Original Scientific Article

A Method for Evaluation of Innovations Introduced in Slovenian Tourism: 2010–2012 Period

Rebeka Tomšič
student, University of Primorska, Faculty of Tourism Studies – Turistica
rebeka.inside@gmail.com

Dejan Križaj
University of Primorska, Faculty of Tourism Studies – Turistica
dejan.krizaj@turistica.si

This paper outlines several innovation concepts as the basis for understanding the contextual and methodological processes involved in the research of innovativeness levels in the tourism industry. It examines the possibilities of analysing and introducing innovations in the tourism industry from a national perspective. The paper analyses existing methods used to analyse the level of innovativeness while searching for the efficient and rapid approach to measure the newness and impact levels of introduced innovations. For this purpose, a straightforward method was developed as an upgrade to the existing thorough research approach. The results were used to analyse Slovene tourism innovation in the 2010–2012 period at the national level and to demonstrate the relevance of the proposed method in estimated the innovativeness levels of the introduced innovations.

Keywords: innovativeness; level; measuring; researches; methodology

Introduction

Innovation in tourism is multifaceted, as is tourism itself. When speaking of the importance of innovation in tourism, we are primarily discussing the increase of added value (for the inventor, adopter and/or environment). With higher levels of innovation, small businesses can compete with larger and established players in the market while simultaneously creating a strong corporate identity (Hribar, 2013). Innovation is not solely the product of an outsider amateur, but rather is an area that requires cooperation between various fields and experts, united in the holistic approach in which no link in the innovation and invention chain is left to chance (Likar, Križaj, & Fatur, 2006). The evolution of the innovation chain starts with the birth of an invention or an idea with the raw potential of becoming an innovation; only when the innovation becomes profitable is the innovation chain complete (Likar, 2006). The purpose of the innovation chain is developing innovations out of potentially profitable inventions (Likar et al., 2006).

Categorizations of innovations exists, but primarily for analytical purposes. Studies of Hall, Hjalager and Weiermair (as cited in Hjalager, 2010) that comply with the OECD's categorization of innovations, have named four main categories of innovation: product innovation, process innovation, organizational innovation, and marketing innovation. It should be noted that the OECD and Eurostat emphasize that classifying innovation into these four categories is not always adequate, and that area-specific innovations often lead to adding new categories (Hjalager, 2010).

Doris Gomezelj Omerzel (2006) points out that viewing Slovenia, our research field, as a country with competitive advantages in many areas of tourism is far too optimistic. A survey of 1998, conducted

by Sirše and Mihalič (in Gomezelj Omerzel, 2006), shows that Slovenian tourism managers all share a common stance that Slovenian tourism is stronger in its natural, social and cultural attractions than it is in creating added value. The results of empirical ree search that identifies the strengths and weaknesses of the current Development Plans and Policies of Slovenian Tourism (SiPlan) indicate that it represents a valuable, but not optimal development model of Slovene tourism development (Ropret, Jere Jaklin, & Likar, 2014). The authors of the research point out that while certain national policy support may be needed in at first, tourism companies should follow quickly with their own ambitious innovation strategies, enabling them to best adapt to challenging global market forces.

In his contribution to innovation in Slovenian tourism, Hribar (2013) emphasizes that, in order to maintain a competitive edge, innovation is crucial and that companies that do not work on introducing innovation into their business eventually stagnate. The market calls for providing experiences that are fresh and new to potential customers, something that would clearly distinguish Slovenian (or any other) tourism from the competition. Mekinc and Cvikl (2014) emphasized that tourist destinations offer their services in different packages (natural values, cultural heritage, art, relaxation, sport, fun, etc.) with which they increase their competitive advantage, together with safety and comfort perception. Pure competition is not the only way to achieve a sustainable competitive advantage and, as pointed out by Fyall, Garrod and Wang, 2012 (cited in Mariani, Buhalis, Longhi, & Vitouladiti, 2014), a relevant strategy for a destination to achieve a competitive advantage in the longer run is to collaborate and cooperate within a tourism destination and among destinations.

However, the importance of innovation in Slovenian tourism lies not only in its role of ensuring much needed competitiveness and comfortable stays for tourists. As stated in the Tourism and Internationalisation Directorate (Ministry of Economic Development and Technology, 2013) brochure, tourism contributes significantly to other development goals, such as GDP growth, job creation, sustainable development, better quality of life for the community, safety and well-being of the population, strengthening cultural identity and increasing the recognition of Slovenia in the world. To achieve this last goal, it is important for Slovenia to enter foreign markets more intensively in order to start the process of internationalization (Makovec Brenčič, Rašković, & Pfajfar, 2013), which is in line with the claim of Williams in Shaw (2010) that internationalization is the essential dimension of tourism innovation, which is reflected in market conditions, knowledge transfer and business conditions.

As noted by Hall and Williams (2008), literature that focuses on the tourism industry regularly mentions the growing number of tourists, the positive effects on profitability and the fact that tourism is one of the world's fastest growing industries. However, most authors do not specifically identify innovation as the factor with the most positive effects on tourism. The global tourism innovation process needs more attention; it consists of a remarkable series of small, gradual changes and a handful of revolutionary leaps, which have repeatedly re-defined tourism and broadened its reach (ibid.). Figure 1 shows a company in stage p_0, which is the company's state before adopting innovation. After the company implements its own or adopted innovation, it can progress in three crucial directions, represented by the X (product), Y (process), and Z (market) axes in the coordinate system. With this demonstration, we understand that the company that introduced innovation at any stage will progress in at least one of the three directions while simultaneously moving from stage p_0 to p_1, a more developed stage. If the company moves in all three directions at the same time, it is innovating its entire business model, according to several authors (Križaj et al., 2012).

During the transition from p_0 to p_1, companies can be almost passive or heavily active, but in all cases they are moving in one or more directions, as shown in Figure 1. For our pilot study, we have concentrated on Slovenian tourism companies that were identified as undergoing part of the described three-dimensional process during the period between 1 January 2010 and 31 December 2012. Following any of their XYZ motions, the paper focuses on the characteristics of realized innovations and their introduction in tourism enterprises and identifies the following research issues:

- What types of innovations are occurring in Slovenian tourism?
- What is the degree of innovation in various types of businesses or organizations?
- What is the degree of innovation in statistical regions in Slovenia?
- What is the degree of innovation of individual innovations introduced?
- What are the characteristics of innovations introduced?
- How is the effectiveness of the method for measuring the level of innovation tested?
- What is the comparability of results with other studies?

For this purpose, a straightforward method was developed as an upgrade to the existing thorough research approach to show the results and findings for the above-defined primary issues. The aim of this article is to analyse innovation in Slovenian tourism with the proposed upgraded methodology and to demonstrate the applicability of the method to measure the level of innovation. The final part of the article presents the findings and suggestions for improving the developed method.

Tourism Innovation Research

Innovation is a complex phenomenon and, as such, is described in many theories, e.g. Schumpeter, 1961; Drucker, 1985; Sundbo, 1995; Rogers, 2003; Fagerberg et al., 2006 (as cited in Krizaj et al., 2012). The main issues among researchers are differences in the measurement of innovation between general innovation and innovation in service industries, such as tourism (ibid.). Recent reviews, made by Hall & Williams, 2008; Tejada & Moreno, 2013; Williams & Shaw, 2011 (as cited in Thomas & Wood, 2014) of the literature on innovation in tourism have all highlighted the need for more theorising and empirical research on almost all aspects of the phenomenon. We have reviewed several research studies in the field of innovation, which could reveal the specifics and even hidden unique characteristics of innovation in tourism. Empirical studies have mostly focused on the specific types of hotels (alpine, sun and sea hotels, hotels in ski resorts), ranging from 20 to 392 research units from Spain, Italy, Austria and North America. Most studies focused on the manager's perspective on their company's innovations and related activities. One study, *A Consumer-Based Measurement of Tourism Innovation* (Volo, 2005), included the tourist's perspective, again as interpreted by managers. In all cases, company managers were addressed through personal open-structured interviews or questionnaires. One study (Smerecnik & Andersen, 2010) additionally involved the researcher's assessment of innovations impacts and extents.

Basic research approaches mostly consisted of a gathered record of adopted innovations together with descriptions of the innovations and related innovation activities. Additionally, some focused on the effects, objectives, sources, obstacles and technological bases of innovations or their diffusion characteristics: relative advantage, compatibility, simplicity. Most frequently, product, process, delivery, organization and market innovation types were applied. The findings of the studies are (similar to the diverse sets of characteristics) quite diverse. One common conclusion is that tourism is, in general, not very innovative. In the Balearic Islands (Spain), Martinez-Ros and Orfila-Sintez (2009) confirm that more hotels carry out incremental innovations and that fewer implement radical innovation; the authors add that hotels under managerial contract, those owned by a hotel chain, and larger hotels tend to be more innovative.

Results from another study from Balearic Islands indicate that almost half of innovative companies adjust their human capital skills and abilities to new conditions; those belonging to larger chains are much more inclined to introduce adjustments. Moreover, the hotel industry innovates by introducing already developed technology rather than undertaking internal R&D activities (Orfila-Sintes, Crespí-Cladera, & Martínez-Ros, 2005). In all Spanish regions as well as in different hotel categories, Sancho Pérez, Borrá and Belda (2005) highlight the fact that the size of the hotel, measured by the number of guests rooms, has a positive influence on innovation: the larger the hotel, the greater the number of innovations. The same holds true for the level of a hotel's industry specialization: the more specialized it is, the greater the degree of innovation adopted.

In hotels from Austrian alpine tourist destinations, studies revealed that the nature of innovation activities is only one of minor cosmetic changes, which do not count even as incremental innovations. A positive significant relationship exists between the target segment and the degree of innovation. There are more process innovations, while product innovations can hardly be found (Pikkemaat & Peters, 2005). The perceived simplicity of environmental sustainability innovations is positively correlated with the adoption of environmental sustainability innovations in North American hotels and ski resorts. There is also a correlation between environmental opinion leadership and the adoption of environmental sustainability innovations. Sustainability in the resort industry is complicated, because guests in the USA are not willing to pay more for green policies (Smerecnik & Andersen, 2010). The results of the study *A Consumer-Based Measurement of Tourism Innovation* lead to the conclusions that the precise nature of the tourism segment creates the need for specific ways of defining and measuring innovation and that it is essential that the measurement of innovation somehow capture the degree that influence innovation has on the overall tourist experience (Volo, 2005). Thomas and Wood (2014) examined another important dimension of innovation within commercial tourism organizations, i.e. their ability to acquire, assimilate and utilize external knowledge (absorptive capacity) for competitive advantage. The results of their study confirm the importance of business relationships for knowledge acquisition; they also show that merely developing and promoting business networks within destinations will not necessarily lead to innovation.

Definitions that describe innovation may appear theoretically clear and simple. However, clarifying its practical dimensions and making the meaning of innovation operational for scientific investigation has been very challenging, as has the issue, often faced by researchers, of how to evaluate and deal with the comparability of innovation statistics among different data sources (Volo, 2005). The research limitations and future implications also include the low rates of general and specific question response, the over-reliance on manager's perceptions and the need for the perspective of innovation considered by the firm and the sector in which it operates (Križaj et al., 2012). Similar diverse conclusions and limitations have already been noted in Hjalager's tourism innovation literature review. Hjalager (2010) and Liburd (2012) (as cited in Križaj et al., 2012) outline that the fundamental reason might be found in the lack of common tourism innovation research guidelines. An important step toward creating such guidelines has been recently taken by Camisón and Monfort-Mir (2012) (ibid.) with their discussion of what information could be collected. According to their guidelines, a complete synthesis innovation measurement approach would also include indicators of hidden dimensions and indicators of innovative performance and capabilities.

The search for predicted hidden innovations, the synthesis approach, and additional innovation focuses might begin with investigating the fundamental innovation categorization (Križaj et al., 2012). Hjalager (2010) summarizes five tourism categories: product and service, process, managerial, marketing and institutional. Bieger and Wienert, 2006 (as cited in Križaj et al., 2012) use the innovation three-axis co-ordination system of only product, process, and market innovations; as shown in Figure 1.

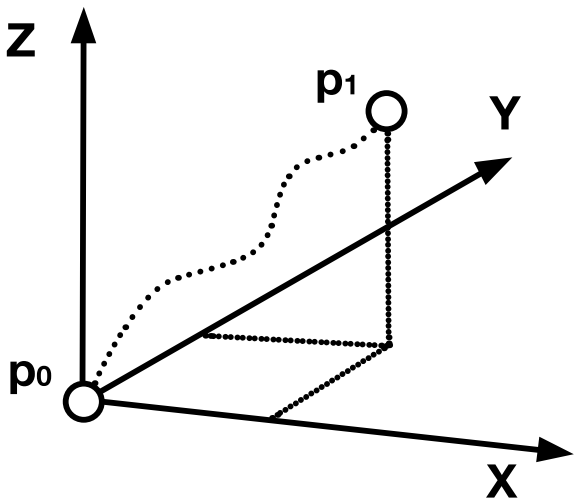

Figure 1 Innovation Coordination System: Križaj et al., 2012

In order to test the comparability of the results of our study, we have examined a related study, analysed in detail in the article *A Tool for Measurement of Innovation – Newness and Adoption in Tourism Firms*, which included 351 tourism-related com-

panies that introduced innovation during the period between 1 January 2007 and 1 June 2010. The method of acquiring the results was presented in three steps. The first was to enter a proper description with a set of attributes of tourism companies into a specially developed database and research tool. In the next step, the difference between pairs of companies was defined. The third step was finding the proper approach to calculate and showing the differences between companies. Data were gathered into a dendrogram structure, in which clusters of individual companies that stand out as highly innovative with uncommon characteristics were clearly determined.

Statistical data provided by the pilot database shows that the Osrednjeslovenska region is the Slovenian region with the highest registered number of innovations, while the most active regions with the most rapid development were Pomurska (1.66 innovations per year) and Obalnokraška (1.17 innovations per year). The most active segments were accommodation, tourist agencies and spas; the most common innovations were new facilities or their renovation, promotional literature, hiking tours and events, and culinary festivals. The number of innovations per organization per year was 1.08, and the ratio between categories of product, process and market innovation was roughly 4:2:1, whereas institutional innovations were hardly present (Križaj et al., 2012). Our aim was to analyse the data for more recent period with simplified and updated research approach.

Methodology

The primary aim of the study was to develop and validate an upgraded and simplified approach used for measurement of the newness level and the adoption of tourism innovations. The suggested approach is to input data about diverse tourism firms and their adopted innovations, which are new at different levels and segments, into a common database structure. With the appropriate approach, the newness level and characteristics can be identified for each firm's innovation.

Based on the literature review and previous research conducted in the field of innovation in tourism, a research plan has been prepared. The main research objectives were:

- Define an accurate approach for the measurement of the newness level, which would also be comparable between different segments and countries.
- Demonstrate the characteristics of the introduced innovations.
- Introduce a picture of the tourism innovation situation as covered in the national media.

To achieve them, three steps were introduced:

- Identifying and selecting the primary units of research,
- Determining the criteria for assessing the degree of innovation,
- Preparing the sampling form.

For the pilot study, we have concentrated on Slovenia, with approximately 7,000 registered tourism-related companies. As an information resource, we have chosen the main national press and Internet media covering news about Slovenian tourism: two web portals, one managed by the national TV operator (www.rtvslo.si) and one by the national tourism board (www.btps.si), a tourism journal published by the tourist association, and the biggest daily business newspaper. Media information was gathered for the period between 1 January 2010, and 31 December 2012. The selection of news was limited to the innovations introduced in Slovenian tourism, and belongs to one of the types of innovation as shown in Figure 1: (X) product, (Y) process and (Z) market innovation. In addition to these conditions, the collection of news for the study followed the minimum requirements of the Oslo Manual (OECD, 2005), which defines innovation as a novelty or a significant improvement that can be adopted.

Prior to the collection of news from the media, a database structure for data analysis and results collection was prepared. The database table, as shown in Figure 2, was divided into three sections. The first section covers basic information on the news: an identification code for every news article, source, the name of innovation, a brief description of the innovation, and the type of innovation. The second section covers all data on the organizations that introduced the innovation: full name of the organization, the type of organization and the statistical region

from which the organization originates. The third section of the table covers the innovation levels.

Throughout the history of innovation research, novelty and newness have been in the focus of innovation definitions (Hjalager, 2010). When theorizing about innovation's newness characteristics Johannessen et al. 2001 (as cited in Križaj et al., 2012) introduced three important questions: 1) What is new? 2) How new is it? 3) To whom is it new? They claim that only after these questions have been thoroughly answered, and when these answers declared at the beginning of studies, can one compare different results. The goal of assigning a numerical value to a criterion in our study was to rank novelties and define their individual innovation levels. This approach enables us to determine which novelties stand out the most while simultaneously showing their particular characteristics. For that purpose, we determined 11 criteria for assessing the degree of innovation.

Each invention begins with its first appearance somewhere in the world. After that, it is gradually diffused through different social systems at different rates and adapted to local needs and environments in different ways (Smerecnik & Andresen, 2010). Although such diffused tourism adoptions are generally no longer perceived as innovations, they can play a substantial role in the further development of destinations. As stated by Keller, 2006 (in Križaj et al., 2012) "already known to the world" innovations can still help to differentiate between otherwise similar tourism destinations. On that basis and in order to obtain the information about whether the innovation is new "first in the world" or adopted, on national and/or regional levels, the first three criteria were introduced (N-SVET, N-SLO and N-REG):

- New to the world (N-SVET): this criterion is met when an innovation is introduced to the world for the first time, for instance the low-cost carrier Ryanair, or is the only one in the world and cannot be experienced elsewhere.
- New in Slovenia (N-SLO): this criterion is met when an innovation is the only one in Slovenian tourism; it can also be adopted from abroad. If the innovation was introduced by other providers in Slovenia within the observation period, the criterion is not met. If an (N-SVET) criterion is met, an (N-SLO) criterion is also met.
- New in region (N-REG): thus criterion is met when the innovation is the only one in one of the Slovenian statistical regions. If an (N-SLO) criterion is met, an (N-REG) criterion is also met.
- Acquired EU funds (EUS): this criterion is met when the news indicates that EU funds were acquired for the realization of the innovation. EU funds are intended for activities that promote socio-economic development and contribute to reducing regional disparities, which encourage in particular the development of less-developed regions of Europe, sustainable development, and a higher level of employment (Republic of Slovenia Government Office for Development and European Cohesion Policy, 2013). This can be an important additional piece of data, because it shows that the introduced innovations are in accordance with European standards for the granting of subsidies and contribute to the well-being of the environment and people.
- Awarded innovation (NAG): this criterion is met when the news indicates the innovation was granted an award. Award-winning innovations usually meet very demanding criteria and are evaluated by a jury of experts. For example, the UNWTO (2014) Ulysses Awards for Innovation merit distinction for the significant contribution of innovative tourism initiatives that are both competitive and sustainable in their character.
- Impact on the recognition of Slovenia (PREP): this criterion is met when an innovation affects and improves an offer the tourist can directly benefit from, or allows him easier access to beneficial offers. Regarding an innovation that has been introduced in order to improve operations within a company or institution and that was not directly accessible by tourists, the criteria are not met.
- Was presented at the tourism trade show (TURB): this criterion is met when the news stated that the innovation was presented on any travel & tourism trade show. Advertising campaigns, business exhibitions, and specialized tourism fairs are the most useful marketing tools, aimed at establishing ties between the range of Slovenian tourist fa-

cilities and services and interested parties from abroad (SPIRIT, 2014).

– Brings benefits to other businesses (DRUG): this criterion is met when the innovation introduced by one firm contributes to the integration of other providers of services or products. A good example is a New Year's Fair, where they can present multiple providers at the same time.
– The ecological impact (EKO): this criterion is met when the news indicates the innovation is ecologically oriented, meaning natural and organic sources are used, the innovation has minimal impact on the environment and uses new technologies from the field of energy production and consumption.
– Sustainable perspective (TRAJ): this criterion is met when the news indicates the innovation meets the sustainable development criteria. In addition to reducing the negative impacts on the environment (EKO), economic, social and cultural needs also must be met.
– News announcement (OBJ): this criterion is met by default, because all the innovation or novelty announcements were found in the news. By meeting this criterion automatically, the minimum requirement of Oslo Manual (OECD, 2005), which states that every company that has implemented a novelty within the observation period is considered to be innovative, is fulfilled.

Based on the information gathered from the corresponding news articles, each innovation was evaluated on eleven different criteria. If the information about a particular criterion was not included in the article, the criterion in question received no point, while those that could be identified received one point. At the end of this analysis, each innovation received a total score, which was used for final rankings. Figure 2 shows an example of news input called *Glamourous Camping Slovene Style: in the Embrace of the Bled Wooden Villas* was published in the online portal of the national public broadcaster on September 18, 2012. This news item was the ninth entry, so it received a label with the initials of the media and the serial number TA009. The next column provides links to the news, followed by a short name and a summary of the news. Glamping (glamourous camping) in Bled is a new service on the market, available to guests from 2011 onward and is thus a type of product innovation. Sava Tourism is the organization that introduced the innovation; the organization is a public limited company (AJPES, 2013). The type of organization is accommodation, which was determined by reference to the principal activity of the company. The region of the headquarters, in this case, the Sava Turizem, d.d., is Osrednjeslovenska region.

ID	Source	Inovation name	Innovation description
TA009	(»rtvslo.si/tureavanture/«, 2013)	Eco village Camping Bled	Camping Bled in Velika Zaka built an ecological village (series of wooden cottages

Innovation type	Organization name	Organizational form	Organization type	Region
Product	Sava Turizem	d.d.	Accommodation	Osrednjeslovenska

N-SVET	N-SLO	N-REG	EUS	NAG	PREP	TURB	DRUG	EKO	TRAJ	OBJ	SUM
0	1	1	0	1	1	1	0	1	1	1	8

Figure 2 Example of News Input for Eco Village Camping Bled
Authors, 2014

The final section points are awarded to predetermined criteria, to which innovation corresponds. The product, i.e. glamping, has been introduced elsewhere in the world. Therefore, the criterion for N-SVET (new to the world) was not met. The product was new to the Slovenian market, so both the N-SLO (New to Slovenia) and N-REG (New in region) criteria were met. The information about EU funds being acquired was not available, so the criterion (EUS) was not met. The three following criteria were met: innovation was awarded (NAG); its uniqueness contributes to the recognisability of Slovenia (PREP), and was presented at the tourism trade show (TURB). The new service, camping in the forest villas, does not bring substantial benefits to other organizations, so the (DRUG) criterion was not met. It is ecologically oriented with materials and energy consumption (EKO). The ecological approach and minimal impact on the environment meet the criterion of sustainability (TRAJ). News of the innovations has been found in the online medium, thus meeting the requirements of its publication in the media (OBJ). This innovation met eight criteria out of 11 and climbed to the top scoring scale.

After the evaluation of the different criteria, all innovations were ranked according to points accumulated, revealing the innovations and companies with highest ranking. The analysis continued by sorting the companies according to different company types, organizational forms and regions, which was presented in graphic form. Most importantly, this showed how many innovation activities there are within a particular region, further specified according to company type and organizational form. A further division was also made according to the type of innovation and the occurrence of a certain criterion. This allowed us to identify the types of innovation predominant in Slovenian tourism and the frequency of their characteristics as defined by our criteria.

Results and Discussion

This study covers a sample of 113 collected news articles covering innovations introduced in Slovenian tourism. These articles were gathered from four different state media, using pre-defined criteria. All news was entered in the table, as shown in Figure 2. The study focused on the number of occurrences of types of innovation, degree of innovation within the organizational forms and types of organizations and the degree of innovation by statistical region. In general, the results show that product innovations are predominant, process innovations are rare, while the market innovations are barely detectable.

It was found that in the years 2010–2012 most innovations were introduced in the Osrednjeslovenska region, i.e. 32 (28.32%). Assessing the degree of innovation with the criteria has returned the results shown in Table 1. From a total of 113 innovations, one was new to the world, which represents 0.88% of the total sample. The next 50 (44.25 %) innovations were new to Slovenia, and 76 (67.26 %) were new on the regional level. Sixteen articles (14.16%) reported on introduced innovations that had acquired EU funds, with nine (7.96%) innovations receiving awards. Nearly 93% of all the innovations included in the study were those that, in our opinion, have an impact on the criterion of recognition of Slovenia (previously defined in the Methodology section). Two (1.77%) out of 113 innovations were presented at a tourism trade show, and 53 (46.90%) innovations brought benefits to other organizations. There have been 11 (9.73%) eco-oriented innovations and 27 (23.98%) of those have had sustainable nature. All innovations that were included in the study were published in the media.

Table 1 Number of Innovations per Organization per Region

Region	No. of introduced innovations	No. of different organizations	No. of adopted innovations per organization
Gorenjska	18	16	1.13
Goriška	5	4	1.25
Jugovzhodna Slovenija	8	8	1
Koroška	3	3	1
Notranjsko-kraška	2	2	1
Obalno-kraška	9	6	1
Osrednjeslovenska	32	29	1.5
Podravska	5	5	1.1
Pomurska	8	7	1
Savinjska	20	17	1.14
Spodnjeposavska	2	2	1.18
Zasavska	1	1	1
Total	113	100	1.13

Authors, 2014

During the two-year observation period, organizations introduced an average of 1.13 innovations each, meaning 0.65 innovations per organization per year. The results regarding the number of innovations introduced in individual regions in Slovenia are shown in Table 1. During the research, we identified trends that suggest that larger organizations introduce more innovations, while among the smallest organizations, tourism and other similar associations are the most active. A large number of innovations introduced were financed by state organizations, while there were only a few that were supported by European Union funds. Organizations did not innovate on a global scale; in most cases, innovations

were adopted or an upgrade to the existing product or service was introduced.

The primary source for the starting point in the preparation of our research methodology was a related study (Križaj et al., 2012), the primary aim of which was to develop a tool for measuring the innovation newness level, using the Jaccard distance calculation of the created database records, and organizing data about diverse tourism companies into a dendrogram and filtering out individual companies with uncommon characteristics and achieving high levels of innovation. In our research, we also wanted to identify the highest graded companies under predetermined scoring criteria. Scoring criteria has shown the results of the new features introduced with the highest level of innovation while each conferred point shows the specifics of introduced innovations, as shown in Table 1. For each of the introduced innovations we can, with scoring criteria, collect data regarding whether an innovation brings benefit to other companies, has an ecological impact, was supported with EU funds, etc.

In the study and preparation of the sample, we considered the assumption that the definition of innovation and what can be considered as innovation is derived from the minimum requirements of the Oslo Manual (OECD, 2005). As shown in Figure 1, if a company realizes some innovation steps in terms of creating or adopting innovations, it moves in the proposed direction X (product), Y (process), Z (market) and in this manner the company is progressing from a less to a more developed phase. When preparing a research sample for the pilot study, we have determined that research in this area is difficult because there are no information sources from which we would be able extract the data about adopted innovations in Slovenian tourism firms. As an information resource, we have chosen the national Internet media and discovered that there is plenty of easily accessible information. Thus, we find that the approach used to gather information and prepare an appropriate sample is suitable, but we emphasize that a nationally organized gathering information system is necessary for the precise statistical and comparative data.

Until such a system exists, the approach with scoring criteria for each innovation is estimated to be effective, as the results showed the most notable and exciting news reached the maximum number of points, as shown in Figure 2. Eco village Camping Bled, which, according to the scoring criteria, reached the highest number of points among 113 innovations that we have captured in the study, i.e. eight out of 11 points, was repeatedly published in the media as an example of good practice and as a recipient of awards in the categories of innovative achievements. However, at the same time, we find that it would be necessary to further define the criteria for product and market innovation, because they have a different character than that of the product type of innovations and cannot be assessed in the same way.

The results of the research (Križaj et al., 2012) with the model of Slovenian companies, which was conducted for the 2007–2010 period, can be compared with our study. The findings suggest that the situation in Slovenian tourism has not changed significantly, as the Osrednjeslovenska region still dominates with a maximum of introduced innovations. In a study in the years 2007–2010, it was identified that each organization annually introduced 1.08 innovations, but only 0.65 did so in our study. In the 2007–2010 study, it was identified that the most active regions are Pomurska region and Obalno-Kraška regions; in our study, the results show that most active are Goriška region and Obalno-Kraška regions.

Results available through the study for the 2007–2010 period include the distribution of innovations between organizations with the most active segments: accommodation, tourist agencies, and spas. In our study, the most active per type of organization were the segments of community or individuals in collaboration with the municipality, tourism associations, and the accommodation sector. From the data gathered in our study, it was possible to determine that tourism companies introduce mainly product innovations, followed by process innovations, and, finally, barely detectable market innovations; the same results were seen in the study in 2007–2010 period. The identification and classification of innovation subcategories in the pilot set from 2007–2010 demonstrated that the most common innovations were new facilities and their renovation, promotional literature, hiking tours and events, culinary festivals and entrance into the young families market segment. Our findings show most innova-

tions are new facilities and their renovation, followed by hiking tours and events, and tourist information points and information boards.

Based on the gathered data, we have derived the following proposals for tourism organizations:

- The degree of novelty introduced by type of innovation is low in process and market innovations. Slovenian organizations could introduce more innovations in the field of new processes and market approaches, as doing so could support businesses and facilitate innovative ways to market their services.
- When implementing innovations, organizations should focus their activities on their ecological and sustainable character. The biggest challenge for tourism is to remain competitive while simultaneously promoting sustainability, which is of vital importance in ensuring a strong organizational brand and a competitive advantage.
- By introducing innovations, organizations should focus on the well-being of the social environment in which they operate, in terms of increasing employment and cooperation with other organizations. Destinations where tourism providers collaborate have a greater advantage, since they can offer more diverse experiences and thus retain guests over longer periods of time. In this manner, companies do not compete directly with each other but against competing destinations, which brings the benefits of each provider within the destination (Koren & Kovačič, 2011).
- Organizations should plan to introduce innovations drawn up in accordance with European standards, which have organic, development and social characters, and in this way are eligible to obtain funds from the European funds.

The research findings also offer the following methodological suggestions and conclusions:

- Researchers should focus on studies that would be comparable between countries, as this would enable the demonstration of the level of innovation in each country observed.
- Measurements with pre-defined criteria can be an effective method for quickly measuring the level and the content of tourism innovation.
- The generation of a national tourism innovation database should be introduced, including reliable information about new features introduced for the purpose of future thorough research and distinctive country promotion.

References

Agency of the Republic of Slovenia for Public Legal Records and Related Services. (2013). Retrieved from http://www.ajpes.si/

Agenda for a sustainable and competitive European tourism. (2014). Retrieved form http://www.mgrt.gov.si/fileadmin/mgrt.gov.si/pageuploads/razpisi/JN/DT/Agenda_21.pdf

Bicikelj city bike. (2013). Retrieved from http://www.bicikelj.si/

European commission – press release. (2014). Retrieved from http://goo.gl/cgDIUm

Gomezelj Omerzel, D. (2006). *Konkurenčnost turističnih destinacij: Analiza konkurenčnosti Slovenije z integriranim modelom.* [*"Competitiveness of tourist destinations: Analysis of Slovenian competitiveness with integrated model."* In Slovene]. Koper, Slovenia: University of Primorska, Faculty of Management

Hall, C. M., & Williams A. (2008). *Tourism and innovation.* New York, NY: Routledge.

Hjalager, A. M. (2010). A review of innovation research in tourism. *Tourism Management, 31*(1), 1–12.

Hribar, M. (2013). Inovacije – ključni dejavnik turističnega razvoja. ["Innovations – key factor of tourism development." In Slovene]. Retrieved from http://videolectures.net/mpp06_hribar_ikrdtr/

Koren, M., & Kovačič, S. (2011). Modeli povezovanja v turizmu. ["Models of integration in tourism." In Slovene]. Retrieved from https://sites.google.com/site/projektbm/proekti/modeli

Križaj, D., Brodnik, A., & Bukovec, B. (2012). A tool for measurement of innovation newness and adoption in tourism firms. *International Journal Of Tourism Research, 16*(2), 113–125.

Likar, B. (2006). *Management inovacijskih in RR procesov v EU. ["Management of innovation and RR processes in EU."* In Slovene]. Ljubljana, Slovenia: Institute for innovativeness and technology – Korona plus.

Likar, B., Križaj, D., & Fatur, B. (2006). *Management inoviranja*. ["*Management of innovation*". In Slovene]. Koper: University of Primorska, Faculty of Management

Makovec Brenčič, M., Raškovič, M., & Pfajfar, G. (2013). *Internacionalizacija in vstopne oblike na tuje trge*. ["*Internationalization and entry into foreign markets.*" In Slovene]. Retrieved form http://www.gzs.si/datoteke/gb/gi/2-slike/Internacionalizacija.pdf

Mariani, M. M., Buhalis D., Longhi, C., & Vitouladiti O. (2014). Managing change in tourism destinations: Key issues and current trends. *Journal of Destination Marketing & Management, 2*(4), 269-272

Martínez-Ros, E., & Orfila-Sintes, F. (2009). Innovation activity in the hotel industry. *Technovation, 29*(9), 623–641.

Mekinc, J., & Cvikl, H. (2014). Systematic approach to analysing the crisis in tourism. In D. Čaleta, M. Vršec, & B. Ivanc (Eds.), *Corporate security: Open dilemmas in the modern information society* (pp. 89-101). Ljubljana, Slovenia: Institute for Corporative Security Studies.

Ministry of Economic Development and Technology. (2013). *Brochure of Areas of Directorate of tourism and internationalization.* Retrieved form http://www.mgrt.gov.si/fileadmin/mgrt.gov.si/pageuploads/DEOT/brosura_dti_2.pdf

OECD. (2005). The measurement of scientific and technological activities. In *Proposed guidelines for collecting and interpreting technological innovation data. Oslo manual.* 2nd edn. Paris, France: OECD / European Commission EUROSTAT

Orfila-Sintes, F., Crespí-Cladera, R., & Martínez-Ros, E. (2005). Innovation activity in the hotel industry: Evidence from Balearic Islands. *Tourism Management, 26*(6), 851–865.

Pikkemaat, B., & Peters, M. (2005). Towards the measurement of innovation – A pilot study in the small and medium sized hotel industry. *The Haworth Hospitality Press, 6*(3–4), 89–112.

Sancho Peréz, A., Borrás, B. C., & Belda, P. R. (2005). Creating sustainable competitive advantage. In B. Walder, K. Weiermair, & A. Sancho Peréz (Eds.). *Innovation and product development in tourism* (p. 39). Berlin, Germany: Erich Schmidt Verlag GmbH & Co.

SPIRIT Slovenija. (2014). Public Agency of the Republic of Slovenia for the Promotion of Entrepreneurship, Innovation, Development, Investment and Tourism. Retrieved from http://www.spirit-slovenia.si/en/spirit-slovenia

Republic of Slovenia Government office for development and European cohesion policy. (2013). Retrieved from http://www.eu-skladi.si/

Ropret, M., Jere Jaklin, T., & Likar, B. (2014). The systems approach to the improvement of innovation in Slovenian tourism. *Kybernetes, 43*(3/4), 427–444.

Smerecnik, K. R., & Andersen, P. A. (2010). The diffusion of environmental sustainability innovations in North American hotels and ski resorts. *Journal of Sustainable Tourism, 19*(2), 171–196.

Thomas, R., & Wood, E. (2014). Inovation in tourism: Re-conceptualising and measuring the absorptive capacity of the hotel sector. *Tourism management, 45*, 39-48

UNWTO. (2014). World Tourism Organization. Retrieved from http://know.unwto.org/

Volo, S. (2005). A consumer – Based measurement of tourism innovation. *The Haworth Hospitality Press, 6*(3–4), 73–87.

Williams, A. M., & Shaw, G. (2011): Internationalization and innovation in tourism. *Annals of Tourism Research, 38*(1), 27–51.