The development of science and technology is taking place simultaneously with globalization, creating the compression of space and time limits making the world a "global village". The development of information and communication technology has created unprecedented opportunities for networking and communication around the world, and computers, robots and other intelligent machines have been increasingly used and replacing workforce. New knowledge and the use of new technologies result in the creation of new products, services and jobs that were unimaginable in the previous century (Kozma, 2008). The development of information and communication technology affects all aspects of social life including economy, politics, the sphere of well-being and culture (Talimonchik, 2018).

One of the main ideas in the product and process innovation model presented by Utterback and Abernathy (1975) is that in a fluid phase, where product and market uncertainty is huge, product innovation dominates compared to process innovation. With the maturing of business, the basis of competition moves from product innovation to innovation of the process. As market matures and customer needs are better defined, businesses shift focus of competitions on cost and economies of scale, investing more in process innovation to make them more efficient and effective (Zakić & Vukotić, 2013).

Today, the needs and expectations of the customers are changing rapidly, especially with new generations that are rapidly adopting new trends and using technology in creative ways, making companies have to meet these needs and be able to create value for customers. In tourism industry, for example, by searching the Internet customers come to the websites of travel agencies, which promote and sell their offers. Agencies are increasingly investing in the modernization and graphic design of their websites, as well as in their informativeness (Vukotić & Maksimović, 2017). The interaction exists and requires that time requirements are followed. The tourist profile has been changing, tourists are becoming more experienced and much more informed, and information and communication technology greatly facilitates access to information and the growing demand for alternative and much more sophisticated tourist products (Carvalho & Costa, 2011). Tourists are now much more

independent and can organize their own trips, find accommodations and plan how they will be implemented, which even applies for very distant destinations. Technologies have transformed not only the way the tourism industry works, but also the tourist experience that is no longer limited to on-site services, but has been expanded and dynamically created in both physical and virtual spaces (Neuhofer & Buhalis, 2014).

It can rightly be said that the tourist market is not only an extremely dynamic but also an open system. This is achieved through interaction, that is active participation of all participants in the market, as well as with interaction with many other disciplines from which it collects and which the tourist market supplies with information. There is also an increase in the representation or increase of the heterogeneity of the customers of "small tourism" - excursionists, transients and local border traffic. Contrary to the uniqueness of the tourist demand in relation to the set of tourist services, there must be time and space harmonization of the participants of a tourist offer. Tourist demand is moving towards tourist offer, but not vice versa as on the commodity market. This is due to the relationship of the tourist service to a certain space and its properties (Cvijanović et al., 2016).

According to Carvalho & Costa (2011), sustainability is another factor when it comes to innovation in tourism, where three key dimensions are needed: economic, social and environmental. The purpose of sustainable tourism is to make the balance between protecting the environment, meeting the needs of the local population, maintaining cultural integrity, establishing social justice and promoting economic benefits (Liu et al., 2013).

Innovations in tourism that relate to companies and groups of companies

The focus on a company offers alternatives for analyzing the innovative capabilities of firms, including small and medium-sized enterprises, as well as for studying innovative processes in tourism. The key determinants of the innovative capability of a tourism company according to Koziol and Karas (2015) are: (1) competence of employees, (2) modern infrastructure (based on information and communication technologies), (3) workflow and business processes, (4) knowledge protection and (5) external cooperation.

Since tourism is a labor-intensive industry, human capital (a set of knowledge, skills and abilities) owned by employees (managers and workers) plays a key role in innovation and is an indispensable factor for innovation performance in tourism and catering businesses (Griseemann, et al., 2013). Modern infrastructure refers to methods of communication within and outside a company and the level of use of modern infrastructure based on information and communication technologies. According to the literature, information and communication technology stand out as the driving force for innovations in tourism, supporting internal and external coordination and communication, creating significant opportunities for e-business and reengineering operations, challenging the role of intermediaries and shortening the value chain, increasing mobility and accessibility, etc. (Stamboulis & Skyannis, 2003; Lopes et al., 2014). According to Aldebert et al. (2011), there is a growing intensity of innovation under the influence of new applications of information and communication technology in the tourism sector, contributing to efficiency, productivity and improving the competitiveness of a company.

Workflow and business processes are lifelines in any company in a certain industry. According to Pechalner et al. (2009), innovation processes in tourism are, in contrast to some other industries, highly informal, non-standardized through procedures and routines, often consisting of ad hoc individual activities, while certain elements, such as research and development activities are missing. The lack of a comprehensive approach to innovation management causes significant inefficiencies in terms of the absorption of knowledge, accumulation, transfer and integration (Sorensen, 2011). There are numerous constraints that can affect innovation and the implementation of an innovation process within a company, including the lack of financial resources, the lack of formal innovation strategy, organizational rigidity, inadequate rewards and incentives for innovation, unsustainable culture and many others (Zakić et al., 2014).

Tourism companies show a limited interest and engagement in research and development activities, which also applies to services in general. According to Weidenfeld, Williams and Butler (2010), services are less reliant on research and development within a company, and more on purchasing knowledge and innovations from providers. The situation is similar with the protection of intellectual property. Service innovations, in general, despite their economic importance, cannot be effectively

protected by intellectual property rights. According to Blind et al. (2003), the role of the intellectual property protection system has diminished the importance of a set of innovation strategies. In the service sector, in contrast to the manufacturing sector, innovations are often intangible and represent gradual improvements that build on existing knowledge of service products and processes. Although important for the success of a company, such innovations cannot meet the criteria of novelties that are necessary for patent protection, and can be relatively easily copied from the competitors (Paallysaho & Kuusisto, 2008).

External cooperation is crucial for innovation especially in the industry such as tourism. According to Carlsen et al. (2008), innovations rarely appear in isolation, and collaboration or network are essential for the development, implementation, diffusion and continuous success of innovation. Tourism industry consists of activities that are scattered by nature, time, and space that need to be combined and dynamically combined, and bring together actors who are distant in physical, organizational, and cognitive terms (Aldebert et al., 2011). Collaboration adds value to companies through gathering information, building on accumulated knowledge, practice, experience, stakeholders' capabilities, in co-production of integrated tourism services and enhancing the attractiveness of tourist packages (Divisekera & Nguyen, 2018).

Research shows that different types of networks are essential for innovation in companies in tourism since they allow the creation of value-adding relations by accessing external resources and knowledge, extending their offer through new or improved services, reducing costs and meeting the needs of different stakeholders (Novelli et al., 2006; Denicolai et al., 2010). Networks stimulate and improve the transfer of knowledge, identify potential innovations, develop solutions, and lead innovative behavior (Chen & Paulraj, 2004; Hoarau & Kline, 2014). The process of networking small and medium-sized enterprises provides numerous positive effects including new technologies and innovations (Aničić et al., 2016). Due to limited resources, small and medium-sized tourism enterprises can significantly expand innovation opportunities through inclusion in networks and clusters (Tinsley & Linch, 2001; Fuglsang & Eide, 2013).

The literature highlights the many advantages of network membership which lead to the development of ideas and the creation and implementation of innovations (Gomezelj, 2016). However, there is still a

limited number of studies on networks and co-operation in tourism that address key practical innovation challenges. Exploring small tourist organizations, Zach (2016) reports that leadership support for innovation and collaboration is the most important driver for cooperation with partners in the innovation process. In another study, Zach and Hill (2017) found that existing cooperation, knowledge sharing and trust have an impact on innovative behavior among partner firms in tourism. However, when it comes to choosing most prominent innovation partners, the network position becomes dominant. The actors at the center of the network are capable of collecting and integrating ideas and resources and have a rich combination of indirect and direct links (centrality and mediation) which improves the access to new ideas and generate innovations (Paruchuri, 2010). The importance of the network structure suggests that it is good for tourism companies to strive to find innovative partners that provide new information and ideas even if relations prove to be uncomfortable (Zach & Hill, 2017).

Innovations in tourism that relate to customer collaboration

Service innovation researchers emphasize customer co-creation and inclusion in the innovation process as a prominent aspect of collaborative innovation (Hurni & Grosser, 2017). Co-creation appears when a customer and a firm are intimately involved in creating the value that is unique to the customer and sustainable for the company (Prahalad & Ramaswamy, 2004). The literature emphasizes the importance and the need for co-creation in the new services development (NSD), which is made possible by the advancement and use of information and communication technology. The Web 2.0 technology and social media phenomenon have dramatically changed the way travellers find, consume and create travel information, allowing consumers not only to consume information, but also actively collaborate with peers in information production (Yoo & Gretzel, 2010). Web 2.0 and related technologies have opened up numerous opportunities to involve participants at some stage of the NSD process.

Web 2.0 presents advanced internet technology applications that create a space for collaboration, conversation and interaction, the space is highly dynamic, flexible and adaptable (Coombs, 2007; Anderson, 2008). Web 2.0 enables customers to become content co-publishers with little effort (Lindmark, 2009). Social media (Facebook, Pinterest, Twitter, Youtube, TripAdvisor, etc.) are a group of Internet-based applications based on the

ideological and technological foundations of Web 2.0 and enable the creation and exchange of user-generated content (Ballew et al., 2015). Web 2.0 and social media jointly include the sharing of digital content around the world, allowing customers to navigate through the virtual world, unlimited in space and time, as well to affect and co-create instead of being passive participants who only observe and download content.

In order to effectively generate and implement the ideas of new services, the tourism companies develop flexible NSD processes, enabling the integration and collaboration of different participants. Leading online platform customers or online communities are selected to participate in the process of developing ideas, screening and evaluating services. According to Sigala (2012), three key roles that customers can play to develop new tourism services based on Web 2.0 exploitation are: (1) resources to identify and evaluate opportunities and new ideas; (2) co-creators for designing and improving new services, and (3) co-marketers for the adoption and commercialization of new services. To consider this approach, you need to consider: drivers - factors on the side of the company and customers, the degree of customer involvement, customer involvement management including risks and issues to indicate, as well as the benefits of involving customers in the process - benefits for businesses and customers.

Mobile technologies and m-commerce contribute significantly to co-creation. Sarmah et al. (2017), researching co-creation through mobile technologies in the innovation of hotel services, find that guest innovation and the need for interaction with hotel staff significantly influence their innovation, and that innovative guests are more willing to co-create with hotel staff using smart mobile devices. Using smart mobile devices to ease the co-creative innovation of services can be the beginning of personalized interaction, which would lead to the development of new services.

By co-creation, customers can contribute directly to innovating the tourist offer. According to Neuhofer (2016), the key to this process is the adoption of a philosophy that places the customer right in the center. The primacy of co-creation requires that tourism companies identify the goals of customer involvement, identify and develop the original, unique and innovative co-creation processes, and make it easier for customers to have the necessary resources and tools to become a part of the innovation process. A constant assessment and review of existing practices are

needed in order to overcome technological challenges, take advantage of opportunities and facilitate innovations that enable the most effective co-creation with modern customers.

Conclusion

In this paper, the focus is on innovation in tourism at the level of a company or group of companies (networks), as well as innovation in collaboration with customers. The specificity of innovations in tourism in relation to the production sector is less reliance on research development departments and intellectual property protection, while the key competences are related to employee competencies, investment in modern infrastructure, especially information and communication technologies, creation and implementation of superior business processes and external cooperation. Research on tourism innovation highlights collaboration and networks by demonstrating the various benefits associated with collaborative efforts and requiring organizations to incorporate new capabilities within the network to engage in innovative efforts. Particularly important are the innovative efforts in collaboration with customers that can bring many benefits to organizations.

Innovation in tourism offers many opportunities, as well as new challenges that need to be addressed. One of the problems that tourism organizations and related disciplines face is that a more serious study of innovation in tourism has begun in the recent times, and there are neither clear guidelines in literature, nor consulting practice. Although general innovation in the service sector as a research topic significantly lagged in relation to the manufacturing sector, the issue of innovation in tourism has long been neglected as an exploratory topic. Since tourism is today one of the largest industries in the world, and innovation is essential for acquiring and holding competitive advantages, it is expected that the research of innovation in the field of tourism will be significantly more represented in the upcoming period, including the response to many open issues and synthesis of knowledge in this field.

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