



# МЕНАЏМЕНТ У ХОТЕЛИЈЕРСТВУ И ТУРИЗМУ

## HOTEL AND TOURISM MANAGEMENT



УНИВЕРЗИТЕТ У КРАГУЈЕВЦУ

UNIVERSITY OF KRAGUJEVAC

ФАКУЛТЕТ ЗА ХОТЕЛИЈЕРСТВО И ТУРИЗАМ У ВРЊАЧКОЈ БАЊИ

FACULTY OF HOTEL MANAGEMENT AND TOURISM IN VRNJAČKA BANJA



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# Менаџмент у хотелијерству и туризму

## Hotel and Tourism Management

No. 1/2021

**Publisher:**

Faculty of Hotel Management and Tourism  
in Vrnjačka Banja

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ISSN 2620-0279 (Printed)

ISSN 2620-0481 (Online)

UDC 005:338.48

The journal is published semiannually

Circulation: 100 copies

Printed by:

SaTCIP d.o.o. Vrnjačka Banja

**Editorial office:**

Менаџмент у хотелијерству и туризму – Hotel and Tourism Management

Faculty of Hotel Management and Tourism in Vrnjačka Banja, Vojvodanska 5a, 36210 Vrnjačka Banja, Serbia

Tel./Fax No: 036 515 00 25

E-mail: m.lekovic@kg.ac.rs

**The journal is indexed in scientific databases:**

ERIHPLUS    CABELLS    Ulrich's Web    CNKI

CEEOL    EBSCO    CyberLeninka    Mendeley

DOAJ    SCIndeks    Google Scholar    WorldCat

CIP - Каталогизација у публикацији  
Народна библиотека Србије, Београд

005:338.48

**МЕНАЏМЕНТ у хотелијерству и туризму** = Hotel and Tourism Management / Editor in Chief Drago Cvijanović. - Vol. 6, no. 1 (2018)- . - Vrnjačka Banja : Faculty of Hotel Management and Tourism in Vrnjačka Banja, 2018 - (Vrnjačka Banja : SaTCIP). - 25 cm

Polugodišnje. - Je nastavak: ХиТ менаџмент = ISSN 2334-8267. - Drugo izdanje na drugom medijumu: Менаџмент у хотелијерству и туризму (Online) = ISSN 2620-0481

ISSN 2620-0279 = Менаџмент у хотелијерству и туризму

COBISS.SR-ID 264085772

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*Менаџменту хотелијерству и туризму – Hotel and Tourism Management* is an open access peer-reviewed journal which discusses major trends and developments in a variety of topics related to the hospitality and tourism industry. The Journal publishes both theoretical and applied research papers, giving full support to collaborative research efforts taken jointly by academia and industry. According to its editorial policy goal, *Менаџменту хотелијерству и туризму – Hotel and Tourism Management* has constantly been striving to increase its quality by promoting the popularisation of science and providing significant scientific and professional contribution to the development of hospitality and tourism industry, both in Serbia and on the global scale. The Journal is published by the Faculty of Hotel Management and Tourism in Vrnjačka Banja, University of Kragujevac. Since launching the Journal in 2013, sixteen issues have been published so far.

*Менаџменту хотелијерству и туризму – Hotel and Tourism Management* includes the following sections: Original Scientific Paper, Review Article, Short or Preliminary Announcement and Scientific Critique. It is published semiannually. The Journal offers an open access of its contents, which makes research results more visible to a wider international academic community. All articles are published in English and undergo a double-blind peer-review process.

The main aspects taken into consideration in paper evaluation are the originality of the study, contribution to the theory and practice and the use of grammar and style (either American or British English are accepted). The expected turn-around period is one to two months following the date of receipt. The crucial requirements for the submission of a manuscript are that the manuscript has not been published before, nor is it under consideration for publication elsewhere. The manuscript will be initially checked to ensure that it meets the scope of the Journal and its formal requirements. Submitted content will be checked for plagiarism. The provided names and email addresses will be used exclusively for the purposes stated by the Journal and will not be made available for any other purpose or to any other party.

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I am glad to announce that *Менаџменту хотелијерству и туризму – Hotel and Tourism Management* is indexed in ERIHPLUS (European Reference Index for the Humanities and the Social Sciences), CABELLS Scholarly Analytics, CEEOL (Central and Eastern European Online Library), DOAJ (Directory of Open Access Journals), EBSCO (EBSCO Information Services), Ulrich's Web (Ulrich's Periodicals Directory), SCIndeks (Serbian Citation Index), CNKI (China National Knowledge Infrastructure), CyberLeninka, WorldCat and Google Scholar databases.

I would like to use this opportunity to express my deep gratitude to the authors, reviewers, and members of the Editorial and Publishing Boards for their devoted time and efforts that have contributed to the development of our Journal. At the end, I am pleased to invite you to look into the latest research in the fields of hospitality and tourism presented in the current issue.

Editor in Chief  
prof. Drago Cvijanović, Ph.D.

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## Show cave websites in Serbia: Evaluation and potential improvements

Aleksandar Antić<sup>1\*</sup>, Nataša Dragović<sup>1</sup>, Nemanja Tomić<sup>1</sup>

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**Abstract:** Show caves and speleotourism can have a major impact on the tourism industry as well as the local and regional economic development. Promotion is a crucial aspect of generating plans and strategies for tourist caves. In the case of speleotourism, promotion needs to be professional, attractive and continuous because caves are often considered to be dangerous and inaccessible places. The main goal of this paper is to determine the quality of official show cave websites in Serbia. The assessment included the application of modified Website evaluation model. Website design techniques were also assessed, including the performance and the degree of optimization for search engines SEO. The results show extreme deficiencies and weaknesses regarding the level of internet promotion of Serbian show (tourist) caves. These results are of great importance for cave management teams and tourist organizations because they point out the negative factors of cave promotion in Serbia that need to be revised.

**Keywords:** show caves, website assessment, speleotourism, tourism promotion

**JEL classification:** L83, Z32, M31

## Veb-sajtovi turističkih pećina u Srbiji: Evaluacija i potencijalna poboljšanja

**Sažetak:** Pećine i speleoturizam mogu imati veliki uticaj na turističku industriju, kao i na lokalni i regionalni ekonomski razvoj. Promocija je ključni aspekt izrade planova i strategija za turističke pećine. U slučaju speleoturizma, promocija mora biti profesionalna, atraktivna i kontinuirana, jer se pećine često smatraju opasnim i nepristupačnim mestima. Osnovni cilj ovog rada je da se utvrdi kvalitet zvaničnih veb-sajtova turističkih pećina u Srbiji. Procena je obuhvatila primenu modifikovanog modela ocenjivanja veb-sajtova. Takođe su procenjene tehnike dizajniranja veb-sajtova, uključujući performanse i stepen optimizacije za SEO pretraživač. Rezultati pokazuju krajnje nedostatke i slabosti u pogledu nivoa internet promocije turističkih pećina. Ovi rezultati su od velike važnosti za upravljačke strukture i turističke organizacije jer ukazuju na negativne faktore promocije pećina u Srbiji koje treba revidirati.

**Ključne reči:** izložbene pećine, procena veb stranica, speleoturizam, promocija turizma

**JEL klasifikacija:** L83, Z32, M31

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## 1. Introduction

The Internet has a major impact on the tourism market and it can be used productively for economic development. Promotion, product distribution and research functions play an important role in tourism modernization (Jovičić, 2019). The application of advanced technologies for tourist affirmation can significantly transform the tourist and economic state of a particular area. Information technology has proven to be an effective tool for creating prosperous and economically sustainable destinations (Kamperman Sanders et al., 2018).

Information and communication technology allow tourism workers and tourists to easily contribute their thoughts, opinions and creations to the Internet. Tourism workers can implement various marketing strategies for their products, while consumers can obtain information for the trip-planning process, destinations, accommodation, restaurants, tours, and attractions (Hays et al., 2013). This use of technology creates multiple ways of promoting tourist sites, which are completely dependent on the success of marketing strategies.

As the demand for tourism services in natural areas has increased, many management structures have recognized a potential for adding complementary sites to tourism supply. This is particularly important for areas that are not currently attractive destinations (Palmer & Bejou, 1995). This is often the case with geoheritage sites, which possess a satisfactory level of tourism potential. Particularly valuable geoheritage sites are caves, that serve as the nucleus for the emergence and development of speleotourism. Arranging a speleological object for tourism purposes includes complex multidisciplinary activities and it requires modification of the unwelcoming raw underground space (Garofano & Govoni, 2012). Moreover, show cave management must continuously apply adequate marketing strategies to attract as many tourists as possible.

The promotion of show caves is particularly specific and important, as some caves can be inaccessible and dangerous places (Walker, 2007). Therefore, the Internet tourist promotion of caves may be crucial for tourists when choosing a destination. Furthermore, good quality promotion of the cave is equally important for management structures as it brings a professional, responsible, modern and sustainable way of tourism business. The interpretation of show caves is a very important aspect of karst management and sustainable development of geotourism and cave tourism. “The explanation of the speleological, geological, geomorphological, and archeological values of caves can help visitors understand and appreciate their significance and the importance of their protection for future generations” (Beraaouz et al., 2019).

Previous studies on speleotourism in Serbia (Antić, 2018; Antić et al., 2019; Petrović, 2005; Tomić et al., 2019; Vuković & Antić, 2019) determined the solutions for better positioning of caves on the national tourism market. The conducted research aims to show the current state of the internet promotion of tourist caves, as well as the possibilities of improving and modernizing speleotouristic promotion in Serbia. The evaluation analysis in this paper shows significant differences between Serbian caves and Postojna Show Cave (Slovenia) in terms of internet promotion and Website quality. For the purposes of this research, two caves in Serbia and one in Slovenia were singled out. Since only the Ceremošnjja and Resava show caves (Figure 1–a,b) have official websites ([www.resavskapecina.rs/site](http://www.resavskapecina.rs/site); [www.ceremosnja.com](http://www.ceremosnja.com)), these caves have been evaluated via the modified Website Evaluation Model. As a case study from Slovenia, the Postojna show cave was assessed (Figure 1–c), which is a very important speleological object on the international tourist market. These results are important for managers and tourism organizations in charge of cave

management and speleotourism development, as they indicate deficiencies that need to be revised in order to reach a higher level of internet promotion quality.

## **2. Tourism websites**

The maximum utilization of information technology for the purposes of tourism development involves the application of creative and practical methods in order to achieve a quality promotion of all tourist attractions. Even if a tourist attraction does not have great aesthetic value, with a well-prepared promotional strategy it can achieve competitiveness in the market (Papadopoulos & Heslop, 2014). This is often very important for management structures dealing with the natural tourist sites, which are not easily accessible to visitors.

Quality promotion can encourage adventure and recreational activities (Vyas, 2019), but it is of great importance to provide all the necessary information to avoid certain consequences (tourist complaints, lawsuits, negative image, etc). Without the implementation of quality promotional strategies, the advancement of tourism products cannot be expected (Liu & Li, 2019). Websites and Social media are the ideal channels through which customers' interaction with a tourist site is inspired (Ioanna & Youla, 2012).

The Internet has increased and improved the consumption of tourist information; users reach the virtual world with full satisfaction in search of everything they need to arrange and carry out their journey. Furthermore, it is evident that tourist organizations recognized the value of getting their own official website, which enables them to display information about destinations online. As a result, websites for institutional tourism have become important networking platforms that deliver a lot of knowledge (Gómez-Martín et al., 2017). That is why it is necessary to carefully consider the content and information that is displayed on the Internet related to tourist destinations.

“Tourism website has the capacity to operate on multiple levels through communication that interacts with prospective visitors, to build valid expectations, protect the destination and built landscape and heritage narrative in the earliest stage of the tourist experience” (Krisjanous, 2016, p. 5). Therefore, the greater the extent of communication and business transactions, such as orders and purchases, on tourism websites, the more likely is for tourist organizations to turn a potential tourist into a real tourist (Cao & Yang, 2016). This is a significant capability for tourist organizations, which can be used effectively for sustainable economic growth.

## **3. Caves and speleotourism**

The karst environments include unique landscapes (Wozniak et al., 2017), surface (limestone pavement, sinkholes, cove, karst fields) and underground (caves, pits) karst formations (Ford & Williams, 2007) which are visited by many tourists. A rather unique, attractive and often economically viable form of tourism, originating from the karst regions is speleotourism (Lazarević, 2000).

Speleotourism in some parts of the world provides extremely high economic results (Postojna Cave, Slovenia; Mammoth Cave, Kentucky, USA; Altamira Cave, Spain; Lascaux Cave, France, Neptune Cave, Italy and others). However, these caves have international significance because of their unique geomorphological or anthropogenic attractiveness (cave painting, speleo-archeology, etc.) and it is not easy for other caves to reach such a high level of attractiveness or visitor numbers and match and become competitive on the global speleotourism market.

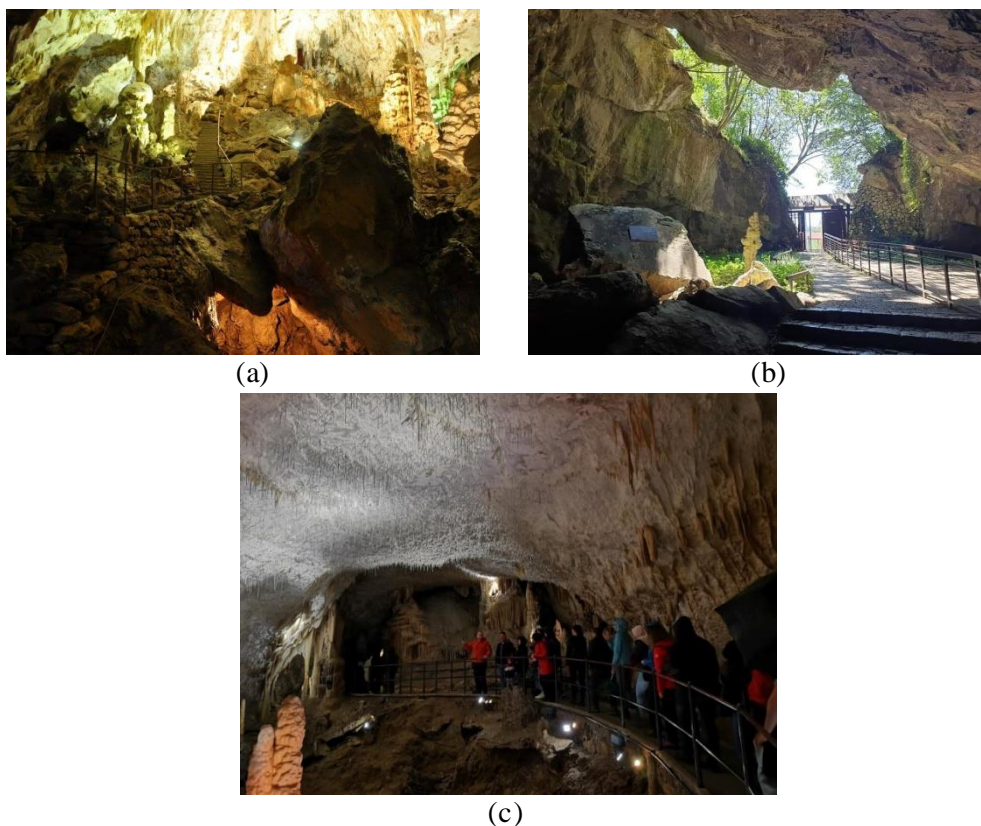
The importance of show caves is reflected in their purpose, i.e. the reason for the visit. According to (Cigna, 2016), the largest number of visitors visit caves as tourists, followed by religious reasons, while the economic performance is greatest by tourists and visitors who come for health reasons.

Certainly, the attractiveness of caves does not have to be directly related to the rich tourist infrastructure. Increasing the number of tourists can be achieved by maintaining the natural appearance of the caves, for which caves in Slovenia, such as Postojna Cave and Škocjan Cave, are known (Tičar et al., 2018). The importance of these caves is great and therefore promotional strategies based on sustainable principles should be implemented.

In contrast, in the area where the Agu-Owuru cave is located, tourism is poorly developed and improvements in tourism infrastructure are a good step for attracting visitors. In addition, promotion through traditional and modern media and involvement of the local population is proposed. An important success factor is the level of knowledge of the local population about ways of promoting the tourist offer (Okonkwo et al., 2017).

Some caves have a great religious significance, which is one of the circumstances that should be taken into account during the promotion. For Batu Caves (Kuala Lumpur), promotion through religious rituals and other events that will best present the significance of these caves to potential tourists is suggested (Musa et al., 2017). Also, to increase the number of visitors, it is necessary to use the potential and uniqueness of the Thaipusam celebration through marketing activities (Arasi Paniandi et al., 2018).

Figure 1: Explored show caves



Source: (a) Ceremošnjaja show cave (Author's own); (b) Resava show cave (Author: Damira Ilić); (c) Postojna show cave (Author's own)

The awareness of local communities about natural tourist values is also important, especially in the case of Ajalli cave (Nigeria) where a certain part of the population does not know that the cave exists at all. In order for the cave to be presented in an adequate way, it is necessary to engage tourist guides. However, the financial problem is the limiting circumstance of the development and promotion of this cave and therefore it is suggested to invite stakeholders to help implement the development strategies (Oguamanam & Nwankwo, 2015).

The development of geoheritage, such as caves, needs to be approached individually, first because of the location (country or region) in which it is located, then the level of tourist development and tourist potential. An analysis of the current state of show caves is necessary to understand the shortcomings of promotion.

Caves in Serbia do not have a high international character, but they do attract tourists to some extent. In 2018, the Resava Cave (Eastern Serbia) was visited by almost 60,000 tourists (data from the Public Company “Resava Cave”), and the following year, Hadži-Prodanova Cave near the city of Ivanjica, was opened to visitors. Currently, ten show caves are active in Serbia, and those are: Resava, Rajkova, Ceremošnja, Ravništarka, Risovača, Stopić, Podpečka, Lazareva, Bogovinska and Hadži-Prodanova. Several other caves have some infrastructure (pedestrian tracks and stairs) and are accessible to tourists through travel agencies, which offer adventure and extreme tours. These caves are: Ledena, Petnička, Vernjikica, Prekonoška and Cerjanska. For these caves, it is usually necessary for tourists to announce their visits. Visits must also be announced in some caves that are permanently open to visitors (details are shown in Table 1). Overall, speleotourism in Serbia is still at a low level with the majority of visitors being domestic tourists, mainly school children visiting these sites as a part of their yearly school trips.



Table 1: General overview of current show cave promotion in Serbia

Show Caves	Cave Management Structures	Official Websites	Information about Working Hours	Information about Tickets	Cave Photos	Cave Videos (Virtual Tours)	Show Cave Maps
Resava Cave <sup>1</sup>	Public Company Resava Cave	<a href="http://resavskapecina.rs/site/">http://resavskapecina.rs/site/</a>	+	+	+	+	-
	Tourist and Sports Organization of Despotovac Municipality	<a href="http://www.resava-tourism.rs">http://www.resava-tourism.rs</a>	-	-	-	-	-
Ceremoša Cave <sup>1,2</sup>	Ceremošnja Restaurant	<a href="http://www.ceremosnja.com/">http://www.ceremosnja.com/</a>	-	-	+	-	-
	Tourist Organization of Kučevo Municipality	<a href="https://www.tokucevo.org/">https://www.tokucevo.org/</a>	-	-	+	-	+
Ravnišćarka Cave <sup>2</sup>	Tourist Organization of Kučevo Municipality	<a href="https://www.tokucevo.org/">https://www.tokucevo.org/</a>	-	-	+	-	+
Rajko Cave	Tourist Organization of Majdanpek Municipality	<a href="http://www.toom.rs/">http://www.toom.rs/</a>	+	+	+	-	-
Lazar Cave	Tourist Organization of Bor	<a href="http://tobor.rs/">http://tobor.rs/</a>	+	+	+	-	-
Risovača Cave	Tourist Organization of Aranđelovac Municipality	<a href="https://www.bukovickabanja.rs/">https://www.bukovickabanja.rs/</a>	+	+	+	-	-
	Community Museum of Aranđelovac	<a href="https://www.nmar.rs/">https://www.nmar.rs/</a>	+	+	+	-	-
Stopića Cave	Tourist Organization of Zlatibor Mountain	<a href="http://www.zlatibor.org.rs/sr/">http://www.zlatibor.org.rs/sr/</a>	+	+	+	+	-
Podpečka Cave <sup>2</sup>	Tourist Organization of Užice	<a href="https://www.turizamuzica.org.rs/">https://www.turizamuzica.org.rs/</a>	+	+	+	-	-
	Tourist Organization of West Serbia	<a href="http://www.westsrbia.org/">http://www.westsrbia.org/</a>	+	-	+	-	-
Hadži-Prodanova Cave <sup>2</sup>	Tourist Organization of Ivanjica Municipality	<a href="https://ivatourism.org/sr-yu/">https://ivatourism.org/sr-yu/</a>	+	+	+	-	-
Ledena Cave <sup>2</sup>	Tourist Organization of Zlatar	<a href="https://www.zlatar.org.rs/">https://www.zlatar.org.rs/</a>	-	-	+	-	-
	Uvac Nature Reserve	<a href="http://www.uvac.org.rs/">http://www.uvac.org.rs/</a>	-	-	+	-	-
Bogovinska Cave <sup>2</sup>	Tourist Organization of Boljevac Municipality	<a href="https://tooboljevac.rs/">https://tooboljevac.rs/</a>	-	-	-	-	-
	Regional Development Agency Eastern Serbia	<a href="https://www.visiteastserbia.rs/">https://www.visiteastserbia.rs/</a>	-	-	+	-	-
Mermerna Cave <sup>3</sup>	/	/	/	/	/	/	/

Notes: <sup>1</sup> Show Caves that have their own websites; <sup>2</sup> A visit to the cave must be announced in advance; <sup>3</sup> The cave is located in the disputed territory of Kosovo and Metohija; + Included; - Not included

Source: Author's research

#### 4. Methodology

Our assessment included the implementation of the Website Evaluation Model (Table 2). This method was developed by Li et al. (2016) and it includes 33 attributes organized in 5 dimensions: Communication—COM (n = 8 attributes), Site Attractiveness—SAT (n = 2 attributes), Marketing Effectiveness—MKT (n = 4 attributes), Technical Setup—TEC (n = 5 attributes), and World Heritage Specifics—SPE (n = 14 attributes). Attributes were scored using three types of scales (presence/absence; 2 point; and 3 point) totaling a maximum of 39 points; scale points were distributed as follows: COM (range = 0–11; mid-point = 5.5); SAT (range = 0–4; mid-point = 2.0); MKT (range = 0–4; mid-point = 2.0); TEC (range = 0–6; mid-point = 3.0); and SPE (range = 0–14; mid-point = 7.0).

For the purposes of this study, the Website Evaluation Model was modified; COM and SAT were used as main values, while MKT and TEC were used as additional values. Since none of the caves in Serbia is recognized as World Heritage Sites, the SPE has not been analyzed. However, the last three attributes from the SPE (Visual tour, Events calendar, Photo Gallery) were placed in SAT in order to better evaluate the site attractiveness.

The summation of COM and SAT represents the main values (MV), while the summation of MKT and TEC represents the additional values (AV). This can be derived into two simple equations:

$$\text{COM} + \text{SAT} = \text{MV} \tag{1}$$

$$\text{MKT} + \text{TEC} = \text{AV} \tag{2}$$

Additional modification in the Website Evaluation model was introduced in the form of the matrix (X axis—main values; Y axis—additional values). The matrix is divided into six fields. Depending on the final score, each website will fit into a certain field. For example, if the website’s main values are 10 and additional are 7, the website will fit into the F<sub>10-12</sub> field which indicates a moderate main and high additional values.

- Field F<sub>5-6</sub> represents low main and low additional values;
- Field F<sub>5-12</sub> represents moderate main and low additional values;
- Field F<sub>5-18</sub> represents high main and low additional values;
- Field F<sub>10-6</sub> represents low main and high additional values;
- Field F<sub>10-12</sub> represents moderate main and high additional values;
- Field F<sub>10-18</sub> represents high main and high additional values.

Table 2: Modified Website Evaluation Model

Attributes by dimensions	Evaluation scales		
<b>Main Values</b>			
<b>Communication—COM (8 attributes; maximum score = 11)</b>			
Online customer service	(0) No	(1) Yes	
Readability	(0) Highly educated adult reading level		
	(1) Literate adult reading level		
	(2) All reading levels		
Contact information	(0) No	(1) Yes	
Links to social media	(0) No	(1) 1 or 2	(2) 3 or more
Multiple language versions	(0) Native language only		
	(1) 1 or 2 foreign languages		
	(2) 3 or more foreign languages		

Electronic newsletter	(0) No	(1) Yes	
Feedback form	(0) No	(1) Yes	
Surveys or polls	(0) No	(1) Yes	
<b>Site Attractiveness—SAT (5 attributes; maximum score = 7)</b>			
Visual appearance	(0) Text only		
	(1) Limited visual appeal		
	(2) Good visual appeal		
Webpage design	(0) No layout/design		
	(1) Limited layouts/designs		
	(2) Multiple layouts/designs		
Visual tour	(0) No	(1) Yes	
Events calendar	(0) No	(1) Yes	
Photo Gallery	(0) No	(1) Yes	
<b>Additional Values</b>			
<b>Marketing Effectiveness—MKT (4 attributes; maximum score = 4)</b>			
Tourism amenities/services	(0) No	(1) Yes	
Directions or maps	(0) No	(1) Yes	
Local Weather	(0) No	(1) Yes	
Commercial Companies links	(0) No	(1) Yes	
<b>Technical Setup—TEC (5 attributes; maximum score = 6)</b>			
Logic Structure	(0) No	(1) Yes	
User-friendly interface	(0) Low navigation	(1) Moderate navigation	(2) Efficient navigation
Link workability	(0) No	(1) Yes	
Site map	(0) No	(1) Yes	
Privacy policy	(0) No	(1) Yes	

Source: [Li et al., 2016](#)

Selected attributes of the website design technique were also assessed, including the performance and the degree of optimization for search engines SEO. The tests were performed using selected internet applications ([Król & Zdonek, 2020](#)). In addition, Google’s mobile friendliness test and Google lighthouse best practices audit was performed ([Giannakouloupoulos et al., 2019](#)).

## 5. Results and discussion

The websites were characterized by relatively good performance, with the highest values of performance indicators recorded for the ‘ceremosnja.com’ website (Table 3). At this point, however, it is worth noting the slightly worse performance of websites on mobile devices.

There has been a relatively high potential for website optimization for search engines SEO (Table 4). SEO is a complex phenomenon, so detailed tests are necessary to detect SEO attributes that need improvement.

All the researched websites were adapted to mobile devices. They differed in the speed of loading in the web browser window, with the best values of this attribute recorded for the ‘ceremosnja.com’ website (Table 5).

Generally, evaluated sites were technically well prepared. However, it is necessary to conduct detailed tests that will indicate critical points that require improvement, e.g. in the area of SEO and performance.

Table 3: Performance test results

Website	PageSpeed Insights <sup>1</sup> (mobile/desktop)	Gtmetrix <sup>2</sup> (PageSpeed Score/YSlow)	Pingdom Website Speed Test <sup>3</sup>
resavskapecina.rs	66/78	82/71	79
ceremosnja.com	91/99	86/73	82
postojnska-jama.eu	52/75	85/77	73

<sup>1</sup><https://developers.google.com/speed/pagespeed/>; <sup>2</sup><https://gtmetrix.com/>; <sup>3</sup><https://tools.pingdom.com>  
 Source: Author's research

Table 4: SEO test results

Website	ZADROWeb <sup>1</sup> (Score)	WebsiteGrader <sup>2</sup>	SunriseSystem <sup>3</sup> (SEO Rating)
resavskapecina.rs	63.55	54	50
ceremosnja.com	59.81	57	39
postojnska-jama.eu	66.36	57	84

<sup>1</sup><https://zadroweb.com/seo-auditor/>; <sup>2</sup><https://website.grader.com/>; <sup>3</sup><https://www.sunrisesystem.pl/audyt-seo>  
 Source: Author's research

Table 5: Selected quality indicator test results

Website	GTmetrix Fully Loaded Time <sup>1</sup> (s)	Google Mobile- Friendly Test <sub>2</sub>	Pingdom load time <sup>3</sup> (s)	Lighthouse Speed Index (s)
resavskapecina.rs	4,2	1	3,03	6,5
ceremosnja.com	1,8	1	0,37	1,0
postojnska-jama.eu	8,1	1	2,42	4,3

<sup>1</sup><https://gtmetrix.com/>; <sup>2</sup><https://search.google.com/test/mobile-friendly/>; <sup>3</sup><https://tools.pingdom.com>  
 Source: Author's research

Based on this analysis it can be concluded that the technical aspect of the Serbian show cave websites is good, but the content quality is very poor. According to the research of [Tomić et al. \(2019\)](#), the most important elements for Serbian speleotourists are tour guide service, visitor centers, interpretive panels and promotional activities. These factors need to be the primary focus of further speleotourism development. At the moment, caves in Serbia usually play the role of additional attractions that are included in other tourist offers. In the future, it would also be beneficial to create a unified speleoroute which would connect all the show caves in Serbia into a unique speleotourism product attractive for a larger number of both domestic and foreign tourist markets. Before designing and implementing this route, it is necessary to work on the show cave arrangement, as well as constructing additional tourist infrastructure and engaging in better promotional activities.

The only two caves in Serbia that have the official website are Resava and Ceremošnja show caves. These websites were taken as examples for a thorough evaluation and comparison with the Postojna Cave website, which has also been evaluated. Table 6 contains all the scores of Resava, Ceremošnja and Postojna cave websites, according to the modified website evaluation model.

The results vary greatly. Almost all attributes are rated differently. The communication values of the Resava Cave and Ceremošnja Cave websites are very low. Only the readability and presentation of the contact information is positively rated. Other communication attributes are missing, unlike Postojna, which has maximum values for all attributes except

feedback forms and surveys. The attractive value of websites has also been evaluated differently. Postojna has maximum values of attractiveness, while Resava and Ceremošnja were evaluated with lower ratings, especially for the visual tour, which is not available on both websites.

Additional website values of Postojna cave were rated with maximum values, while the Resava cave website received 2 points and Ceremošnja cave website received 0 points, out of 10 for the same values. Marketing effectiveness values include having a site map and links to local companies, which are the only attributes that the Resava cave website has. The lack of ticket purchase or reservation option and not displaying the local weather forecast are major flaws that need to be revised. The absence of additional values of the Ceremošnja cave website indicates a clear lack of factors that complement the website and help potential tourists to organize their visits more easily.

Table 6: Website evaluation

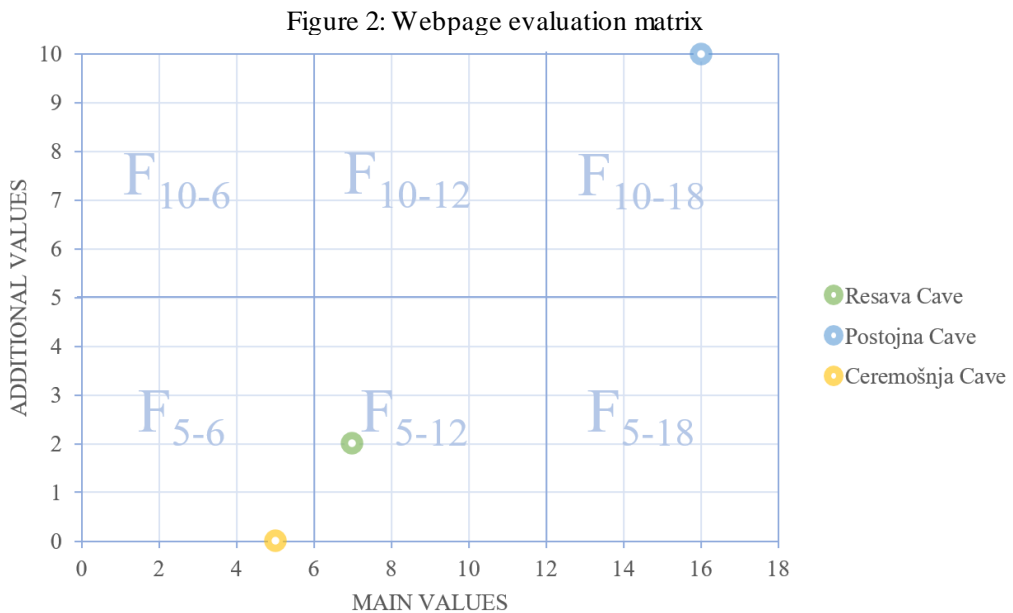
<b>Attributes by Dimensions</b>	<b>Scores</b>		
<b>Main Values</b>	<b>Resava Cave (Serbia)</b>	<b>Ceremošnja Cave (Serbia)</b>	<b>Postojna Cave (Slovenia)</b>
<b>Communication—COM</b>			
Online customer service	0	0	1
Readability	2	2	2
Contact information	1	1	1
Links to social media	0	0	2
Multiple language versions	0	0	2
Electronic news letter	0	0	1
Feedback form	0	0	0
Surveys or polls	0	0	0
<b>Site Attractiveness—SAT</b>			
Visual appearance	1	1	2
Webpage design	1	0	2
Visual tour	0	0	1
Events calendar	1	0	1
Photo Gallery	1	1	1
<b>Total</b>	<b>7</b>	<b>5</b>	<b>16</b>
<b>Additional Values</b>			
<b>Marketing Effectiveness—MKT</b>			
Tourism amenities/services	0	0	1
Directions or maps	1	0	1
Local Weather	0	0	1
Commercial Companies links	1	0	1
<b>Technical Setup—TEC</b>			
Logic Structure	0	0	1
User-friendly interface	0	0	2
Link workability	0	0	1
Site map	0	0	1
Privacy policy	0	0	1
<b>Total</b>	<b>2</b>	<b>0</b>	<b>10</b>

Source: Author's research

The technical structure of the Resava and Ceremošnja websites is also completely non-competitive with the Postojna website, which is much more user-friendly, and it possesses a

site map. The lack of other indicators should also be mentioned, including: social media links, the ability to use other languages and local weather forecast.

The final results of the Modified Website Evaluation Model are shown in the matrix (Figure 2). Resava cave is positioned in the field  $F_{5-12}$ , representing the moderate main and low additional values, while Ceremošnja cave is positioned in the field  $F_{5-6}$ , which represents low main and low additional values. Postojna cave is positioned in the field  $F_{10-18}$ , representing the high main and high additional values. The large difference in values is evident and indicates the very low quality of promotional speleotourism activities in Serbia. In addition, it is important to note that the lack of websites of other show caves in Serbia is a major disadvantage. It is necessary to engage a marketing team, which would create good websites, standardized in accordance with the latest trends in the promotion of speleotourism in the world.



Source: Author's research

Furthermore, losing some of its main value attributes, Resava cave could change its position to the  $F_{5-6}$  field (same as Ceremošnja cave), thus having low main and low additional values. Urgent measures should be taken to prevent this from happening, in particular:

- Create online customer service for buying or booking tickets;
- Set links to Social Media;
- Insert multiple language versions of the text;
- Create an electronic newsletter;
- Install the virtual tour;
- Insert local weather forecast.

Besides improving the tourist promotion of caves, it is necessary to implement measures to strengthen their positions in the tourist market. Adequate sustainable development of speleotourism in Serbia must embrace a more professional approach, which would include:

- Strategic investments in the infrastructure of tourist caves;
- Tourist arrangement of caves which have the highest tourism potential (Tomić et al., 2019);
- Employment of young and educated staff;
- Development and implementation of a national strategy for the development of speleotourism; and
- Statistical monitoring of results.

It is important to suggest the limitations of this study. First of all, the number of caves used in the research is small, because only two caves in Serbia have official web presentations. Considering that the goal of the research is to analyze caves in Serbia, one cave was used for comparison, which is justifiable. The reason for such a small number of samples is the lack of official web presentation of other caves in Serbia, which is certainly a major shortcoming in the promotion and development of caves. Furthermore, the limitation is reflected in the fact that it was not possible to compare all the caves in Serbia due to the lack of web presentations. In terms of comparing caves in Serbia and Postojna Cave, the difference is primarily reflected in the level of development, tourist offer and cave management, which is another limitation of this study. Further research may include other caves in Serbia with a proposal of web presentations in relation to the offer of each cave individually.

Further steps towards modernization and improvement of show cave promotion quality in Serbia should include strengthening of speleotouristic presentations on the Internet. The Internet is a key factor in the development of quality tourism promotion and therefore, focused efforts should be made to develop the competitiveness of the explored caves. In this way, the recognition of caves and tourist affirmations can be achieved which creates economic and social sustainability for present and future generations.

Better promotion of the caves would bring management teams positive economic results while improving information content and enhancing the tourist experience for tourists. Particular attention should be paid to:

1. Establishment of an organization that would promote the caves through educational and tourism content;
2. Opening an account on all popular social media in order to actively engage in the popularization of caves for tourism purposes;
3. Actively set up discounts and opportunities for winning free tickets and, thus, attract more tourists;
4. Conduct intersectoral cooperation with local tourist organizations, national institutions and scientific institutes;
5. Constantly improve the tourist infrastructure and nurture the ecosystem of the speleological environment.

## **6. Conclusion**

The conducted evaluation indicates the importance of quality promotion required by the management and marketing teams of show caves in Serbia in order to achieve sustainable development of speleotourism. The evaluation analysis revealed large differences between the promotional results of Serbia and Slovenia. Postojna Cave has extremely high marketing results, while caves in Serbia have negative results. This is an extremely important indicator when it comes to the Resava Cave management issues, as this show cave has the greatest potential for further development of speleotourism in Serbia. The existence of the

Ceremošnja Cave website is certainly an advantage, but the lack of good promotional quality and the poor management structure have a bad impact on tourism development. Therefore, a small number of tourists know and visit this show cave. It is necessary to create official websites for all tourist caves in Serbia, for their position on the tourist market to be more significant. In addition, the existing websites should be improved according to the existing modern trends in the promotion of speleotourism.

Show Cave Websites can significantly change the tourist identity of the caves and crucially affect the image of the destination. For that reason, it is necessary to carefully implement marketing measures in order to attract as many tourists as possible, promote science and education, as well as create a sustainable form of tourism development.

## Acknowledgement

We thank Karol Król from the University of Agriculture in Kraków for helping us with the research methodology and interpretation.

## Conflict of interest

The authors declare no conflict of interest.

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## Cultural intelligence and heritage impact on choosing foreign tourist destination

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**Abstract:** Due to the process of globalization, travel has become much more affordable, so tourists have the opportunity to visit foreign and even some exotic destinations. Market research helps travel agencies in formulating a marketing strategy, which should attract tourists and ensure their satisfaction, which ultimately enables the service provider to make a profit. The purpose and goal of the research is to determine whether *cultural intelligence* as a *push-factor* implying the desire of tourists to learn a foreign language, and get to know other cultures and their value systems and *cultural heritage as a pull-factor* implying touring buildings, and cultural monuments of other countries, influence the *choice of foreign tourist destinations*. Furthermore, the research examines whether the influence of these variables from the aspect of a demographic characteristic of *age* is more pronounced in respondents belong to generation Z compared to the generation X respondents. The sample includes 208 respondents from the Republic of Serbia. After statistical processing of the data, the obtained results show that variables have a statistically significant positive impact on the choice of foreign tourist destinations, and that their impact is more pronounced in generation Z respondents compared to those of generation X, so the research provides useful information to marketers and travel agencies.

**Keywords:** cultural intelligence, cultural heritage, foreign tourist destinations

**JEL classification:** M31, Z30, Z32

## Uticaj kulturalne inteligencije i nasleđa na izbor inostranih turističkih destinacija

**Sažetak:** Usled procesa globalizacije, putovanja su postala znatno pristupačnija, tako da turisti imaju mogućnost da posete inostrane, a čak i neke egzotične destinacije. Istraživanje tržišta pomaže turističkim agencijama prilikom formulisanja marketing strategije, koja treba da privuče turiste i da obezbedi njihovu satisfakciju, što u krajnjoj instanci omogućava profit pružaocu usluge. Svrha i cilj istraživanja je da se utvrdi da li *kulturalna inteligencija kao push faktor* koji podrazumeva želju turista da nauče strani jezik, upoznaju druge kulture i njihove sisteme vrednosti i *kulturno nasleđe kao pull faktor* koji podrazumeva obilazak građevina, kulturnih spomenika drugih zemalja, ostvaruju uticaj na *izbor inostranih turističkih destinacija*. Takođe, u istraživanju se ispituje da li je uticaj navedenih varijabli sa

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aspekta demografske karakteristike *starost* izraženiji kod ispitanika koji pripadaju generaciji Z u odnosu na ispitanike koji pripadaju generaciji X. Uzorak obuhvata 208 ispitanika iz Republike Srbije. Nakon statističke obrade podataka, dobijeni rezultati pokazuju da varijable ostvaruju statistički značajan pozitivan uticaj na izbor inostranih turističkih destinacija, kao i da je njihov uticaj izraženiji kod ispitanika koji pripadaju generaciji Z u odnosu na ispitanike koji pripadaju generaciji X, tako da istraživanje pruža korisne informacije marketarima i turističkim agencijama.

**Ključne reči:** kulturalna inteligencija, kulturno nasleđe, inostrane turističke destinacije  
**JEL klasifikacija:** M31, Z30, Z32

## 1. Introduction

For tourism and hotel service providers, information on what factors influence tourists when choosing the destination they went to visit is crucial (Anderson et al., 2009). Gaining new experiences, getting to know other cultures and communicating with the people who come from them are some of the main motives for tourists to visit foreign tourist destinations (Fong et al., 2019). Tourism as an industry has made significant progress and development in recent years, and the number of business and tourist trips is continuously increasing (Zhao & Lin, 2014). Market globalization, development of information technologies, improvement of transport networks have a very positive impact on tourism, because these factors enable tourism service providers to improve the quality of travel organization for their clients (Koo et al., 2016). An increasing number of young people, such as students and employees at the beginning of their business careers, want to strengthen their cultural intelligence by visiting foreign cultures, learning about the history and cultural heritage of other countries (Phau et al., 2014). Communication with people from other cultures enables the development of cultural knowledge and represents a valuable experience that helps people to better adapt to future intercultural situations (Filipović & Šapić, 2020). Tomić and Košić (2020) state that mountain, spa and rural tourism is quite developed in Serbia, while on the other hand, Serbian tourists most often visit seaside destinations during the summer and visit famous European capitals during the spring and autumn. Seočanac et al. (2019) state that young tourists, like students, develop a degree of cultural intelligence by traveling to foreign countries and getting to know other cultures. Also, they often use the online booking platform when organizing trips. Saničanin et al. (2019) state that Serbia has a rich cultural heritage that needs to be promoted, on the one hand, and that there is a necessity to get to know the history of other countries, on the other. Zdravković and Peković (2020) state that Serbian tourists who have adequate financial resources want to gain new cultural knowledge by traveling to foreign countries, as well as to pay attention to environmental protection and stay in green hotels when traveling.

It is very important to determine which factors influence the choice of foreign destinations by tourists. In the domestic literature, there are practically no papers that have examined the impact of cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations, while in foreign literature there are many papers, but some are qualitative or use simple statistical methods of quantitative approach. The research will apply a quantitative approach using SEM analysis, in order to compensate for the research gap in scientific literature on the influence of the mentioned variables on the Serbian tourists choice of foreign destinations.

Cultural intelligence develops through travel, learning foreign languages, getting to know other cultures, beliefs, values, rules of conduct and customs (Beerli-Palacio & Martín-Santana, 2018). A high degree of cultural intelligence enables people to develop abilities and

skills that enable them to adapt to situations that are multicultural in nature (Sharma & Singh, 2018). Tourists also show interest in learning about the cultural heritage of foreign countries, which includes exceptional buildings, cultural monuments, works of art, archeological sites and other sights (Vakhitova, 2015). These goods are most often under the protection of the state, and if they are of international importance, they might also be under the protection of UNESCO or other international bodies that deal with the preservation of cultural heritage at the international level (Ryan & Silvanto, 2011).

The subject of this study is the conceptual explanation of the cultural intelligence of tourists and cultural heritage, as well as the perception of their effect on the decision of tourists when choosing foreign destinations. Cultural intelligence can be seen as a push-factor, because it motivates consumers to get to know other cultures, learn foreign languages and communicate with the local population, while cultural heritage can be seen as a pull-factor because it attracts consumers to visit a foreign country with a significant history, cultural monuments, traditions and the like. The aim of the research is to show whether the variables of *cultural intelligence of tourists* and *cultural heritage* have a statistically significant positive influence on the *decision of tourists to choose foreign tourist destinations* when traveling. Also, the research examines whether the influence of these variables on the choice of foreign tourist destinations is more pronounced in the generation Z respondents compared to the generation X ones.

Within the research methodology, data were collected through questionnaires. Statistical software SPSS v23. was used for the application descriptive statistics, reliability analysis to examine the relevance of the research model, as well as correlation analysis. Through a model of structural equations (SEM) applied in the software package Amos v23. it was examined whether the cultural intelligence of tourists and cultural heritage have a statistically significant influence on the choice of foreign tourists destinations. Multigroup SEM analysis was applied regarding an investigation of the model and path differences between Generation Z and Generation X, respectively to examine whether the impact cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations is more pronounced in then respondents belonging to generation Z compared to the respondents belonging to generation X. Based on the SEM analysis, a decision was made to confirm or reject the research hypotheses.

The study is conceptualized by proposing five sections. After the introductory part, within the literature review, the variables *cultural intelligence of tourists* and *cultural heritage* are defined and it is explained how they affect the *choice of foreign tourist destinations* by tourists. The researchers mainly examines the individual impact of these variables. The aim of this study is to apply a holistic approach and examine the common effect of cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations. This section contains hypotheses and a research model. The third part presents the sample structure and methodology. The next part deals with the results of the study, and conclusion lists the scientific and managerial implications, limitations, and opportunities for future studies.

## 2. Literature review

The concept of cultural tourism has a great influence on the choice of foreign tourist destinations. Vargas Hernandez (2012) defined cultural tourism as “the movements of persons for essentially cultural motivations, which includes study tours, performing arts, cultural tours, travel to festivals, visits to historic sites and monuments, folklore a pilgrimages” (p. 147). Vareiro et al. (2020) defined cultural tourism as “the movement of persons to cultural attractions away from their normal place of residence, with the intention

of gathering new information and experiences to satisfy their cultural needs” (p. 43). There are numerous cultural motives of tourists, such as artistic (e.g. history, architecture), manifestation (e.g. sport, music), religious, archeology and other, so that the concept of cultural tourism encompasses a large number of cultural areas (Woyo & Woyo, 2019). Cultural tourism is experiencing its expansion and the awareness of state bodies as well as the economic sector about the huge possibilities of tourist valorization of cultural heritage is progressively increasing, having in mind the significant economic effects that result from that (Foxell & de Trafford, 2010). Tourists have a desire to visit a foreign country that has a significant cultural heritage, and, on the other hand, cultural tourism enables the realization of profits and encourages economic development (Filipović, 2018). Dimitrovski et al. (2019) state that there are two groups of motivational factors of travel. Push-factors include recreational holidays, learning foreign languages, making social contacts with people from other cultures, exploring other countries and improving the level of cultural intelligence. Pull-factors include learning about the history of other countries, cultural heritage, visiting cultural monuments, as well as visiting various cultural events.

Cultural intelligence is the ability of people to function and be successful in situations that are multicultural (Thomas & Van Dyne, 2018). Andresen and Bergdolt (2017) state that Cultural intelligence (CQ) can be linked to similar concepts such as Cross-cultural Competencies (CC) and Global Mindset (GM). Cultural intelligence as well as the mentioned concepts are very important during international marketing activities and can be a crucial factor in the success of multinational companies. The company’s marketing managers need to have intercultural skills and adapt the marketing strategy to the local market (Pratono & Ari, 2020). Andresen and Bergdolt (2017) defined cultural intelligence as the ability to succeed in complex intercultural environments by applying cognitive, motivational and behavioral abilities. Cultural intelligence consists of four factors: metacognitive, cognitive, motivational and behavioral (Ang & Van Dyne, 2015). Metacognitive processes are used to acquire and understand cultural knowledge, including knowledge and control of individual thinking processes related to culture (Frias-Jamilena et al., 2018a). Cognitive cultural intelligence refers to understanding the norms, practices, conventions of other cultures as well as knowledge of their economic and legal system (Zhou et al., 2018). Motivational cultural intelligence refers to attention and energy that is directed towards understanding and adapting to the environment within which cultural differences are present, as well as with the desire to visit foreign tourist destinations and get to know the history and cultural heritage of other countries (Rahman et al., 2020). Behavioral cultural intelligence involves showing verbal and nonverbal competencies when communicating with people from culturally diverse backgrounds, during visits to foreign tourist destinations (Thomas & Van Dyne, 2018). The process of learning and development of the concept of cultural intelligence has been followed since the very beginnings of tourism, and the popularization of tourism in the 20<sup>th</sup> century has enabled its wider social significance. The development of cultural intelligence through tourism is not new, however, the term itself was introduced in the tourism literature by the (Early & Ang, 2003) and since then the influence of cultural intelligence on numerous aspects of traveling has been examined.

Frias-Jamilena et al. (2018a) found that when visiting a foreign tourist destination, tourists develop their cultural intelligence. It is very important for tourists that the foreign country has natural beauties, that the local population is kind and open to communication, that the country is recognizable by its specialties in food. This makes a positive impression on tourists and they will want to visit the country in the future. Also, the study found that a pleasant experience gained while visiting a foreign country, positively affects the intention of tourists to visit some other foreign countries and get to know other cultures. The research was conducted on the basis of a sample of 503 tourists from Great Britain, who visited Spain.



Rahman et al. (2020) found that tourists develop their level of cultural intelligence by getting to know a culture, value system, beliefs, customs, history, economic and legal system of the country, rules of conduct and other while staying in a foreign tourist destination. Also, the study found that a high level of cultural intelligence of tourists has a notable influence on their decision to visit foreign countries and to pass their positive impressions to friends, as well as to spend their next vacation in another foreign destination and thus continue to improve their knowledge of other cultures and to develop their ability to adapt to different intercultural environments. The authors emphasize that tourism service providers should include in their offer foreign tourist destinations, whose content enables tourists to significantly improve their cultural intelligence. Beerli-Palacio and Martin-Santana (2018) in their research state that tourists who have developed cultural intelligence perceive traveling to a foreign country as a valuable authentic experience and a chance to step out of their comfort zone and learn something new. Developed cultural intelligence helps tourists to adapt to the culture of the host country, to interact and communicate with the local population and to spend their vacation in a more comprehensive and interesting way. In the study, a total sample of 411 respondents proved that cultural intelligence has a notable influence on the intention of tourists to visit Tenerife (Canary Islands). Koo et al. (2016) state that the integration of modern information technologies and tourism marketing campaigns in which the country is promoted is very important. It is necessary to provide tourists with all the useful information about the country they want to visit. Also, the authors state that information technology facilitates the placement of all necessary travel information to tourists, as well as that the high level of development of cultural intelligence has a positive impact on the intention of tourists to visit and get to know South Korea.

Previous research has determined that cultural intelligence is one of the determinants of the choice of foreign tourist destinations, and studies have used a qualitative approach or simple statistical analyzes. This research aims to determine through a quantitative approach (SEM model) whether cultural intelligence has an effect on the choice of foreign tourist destinations. Based on the above, the first hypothesis is defined:

**H1:** *The cultural intelligence of tourists has a positive statistically significant effect on the choice of a foreign tourist destinations.*

It is very important that each country continuously launches initiatives in order to preserve its cultural heritage (Jamieson & Jamieson, 2019). Cultural heritage represents a unique and irreplaceable cultural value of nation, because created for generations, it directly indicates the social as well as the entire educational, cultural and even civilizational level of development. Therefore, the care for the preservation of cultural heritage is not only a declarative obligation of the competent institutions, but it is also the moral role of the entire modern society, which recognizing the importance of cultural heritage, creates conditions for its preservation in the future (Bordoni, 2011). Settembre Blundo et al. (2019) define cultural heritage as “a collection of tangible objects and intangible elements related to the cultural development of a society, which comes from past generations and are esteemed by contemporary individuals, not only for their aesthetic values or its utility, but also as an expression of the culture of a society development” (p.7). Tangible cultural heritage includes monuments and buildings, while intangible cultural heritage includes language, tradition and rituals (Kim et al., 2019).

There are numerous examples in the literature according to which cultural heritage is one of the key factors influencing the choice of a foreign tourist destinations. Shi et al. (2019) state that one of the most interesting destinations for tourists is the famous Great Wall of China. Cultural heritage of China also includes buildings of distinct architectural and practical value built for rulers or the worship of deities. Moreover, tourists say that they are very interested



in visiting the Forbidden City that was built in Beijing in the 15<sup>th</sup> century and is the greatest work of the Ming dynasty. [Bordoni \(2011\)](#) states that the Colosseum in Rome is visited annually by about 7 million tourists. The famous amphitheater in which gladiatorial fights used to take place is included in the UNESCO list of World Heritage Sites and the List of World Wonders. [Vareiro et al. \(2020\)](#) state that many tourists visit Paris to visit the famous Louvre Museum as well as the Eiffel Tower. [Underberg-Goode \(2014\)](#) states that tourists want to get to know the history of the Inca Empire better and to visit the famous city of Inca people in the Andes, Machu Picchu, which is part of the world cultural heritage and is located in Peru. [Jamhawi and Hajahjah \(2017\)](#) state that the attention of tourists is attracted by the ancient city of Petra, which is located in today's Jordan and is under the protection of UNESCO.

From previous research, the second hypothesis is defined:

**H2:** *Cultural heritage has a positive statistically significant effect on the choice of a foreign tourist destination.*

[Tešin et al. \(2020\)](#) state that older people have a more developed level of cultural intelligence, as well as a greater desire to learn about the history and cultural heritage of other countries than young people. [Šagovnović and Kovačić \(2020\)](#) emphasize that touring the cultural attractions (museums, monuments, opera, etc.) requires adequate financial resources, which can be a problem when it comes to students and young people at the beginning of their professional careers. [Beerli-Palacio and Martin-Santana \(2018\)](#) in their research focus on young tourists who dominate the sample, because they are more mobile and have a higher degree of cultural intelligence and motivation to meet other cultures compared to older people. [Phau et al. \(2014\)](#) state that younger people have a more developed level of cultural intelligence than older ones. Young people, like students, employed at the beginning of their business career, travel a lot and get to know other cultures due to their professional obligations. Also, young people travel a lot as tourists, they have a desire to get to know the history and cultural heritage of other countries, but they also travel for fun and vacation.

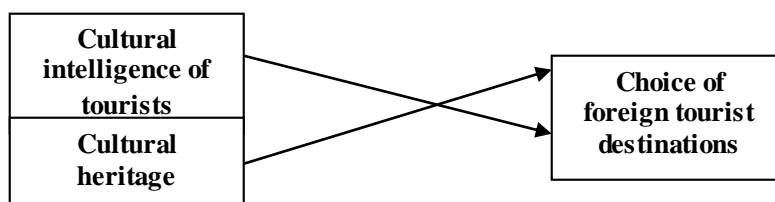
These studies examined whether the impact of cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations is more pronounced in older or younger respondents. In this study, respondents were segmented into three categories based on demographic characteristics of age: Generation X, Generation Y and Generation Z. Generation can be defined as a group of people who are of an approximate age ([Yang & Lau, 2015](#)). There is no generally accepted classification in the academic literature, but it can be said that people born in the period 1960 - 1980 belong to Generation X, while people born between 1981 and 1995 belong to generation Y. People who belong to generation Y are more globally oriented, more informed and have a higher degree of cultural intelligence compared to people belonging to Generation X, who visit foreign destinations to a lesser extent ([Yang & Lau, 2015](#)). Generation Z includes people born after 1995, who are quite innovative, electronically literate, follow the development of new technologies and want to develop cultural intelligence by traveling abroad, as well as to learning about of the cultural heritage of other countries. People belong to Generation Z want to visit exotic foreign destinations, and pupils and students visit foreign countries through exchange ([Robinson & Schanzel, 2019](#)). The aim of the research is to determine whether the influence of cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations is more pronounced in respondents belonging to Generation Z, who can be characterized as younger, compared to the respondents belonging Generation X, who can be characterized as older.

From the previous research and the aim of this study, the third hypothesis is defined:

**H3:** *The influence of the cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations is more pronounced in the respondents who belong to Generation Z compared to the respondents belonging to Generation X.*

The conceptual model of the study is shown in Figure 1 and it examines the influence of *cultural intelligence of tourists* and *cultural heritage* on the *choice of foreign tourist destinations*.

Figure 1: Conceptual model



Source: Author's research

### 3. Research methodology

The empirical research was conducted on the territory of the cities of Belgrade and Kragujevac in the Republic of Serbia in December 2020. A questionnaire was used for data collection, and from most respondents the answers were obtained in person, i.e. during the field research, while a questionnaire was distributed to a smaller number of respondents via email. A total of 223 questionnaires were distributed, which contained the eliminatory question of whether the respondent had traveled to a foreign country at least once and 15 respondents did not travel to any foreign country, which excluded them from the survey. Thus, the number of respondents who participated in the survey is 208. Respondents are segmented according to demographic characteristics gender, age and status, and gave answers to the findings using a seven-point Likert scale (1-completely disagree; 7-completely agree). The variables *cultural intelligence of tourists*, *cultural heritage* and the *choice of foreign tourist destinations* were measured through statements taken from the relevant literature which is a common approach in field marketing research. The statements used are shown in Table 1. Statistical software IBM SPSS Statistics Version 23 was used for the application of descriptive statistics, reliability analysis, as well as correlation analysis, while SEM analysis within the Amos software package was used for proving research hypotheses.

Table 1: Variables and statements

Variables	Statements	Source
<b>Cultural intelligence of tourists</b>	1. When communicating with people from other countries, I check the level of my cultural knowledge. 2. I know the values, customs, beliefs, rules of conduct that are characteristic of other cultures. 3. I have a high level of self-confidence when communicating with people who come from foreign cultures. 4. I adjust my verbal behavior (accent, tone) and non-verbal abilities (body language,	Adapted from: <a href="#">Ang et al. (2007)</a> <a href="#">Frias-Jamilena et al. (2018b)</a> <a href="#">Rahman et al. (2020)</a>

	facial expression) to the requirements of the intercultural situation.	
<b>Cultural heritage</b>	5. Cultural heritage is a treasure for every country and should be under state protection. 6. I enjoy seeing buildings and monuments when traveling abroad. 7. I have a great interest in the history of other countries as well as in the archeological sites that are located in them. 8. Getting to know the cultural heritage of other countries arises positive feelings in me.	Adapted from: <a href="#">Rahman et al. (2020)</a> <a href="#">Ricart et al. (2019)</a>
<b>Choice of foreign tourist destinations</b>	9. For my next trip, I plan to choose a foreign destination recognizable by its rich cultural heritage. 10. I plan to visit foreign countries because it allows me to improve my cultural intelligence. 11. I usually spend my vacation in foreign destinations. 12. Visiting foreign countries is a valuable experience for me.	Adapted from: <a href="#">Beerli-Palacio &amp; Martin-Santana (2018)</a> <a href="#">Frias-Jamilena et al. (2018a)</a> <a href="#">Rahman et al. (2020)</a>

Source: Author's research

The demographic characteristics of the respondents (gender, age and status) are shown in Table 2.

Table 2: Demographic characteristics of respondents

		<b>Number of respondents</b>	<b>Percent of respondents %</b>
<b>Gender</b>	Females	102	49
	Male	106	51
	<b>Total</b>	<b>208</b>	<b>100%</b>
<b>Age</b>	Generation Z	85	40.9
	Generation Y	41	19.7
	Generation X	82	39.4
	<b>Total</b>	<b>208</b>	<b>100%</b>
<b>Status</b>	Unemployed	31	14.9
	Employed	86	41.3
	Student	71	34.1
	Retired	20	9.7
	<b>Total</b>	<b>208</b>	<b>100%</b>

Source: Author's research

There are 102 women and 106 men in the sample. Most respondents belong to generation Z and generation X and most of them are either employed or students.

#### 4. Research results

The results of the arithmetic mean and standard deviation are listed in Table 3.

Table 3: Descriptive statistical analysis (arithmetic mean and standard deviation)

Statements	M	SD
1. When communicating with people from other countries, I check the level of my cultural knowledge.	4.97	1.95
2. I know the values, customs, beliefs, rules of conduct that are characteristic of other cultures.	5.14	2.01
3. I have a high level of self-confidence when communicating with people who come from foreign cultures.	5.44	1.79
4. I adjust my verbal behavior (accent, tone) and non-verbal abilities (body language, facial expression) to the requirements of the intercultural situation.	4.34	<b>2.20</b>
5. Cultural heritage is a treasure for every country and should be under state protection.	<b>5.51</b>	1.82
6. I enjoy seeing buildings and monuments when traveling abroad.	4.52	<b>1.73</b>
7. I have a great interest in the history of other countries as well as in the archeological sites that are located in them.	<b>4.12</b>	2.06
8. Getting to know the cultural heritage of other countries arises positive feelings in me.	5.12	1.85
9. For my next trip, I plan to choose a foreign destination recognizable by its rich cultural heritage.	4.18	1.82
10. I plan to visit foreign countries because it allows me to improve my cultural intelligence.	4.50	2.05
11. I usually spend my vacation in foreign destinations.	4.94	1.96
12. Visiting foreign countries is a valuable experience for me.	4.33	1.98

Source: Author's research

Respondents expressed the most positive attitudes in the statement, *Cultural heritage is a treasure for every country and should be under state protection* (M=5.51), while the least positive attitudes were expressed in the statement, *I have a great interest in the history of other countries as well as in the archeological sites that are located in them* (M=4.12). Respondents expressed the most homogeneous attitudes in the statement, *I enjoy seeing buildings and monuments when traveling abroad* (SD=1.73), while the least homogeneous attitudes were expressed in the statement, *I adjust my verbal behavior (accent, tone) and non-verbal abilities (body language, facial expression) to the requirements of the intercultural situation* (SD=2.20). It should be noted that the values of the standard deviation, which are over 2 in some statements, show that there were certain discrepancies between the answers of the respondents. Reliability analysis was used to examine whether the statements used were internally consistent and whether the set research model was relevant. In order for the above to be achieved, it is necessary that the *Cronbach's alpha coefficient* has a value greater than 0.70 (Nunnally, 1978). The coefficient values are listed in Table 4.

Table 4: Reliability analysis

Research variables	Cronbach's alpha
Cultural intelligence of tourists	0.81
Cultural heritage	0.78
Choice of foreign tourist destinations	0.88

Source: Author's research

The results show that the value of coefficient for all variables is greater than 0.70, so that they are measured through adequate statements, and thus the research model is relevant. To explain the relationship between the variables, correlation analysis was applied. The results are shown in Table 5.

Table 5: Correlation matrix

	Cultural intelligence of tourists	Cultural heritage	Choice of foreign tourist destinations
Cultural intelligence of tourists	1	0.451**	0.502**
Cultural heritage	0.451**	1	0.499**
Choice of foreign tourist destinations	0.502**	0.499**	1

Note: \*\* significant level 0.01

Source: Author's research

All correlation coefficients are significant at the level 0.01. *Cultural intelligence of tourists* (coefficient 0.502) and *Cultural heritage* (coefficient 0.499) represent significant determinants of the *Choice of foreign tourist destinations*. Also, the results show that tourists develop cultural intelligence by getting to know the cultural heritage of other countries (the value of coefficient is 0.451).

In order to examine the influence of the cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations and the test research hypothesis, the SEM analysis was applied (SEM-structural equation modeling). The results are showed in Table 6.

Table 6: Testing the relationship between variables in a research model (SEM)

Hypothesis	Standardized beta coefficient ( $\beta$ )	Statistical significance (p value)
Cultural intelligence of tourists $\rightarrow$ Choice of foreign tourist destinations	0.385*	0.000
Cultural heritage $\rightarrow$ Choice of foreign tourist destinations	0.297*	0.000

Source: Author's research

The results of the SEM analysis show that the cultural intelligence of tourists ( $\beta=0.385$ ,  $p=0.000$ ) and cultural heritage ( $\beta=0.297$ ,  $p=0.000$ ) have a positive statistically significant impact on the choice of foreign tourist destination, so that **the research hypothesis H1 and H2 are confirmed.**

When it comes to the influence of cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations, and in order to examine the moderating influence of demographic characteristics of the age of respondents (Generation Z and Generation X) on relationships in the model of structural equations, an invariance test was performed by comparing values  $\chi^2$  (and corresponding degrees of freedom) for the Constrained model and Unconstrained model. The results of this analysis are shown in Table 7. The results indicate that there are statistically significant differences between the models.

Table 7: Invariance testing in models, cultural intelligence of tourists and cultural heritage- choice of foreign tourist destination

Overall model	$\chi^2$	Degrees of freedom	$\Delta \chi^2$	$\Delta gl$	P value	Invariance
Unconstrained model	2088.118	816	612.125	408	0.000	No
Constrained model	1495.58	408				

Source: Author's research

After determining statistically significant differences at the model level, it is necessary to analyze the specific moderating influence that the age of respondents has on the relationship between the variables in the model. To this end, a test was performed that compares the regression coefficients between the structural models related to the influence of cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations by respondents which belong Generation Z (85 respondents) and Generation X (82 respondents). Jaccard and Wan (1996) state that in order to meet the basic criteria for the application of Multigroup SEM analysis, it is necessary that the minimum number of respondents per group is 75, so that in this case the condition for the application of the analysis is satisfied. The results of this analysis are shown in Table 8.

Table 8: Statistically significant differences between relationships in the structural model - Differences between Generation Z and Generation X in terms of the impact of cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations

Relationships between variables	Generation Z		Generation X		z-value
	( $\beta$ ) coefficient	p value	( $\beta$ ) coefficient	p value	
Cultural intelligence of tourists → Choice of foreign tourist destination	0.344	0.000	0.198	0.000	-2.381*
Cultural heritage → Choice of foreign tourist destination	0.294	0.000	0.179	0.000	-2.115*

Source: Author's research

Based on the results, it can be concluded that the influence of cultural intelligence of tourists on the choice of foreign tourist destinations is more pronounced in the respondents belonging to Generation Z ( $\beta=0.344$ ,  $p=0.000$ ) compared to the respondents belonging to Generation X ( $=0.198$ ,  $p=0.000$ ). Furthermore, the results show that the influence of cultural heritage on the choice of foreign tourist destinations is more pronounced in the respondents who belong to Generation Z ( $\beta=0.294$ ,  $p=0.000$ ) compared to the respondents belonging to Generation X ( $=0.179$ ,  $p=0.000$ ), so that **the research hypothesis H3 is confirmed.**

### Discussion of results

The results showed that both variables have a positive statistically significant influence on the intention of tourists to visit a foreign destination, so that the research hypotheses H1 and H2 were confirmed. Moreover, the results showed that the influence of cultural intelligence of tourists and cultural heritage on the choice of foreign destinations is more pronounced in the respondents who belong to Generation Z compared to the respondents belonging to

Generation X, so that the research hypothesis H3 was confirmed. The study confirmed the results of previous research in which it was proven that the cultural intelligence of tourists is a valuable determinant of the choice of foreign destinations (Beerli-Palacio & Martin-Santana, 2018; Frias-Jamilena et al., 2018a; Koo et al., 2016; Rahman et al., 2020). The study also confirmed the results of research in which it was proven that cultural heritage is a valuable determinant of the choice of foreign destinations (Bordoni, 2011; Jamhawi & Hajahjah, 2017; Shi et al., 2019; Underberg-Goode, 2014; Vareiro et al., 2020). The results of the research also showed that the choice of foreign destinations of Serbian tourists is more influenced by cultural intelligence than cultural heritage based on the data obtained by SEM analysis. Thus, it can be concluded that Serbian tourists visit cultural monuments, museums and cultural events, but the bigger motives for going to a foreign country are communication with people from other cultures, getting to know their values, beliefs, learning foreign languages and the like. The results also showed that the influence of these variables on the choice of foreign destinations is more pronounced in respondents belonging to Generation Z compared to the respondents belonging to Generation X, and similar results were obtained in previous research (Robinson & Schanzel, 2019; Yang & Lau, 2015), as well as by the authors who state that the influence of these variables is more pronounced in younger than in older respondents (Beerli-Palacio & Martin-Santana, 2018; Phau et al., 2014). At the same time, the obtained results are different in relation to studies that found that the impact of these variables is more pronounced in older people than in younger people (Šagovnović & Kovačić, 2020; Tešin et al., 2020). Compared to the older category, young people have more information and it is easier for them to access it thanks to electronic literacy. Young people are more willing and able to adapt to other cultures when going to a destination and adapt faster than older ones. On the other hand, older people have more significant financial income than young people like students, and visiting foreign countries and touring museums, operas, and cultural events requires a certain amount of money (Phau et al., 2014). Due to the fact that the results of previous studies are contradictory when it comes to the impact of these variables on the choice of foreign tourist destinations from the aspect of demographic characteristics of age, we should be careful when drawing conclusion. It would be desirable to include diverse demographic characteristics such as education in future studies, then the results would be clearer and more complete.

## 5. Conclusion

The research was undertaken to explain the impact of *cultural intelligence of tourists* and *cultural heritage* on the *choice of foreign tourist destinations*. Research hypotheses have proven that these research variables are significant determinants of the choice of foreign tourist destinations, as well as that their impact is more pronounced in the respondents belonging to Generation Z compared to the respondents belonging to Generation X. Cultural intelligence of tourists is a relatively new concept and in foreign literature there is a very small number of works that dealt with the topic, while in domestic literature there are almost no such works, which represents *the originality* of this work. It should be noted that unlike previous studies that analyzed cultural intelligence as a partial determinant of the choice of foreign tourist destinations, this study applied a holistic approach by analyzing the effect of cultural heritage, which can be characterized as the *main contribution* of the paper. *Scientific implications* are reflected in the expansion of knowledge about the influence of cultural intelligence of tourists and cultural heritage on the choice of foreign tourist destinations. *Managerial implications* are reflected in helping marketing managers in shaping an adequate marketing strategy that should take into account the requirements and needs of tourists. Tourism service providers should include in their offer foreign destinations that have a rich cultural heritage and enable tourists to develop their cultural intelligence. The *limitation of*



the research is reflected in the sample size. Also, it should be noted that the demographic structure of the respondents in the sample deviates from the demographic structure of the population in the Republic of Serbia, which should be borne in mind when interpreting certain results and proving research hypothesis H3. If the sample were more representative, different results might be obtained. It would be useful to examine whether there are statistically significant differences in the impact of these variables on the choice of foreign tourist destinations from the aspect of education as a demographic characteristic. In future research, the sample should be increased and other variables should be included in the conceptual model, which may have a significant impact on the choice of foreign tourist destinations, such as natural resources (national parks, flora and fauna), tourist infrastructure (hotels and restaurants), and/or sports activities (swimming, cycling). Also, it would be interesting to undertake an empirical research in several different countries, since cross-cultural research makes it possible to compare the attitudes of members of different nations, which would make the results more interesting and comprehensive.

### Conflict of interest

The authors declare no conflict of interest.

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## The influence of internal service quality and employee satisfaction on organizational commitment in travel agencies: The case of Serbia

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**Abstract:** The aim of the research is to observe the influence of internal service quality and employee satisfaction on organizational commitment of employees in travel agencies. A sample of 150 respondents employed in travel agencies in Serbia was surveyed in April 2020, using the questionnaire technique and validated instruments: a modified SERVQUAL model, Job Satisfaction Survey (JSS) and Organizational Commitment Questionnaire (OCQ). The influence of internal service quality and employee satisfaction on organizational commitment in travel agencies was tested using multiple regression. Research findings have indicated that the increase in internal service quality and employee satisfaction is accompanied by an increase in organizational commitment of employees in travel agencies. Finally, the results, implications and limitations are presented, and future research recommendations are specified.

**Keywords:** internal service quality, employee satisfaction, organizational commitment

**JEL klasifikacija:** D23, J28, Z32

## Uticaj internog kvaliteta usluga i zadovoljstva zaposlenih na organizacionu posvećenost u turističkim agencijama: Primer Srbije

**Sažetak:** Svrha ove studije je da ispita uticaj internog kvaliteta usluga i zadovoljstva zaposlenih na organizacionu posvećenost zaposlenih u turističkim agencijama. Istraživanje je sprovedeno u aprilu mesecu 2020. godine na uzorku od 150 ispitanika zaposlenih u turističkim agencijama u Srbiji, tehnikom upitnika, primenom validiranih instrumenata: modifikovanog SERVQUAL modela za merenje internog kvaliteta usluga, upitnika za merenje zadovoljstva poslom (JSS) i upitnika za merenje organizacione posvećenosti (OCQ). Uticaj internog kvaliteta usluga i zadovoljstva zaposlenih na posvećenost zaposlenih u turističkim agencijama testiran je pomoću višestruke regresije, a nalazi istraživanja ukazuju da porast internog kvaliteta usluga i zadovoljstva zaposlenih prati povećanje organizacione

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posvećenosti zaposlenih u turističkim agencijama. Na kraju su diskutovani rezultati, predložene implikacije, navedena ograničenja studije i smernice za buduća istraživanja.

**Ključne reči:** interni kvalitet usluga, zadovoljstvo zaposlenih, organizaciona posvećenost  
**JEL klasifikacija:** D23, J28, Z32

## 1. Introduction

Tourism is one of the few economic activities that largely depend on human resources (Milićević & Petrović, 2018). The specifics of human resources in hospitality and tourism are reflected in the fact that their role is crucial in every business segment, bearing in mind that almost no relationship in the value chain can be fully automated and function without human resources (Hady & Chible, 2018; Marinković Matović & Vemić Đurković, 2020). Bearing in mind that employees in tourism and hospitality have direct contact with final consumers, their treatment of consumers directly affects the perception of the quality of services provided (Malhotra & Mukherjee, 2004). Travel agencies generally always use personal services and contacts when selling travel arrangements, create arrangements tailored to the needs and desires of consumers, and use their contacts with hotels, airlines and other complementary activities to create and deliver travel arrangements. Consequently, employees in travel agencies are considered the most crucial critical factors in the business of travel agencies. (Hady & Chible, 2018; Hefny, 2020; Pavlović & Simić, 2019). They are the most valuable resource, and the bearers of providing quality services, creating innovation and added value, and increasing business (Perić et al., 2018). Therefore, they represent a very important factor in creating a competitive advantage of a travel agency (Sandybayev & Houjeir, 2018; Vučetić, 2012). The success of a travel agency is not measured exclusively by the realized profit, but also by satisfying the interests of owners and employees, as well as customers (Gajić et al., 2014). In this sense, employees in travel agencies have a dual role, on one hand as service providers for end customers, and on the other hand as service providers for internal customers who receive services from other organizational units or employees (Maharani et al., 2020). Satisfying internal customers or employees is a prerequisite for the successful condition of quality services to end customers (Chen et al., 2012; Chiang & Wu, 2014). Highly satisfied and enthusiastic employees in travel agencies offer high level of service quality to final customers (Hefny, 2020). More precisely, understanding the correlation between internal service quality, employee satisfaction and organizational commitment is especially important in hospitality and tourism, which depends on employees, human resources and direct contact with customers (Bai et al., 2006; Dramićanin, 2019; Yeshanew & Kaur, 2018).

Providing internal services emphasizes the achievement of efficient internal exchange between the organization and its employees, which ultimately contributes to the positive results of the organization (Sharma et al., 2016). Therefore, the internal quality of services plays an important role in employee satisfaction, productivity and loyalty of final consumers (Akroush et al., 2013; Prakash & Srivastava, 2019), because the internal quality of services is related to the services provided within the organization and aims to provide quality services to final consumers (Brandon-Jones & Silvestro, 2010). Internal service quality, regardless of its growing importance, has been insufficiently researched in tourism. Empirical confirmation of the perception of employees about the internal service quality is limited. Namely, only few studies have investigated the link among employee satisfaction, internal service quality and organizational commitment (Al-Ababneh et al., 2018; Bai et al., 2006). There are studies in tourism that have studied the link between employee satisfaction and organizational commitment (Blešić et al., 2017; Ozturk et al., 2014; Vujičić et al., 2015), but an insufficient number of them have studied the fundamental relationship, especially in travel

agencies (Hefny, 2020). Specifically, the fact that one variable correlates with another does not mean that the first causes the other. In accordance with the above, the aim of the research is to observe the influence of internal service quality and employee satisfaction on organizational commitment of employees in travel agencies.

## **2. Theoretical background**

### **2.1. Internal service quality**

The concept of internal marketing began to develop in the early 70s of the last century, primarily as a way to achieve quality service (Joung et al., 2015). However, despite the growing popularity in science, the concept of internal marketing is not sufficiently applied in practice (Alhakimi & Alhariryb, 2014; Roknić & First Komen, 2015). Internal marketing is defined as “the application of marketing theory and practice in serving external consumers in a way that includes hiring and retaining the best staff and their willingness to do job in the best way” (Berry et al., 1976 as cited in Zdjelarić et al., 2017, p. 116). Attracting the right people, as well as maintaining good long-term relationships with them, is a cornerstone of the construction of internal marketing. Internal marketing is a constituent part of organization and is a most important trigger of internal service quality and external customer satisfaction (Akroush et al., 2013). Managers in the hospitality and tourism sector have an issue to offer internal service quality. Internal service quality is one of the basic preconditions for the understanding of organizational goals in the global hospitality and tourism market (Redžić, 2018).

Researchers Sasser and Arbeit (1976) use the term “internal service quality” to focus on employees they treated as internal consumers. Employees provide internal services to other employees working in the same organization (Stauss, 1995). The proposal of internal services arose from an internal marketing perspective, which views staff as internal consumers and suggests to the organization that get-together their needs will help realize organizational goals (Sharma et al., 2016). Thus, internal service quality is decided as the professed service quality provided by particular organizational departments or employees working in them, other organizational departments, and employees in the organization (Back et al., 2011; Stauss, 1995). Dužević et al. (2014) point out that those employees in service organizations are internal customers in the service quality sequence and represent a very important connection. On the other hand, meeting the internal customers’ needs in a service sector, such as tourism, is a prerequisite for providing quality service to final consumers (Chen et al., 2012; Chiang & Wu, 2014). To be precise, the establishment of a philosophy that emphasizes the internal consumers or employees’ well-being can serve as a means of lure and retention of final consumers (Skarpeta et al., 2019). Service quality is incorporated into the quality and performance of employees (Bansal et al., 2001), however, Jun and Cai (2010) state that an organization cannot meet the final customers’ requirements devoid of taking into account the expectations of internal customers. It is compatible with the postulation of the “Service-Profit Chain” built by Harvard professors (Heskett et al., 1994).

### **2.2. Employee satisfaction**

Researchers have different approaches to defining the concept of employee satisfaction. There is no general agreement and, therefore, there is a large number of definitions of employee satisfaction in the literature (Gautam et al., 2006). “Employee satisfaction is a combination of psychological or environmental factors that influence employees to be satisfied with their job” (Hoppock, 1935 as cited in Mirković & Čekrljića, 2015, p. 214). Also, Locke (1976) defines “employee satisfaction as a pleasurable or positive emotional state



resulting from the appraisal of one's job or job experiences" (p. 1304), while according to Spector (1997) "employee satisfaction can be considered as a global feeling about the job or as a related constellation of attitudes about various aspects or facets of the job" (p. 2). The same author identifies nine aspects or facets of job important to employee satisfaction as follows: "pay and remuneration, promotion opportunities, supervision, monetary and nonmonetary benefits, contingent rewards, organization policies and procedures, co-workers, nature of work itself, and communication" (Spector, 1997, p. 8). An organization must understand the importance of both the satisfaction with certain facets of the job that engaged in the individual, but also their expectations from that job (Janićijević, 2008).

Employee satisfaction is mainly imperative in hospitality and tourism, primarily because customer retention and service quality depend on direct contact with employees (Vujičić et al., 2015). Employees have expectations about how to meet their needs and desires (Jevtić et al., 2020). An organization with a built organizational culture and identity affects employee satisfaction and the intention of employees to remain in the organization (Ognjanović, 2017). Consequently, employee satisfaction is the most important issue facing hospitality and tourism (Matzler & Renzl, 2007). This opinion is definite by some of the earlier studies that indicated that service organizations should pay special attention to employee satisfaction (Boshoff & Tait, 1996; Heskett et al., 1994; Rust et al., 1996). Numerous studies have found that employee satisfaction is connected with a diversity of positive outcomes, starting with organizational commitment and employee retention (De Sousa Sabbagha et al., 2018; Pavlović et al., 2020; Rose & Raja, 2016; Valaei & Rezaei, 2016), through service quality and satisfied consumers (Chi & Gursoy, 2009; Jung & Yoon, 2013; Perić et al., 2018), increased competitiveness and market share (Resurreccion, 2012; Sandhya & Kumar, 2014) all the way to profitability (Singh et al., 2016; Singh et al., 2017; Yee et al., 2008).

### **2.3. Organizational commitment**

In management and organizational behavior, "organizational commitment is an influential variable in an organization and is conceived as a pattern of behavior, a set of behavioral intentions, a motivating force, or an attitude" (Chiu et al., 2020, p. 108). The particularly important form of attitudes in the organization is an organizational commitment; it determines the connection of employees with their organization, which can significantly affect their work performance (Abdullah et al., 2020; Atmojo, 2012; Sharma et al., 2016). Porter et al. (1974) describe organizational commitment as "a strong belief and acceptance of the goals of an organization, a willingness to make a significant effort for the benefit of the organization, and a definite desire to retain membership in the organization" (p. 604). Similarly, Bateman and Strasser (1984) view commitment as "multidimensional in nature that includes employee loyalty to the organization, willingness to make an effort, the degree to which goals and values match the organization, and the desire to remain in the organization" (p. 95). Therefore, organizational commitment includes three main characteristics: employee's identification with the purpose and standards of the organization, a powerful tendency to participate in the activities of the organization, and high aspiration to belong to the organization.

Research of organizational commitment has developed significantly in the last few decades (Suzuki & Hur, 2020). Organizational commitment creates positive impact on motivation, employee satisfaction, productivity, performance and service quality (Akasoy et al., 2018; Atmojo, 2012; Dhar, 2015; Kale & Shimpi, 2020; Loan, 2020; Nguyen et al., 2020).

### **3. Conceptual framework and hypotheses development**

#### **3.1. Relationship between internal service quality and organizational commitment**

Boshoff and Mels (1995) examine the link together with supervision, stress, organizational commitment, and internal quality service between insurance vendors, where research findings indicate that commitment of employees has a significant positive effect on internal quality service. The findings of most studies have proven the positive impact of internal quality service on organizational commitment (Abdullah et al., 2020; Bai et al., 2006; Sharma et al., 2016), while there are studies that have not proven the relationship between the observed variables (Ching et al., 2020; Maharani et al., 2020). Although the importance of internal service quality for service organizations is enormous, there are few studies in the tourism and hospitality sector that actually examine the link between internal service quality and organizational commitment. Bai et al. (2006) conducted a study among employees in the hotel sector of Las Vegas, on a sample of 800 respondents, and the results of the research confirmed that the internal quality of services and employee satisfaction have a significant positive impact on organizational commitment. Back et al. (2011) in their study of employees in Korean casinos examined the relationship among internal service quality, employee satisfaction, self-efficacy, organizational commitment, and self-esteem. The analysis was performed on 328 respondents, and the research findings have indicated that the internal quality of services has a positive effect on employee satisfaction and self-efficacy, while through employee satisfaction it affects organizational commitment and self-respect.

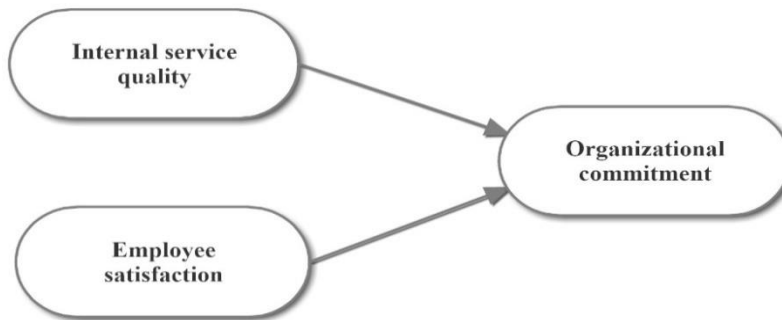
#### **3.2. Relationship between employee satisfaction and organizational commitment**

The link between employee satisfaction and organizational commitment has been generally considered, as recorded by a large number of research, especially in the hospitality and tourism sector (Abdullah et al., 2020; Bai et al., 2006; Blešić et al., 2017; Gunlu et al., 2010; Hefny, 2020; López-Cabarcos et al., 2015; Ozturk et al., 2014; Valaei & Rezaei, 2016; Vujičić et al., 2015). Vujičić et al. (2015) carried out a study between employees in the hospitality and tourism sector (hotels, travel agencies, and restaurants) in Serbia on a sample of 149 respondents, and the research result indicated a high positive correlation between employee satisfaction and commitment of employees. Blešić et al. (2017) did similar research among employees in the hotel industry and there was a significant and positive correlation between the observed variables. On the other hand, Ozturk et al. (2014) conducted a survey in 17 high-end hotels in Turkey and found that employee satisfaction positively affects affective commitment. In her study on travel agency employees, Hefny (2020) explored the link between employee satisfaction and organizational commitment on a sample of 174 respondents, and the results showed that employee satisfaction has a positive influence on organizational commitment, i.e., that an advanced level of employee satisfaction raises organizational commitment.

The conceptual framework of the research is based on the above theoretical and empirical concepts of research and is illustrated in the following figure.



Figure 1: Conceptual framework of research



Source: Author's research

In the line with conceptual framework of the research, the following research hypotheses will be tested:

Internal service quality ( $H_1$ ) and employee satisfaction ( $H_2$ ) has a positive influence on organizational commitment.

## 4. Research methodology

### 4.1. Data collection and sampling

The study was done in April 2020 and the questionnaire technique was used. It was administered online and distributed via the social network Facebook and the appropriate sample method was used. Owners and employees of travel agencies in Serbia use closed groups on Facebook to exchange information. The sample consisted of 150 respondents, among whom there was no missing data. The following table shows the sample basic characteristics.

Table 1: Basic characteristics of the sample

Characteristics		Frequency (N=150)	
		N	%
Gender	Male	65	43.33
	Female	85	56.67
Age	18 – 25	10	6.67
	26 – 35	82	54.67
	36 – 45	35	23.33
	46 – 55	18	12
	Over 56	5	3.33
Level of education	Secondary degree	32	21.33
	Bachelor appl. degree	33	22
	Bachelor's degree	55	36.67
	Master's degree	29	19.33
	PhD degree	1	0.67
Length of service in travel agency in years	Up to 1	33	22
	2 – 5	58	38.67
	6 – 10	25	16.67
	11 – 15	18	12
	16 – 20	14	9.33
	Over 20	2	1.33

Source: Author's research

The largest number of respondents in the sample are women 85 (56.67%), and more than half respondents are between 26 and 35 years of age (54.67%). Regarding the educational structure, most of the respondents have completed higher education (professional and academic studies), while more than half of the respondents have currently been working in a travel agency for 2 to 10 years.

## 4.2. Measurement

Measurement of the perception of internal quality of services was performed using the SERVQUAL model (Parasuraman et al., 1985), modified to determine the internal service quality, and based on the research of Kang et al. (2002), who confirmed that the adapted SERVQUAL model could assess the internal service quality (see Appendix 1). The previous research that has applied a customized SERVQUAL assessment model indicates that the instrument has high reliability and consistency (El Samen & Alshurideh, 2012; Gunawardane, 2009; Latif, 2016).

AJSS scale (see Appendix 2) developed in 1984 by Paul Spector, which contains 36 questions, measured employee satisfaction (Spector, 1997). It is an instrument that was primarily developed for the service sector, and which has found wide application in all areas. The instrument has a high internal consistency and validity, as evidenced by numerous studies (Li & Huang, 2017; Ogunkuade & Ojiji, 2018; Tsounis & Sarafis, 2018; Yelboğa, 2009).

The OCQ consists of 15 questions (see Appendix 3) and measures organizational commitment (Mowday et al., 1979). It is the most commonly used instrument for measuring organizational commitment, that performs high reliability and consistency (Hidalgo-Fernández et al., 2020; Kanning & Hill, 2013; Yousef, 2003).

Respondents used the instruments to review the questions using Likert scale (five-point). The Cronbach's alpha coefficient measured reliability of the instruments and the findings (Table 2) indicate that all three instruments have a reliability over 0.7, which is above the recommended values (DeVellis, 2016).

Table 2: Results of reliability statistics

	<b>Cronbach's alpha</b>	<b>Number of items</b>
Organizational commitment	0.81	15
Internal service quality	0.96	22
Employee satisfaction	0.78	36

Source: Author's research

## 5. Research results

The following table shows the results.

Table 3: Results of descriptive statistics

	<b>Mean</b>	<b>Std. Deviation</b>
Organizational commitment	3.53	0.36
Internal service quality	4.13	0.56
Employee satisfaction	3.34	0.30

Source: Author's research

The results indicate a moderate level of commitment of employees in travel agencies (M=3.53; SD=0.36), a high level of satisfaction with internal service quality (M=4.13;

SD=0.56). The results also show that employees are moderately fulfilled with their work (M=3.34; SD=0.30), the results are on the border between ambivalence and satisfaction. Pearson's correlation was applied in order to examine the relations among organizational commitment, internal service quality and employee satisfaction in travel agencies. Table 4 presents the results.

Table 4: Results of correlations

	OQ	ISQ	ES
Organizational commitment (OQ)	1		
Internal service quality (ISQ)	0.423**	1	
Employee satisfaction (ES)	0.397**	0.102	1

Note: \*\* p<0.001

Source: Author's research

The results show a significant, moderate and positive correlation between organizational commitment and internal service quality ( $r=0.423$ ;  $p=0.00$ ), as well as between organizational commitment and employee satisfaction ( $r=0.397$ ;  $p=0.00$ ). The presence of multicollinearity is not observed.

Multiple regression was used for the observation of the influence of internal service quality and employee satisfaction on organizational commitment. In addition to multicollinearity, preliminary analysis examined the assumptions of normality, linearity, homoscedasticity, and the presence of multivariate extreme values. No violation of the assumptions for the use of multiple regression was observed. The following table shows the results of multiple regressions to conclude the predictive effect of internal service quality and employee satisfaction on organizational commitment.

Table 5: Results of multiple regression

	Organizational commitment				
	B	Std. Error	Beta ( $\beta$ )	t	Sig.
Internal service quality	0.250	0.045	0.387	5.594	0.000
Employee satisfaction	0.427	0.083	0.357	5.172	0.000

Source: Author's research

The model is statistically significant ( $R^2=0.305$ ,  $F(2.147)=32.32$ ;  $p=0.00$ ), which shows that the employee satisfaction and internal service quality explain 30.5% of the variance of organizational commitment. The increase in the internal service quality ( $\beta=0.39$ ;  $p=0.00$ ) and employee satisfaction ( $\beta=0.36$ ;  $p=0.00$ ) is accompanied by an increase in organizational commitment. The overall statistical results indicate that the internal service quality and employee satisfaction have a positive influence on organizational commitment.

## 6. Discussion and conclusions

The study has examined the internal service quality, employee satisfaction, and commitment of employees in travel agencies in Serbia. The results of descriptive statistics demonstrate a very positive perception of employees about the internal service quality, while employee satisfaction is on the border between ambivalence and satisfaction, and organizational commitment is moderate. These findings are in agreement with various studies conducted in hospitality and tourism sector (Al-Ababneh et al., 2018; Bai et al., 2006; Blešić et al., 2017; Dramićanin, 2019; Vujičić et al., 2015).

The quality issue is the main challenge for service organizations, especially in the hospitality and tourism sector. The research findings indicate that internal quality is an important predictor of employee commitment, which is in accordance with the results obtained by researchers examining the relationship between these two variables (Abdullah et al., 2020; Bai et al., 2006; Sharma et al., 2016). The first hypothesis (H1) has been proven i.e. the internal service quality has a positive influence on organizational commitment; the increase in internal service quality is accompanied by an increase in employee commitment to travel agencies.

Furthermore, in addition to previous research whose findings propose that organizational commitment leads to employee satisfaction (Vandenberg & Lance, 1992; Bateman & Strasser, 1984), this research clearly ensures evidence that employee satisfaction is a predictor of organizational commitment, as evidenced by numerous studies conducted in hospitality and tourism sector (Bai et al., 2006; Blešić et al., 2017; Gunlu et al., 2010; Hefny, 2020; López-Cabarcos et al., 2015; Ozturk et al., 2014; Vujičić et al., 2015). The second research hypothesis (H2) has also been proven, i.e. employee satisfaction has a positive effect on the organizational commitment of employees in travel agencies in Serbia.

Although internal service quality is an essential component in realizing a high level of employee commitment (Bai et al., 2006), the results of internal service quality and employee satisfaction reflect moderate employee commitment in travel agencies. As already mentioned, the findings of multiple regression have confirmed the influence of internal service quality and employee satisfaction on organizational commitment.

### **6.1. Managerial implications**

An important concept in hospitality and tourism organizations is internal service quality, bearing in mind that it affects the commitment of employees, as well as providing high quality services to internal customers. Employees have a critical role in interaction with final customers, which is a prerequisite for quality service and is the ultimate goal of organizational success. Therefore, managers and owners of travel agencies have to recognize the significance of internal service quality and to establish appropriate mechanisms for its measurement, where monitoring is emphasized. In addition, management needs to find a way to advance internal service quality, at the individual and organizational unit level, bearing in mind that internal service quality is a critical issue in achieving a competitive advantage in the hospitality and tourism sector.

The imperative of organizations in hospitality and tourism should be to recognize the requirements and desires of their workers in order to improve their satisfaction and commitment. Employee satisfaction is a significant predictor of organizational commitment. In order for managers and owners of travel agencies to increase the level of commitment of their employees, they must focus on all aspects of employee satisfaction, from pay, promotion opportunities, supervision, monetary and nonmonetary benefits, policies and procedures to co-worker relations, nature of work itself, and communication. Also, the need for continuous assessment of employee satisfaction, and commitment by management is emphasized. Working in a travel agency is in itself a challenging and dynamic job, having in mind that it implies continuous communication, both with internal and external customers. Management must build good relations with employees, encourage creativity, give a certain degree of autonomy, as well as the opportunity for further development and advancement. The fairness of the reward systems should certainly be emphasized because the perception of unfair distribution can negatively affect the satisfaction and commitment of employees.

## 6.2. Limitations and future research

Finally, it is necessary to state the imperfection of the research. Firstly, the research has been conducted only in travel agencies and does not provide grounds for some more general conclusions. It is necessary to look for empirical evidence in other hospitality and tourism organizations, in order to confirm the findings from this research. Secondly, when it comes to internal service quality, this study has only measured employees' perceptions of internal service quality through a modified SEVRQUAL model, but Parasuraman et al. (1985) emphasized the significance of studying the gap between expectations and perception, as helpful implications for managers. Therefore, future research needs to focus on studying expectations and perceptions of internal service quality, as well as how the dimensions of internal service quality individually contribute to organizational commitment. It is also necessary to investigate how different factors of employee satisfaction affect organizational commitment, as well as how these concepts affect the service quality that employees provide to external customers / final consumers.

## Conflict of interest

The authors declare no conflict of interest.

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Appendix 1: Internal service quality battery (Kang et al., 2002)

	Items
1.	Co-workers provide service that is promised.
2.	Co-workers are dependable for handling my problems.
3.	Co-workers perform services right the first time, to avoid having to make correction later.
4.	Co-workers provide correct and necessary intimation.
5.	Co-workers are reliable.
6.	I can trust my co-workers.
7.	I feel safe in dealing with co-workers.
8.	Co-workers are polite and kind.
9.	Co-workers are knowledgeable.
10.	We have up-to-date equipment.
11.	Working environment is comfortable and attractive.
12.	Co-workers have a neat, professional appearance.
13.	The materials used in the work place are visually appealing.
14.	Co-workers are sincerely concerned about problems.
15.	We have convenient working hours.
16.	Co-workers give me individual attention.
17.	Co-workers seem to have each other's best interests in mind.
18.	Co-workers are sensitive to my work-related needs.
19.	My communication with co-workers is appropriate, accurate, and clear.
20.	Co-workers respond quickly and efficiently to my request.
21.	Co-workers are willing to help me.
22.	Co-workers are willing to accommodate special requests and needs.

Appendix 2: Job Satisfaction Survey (Spector, 1997)

	Items
1.	I feel I am being paid a fair amount for the work I do.
2.	There is really too little chance for promotion at my job. ®
3.	My supervisor is quite competent in doing his/her job.
4.	I am not satisfied with the benefits I receive. ®
5.	When I do a good job, I receive the recognition for it.
6.	Many of the rules and procedures in my travel agency make doing a good job difficult.®
7.	I like the people I work with.
8.	I sometimes feel my job is meaningless. ®
9.	Communication seems good within my travel agency.
10.	Rises are too few and far between in my travel agency. ®
11.	Those who do well on the job stand a fair chance of being promoted.
12.	My supervisor is unfair to me. ®
13.	The benefits we receive are as good as most other travel agencies offer.
14.	I do not feel that the work I do in my travel agency is appreciated. ®
15.	My efforts to do a good job are seldom blocked by red tape.
16.	I find I have to work harder at my job because of the incompetence of people I work with. ®
17.	I like doing the things I do at work.
18.	The goals of my travel agency are not clear to me. ®
19.	I feel unappreciated by my travel agency when I think about how much they pay me. ®
20.	People get ahead as fast in my travel agency as they do in other travel agencies.
21.	My supervisor shows too little interest in the feelings of subordinates. ®
22.	The benefit package we have in my travel agency is equitable.
23.	There are few rewards for those who work in my travel agency. ®
24.	I have too much to do at work. ®
25.	I enjoy my co-workers.
26.	I often feel that I do not know what is going on with my travel agency. ®
27.	I feel a sense of pride in doing my job.
28.	I feel satisfied with my chances for salary increases.
29.	There are benefits we do not have which we should have in my travel agency. ®
30.	I like my supervisor.
31.	I have too much paperwork. ®
32.	I don't feel my efforts are rewarded the way they should be in my travel agency. ®
33.	I am satisfied with my chances for promotion.
34.	There is too much bickering and fighting at work. ®
35.	My job is enjoyable.
36.	Work assignments in my travel agency are not fully explained. ®

Note: ® = reverse-coded item

Appendix 3: Organizational Commitment Questionnaire (Mowday et al., 1979)

	Items
1.	I am willing to put in a great deal of effort beyond that normally expected in order to help my travel agency be successful.
2.	I talk up my travel agency to my friends as a great organization to work for.
3.	I feel very little loyalty to my travel agency.®
4.	I would accept almost any type of job assignment in order to keep working for my travel agency.
5.	I find that my and the values of my travel agency are very similar.
6.	I am proud to tell others that I am part of my travel agency.
7.	I could just as well be working for a different travel agency as long as the type of work was similar. ®
8.	This travel agency really inspires the very best in me in the way of job performance.
9.	It would take very little change in my present circumstances to cause me to leave my travel agency. ®
10.	I am extremely glad that I chose my travel agency to work for over others I was considering at the time I joined.
11.	There is not too much to be gained by sticking with my travel agency indefinitely. ®
12.	Often, I find it difficult to agree with this policy of my travel agency on important matters relating to its employees. ®
13.	I really care about the fate of my travel agency.
14.	For me this is the best of all possible travel agencies for which to work.
15.	Deciding to work for my travel agency was a definite mistake on my part. ®

Note: ® = reverse-coded item

## Likelihood of propensity to travel: Prediction based on socio-demographic factors

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**Abstract:** The purpose of this research is to provide some insights into socio-demographic determinants of predicting the likelihood of residents propensity to travel. Using the quota sampling technique, data collection was carried out from October to December 2019, yielding a sample of 632 valid responses. To gain a better understanding of the socio-demographic determinants of propensity to travel, we, primarily, use descriptive statistical analysis, chi-square test and probit regression model. The research findings have revealed that age, education and household income characteristics may be considered as antecedents of travel propensity of residents. Having in mind the impact that Covid-19 pandemic has on sector of tourism worldwide, and based on the results of this research, policymakers' efforts should be directed to promoting local tourist destinations and to enhancing tourism literacy of residents.

**Keywords:** propensity to travel, prediction, likelihood, socio-demographic determinants

**JEL classification:** C83, L83, C25

## Verovatnoća sklonosti putovanju: Predikcija bazirana na socio-demografskim faktorima

**Sažetak:** Cilj ovog istraživanja je da pruži uvid u socio-demografske determinante predikcije verovatnoće sklonosti turističkom putovanju rezidenata. Koristeći kvota uzorak od 632 ispitanika, prikupljanje podataka vršeno je od oktobra do decembra meseca 2019. godine. Da bi se steklo bolje razumevanje socio-demografskih determinanti sklonosti turističkom putovanju, korišćene su deskriptivna statistička analiza, hi-kvadrat test i probit regresioni model. Nalazi istraživanja otkrili su da se starost, obrazovanje i prihod domaćinstva mogu smatrati prediktorima njihove sklonosti turističkom putovanju. Imajući u vidu uticaj koji pandemija Covid-19 ima na turistički sektor širom sveta, a na osnovu rezultata ovog istraživanja, naponi kreatora politika trebalo bi da budu usmereni na promociju lokalnih turističkih destinacija i na unapređenje turističke pismenosti rezidenata.

**Ključne reči:** sklonost turističkom putovanju, predikcija, verovatnoća, socio-demografske determinante

**JEL klasifikacija:** C83, L83, C25

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## 1. Introduction

As pointed out by [Kožić et al. \(2016\)](#) propensity to travel is profoundly entrenched into the core of tourism demand. Extensive and important research of propensity to travel has already been conducted. As key factors of travel propensity socio-demographic factors are recognized ([Ching-Fu & Wu, 2009](#); [Handayani & Djamaluddin, 2016](#); [Seyidov & Adomaitienė, 2016](#); [Thrane et al., 2016](#); [Toivonen, 2004](#)). Besides, the impact of psychological factors on travel propensity is found in [Dogru \(2016\)](#) and [Letheren et al. \(2017\)](#). In addition, the characteristics of tourist product, such as destination, voyage, and event, as impacting factors regarding travel propensity are recognized in [Bianchi and Milberg \(2017\)](#), [Choi et al. \(2019\)](#), [Gurbaskan Akyuz \(2019\)](#) and [Hur and Adler \(2013\)](#). However, not many of these studies concentrate on the perspective of residents and their propensity to visit tourist destinations. The studies of propensity to travel enable identification of subjective and objective factors that have stimulating role in tourist market and services development. One of the tourist marketing goals could be discovering, stimulating, and creating permanent propensity to travel. The knowledge about domicile population (residents') propensity to travel can represent useful base for the improvement of domestic and international tourist supply, development of new tourism products and business models, the creation of a specific promotional mix, etc.

In that respect, the authors selected the subject of this paper on the ground that not many relevant publications with a focus on the propensity to travel of residents in countries dealing with the transitional economy, such as Bosnia and Herzegovina (B&H), can be found in the contemporary literature.

Therefore, based on the above-identified research gap, the purpose of this research is to provide some insights into socio-demographic determinants of the residents' propensity to travel.

Key research objectives are as follows:

RO1. To determine statistically significant difference between the propensity to travel and selected socio-demographic factors.

RO2. To explain the impact of the selected socio-demographic factors on the likelihood of the propensity to travel.

The paper is organized as follows. After the introduction, a brief overview of a theoretical context that is applicable to the research is provided. The paper goes on to explain the methodology, after which the findings are discussed. Ultimately, in line with the results of the study, a brief description of the key conclusions is given.

## 2. Literature review and hypothesis development

There are numerous studies identifying the relationship between socio-demographic factors and propensity to travel. The research conducted by [Seyidov and Adomaitienė \(2016\)](#) encompassed individuals in Azerbaijan as they behave in connection with making decisions related to native tourism. It has been shown that the length of journey, as special aspect of tourist behavior, is influenced by age group. Besides, revenue per month and matrimonial status of native travelers, similarly, have an effect on their way of behaving. In the study carried out by [Toivonen \(2004\)](#), the author explored distinctions among countries in relation to propensity to travel to foreign countries on holiday. The author found out that the propensity is not directly affected by age and gender. However, age and regime, in interaction, have clear-cut effect on the propensity. In connection to changes, in countries

with low level of propensity, age groups that encompass younger individuals, have exhibited the growth of propensity to travel that surpass expectations. Ching-Fu and Wu (2009) empirically explored propensity of the elder in Taiwan to travel overseas respecting the influences of socio-demographic factors. Beside these factors, their study also included the effects of travelling motives and leisure constraints. Regarding motives, they identified: amusement, novelty, getaway, and socialization. Related to the constraints, they noted perceived risk, dedication of time, and individual causes. Using binary logistic regression, they demonstrated that, on the motive side, the major factors of propensity to travel are relaxation, socialization, and novelty. Furthermore, on the side of constraints, as major factor, individual reasons are observed. Finally, from the socio-demographic group of factors, the stage of life, source of revenue, and status of employment have been found to be important factors. According to Kožić et al. (2016), propensity to travel, in the sense of broad definition, can be viewed as inclination of an individual to be a tourist. As such, travelling propensity can be regarded as one of the most essential concepts of investigating tourism. Macro-aspect examination of the factors that shape propensity to travel, conducted by the authors, highlights income as the most influential factor. In the context of Indonesia, Handayani and Djamaluddin (2016) analyzed propensity of Indonesian families to go on vacation. Their results showed that income positively affects the probability of a household to have a holiday. Similar can be said for the years of education. Regarding gender, they found that households headed by man have lower probability to go on vacation than households headed by women. Besides, they found that age has a positive effect on the probability to go on vacation, but these results were not significant. Another study differentiates between package tours and individual travel. Using micro data, Thrane et al. (2016) explored the propensity of tourists to select package vacation over an independent trip. Related to this kind of propensity, socio-demographic variables played a minor role. At the same time, variables related to journey and residence in sense of country came up as principal factors. This study results demonstrate, in respect to selection propensity, that aging increases propensity for package tours. Similar is true for situation when someone is first time visitor.

Besides socio-demographic factors, psychological factors of respondents have the role in shaping travel propensity. In his study Dogru (2016) analyzed financial behavior and economic confidence as factors that affect propensity of Chinese households to purchase vacation packages. The study results showed that households' financial behavior factors and subjective economic confidence affect propensity to buy a vacation package. Letheren et al. (2017) conducted a study in Australian context examining interplay between anthropomorphic inclination and personification of commercials and how that interplay affects feelings toward destination and intention to take a trip. The study results demonstrated the existence of a mechanism which functions in a way based on anthropomorphic inclination. Individuals characterized by high degree of anthropomorphic inclination demonstrate feelings colored with increased positivism in case personalized commercials are directed to them. This finding is a chance for achieving better tourism results.

The characteristics of a tourism product, such as destination, voyage, and event, have been discussed in various research papers. Propensity as willingness to experience tourism supply is addressed in Hur and Adler (2013), who, using survey data, explored degree of knowledge, willingness and desired travel models of Koreans in connection with travelling by cruise ships. The large part of subjects who had not travelled by a cruise ship before expressed readiness to do that if they had a chance hereafter. The preferred duration of this kind of travel was one-week cruise, with preferred destinations being Mediterranean and Northern Europe. Hence, we can say that authors examine the propensity of subjects to take



travel by a cruise ship. In that sense, the authors single out some elements that are most influential regarding decision to go on a cruise. Those elements are: total cost, cruise itinerary, cruise ship voyage length, capacities of cruise ship and comforts, activities of gaming, etc. The role of food in travel intentions is examined in [Gurbaskan Akyuz \(2019\)](#) who explored intentions to travel in relation to local food consumption. The study lists some food-related factors that can be used as predictors of intentions to travel, such as openness to gain food experience, participation of food in tourism supply, and fear of new food. The study demonstrated that participation of food and motivation to take a trip are connected to the intention to travel by individuals. Individuals with strong positive food image exhibited that food image plays moderating role in the connection between fear of new food and motivation to take a trip. Relationship between risk and tourist activity is important. Regarding that [Choi et al. \(2019\)](#) examined perceptions of risk of prospective tourists and their travel intentions to a country that is a host of big sports competition. The study results suggest that there is a difference in relation to negative impacts between terrorism risk and political uncertainty on intentions to take a trip. The authors demonstrate that intention to take a trip is negatively affected by a terrorism risk. At the same time, political uncertainty does not show that sort of effect. According to these results, a terrorism risk is a sensitive issue for a country that is the host of sports competition. In their article, [Bianchi and Milberg \(2017\)](#) examined influencing factors regarding intention of individuals to travel to long distance destination for vacation purposes. The addressed context was where the individuals have not stay in that long distance place before. In case of travelers from Chile and their intention to stay in Australia for the purpose of vacation, the authors found that the image of the destination has an important role to play. Similar can be said for the value of the destination. Furthermore, the fact that individuals are aware of Australia affect indirectly their intention to visit that destination through the image of a brand. Interestingly, the authors found that the quality of brand perceptions was not important for intention of travelers from Chile to stay, for reasons of taking a vacation, in Australia.

Based on the previously mentioned literature, the most important socio-demographic factors of travel propensity are presented in Table 1.

Table 1: Main socio-demographic factors of propensity to travel

Factor	Source
Age	<a href="#">Ching-Fu &amp; Wu (2009)</a> , <a href="#">Handayani &amp; Djamaluddin (2016)</a> , <a href="#">Seyidov &amp; Adomaitienė (2016)</a> , <a href="#">Thrane et al. (2016)</a> , <a href="#">Toivonen (2004)</a>
Gender	<a href="#">Handayani &amp; Djamaluddin (2016)</a> , <a href="#">Toivonen (2004)</a>
Education	<a href="#">Handayani &amp; Djamaluddin (2016)</a>
Income	<a href="#">Ching-Fu &amp; Wu (2009)</a> , <a href="#">Handayani &amp; Djamaluddin (2016)</a> , <a href="#">Kožić et al. (2016)</a> , <a href="#">Seyidov &amp; Adomaitienė (2016)</a>

Source: Author's research

In this paper, propensity to travel represents an individual's affinity or impulse of a person to visit and stay in different destinations domestically and abroad. It originates from influences of multiple subjective and objective factors.

Based on the previous discussion, we propose the following hypothesis:

H: Socio-demographic characteristics may be considered as antecedents of travel propensity.

### 3. Materials and methods

#### 3.1. Data source and sample

Using the purposive sampling technique, data collection was carried out from October to December 2019, yielding a sample of 632 valid respondents. Table 2 provides a short overview of the sample's basic features.

Table 2: Sample description

<b>Characteristic</b>	<b>Frequency</b>	<b>%</b>
<b>Respondent's sex</b>		
Male	322	50.95
Female	310	49.05
Total	632	100.00
<b>Residence</b>		
Urban	299	47.30
Rural	333	52.70
Total	632	100.00
<b>Age category</b>		
Age category: < 25	229	36.23
Age category: 26-35	186	29.43
Age category: 36-45	99	15.67
Age category: 46-55	68	10.76
Age category: > 55	50	7.91
Total	632	100.00
<b>Current marital status</b>		
Unmarried/single	314	49.68
Married	260	41.14
Widowed/Widower	33	5.22
Divorced/Separated	25	3.96
Total	632	100.00
<b>Education</b>		
Elementary education	52	8.23
Completed secondary school	351	55.54
University I cycle	206	32.59
University II or III cycle	23	3.64
Total	632	100.00
<b>Household income</b>		
< 500 BAM	90	14.24
501-1,000 BAM	187	29.59
1,001-1,500 BAM	175	27.69
1,501-2,000 BAM	112	17.72
> 2,000 BAM	68	10.76
Total	632	100.00

Source: Author's research

The data collection instrument is a structured questionnaire with closed questions, divided into several sections.

The first section addresses the satisfaction with the tourist offer, whereas the second section considers specific socio-economic characteristics of the respondents.

### 3.2. Research variables and methods

Besides socio-demographic variables, presented in Table 2, the following variables were also used:

- *propensity to visit tourist destinations in B&H*, as a binary dependent variable (D = 1 if the respondent has visited at least one touristic destination in B&H, 0 otherwise).
- *propensity to travel abroad*, as a binary dependent variable (D = 1 if the respondent has visited at least one touristic destination outside B&H, 0 otherwise).

As [Kožić et al. \(2016\)](#) have already stated, age, education and income are three theoretically most debated socio-demographic determinants of the propensity to travel.

In that respect, and to get a clearer understanding of the factors that may influence the likelihood of traveling inside and outside B&H, the authors used a probit model as a primarily methodological approach. The binary probit model is:

$$e = \alpha + \beta_1 Age + \beta_2 Education + \beta_3 Household Income \quad (1)$$

where  $e$  presents the logit (ln of the odds) of propensity to visit tourist destinations in B&H and propensity to travel abroad, respectively. Model estimation was done by using STATA version 14.

### 3.3. Research design

The research is organized into three stages. The first stage introduces results of descriptive statistical analysis. The second stage refers to the probit model estimation. The empirical results of the research have been presented in the last phase.

## 4. Results and discussion

Within this chapter the authors will present the results of the empirical research.

The following table presents a short overview of the selected dependent variables.

Table 3: Overview of dependent variables

Characteristic	Frequency	%
<b>Travel habit in B&amp;H</b>		
Never	168	26.60
One or more times	464	73.40
Total	632	100.00
<b>Travel habit outside B&amp;H</b>		
Never	272	43.00
One or more times	360	57.00
Total	632	100.00

Source: Author's research

Based on the results presented in Table 3, 26.6% of respondents, or 168 of them, stated that in the year in which the survey was conducted, they never visited any tourism-related places

in B&H for the reasons of vacation, recreation, leisure, entertainment, treatment, religion, etc. Significantly more respondents 73.4%, or 464 of them, stated that they had visited a tourist destination in B&H at least once.

Out of 464 respondents who stated that in the year when the research was conducted, they visited a tourist destination in B&H one or more times, 292 of them, or 62.93%, stated that they spent the night in those places (with friends, in a hotel, private accommodation, etc.).

When it comes to the habit of traveling outside B&H, the majority of respondents, or 57% of them, stated that in the year when the survey was conducted, they visited tourist places in other countries one or more times.

A chi-square test of independence was performed to examine the difference between the propensity to travel in terms of gender, education, age, household income and marital status.

We found a statistically significant difference between the propensity to visit tourist destinations in B&H and age,  $\chi^2(4, N = 632) = 17.429, p < 0.05$ , education,  $\chi^2(3, N = 632) = 33.736, p < 0.001$ , household income,  $\chi^2(4, N = 632) = 29.638, p < 0.001$ .

In a similar way, a statistically significant difference has been confirmed between the propensity to travel abroad and age,  $\chi^2(4, N = 632) = 25.670, p < 0.001$ , education,  $\chi^2(3, N = 632) = 69.278, p < 0.001$  and household income,  $\chi^2(4, N = 632) = 26.232, p < 0.001$ . These variables will be used in the rest of the analysis.

### **Likelihood of visiting tourist destination**

To evaluate the impact of the age, education and household income on the (1) *likelihood of visiting tourist destinations in B&H* (Model 1) and (2) *likelihood of visiting tourist destinations outside B&H* (Model 2), probit model was used.

The goodness-of-fit was evaluated using the following measures: Pearson chi-square statistics, Hosmer and Lemeshow goodness-of-fit test, classification tables and pseudo  $R^2$ .

The results of the Pearson chi-square statistics verified the whole model (with all predictors included) as statistically significant ( $p=0.000$ ) when it comes to Model 1. Model 1 as a whole, matches substantially better than a model without predictors. The Hosmer and Lemeshow goodness-of-fit test ( $p=0.9027$ ) also verified this. According to the classification tables, Model 1 correctly classifies 75.00% of cases.

Furthermore, the results of the Pearson chi-square statistics verified the whole model (with all predictors included) as statistically significant ( $p=0.000$ ) when it comes to Model 2. This model as a whole, in other words, matches substantially better than a model without predictors. The Hosmer and Lemeshow goodness-of-fit test ( $p=0.0644$ ) also confirmed this. According to the classification tables, Model 2 correctly classifies 66.46% of cases.

As expected, both models ( $R^2 = 0.1032$ , for Model 1 and  $R^2 = 0.1159$  for Model 2), produced a low value of pseudo  $R^2$  (0.1159).

Table 4 shows the results of the estimated models with marginal effects included.

Table 4: The estimated models with the marginal effects

<i>Independent variable</i>	<i>Model 1</i>									<i>Model 2</i>									
	<i>B</i>	<i>S.E.</i>	<i>Sig.</i>	<i>MEMs</i>	<i>S.E.</i>	<i>Sig.</i>	<i>AMEs</i>	<i>S.E.</i>	<i>Sig.</i>	<i>B</i>	<i>S.E.</i>	<i>Sig.</i>	<i>MEMs</i>	<i>S.E.</i>	<i>Sig.</i>	<i>AMEs</i>	<i>S.E.</i>	<i>Sig.</i>	
<b>Age</b>																			
Age category: <25	0.548	0.213	0.010	0.190	0.079	0.016	0.178	0.072	0.014	0.556	0.213	0.009	0.219	0.082	0.008	0.197	0.075	0.008	
Age category: 26-35	0.447	0.223	0.045	0.159	0.083	0.054	0.148	0.076	0.053	0.531	0.221	0.017	0.209	0.086	0.015	0.188	0.078	0.016	
Age category: 36-45	0.447	0.236	0.059	0.159	0.086	0.064	0.148	0.079	0.063	0.383	0.237	0.106	0.152	0.093	0.101	0.136	0.083	0.102	
Age category: 46-55	0.794	0.259	0.002	0.255	0.084	0.002	0.243	0.079	0.002	0.220	0.248	0.376	0.087	0.097	0.373	0.078	0.087	0.374	
<b>Education</b>																			
Completed secondary school	0.065	0.210	0.758	0.023	0.076	0.760	0.022	0.073	0.760	0.332	0.210	0.114	0.129	0.079	0.102	0.124	0.076	0.104	
University I cycle	0.714	0.230	0.002	0.209	0.076	0.006	0.207	0.074	0.005	1.026	0.224	0.000	0.388	0.081	0.000	0.375	0.080	0.000	
University II or III cycle	0.992	0.443	0.025	0.259	0.092	0.005	0.259	0.093	0.005	1.659	0.434	0.000	0.546	0.099	0.000	0.533	0.100	0.000	
<b>Household income</b>																			
501-1,000 BAM	0.174	0.178	0.328	0.062	0.064	0.334	0.059	0.061	0.333	0.148	0.176	0.400	0.059	0.070	0.400	0.053	0.063	0.400	
1,001-1,500 BAM	0.384	0.188	0.041	0.130	0.065	0.046	0.124	0.062	0.046	0.203	0.181	0.264	0.080	0.072	0.264	0.073	0.065	0.265	
1,501-2,000 BAM	0.192	0.201	0.340	0.068	0.072	0.341	0.065	0.068	0.342	0.231	0.198	0.244	0.092	0.078	0.242	0.083	0.071	0.245	
> 2,000 BAM	1.403	0.318	0.000	0.314	0.059	0.000	0.314	0.058	0.000	0.875	0.232	0.000	0.313	0.077	0.000	0.289	0.072	0.000	
_cons	0.139	0.223	0.534	-	-	-	-	-	-	-1.049	0.267	0.000	-	-	-	-	-	-	

Source: Author's research

Speaking of age, the predicted likelihood that domicile population will visit at least one tourist destination in B&H is 19% greater for young individuals under 25 years of age, comparing to the individuals older than 55. When it comes to propensity to travel abroad, the results indicate that age is an important factor. The predicted likelihood that resident will visit at least one tourist destination outside B&H is 21.9% greater for young individuals under 25 years of age, comparing to individuals older than 55. These findings are in accordance with the work of [Handayani and Djamaluddin \(2016\)](#) who found that age has positive effect on probability to go on vacation, and that of [Ching-Fu and Wu \(2009\)](#) who revealed that age has influence on propensity of seniors to travel overseas. Similar finding has been reported by [Thrane et al. \(2016\)](#) who showed that aging increases propensity for package tours as well as being first time visitor and by [Toivonen \(2004\)](#) who found the effect of interaction of age and regime on propensity was evident. Similarly, [Seyidov and Adomaitienė \(2016\)](#) found that the age of local Azerbaijani travellers affects their travel behaviour especially during their trip.

When it comes to education, the predicted likelihood that a resident will visit at least one tourist destination in B&H is 20.9% greater for an individual with cycle I university education and 25.9% greater for an individual with cycles II and III university education compared to those with elementary education. When it comes to education, the predicted likelihood that domicile population will visit at least one tourist destination in B&H is 38.8% greater for an individual with cycle I university education, and 54.6% greater for an individual with cycles II and III university education compared to those with elementary education. These findings are in accordance with the findings of [Handayani and Djamaluddin \(2016\)](#) whose results showed that years of education have positive effect on probability of household to go on a vacation.

When it comes to household income, the predicted likelihood that a resident will visit at least one tourist destination in B&H is 13.00% greater for an individual whose household income is 1,001-1,500 BAM, and 31.4% greater for an individual whose household income is above 2,000 BAM, compared to those with household income of less than 500 BAM. Furthermore, the predicted likelihood that domicile population will visit at least one tourist destination in B&H is 31.3% greater for an individual whose household income is above 2,000 BAM to those with household income of less than 500 BAM. These findings are in accordance with the work of [Kožić et al. \(2016\)](#) who found income to be the most important determinant of propensity to travel. Similar results have been reported by [Handayani and Djamaluddin \(2016\)](#) who showed that income has a positive effect on the probability of a household to go on a vacation. Furthermore, [Ching-Fu and Wu \(2009\)](#) have also revealed that income source and employment status are the major factors that have influence on the propensity of seniors to travel overseas. Similarly, [Seyidov and Adomaitienė \(2016\)](#) found that monthly income of local Azerbaijani travellers affects their travel behaviour especially during their trip.

## 5. Conclusion

Propensity to travel is definitely one of the fundamental concepts of tourism research. However, it is probably true to say that so far little attention has been paid to residents' propensity to travel to local tourist destinations. Based on this research gap, the purpose of this paper was to provide some insights into socio-demographic determinants of the residents' propensity to travel. The research findings have revealed that age, education and household income characteristics may be considered as antecedents of the travel propensity of residents.

Propensity to travel is a multidimensional concept. Therefore, our research may have some potential limitations. The first one refers to the problem of omitted variables. In addition to

socio-demographic variables, there are many other variables that influence propensity to travel. The most important individual characteristics of a person are: socio-demographic characteristics, experience, satisfaction, pleasure, novelty, vacation, recreation, life style, prestige, purchasing power, etc., while the most important social factors are: culture, values and norms, social attitude towards free time, work and life environment, affiliation with social or religious group, standard of living, etc. Based on this, we can recommend that future research encompass those factors.

The study's other drawback is that the available data is cross-sectional rather than longitudinal. One of possible limitations is non-probabilistic type of sample. In addition, data collection is conducted before the beginning of the Covid-19 pandemic.

Besides viewing propensity to travel in a way that is followed in this paper, it can be observed from multiple aspects the most important of which are: the number of tourist trips during a year, number of domestic tourist trips, number of tourist trips abroad, length of stay, number of people with whom someone travels, social relationship with those persons (household members, relatives, friends), etc. We can differentiate between net and gross propensity to travel. Also, there is frequency of trips (Šuran, 2016). Net propensity to travel represents percentage of population that goes on at least one trip during specific time period, while gross propensity to travel represents total number of tourist trips viewed as percent relative to a whole population. Frequency of trips is the ratio between gross and net propensity to travel. Another recommendation for future research concerns these notions.

Having in mind the impact that the Covid-19 pandemic has on the sector of tourism worldwide, and based on the results of this research, policymakers' efforts should be directed to promoting local tourist destinations and to enhancing travel and tourism literacy of residents.

## Conflict of interest

The authors declare no conflict of interest.

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Original Scientific Paper

UDC: 338.485:39(497.11)

338.48-611(497.11)

78.091.4(497.11)

doi: 10.5937/menhottur2101073D

## **Impacts of the music festival Lovefest on the attitudes of the local population in Vrnjačka Banja**

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**Abstract:** The electronic music festival Lovefest, which has been held in Vrnjačka Banja since 2007, gathers a great number of domestic and international visitors. In addition to the positive impacts, which are primarily reflected in the generation of income that is important for the tourism economy and to the local population of Vrnjačka Banja, this event creates numerous negative impacts as well. The purpose of this study is to examine the differences in the local population's attitudes to the positive and the negative impacts of Lovefest based on their age, gender, educational level, occupation, and the relation between their job and tourism. To process the primary data descriptive statistical analysis, t-test, and ANOVA are used. The results indicate that the local population's attitudes to some positive and negative impacts of Lovefest differ regarding their socio-demographic characteristics.

**Keywords:** tourism impacts, local population, music festival, Lovefest, Vrnjačka Banja

**JEL classification:** L83, Z30, Z32

## **Utjecaji muzičkog festivala Lovefest na stavove lokalnog stanovništva Vrnjačke Banje**

**Sažetak:** Festival elektronske muzike Lovefest održava se u Vrnjačkoj Banji od 2007. godine i okuplja veliki broj domaćih i međunarodnih posetilaca. Pored pozitivnih uticaja, koji se pre svega ogledaju u stvaranju prihoda važnih za turistička preduzeća i za lokalno stanovništvo Vrnjačke Banje, ovaj događaj dovodi i do brojnih negativnih uticaja. Cilj ove studije je da utvrdi razlike u stavovima lokalnog stanovništva prema pozitivnim, kao i negativnim uticajima Lovefest-a na osnovu starosti, pola, nivoa obrazovanja, zanimanja i na osnovu povezanosti njihovog posla sa turizmom. Za obradu primarnih podataka upotrebljene su deskriptivna statistička analiza, t-test i ANOVA. Prema rezultatima studije, stavovi lokalnog stanovništva o pojedinim pozitivnim i negativnim uticajima Lovefest-a razlikuju se u pogledu njihovih socio-demografskih karakteristika.

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**Ključne reči:** uticaji turizma, lokalno stanovništvo, muzički festival, Lovefest, Vrnjačka Banja

**JEL klasifikacija:** L83, Z30, Z32

## 1. Introduction

Managers in tourism try to make a positive destination image (Marić et al., 2020), and such actions must be constant and careful to reach the market value of a brand (Brzaković et al., 2020). In order to attract more domestic and international tourists, many destinations organize festivals that represent their local traditional culture (Woosnam & Aleshinloye, 2018). According to Novello and Fernández (2016), the important role in increasing destination competitiveness has tourism festivals, as they are an important element of destination brand (Novaković & Mandarić, 2019). However, Pranić et al. (2012) state that festivals in destinations bring positive and negative outcomes for the local community. Those impacts are linked and usually classified as economic, environmental, and socio-cultural (Mendes et al., 2017). Nevertheless, according to Woosnam et al. (2013), the socio-cultural impacts of festivals on host communities are ignored in scientific studies.

Since the sustainable development of tourism destinations depends on stakeholders' involvement and support, where the local population has an important role in tourism development (Lopez et al., 2018; Olya & Gavilyan, 2017; Podovac et al., 2019), this paper focuses on the impacts of the electronic music festival Lovefest (Lovefest) in Vrnjačka Banja and local population's attitudes towards them. The aim is to determine the differences in the local population's attitudes to the positive and negative impacts of Lovefest based on their socio-demographic characteristics. Lovefest is a music festival organized by a group of local youth, aiming to promote the music, art, and urban culture of youth. It is held every summer for 3 days in August in the park Jezero, Vrnjačka Banja, and has an average daily number of 20,000 visitors (Lovefest, 2020).

In view of the aim of the study, several hypotheses are set:

H: Based on the socio-demographic characteristics there are significant differences in the local population's attitudes towards the impacts of Lovefest.

H<sub>1</sub>: There are significant differences in the local population's attitudes towards the positive impacts of Lovefest, considering their gender.

H<sub>2</sub>: There are significant differences in the local population's attitudes towards the negative impacts of Lovefest, considering their gender.

H<sub>3</sub>: There are significant differences in the local population's attitudes towards the positive impacts of Lovefest, considering their age.

H<sub>4</sub>: There are significant differences in the local population's attitudes towards the negative impacts of Lovefest, considering their age.

H<sub>5</sub>: There are significant differences in the local population's attitudes towards the positive impacts of Lovefest, considering their education level.

H<sub>6</sub>: There are significant differences in the local population's attitudes towards the negative impacts of Lovefest, considering their education level.

H<sub>7</sub>: There are significant differences in the local population's attitudes towards the positive impacts of Lovefest, considering their occupation.

H<sub>8</sub>: There are significant differences in the local population's attitudes towards the negative impacts of Lovefest, considering their occupation.

H<sub>9</sub>: There are significant differences in the local population's attitudes towards the positive impacts of Lovefest, considering the relation between their job and tourism.

H<sub>10</sub>: There are significant differences in the local population's attitudes towards the negative impacts of Lovefest, considering the relation between their job and tourism.

## 2. Literature review

Tourism development can stimulate the local economy and local business (Lopez et al., 2018), i.e. can attract great investments and new business chances for the local market (Hernández & de la Santísima Trinidad Mercader, 2015; Počuča & Matijašević-Obradović, 2020). Also, tourism has enabled the survival of the local population in small destinations (Vujko et al., 2021). On the other hand, tourism development and increased number of tourists can lead to higher prices of products and services, create greater costs of living for the local population, increased crime and conflicts, as well as negative environmental impacts such as crowding and traffic jams, greater litter and waste, pollution of water and air, and deterioration of natural goods, and damaging natural landmarks (MacKenzie & Gannon, 2019; Rasoolimanesh & Jaffar, 2017; Zdravković & Peković, 2020). According to Fredline et al. (2003), the negative impacts of tourism usually cause some changes in the daily life of the local population (e.g. behaviors and their habits). There are also a lot of negative changes in the local culture (e.g. customs) and local population's beliefs due to tourism development (Brida et al., 2011; Yun & Zhang, 2017). Various studies showed that the local population's attitudes to tourism, and the local population's subjective well-being generally depend on the net benefit of tourism (cost and benefits difference) and on the even allocation of those benefits among the local population (Bimonte & D'Agostino, 2020).

In tourism development, the local population has a role of a crucial stakeholder. Their attitude towards tourism must be observed and taken into consideration while tourism planning because the local population's support for tourism development depends on it (Papastathopoulos et al., 2020). According to Olya and Gavilyan (2017), the extent of the local population's support for tourism depends on the balance between benefits and costs of tourism development. The same authors state that if tourism planners in destinations pay no attention to the local population's attitudes in making decisions probably the antagonistic attitudes and behavior towards tourism will emerge. Considering this, of great importance for tourism development is to know whether and how tourism impacts the well-being of the local population (Sharpley, 2014).

The local population's socio-demographic characteristics (e.g. age, gender, professional status, education, earnings) are usually used as determining factors of the local population's attitudes towards tourism development (Sinclair-Maragh, 2017). For instance, the study results of Papastathopoulos et al. (2020) indicate that age and length of residency do not have a significant influence on the local population's attitudes and their support for tourism, while nationality, education, and gender, have an effect on them. Alrwajfah et al. (2019) found that determining factors of the local population's attitudes towards tourism are their gender and distance from tourism zones. Some authors indicate that members of the local population who live near popular attractions have less favorable attitudes about tourism in a destination. According to Harrill (2004) negative attitudes of the local population on tourism are increased if their living area is close to the central tourism zones in the destinations. However, Haley et al. (2005) revealed that a more positive perception of tourism have members of the local population who live closer to the tourism zones. Regarding gender, Jani (2018) states that male members of the local population in Mount Kilimanjaro, Tanzania, support tourism development more than females. Similarly, Nunkoo and Gursoy (2012) state that women support tourism less because they may have a negative perception of tourism. Regarding the age, some authors find that younger members of the local population in Kusadasi, Turkey, have more positive attitudes about tourism comparing to older members of the local population (Cavus & Tanrisevdi, 2003). Also, Bagri and Kala (2016) point out that because of traditional understandings and unwillingness to accept social changes, older residents in India had more negative attitudes towards tourism development. Some prior

researches indicated that more educated residents have more positive attitudes and that they support more tourism development than lower educated residents (Long & Kayat, 2011; Tatoglu et al., 2002; Teye et al., 2002). Some studies have reported that the local population's attitudes towards tourism in a destination are affected by their length of residency. According to some authors, the local population tends to be less supportive of tourism and have negative attitudes towards it if they live for long in the destination (Banks, 2003; Haley et al., 2005).

Among numerous studies about impacts of tourism on the local population, the studies focusing on tourist events' impacts on the local population's attitudes have attracted special attention (Chen, 2011; Gursoy & Kendall, 2006; Weaver & Lawton, 2013). The results of the research by Milićević et al. (2020) indicate that the local population has positive attitudes about tourism events, and their socio-demographic characteristics are not determining factors for their attitudes. According to Jackson (2008), tourism events may have economic and social benefits for the destination, which is why the local population generally supports them. The local population tends to tolerate the negative impacts of tourism events as long as the perceived benefits exceed them. According to Getz (2010), although tourism festivals have different sorts of impacts on tourism destinations and the local population, in scientific studies, economic impacts are the most observed ones. Especially this is the case in small destinations when a great number of visitors come when festivals occur.

### **3. Research methodology**

In order to investigate the local population's attitudes towards the impacts of Lovefest the survey method is used. The questionnaire used in the survey is divided into two parts, where one part consists of the questions about the basic information of the respondents (gender, age, educational level, and occupation) as well as the question about the relation between their job and tourism. The next part consists of eighteen statements, which refer to the positive and negative impacts of Lovefest. Respondents used the Likert scale (1-strongly disagree, 5-strongly agree) to evaluate the degree of agreement with the proposed statements. The questionnaire was developed on the basis of the research with the purpose to analyze the influence of socio-demographic characteristics of the local population on their attitudes about the impacts of the Carnival of Vrnjci (Milićević et al., 2020). Also, the authors based their research on similar empirical studies (Blešić et al., 2014a; Blešić et al., 2014b; Pivac et al., 2020; Tepavčević et al., 2019).

The survey was conducted from August until September 2019. The questionnaire, made by Google questionnaire form, was sent in the electronic form to the respondents with residence on the territory of the Vrnjačka Banja municipality. The convenience sample is used. In order to provide a representative sample of respondents, who meet the defined criteria regarding the place of residence, a question of elimination character was set about whether the respondents live in the study area. In case the answer to this question was negative, the questionnaire was no longer available for completion. In this way, it was determined with certainty that the research sample consists of the local population of the mentioned municipality. A total of 272 members of the local population completed the questionnaire.

The collected data were processed in the SPSS, version 26.0. The reliability analysis was performed by using the Cronbach's coefficient. Descriptive statistical analysis, t-test of independent samples, and analysis of variance (one-way ANOVA) were used in the paper. In order to describe the research sample, descriptive statistical analysis was used (frequency and percentages). Measures of variability, from which the arithmetic mean and standard deviation were used to show the average scores of the respondents' answers and the average deviations of the respondents' answers from the arithmetic mean of the set. Using the t-test

and ANOVA, the statistically significant differences in local population's attitudes towards the positive, as well as to the negative impacts of Lovefest based on their age, gender, educational level, and occupation, and whether their job is tourism-related was examined.

## 4. Results

### 4.1. Sample description

Female respondents have a higher percentage share in the sample (62.5%) compared to male respondents (37.5%). The most represented respondents in the sample are aged 20-30 years (41.2%). According to the educational level, 35.3% of respondents had completed faculty. When asked about their occupation, 72.4% of respondents declared that they were employed. Out of the total number of respondents, 65.4% stated that their job was connected with tourism (Table 1).

Table 1: Socio-demographic characteristics of respondents (n=272)

Variable	N	%
<b>Gender</b>		
Male	102	37.5
Female	170	62.5
<b>Age</b>		
20-30	112	41.2
31-40	91	33.5
41-50	47	17.3
51-60	16	5.9
> 60	6	2.2
<b>Level of education</b>		
Secondary school	76	27.9
College	39	14.3
Faculty	96	35.3
M.Sc.	56	20.6
PhD	5	1.8
<b>Occupation</b>		
Employed	197	72.4
Unemployed	32	11.8
Student	37	13.6
Retired	6	2.2
<b>Tourism-related job</b>		
Yes	178	65.4
No	94	34.6
<b>Total</b>	<b>272</b>	<b>100.0</b>

Source: Author's research

The analysis of the reliability showed that the statements, that refer to the positive and negative impacts of Lovefest, are reliable. The obtained values are acceptable having in mind that they are greater than 0.7 (Pallant, 2009). The Cronbach's coefficient ( $\alpha$ ) is 0.918 for positive and 0.893 for negative impacts of Lovefest. Table 2 also shows the average values of respondents' responses to the positive and negative impacts of Lovefest. The average values of respondents' answers on positive impacts of Lovefest range from 2.91 for statement p-9: The location at which Lovefest is held is adequate to 4.19 for statement p-7:

Local population may have additional earnings due to Lovefest. The average values of respondents' answers on the negative impacts of Lovefest range from 3.10 for statements *n-6*: During Lovefest cultural and historical values of the destination are endangered and *n-7*: Lovefest affects the local population to change negatively their moral principles and behaviour, to 4.28 for statement *n-4*: Huge crowds in the whole destination occur during Lovefest (in restaurants, cafes, stores, markets, etc).

Table 2: Descriptive statistics for impacts of Lovefest and analysis of the questionnaire reliability

<b>Statements - Positive impacts (p)</b>	<b>Mean</b>	<b>SD</b>	<b><math>\alpha</math></b>
	<b>3.57</b>	<b>1.039</b>	<b>0.918</b>
<i>p-1</i> : Lovefest contributes to the destination having a rich and diverse tourism offer	3.24	1.460	
<i>p-2</i> : Lovefest contributes to the local population to feel very proud	3.13	1.388	
<i>p-3</i> : Lovefest contributes to a better image of the destination	3.81	1.362	
<i>p-4</i> : Just like tourists and visitors, the local population also may be present and enjoy Lovefest	3.88	1.264	
<i>p-5</i> : During the Lovefest, the local population have more opportunities for fun, as well as to meet and socialize with new people of different cultures	3.99	1.159	
<i>p-6</i> : Lovefest brings opportunities for the local population to present and promote their talents (music, acting, art)	3.35	1.377	
<i>p-7</i> : Local population may have additional earnings due to Lovefest	4.19	1.089	
<i>p-8</i> : Lovefest brings economic utility to the local population	3.63	1.349	
<i>p-9</i> : The location at which Lovefest is held is adequate	2.91	1.534	
<b>Statements - Negative impacts (n)</b>	<b>Mean</b>	<b>SD</b>	<b><math>\alpha</math></b>
	<b>3.71</b>	<b>0.89</b>	<b>0.893</b>
<i>n-1</i> : A huge number of Lovefest visitors annoy the local population	3.12	1.385	
<i>n-2</i> : During Lovefest, huge traffic crowds are created and there are insufficient parking places in the destination	4.25	0.967	
<i>n-3</i> : During Lovefest, the noise level is higher in the destination	4.24	1.048	
<i>n-4</i> : Huge crowds in the whole destination occur during Lovefest (in restaurants, cafes, stores, markets, etc)	4.28	0.976	
<i>n-5</i> : During Lovefest there is a huge waste throughout the destination and natural values are endangered	4.07	1.217	
<i>n-6</i> : During Lovefest cultural and historical values of the destination are endangered	3.10	1.389	
<i>n-7</i> : Lovefest affects the local population to change negatively their moral principles and behavior	3.10	1.302	
<i>n-8</i> : Lovefest affects the growth in local population costs of living, because of increasing prices in the destination during the festival	3.75	1.256	
<i>n-9</i> : Unlawful, immoral, and promiscuous activities occur during Lovefest	3.53	1.366	

Source: Author's research



#### 4.2. T-test results by gender and occupation of respondents

Differences between respondents' attitudes about the impacts of Lovefest considering their gender were examined by using the t-test. The results showed that there are significant differences in the responses of respondents of a different gender for the following positive impacts: *p-4*: Just like tourists and visitors, the local population also may be present and enjoy Lovefest; *p-5*: During the Lovefest, the local population have more opportunities for fun, as well as to meet and socialize with new people of different cultures and *p-6*: Lovefest brings opportunities for the local population to present and promote their talents (music, acting, art) at significance level  $p < 0.05$  (Table 3). It can be concluded that females rated higher positive impacts than male respondents. The results of the t-test pointed that there are no significant differences between respondents' attitudes with respect to gender about the negative impacts of Lovefest.

Table 3: Results of the t-test according to the gender of respondents

Positive impacts	Arithmetic mean		t-test
	Male (n=102)	Female (n=170)	
<i>p-1</i>	3.13	3.31	0.330
<i>p-2</i>	3.04	3.18	0.431
<i>p-3</i>	3.64	3.91	0.126
<i>p-4</i>	3.67	4.01	0.032*
<i>p-5</i>	3.77	4.12	0.022*
<i>p-6</i>	3.04	3.54	0.004*
<i>p-7</i>	4.15	4.21	0.636
<i>p-8</i>	3.51	3.71	0.267
<i>p-9</i>	2.77	2.99	0.254

Note: \*  $p < 0.05$

Source: Author's research

T-test was also used with the aim of comparing the arithmetic value of respondents' answers depending on the relation between their job with tourism about the positive and negative impacts of Lovefest. The applied statistical analysis indicated that there are statistically significant differences in the respondents' answers according to the relation of their job with tourism for statement *p-7*: Local population may have additional earnings due to Lovefest at significance level  $p < 0.05$ . This statement is rated higher by the respondents whose job is tourism-related (Table 4). When it comes to the negative impacts of Lovefest, according to the t-test there are no significant differences in the attitudes of respondents depending on the relation of their job to tourism.

Table 4: Results of the t-test according to the relation between the job of respondents and tourism

Positive impacts	Arithmetic mean		t-test
	Relation between the job of respondents and tourism		
	Yes (n=178)	No (n=94)	
<i>p-1</i>	3.33	3.07	0.177
<i>p-2</i>	3.21	2.97	0.176
<i>p-3</i>	3.79	3.83	0.829
<i>p-4</i>	3.90	3.83	0.644
<i>p-5</i>	4.08	3.83	0.092
<i>p-6</i>	3.39	3.29	0.568
<i>p-7</i>	4.29	4.00	0.039*
<i>p-8</i>	3.74	3.44	0.094
<i>p-9</i>	2.99	2.76	0.222

Note: \*  $p < 0.05$

Source: Author's research

### 4.3. Results of ANOVA and discussion

ANOVA was applied in order to analyze significant differences in respondents' attitudes about the impacts of Lovefest. The dependent variables are statements referring to the positive and negative impacts of Lovefest and the independent variables are socio-demographic characteristics of respondents (age, educational level, and occupation). Considering that the smaller number of respondents are represented in certain categories in the case of age, educational level and occupation, the analysis included those categories of respondents who have a percentage share in the sample of 10% and more. The results of ANOVA indicate that there are no significant differences between the respondents' attitudes of different age about the positive impacts of Lovefest for any of the nine offered statements. The results of the applied statistical analysis indicated that there are significant differences in attitudes of the respondents of different age about the statements, which are related to the negative impacts of Lovefest for six out of nine statements at a significance level  $p < 0.05$  (Table 5).

Table 5: ANOVA according to the age of respondents

Negative impacts	Middle value			F	p
	group 1 (20-30)	group 2 (31-40)	group 3 (41-50)		
<i>n-1</i>	3.51	2.78	2.96	7.751	0.001*
<i>n-2</i>	4.42	4.09	4.26	3.004	0.051
<i>n-3</i>	4.40	4.00	4.26	3.648	0.027*
<i>n-4</i>	4.45	4.11	4.28	2.983	0.052
<i>n-5</i>	4.37	3.88	3.85	5.392	0.005*
<i>n-6</i>	3.34	2.99	2.98	1.939	0.146
<i>n-7</i>	3.44	2.93	2.79	5.919	0.003*
<i>n-8</i>	4.01	3.62	3.55	3.439	0.034*
<i>n-9</i>	4.03	3.12	3.19	14.255	0.000*

Note: \*  $p < 0.05$

Source: Author's research

Tukey post-hoc test is used in order to determine among which groups statistically significant differences exist. The results indicated that there are significant differences in attitudes of the respondents aged 20 to 30 and 31 to 40 for the statements: *n-1*: A huge number of Lovefest visitors annoy the local population ( $p=0.001 < 0.05$ ); *n-3*: During Lovefest, the noise level is higher in the destination ( $p=0.021 < 0.05$ ); *n-5*: During Lovefest there is a huge waste throughout the destination and natural values are endangered ( $p=0.011 < 0.05$ ); *n-7*: Lovefest affects the local population to change negatively their moral principles and behavior ( $p=0.016 < 0.05$ ); *n-9*: Unlawful, immoral, and promiscuous activities occur during Lovefest. ( $p=0.000 < 0.05$ ). The results of Tukey post-hoc test showed that there are significant differences in attitudes of the respondents aged 20 to 30 and 41 to 50 for the statements: *n-5*: During Lovefest there is a huge waste throughout the destination and natural values are endangered ( $p=0.036 < 0.05$ ); *n-7*: Lovefest affects the local population to change negatively their moral principles and behavior ( $p=0.011 < 0.05$ ) and *n-9*: Unlawful, immoral, and promiscuous activities occur during Lovefest ( $p=0.001 < 0.05$ ).

Table 6: ANOVA according to the educational level of respondents

Positive impacts	Middle value				F	p
	group 1 (Secondary school)	group 2 (College)	group 3 (Faculty)	group 4 (M.Sc.)		
<i>p-1</i>	3.49	3.38	3.02	3.20	1.611	0.187
<i>p-2</i>	3.54	3.10	2.89	3.04	3.413	0.018*
<i>p-3</i>	3.95	3.90	3.65	3.86	0.801	0.494
<i>p-4</i>	3.84	3.97	3.71	4.09	1.176	0.319
<i>p-5</i>	4.05	4.00	3.89	4.04	0.353	0.787
<i>p-6</i>	3.33	3.36	3.23	3.54	0.586	0.625
<i>p-7</i>	4.28	4.15	4.15	4.14	0.254	0.859
<i>p-8</i>	3.86	3.54	3.54	3.61	0.903	0.440
<i>p-9</i>	3.24	2.72	2.91	2.73	1.584	0.194

Note: \*  $p < 0.05$

Source: Author's research

Applying the mentioned analysis, it has been found that there are significant differences in the attitudes of respondents regarding their different educational levels for the statement *p-2*: Lovefest contributes to the local population to feel very proud at significance level  $p < 0.05$ . It is determined that significant differences exist in attitudes of the respondents who completed secondary school and those who completed faculty ( $p = 0.011 < 0.05$ ) (Table 6). According to the ANOVA results, there are no significant differences in the respondents' attitudes with respect to their educational levels when it comes to negative impacts of Lovefest for any of the nine offered statements.

Table 7: ANOVA according to the occupation of respondents

Positive impacts	Middle value				F	p
	group 1 (Employed)	group 2 (Unemployed)	group 3 (Student)	group 4 (Retired)		
<i>n-1</i>	3.06	3.03	3.70	2.17	3.530	0.031*
<i>n-2</i>	4.24	4.06	4.57	3.83	2.686	0.070
<i>n-3</i>	4.22	3.91	4.59	4.50	3.798	0.024*
<i>n-4</i>	4.31	3.88	4.49	4.00	3.759	0.025*
<i>n-5</i>	4.03	3.84	4.54	3.83	3.532	0.031*
<i>n-6</i>	3.02	3.03	3.70	2.50	3.864	0.022*
<i>n-7</i>	3.00	3.09	3.78	2.00	5.846	0.003*
<i>n-8</i>	3.66	3.69	4.30	3.33	4.084	0.018*
<i>n-9</i>	3.41	3.44	4.27	3.33	6.531	0.002*

Note: \*  $p < 0.05$

Source: Author's research

The results of the ANOVA showed that occupation does not influence the respondents' attitudes about the positive impacts of Lovefest. Using the mentioned analysis, it has been proved that there are significant differences in respondents' attitudes of different occupation about statements, which are related to the negative impacts of Lovefest for eight out of nine statements at a significance level  $p < 0.05$  (Table 7). The Tukey post-hoc test indicated that there are significant differences in the attitudes of employed respondents and students for the following statements *n-1*: A huge number of Lovefest visitors annoy the local population ( $p = 0.026 < 0.05$ ); *n-5*: During Lovefest there is a huge waste throughout the destination and

natural values are endangered ( $p=0.046<0.05$ );  $n-6$ : During Lovefest cultural and historical values of the destination are endangered ( $p=0.017<0.05$ );  $n-7$ : Lovefest affects the local population to change negatively their moral principles and behavior ( $p=0.002<0.05$ ) and  $n-8$ : Lovefest affects the growth in local population costs of living, because of increasing prices in the destination during the festival ( $p=0.001<0.05$ ). The results of the mentioned test also showed there are significant differences in the attitudes of unemployed respondents and students for the following statements:  $n-3$ : During Lovefest, the noise level is higher in the destination ( $p=0.019<0.05$ );  $n-4$ : Huge crowds in the whole destination occur during Lovefest (in restaurants, cafes, stores, markets, etc) ( $p=0.025<0.05$ );  $n-5$ : During Lovefest there is a huge waste throughout the destination and natural values are endangered ( $p=0.045<0.05$ ) and  $n-9$ : Unlawful, immoral, and promiscuous activities occur during Lovefest ( $p=0.029<0.05$ )

## 5. Discussion

So far, a large number of authors have examined the local population's attitudes about the tourism impacts in their researches (Bastias-Perez & Var, 1995; Dorđević & Milićević, 2021; Eusébio et al., 2018; Gursoy & Kendall, 2006; Hadinejad et al., 2019; Ling et al., 2011; Milićević et al., 2020; Woosnam et al., 2018). In the era of mass tourism, it is very important to analyze the local population's attitudes, bearing in mind that they are a very important interest group in tourism development. Also, the quality of the local population's life is greatly under the influence not only by the tourism development but also by the impacts that arise from it. Despite a large number of scientific researches on the local population's attitudes about positive and negative tourism impacts, this topic is still not sufficiently examined when it comes to spa destinations and music festivals. Therefore, the authors of this paper examined the local population's attitudes of the Vrnjačka Banja as one of the most visited spas in the Republic of Serbia where the Lovefest is held, according to its characteristics is not typical for this type of destination. The purpose of this paper was to determine the differences in the local population's attitudes towards the positive, as well as to the negative impacts of Lovefest based on their socio-demographic characteristics (gender, age, occupation, and education) and whether their job is tourism-related.

Referring to the research results, which were obtained with statistical processing of primary data, it can be concluded that the local population's attitudes to some positive and negative impacts of Lovefest differ regarding their socio-demographic characteristics. When it comes to the influence of gender on the local population's attitudes about the impacts of Lovefest, the statistically significant differences are present in only a few positive impacts of Lovefest whereby female respondents rated higher this impacts than male respondents. These results are inconsistent with the results obtained in the studies of Nunkoo and Gursoy (2012) and Jani (2018) who concluded that male members of the local population express a greater degree of agreement with the positive tourism impacts in relation to women. However, in some other studies, it has been established that women have more positive attitudes about tourism impacts (Sinclair-Maragh, 2017). Based on the research results, the hypotheses  $H_1$  and  $H_2$  have not been proven. Results of this study showed that members of the local population, whose job is tourism-related, expressed a greater degree of agreement with the statement that the local population may have additional earnings due to Lovefest compared to those who do not engage in a job related to tourism. Involvement of the local population in the tourism development through their job influence their attitudes about the tourism impacts as well as their support of tourism development (Yuan et al., 2019). Based on this study,  $H_9$  and  $H_{10}$  have not been proven.

When it comes to age, the obtained results showed the existence of statistically significant differences between local population's attitudes of different age about the six out of nine negative impacts of Lovefest, which are related to a huge number of visitors, the higher noise level, huge waste and natural values endangering, changes in moral principles and behaviour of local population higher costs of living and increased prices in the destination as well as to unlawful, immoral, and promiscuous activities in the destination. Some studies showed that the age of the local population influences their attitudes about tourism impacts (Bagri & Kala, 2016). Results of conducted research indicate that statistically significant differences are present in most cases between the local population's attitudes aged 20 to 30 and 31 to 40 as well between the local population's attitudes aged 20 to 30 and 41 to 50. The results of this study have not provided the support for hypothesis  $H_3$  while hypothesis  $H_4$  about the existence of the significant differences in the local population's attitudes towards the negative impacts of Lovefest, considering their age has been proven. Some studies showed that educational level influences the local population's attitudes on the tourism impacts (Almeida-García et al., 2016; Látková & Vogt, 2012; Papastathopoulos et al., 2020). In this study, the authors concluded that educational level has an influence on the local population's attitudes towards the statement, which is related to the positive impact of the contribution of Lovefest to creating a sense of pride in the local population. This is very pronounced in the case of those who completed secondary school and those who completed faculty. Although, hypotheses  $H_5$  and  $H_6$  have not been proven. The most important conclusion of statistical analysis is that occupation influence the local population's attitudes about the negative impacts of Lovefest for seven out of nine statements. Significant differences exist in the attitudes of employed respondents and students as well as between the attitudes of unemployed respondents and students. One of the few studies, which included occupation as one of the socio-demographic characteristics, showed that occupation influences the local population's attitudes about tourism impacts (Feroni et al., 2019). Based on the results of this study, hypothesis  $H_7$  has not been proven but hypothesis  $H_8$  about the existence of the significant differences in the local population's attitudes towards the negative impacts of Lovefest considering their occupation has been supported by research results.

## **6. Conclusion**

Tourism impacts have been one of the most represented topics in empirical researches for many years. Recognizing the important role of the local population in tourism development, it is necessary to examine their attitudes to tourism impacts. Bearing in mind that tourism creates a large number of negative impacts on the local community, the involvement of the local population in the tourism development can contribute to more intensive sustainable tourism and better quality of their life. The purpose of this research was to examine if there are differences in the local population's attitudes towards positive and negative impacts of Lovefest, which is organized in Vrnjačka Banja, based on their age, gender, educational level, occupation, and the relation between their job and tourism. This research confirms that there are statistical differences in the local population's attitudes regarding certain positive and negative impacts of Lovefest based on their socio-demographic characteristics. Regarding some of the positive impacts of Lovefest, the local population's attitudes statistically differ concerning the local population's gender, their level of education and whether their job is tourism-related. When it comes to the negative impacts of Lovefest, the local population's attitudes differ regarding their age and occupation. Out of 10 special hypotheses, which were set in the paper, only two hypotheses were proved by the research results, while the others were rejected.

This research has certain limitations. Those are the small sample size, lack of interest of the local population to participate in the survey, and level of sample representativeness, considering the fact that a convenience sample is used in this study. Therefore, the period of conducting the data should be longer in future studies. In order to motivate the local population to participate, authors should use the combined method of data collection, which would involve the online distribution of questionnaires and the face-to-face technique. Future studies should look for statistical differences in their attitudes regarding their socio-demographic characteristics towards festival impacts, which should be presented, not only as positive and negative impacts but also as economic, environmental, and socio-cultural. The results of this study are of practical importance because they can be used by the festival management for future planning. Also, the results have practical implication for tourism destination management, because it gives the insights about the local population attitudes towards the impacts of Lovefest, that are generally part of overall tourism impacts in Vrnjačka Banja. Therefore, such insights are crucial for developing and planning sustainable tourism strategies in Vrnjačka Banja. On the other hand, the scientific significance is that besides the economic impacts of the festival, socio-cultural, and environmental impacts are also included. Moreover, there have been no research studies on the festival impacts depending on the basic characteristics of the local population in spa destinations.

## **Acknowledgement**

The paper is the result of the research within Project no. III 46006 – “Sustainable agriculture and rural development in the function of accomplishing strategic objectives of the Republic of Serbia in the Danube region”, financed by the Ministry of Education, Science and Technological Development of the Republic of Serbia.

## **Conflict of interest**

The authors declare no conflict of interest.

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## Authenticity of gastronomic events as a function of branding a destination

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**Abstract:** The promotion of authentic food and beverages in Vojvodina is most commonly carried out in gastronomic events. Vojvodina is rich in gastronomic products coming from the households of different nations that inhabit its territory. Gastronomic events with their authenticity can contribute to the creation of the destination brand. The aim of the present study is to explore the authenticity of gastronomic events, which could contribute to a better promotion of Vojvodina and the creation of a recognizable brand of this tourist destination. The research was conducted through the method of survey, using a questionnaire on a sample of 150 respondents. Using statistical methods of binary logistic regression, Chi – square and Fisher’s test, the analysis was performed and the results were presented. The findings of the research indicate that the authenticity of gastronomic events is recognized by the tourists; however, this should be better utilized in destination branding, as this feature could be the key in attracting tourists.

**Keywords:** gastronomic events, destination branding, Vojvodina

**JEL classification:** M31, Z32, L66

## Autentičnost gastronomskih manifestacija u funkciji brendiranja destinacije

**Sažetak:** Promocija autentične hrane i pića na teritoriji Vojvodine najčešće se vrši putem gastronomskih manifestacija. Vojvodina je bogata gastronomskim proizvodima koji dolaze iz domaćinstava različitih naroda koji naseljavaju njenu teritoriju. Gastronomske manifestacije sa svojom autentičnošću mogu doprineti kreiranju brenda destinacije. Cilj rada je da se istraži autentičnost gastronomskih manifestacija, koja može doprineti boljoj promovisanosti Vojvodine i stvaranju prepoznatljivog brenda ove turističke destinacije. Istraživanje je sprovedeno primenom metode ispitivanja, korišćenjem ankete, na uzorku od 150 ispitanika. Primenom statističkih metoda binomne logističke regresije, Hi-kvadrat i Fišerovog testa, izvršena je analiza i prezentovani su rezultati. Istraživanje pokazuje da je autentičnost gastronomskih manifestacija prepoznatljiva kod turista, ali da je treba bolje

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iskoristiti za brendiranje destinacije, jer upravo ovaj atribut može da bude ključan za privlačenje turista.

**Ključne reči:** gastronomske manifestacije, brendiranje destinacije, Vojvodina

**JEL klasifikacija:** M31, Z32, L66

## 1. Introduction

Events can contribute to the recognizability of a city, region, as well as a country, and their authenticity is an important aspect of branding. Branding of a certain gastronomic event can affect the overall perception and creation of the image of the tourist destination itself. The recognizability and authenticity of a certain event, in fact, brings potential tourists to a certain destination. The aim of branding is to differentiate a certain product on the market from other products (Mandarić, 2016). Intense competition between tourist destinations is increasingly present, and therefore the need for destination branding is becoming more pronounced. The issue of recognizability as well as authenticity is precisely the task of the brand. Tourist destination branding is a concept that started developing in the late XX century and integrates all the features of the destination into a single whole, which expresses a unique identity and differentiates the destination from the competition (Tsauro et al., 2016). Gastronomic events have become increasingly important in recent years, as they attract an increasing number of tourists. Gastronomic events held in rural areas have a great promotional and entrepreneurial potential, as the gastronomic products from these events could be offered to local restaurants, as well as to retail chains, which would positively affect the revitalization of the rural area of a particular tourist destination (Stojanović et al., 2020). The events can be used to promote the destination as a gastronomic tourism destination. There are numerous gastronomic events in Vojvodina held every year at a certain time. Authentic food and drinks, which are characteristic of the venue of the gastronomic event, are presented through the events. It can be said that “food also provides ‘authentic’ representation of the culture for the tourist” (Vuković & Mosurović Ružičić, 2020, p. 79). Gastronomic products are a very important tool for introducing tourists to the culture, tradition and history of a particular place or region. The paper focuses on the gastronomic events that, with their authenticity, could influence the creation of recognizability, as well as a better promotion of Vojvodina as a tourist destination. Creating a brand and developing perceptions among tourists and locals can significantly contribute to the economic strengthening of villages, towns and the region.

## 2. Gastronomic events and destination branding

The number of gastronomic events in the world is constantly increasing, along with the growing interest in gastronomic tourism, which is a very interesting form of recreation and tourist attraction (Wargenau & Che, 2006). “Events or organized events, as a reflection of modern tourism, with regard to culture (music festivals, concerts, exhibitions, contests etc.), sports (regattas, water-skiing, etc.), tradition (carnivals, gastronomy, folklore, etc.), are gaining more importance in modern tourism” (Jovanović, 2015, p. 137). The combination of food, culture and tourism has become an emerging tourism product called gastronomy, regarded as a vehicle for regional, local and sustainable development of a particular destination (Mohanty et al., 2020). Gastronomic events represent a unique connection between food, drinks, tourist events and travel. Gastronomic events involve gathering a large number of people in one place, with the aim of tasting food and drinks, observing or participating in the preparation of food and beverage, as well as entertainment and leisure through the accompanying cultural and artistic program or competition. Since these events

are mostly held in smaller towns and villages, there are conditions for the development of rural and gastronomic tourism (Bjeljac, 2010). In recent years, there have been an increasing number of events aiming to present the gastronomy of a particular part of the country. This is precisely where one can seek the opportunity for a larger number of visitors, both domestic and foreign. Through the affirmation of authentic food and beverages, any region can become a significant tourist destination, and one of the means to present and promote them can be through gastronomic events (Stojanović et al., 2018). According to Vićentijević (2015), events play a significant role in improving the quality of the tourist offer of Serbia, especially as one of the reasons for visiting certain destinations beyond the primary motive (spa, mountain and other tourist products). The importance of gastronomic events can be observed through the improvement of cultural, economic and overall social potential of a tourist destination. Some events are traditionally held every year and have become an integral part of the tourist offer. Some towns and cities are known for their gastronomic events (Milićević & Đorđević, 2016). It is very important that the organization of events in a certain destination affect the growth of tourism in the same area. The promotion and affirmation of an event is at the same time the promotion of the destination where it is held. Holding recognizable events leads to a larger number of visitors, and the most important are those who would not visit the destination if it were not for that event (Mandarić & Stamenković, 2017). In case the event is a positive experience for the visitors, their re-visit is expected, and probably recommendations to relatives and friends. Poorly organized events can worsen the image and perception of the destination. It is impossible to observe events and their effects separately from tourism, or from the economy, as they are inextricably linked (Unković & Zečević, 2011). A clearly defined gastronomic identity and heritage can be exploited in key differentiation processes, helping to convey a unique sense of a tourist destination (Fox, 2007).

A large number of tourist destinations on the market are reminiscent of each other - they have good conditions for stay and emphasize the uniqueness of their own culture and heritage. However, the perception of a particular destination has to be distinct (Mandarić, 2016). In the era of global economy and the growing need to achieve competitive advantage, “strong brands and the branding process itself are gaining importance, which is why the principles of brand management are applied even to geographical areas and destinations” (Jojčić Novaković & Mandarić, 2019, p. 47).

The goal of branding a tourist destination is to create such a perception in the minds of consumers that there is no other place as that one in the tourist market, that it is special and should be remembered as unique. However, it is important to take into account the fact that branding does not happen on the market, but exclusively in the minds and awareness of the consumers (Mandarić, 2016). A brand is the result of all the mental connections that the consumer creates with a given entity (Brzaković et al., 2019). The importance of the brand comes from the fact that it is a strategic asset for competitive advantage (Terzić & Đalić, 2019). The need for destination branding nowadays is becoming more pronounced since numerous destinations may have high quality content and services but at the same time may not be recognizable on the market. In this respect, destinations may be similar and then the brand becomes an important factor as it gives added value and a promise to potential tourists that they will experience something special there, something worth a visit. Therefore it is important to create a perception in the minds of tourists about the uniqueness of the destination (Perić & Mandarić, 2020). Branding of a destination, along with the strengthening of event tourism, can lead to significant economic results, the influx of new and retention of the existing tourists, as well as the diversification of the overall tourist offer of a country. Vojvodina with its gastronomic events can certainly be a unique and authentic destination, which should be used in developing strategies and promotion.



### **3. Authenticity in the function of developing strong brands and gastronomic events**

Gastronomic events can contribute to destination branding, which is significantly helped by the attribute of authenticity. “Authenticity shows whether a brand has a heritage and an established set of values, which is why it is able to meet the expectations of visitors” (Mandarić, 2016, p. 200). The authenticity of a brand is also related to the origin, as well as the uniqueness of a certain product. In the case of gastronomic products, this can be very significant for the tourists. When a certain product is typical of an area, it is promoted through gastronomic events that are recognizable. The authenticity of the gastronomic event is crucial in creating perception and loyalty among tourists. Gastronomic events “promote the culture of a destination and its culinary resources to enhance the tourist destination” (Carvache-Franco et al., 2020, p. 1328). The gastronomic events of Vojvodina offer a wide selection of food and drinks to tourists to satisfy their different tastes. Authentic food at events is a means of communication with visitors who, in addition to participating in cultural activities, try gastronomic specialties characteristic of a particular area and get to know the culture and traditions of the people who live there. The gastronomy of Vojvodina has been formed under the influence of complex living conditions, a large number of nations living on its territory, cultural and social events. Gastronomy can be considered as one of the most attractive tourist offers of Vojvodina, based on a large number of events offering culinary specialties (Stojanović, 2013). In the area of Vojvodina there is a mixture of cuisines with a large number of dishes. The Germans had a significant influence on gastronomy, as they brought their own dishes and customs for preparing winter food stores, growing fruit and vines, and making wine. Furthermore, the people of neighbouring countries, Romania and Hungary, as well as Slovakia and Russia, have left a large number of dishes that are still prepared in some parts of Vojvodina where these people live (Vojvodinian cuisine, 2021). A national gastronomy represents a historically originated cuisine that has developed in a certain territory, which is related to the culture, society, tradition, as well as the habits of the people who live there (Vukić, 2019). Attractive gastronomic offers of scattered isolated farms (granges), with different architectural and cultural traditions, are one of the main products that can be offered to guests. The gastronomic offer of Vojvodina is reflected in authentic food, desserts and wines, which are promoted and marketed through various events. The number of gastronomic events is at a high level, and includes numerous specifics of a certain place and people of that area. Moreover, through numerous museums of food and beverages, as well as granges, ethno houses, chardas and rural households, authentic Vojvodina specialties are offered and promoted. Gastronomy is significant because of its ethical and sustainable values that are based on local food, culture, traditions, lifestyles, practices that not only allure the visitors but also at the same time promote the destination marketing (Mohanty et al., 2020). Gastronomic events increase the need for tourists to visit a certain destination; therefore, it is expected that these events, which are very important for the development of gastronomic tourism, will be more represented in the promotion of certain tourist places. Every region abounding in authentic gastronomic products should be represented and placed in the overall tourist offer of a particular country (Čavić & Stojanović, 2018). In addition to the Dolovo Strudel Festival, in the area of the South Banat district there are well-known events dedicated to: preparation of goulash (Debeljača, Baranda, Omoljica), competitions in preparing soups and cauldron foods (Pančevo, Ivanovo, Kovin), bacon (Kačarevo), ham (Omoljica), desserts and cakes (Crepaja), ritual bread (Starčevo). Events dedicated to wine are present in the vine-growing area – Vršac, and events dedicated to brandy are held in Bela Crkva (Čavić & Stojanović, 2018). All these events can be used as a unique and authentic gastronomic offer for tourists who visit or pass through Banat. Traditional gastronomic products, due to their character, quality and heritage,



could “become a regional brand and also promote the region as a unique destination of rural tourism” (Mandarić et al., 2017, p. 787).

Table 1: Number of gastronomic events in Vojvodina per months

Variable	Frequency	Percentage
<b>Month when the events are held</b>		
January	4	2.06
February	20	10.31
March	6	3.09
April	5	2.59
May	26	13.40
June	21	10.82
July	12	6.19
August	32	16.49
September	26	13.40
October	23	11.86
November	13	6.70
December	6	3.09

Source: Author's research

Table 1 shows the number of gastronomic events held every month during a year. These events are officially registered and can be found on the website of the Tourist Organization of Vojvodina (Tourist Organization of Vojvodina, 2021). There are 194 of them in total, and they are placed under the category of gastronomic events and promote certain food or drinks. Each of them is specific and unique, reflecting the people, tradition and culture of the place where they are held. We can conclude that the largest number of these events are held in August - 32 (16.49%), whereas the smallest number in January – only 4 (2.06%), as well as in April - 5 (2.59%), March - 6 (3.09%) and December - 6 (3.09%). In other months, that number is increasing and it is much higher. In 2020 most of these events were not held due to the declared Covid 19 pandemic, or were just symbolically marked by the organizers so as not to break the tradition. However, the events did not have a large number of visitors as previous years, because of the respect for epidemiological measures and the restrictions related to the gathering of a large number of people.

#### 4. Research methods and results

The subject of the research are gastronomic events, which with their authenticity can influence the creation of recognizability, as well as better promotion of Vojvodina as a tourist destination. The research was conducted on the sample of 150 respondents, with a deliberate convenient sample, through personal examination during the event Dolovo Strudel Festival in September 2019. All respondents were informed that the survey was anonymous and would be used for scientific purposes. After the review and processing, all 150 survey questionnaires were found valid. In the conducted field research, the examination method was used, and survey was used as a technique. The questionnaire consisted of 22 open-ended and closed-ended questions. The questions were divided into three segments. The first part referred to the socio-demographic characteristics of the respondents, whereas the second part was about the event itself (whether it is authentic, how they learned about it, what they find especially interesting etc.), and the questions in the third part were about the Dolovo strudel (whether they tried it, what type of strudel they prefer, whether it is authentic and promoted enough etc.). The respondents were the event visitors and members of several associations. To present the description of the research, descriptive statistical measures were used –

frequencies and percentages. The questions from the questionnaire were categorical questions, so the choice of statistical tests is within the framework of non-parametric statistics. Binary logistic regression was used as the statistical method. Logistic regression was applied to examine the influence of several variables on one, and binary regression as the dependent variable is dichotomous. The Chi-square and Fisher's test were used to examine the differences. Statistical analyses were conducted within the statistical package SPSS 22.0 (*Statistical Package for Social Sciences for Windows 22.0*) (Leech et al., 2005; Pallant, 2011; Sheskin, 2004).

In order to gain a better understanding of the visitors to Dolovo Strudel Festival, Table 2 indicates the demographic characteristics of the respondents.

Table 2: Demographic characteristics of the respondents

Variables	Frequency	Percentage
<b>Gender</b>		
Male	29	19.3
Female	121	80.07
<b>Age</b>		
up to 35	27	18.0
from 36 to 50	38	25.3
over 50	85	56.7
<b>Level of education</b>		
Elementary, high school	94	62.7
College, university	47	31.3
Master's degree, PhD	9	6.0

Source: Author's research

Table 2 shows that the number of female visitors to the event (80.07%) is higher than the number of male visitors (19.3%), which indicates that the population more interested in strudels and the event are women. Regarding the age of the respondents, most of them are over 50 (56.7%), followed by those between 36 and 50 (25.3%) and those younger than 35 (18.0%). As far as the level of education is concerned, most respondents completed elementary and high school (62.7%), college or university (31.3%), whereas only 6.0% hold a Master's degree or PhD.

In order to examine the influence of the event program on the perception of the authenticity of the Dolovo Strudel Festival, the statistical method of binary logistic regression was used. Criterion (dependent) variable is the authenticity of Dolovo Strudel Festival, operationalized through the question from the questionnaire: "Do you think that the event is authentic?" coded as dummy variable (categorical): 1- yes and 0- no. Predictor (independent) variables are the attractiveness of the overall program and the attractiveness of the competitive part of the event. The variable regarding the attractiveness of the competitive part of the event was operationalized through the question from the questionnaire: "Do you find the competitive part of this event interesting?", and the attractiveness of the overall program of the event through the question: "Do you find the program of the event interesting?". Both predictor variables are dichotomous coded as dummy variable: 1- yes and 0- no. The model is statistically significant;  $\chi^2(2)=21.68$ ,  $p=0.00$ ; which indicates that the predictor variables significantly contribute to the interpretation of the criterion variable – the authenticity of the Dolovo Strudel Festival. Predictor variables interpret between 13.5 (Cox and Snell  $R^2$ ) and 53.1 (Nagelkerke  $R^2$ ) the variances of the criterion variable.

Table 3: Contribution of independent variables to the model of authenticity of the Dolovo Strudel Festival

	$\beta$	p	Exp(B)	95 confidence interval	
				Lower endpoint	Upper endpoint
<b>Do you find the program of this event interesting? (Yes)</b>	3.522	0.071	33.867	0.740	1550.785
<b>Do you find the competitive part of this event interesting? (Yes)</b>	3.961	0.002	52.513	4.389	628.266
<b>Constant</b>	-2.376	0.219	0.093		

Source: Author's research

Table 3 shows that the attractiveness of the competitive part of the event significantly contributes to the interpretation of the authenticity of the Dolovo Strudel Festival,  $p < 0.05$ . Those who find the competitive part of the event interesting are more likely to perceive the event as authentic (OR=52.51; 95 CI=4.39-628.27;  $p=0.00$ ) compared to those who do not find it interesting. The competitive part of the event is very unique every year, as the quality of the strudels taking part in the competition is evaluated. Based on quality parameters such as: appearance of strudel, ratio of dough and filling, whether it is coated with eggs and has a nice crust, quality of dough and filling, harmony of taste etc., the expert jury selects and declares the best strudels in several categories. This is very interesting for all the visitors, as well as for the members of numerous associations.

In order to test the differences between those who find the Dolovo Strudel Festival authentic and those who do not find it authentic, the Fisher exact test was used (Table 4). The results of Fisher's test indicate that those who consider the Dolovo Strudel Festival authentic are significantly different from those who do not find it authentic in their answer to the question: "Do you find the program of this event interesting?";  $p=0.00$ . Almost all the respondents (99.3%) who consider the Dolovo Strudel Festival authentic find the program of the event interesting, whereas 40% of the respondents who do not consider this event authentic do not find the program interesting. When asked: "In your opinion, is this event sufficiently promoted?", 120 (80%) of the respondents replied YES, and only 30 (20%) replied NO. This is an indicator of a good promotion of the event; however, it does not mean that it should not be raised to an even higher level, in order to attract a larger number of visitors. In reply to "How did you learn about this event?", 102 (68%) respondents said that they heard about it from their friends, followed by 28 (18.7%) respondents who learned about it on TV, and only 20 (13.3%) learned about it on the Internet. This is very significant for planning future advertising and promoting the Dolovo Strudel Festival.

The results of Fisher's test indicate that those who consider the Dolovo Strudel Festival authentic are significantly different from those who do not find it authentic in their answer to the question: "Do you find the competitive part of this event interesting?";  $p=0.00$ . Those who find the event authentic at the same time like the competitive part of the event (95.2%), and those who do not think the event is authentic do not like the competitive part either (80%). When asked "What do you consider authentic in this event?", the respondents mostly replied "strudels" 104 (69.3%), then "program of the event" 38 (25.3%) and "competition" 8 (5.3%). Authenticity is a very important part of the brand. According to the respondents,

strudels are something authentic and therefore they can be the main advantage in branding of this event.

Table 4: Differences in terms of the authenticity of the event Dolovo Strudel Festival

		Do you find the event authentic?				N		p
		no		yes		f	%	
		f	%	f	%			
Gender	male	2	40.0	27	18.6	29	19.3	0.248
	female	3	60.0	118	81.4	121	80.7	
Age	up to 35	2	40.0	25	17.2	27	18.0	0.653
	from 36 to 50	1	20.0	37	25.5	38	25.3	
	over 50	2	40.0	83	57.2	85	56.7	
Level of education	Elementary, high school	4	80.0	90	62.1	94	62.7	0.651
	College, university	0	0.0	47	32.4	47	31.3	
	Master's degree, PhD	1	20.0	8	5.5	9	6.0	
Is this event sufficiently promoted, in your opinion?	no	2	40.0	28	19.3	30	20.0	0.261
	yes	3	60.0	117	80.7	120	80.0	
How did you learn about this event?	TV	1	20.0	27	18.6	28	18.7	0.655
	Internet	1	20.0	19	13.1	20	13.3	
	Friends' recommendation	3	60.0	99	68.3	102	68.0	
What do you consider authentic in this event?	strudels	4	80.0	100	69.0	104	69.3	0.513
	program of the event	1	20.0	37	25.5	38	25.3	
	competition	0	0.0	8	5.5	8	5.3	
Have you tried Dolovo strudel before?	no	1	20.0	28	19.3	29	19.3	0.664
	yes	4	80.0	117	80.7	121	80.7	
Which strudel do you like tasting most?	Poppyseed strudel	3	60.0	87	60.0	90	60.0	0.677
	Walnut strudel	1	20.0	37	25.5	38	25.3	
	Carob strudel	0	0.0	10	6.9	10	6.7	
	Fruit filling strudel	1	20.0	8	5.5	9	6.0	
	Savory filling strudel	0	0.0	3	2.1	3	2.0	
Do you think that the Dolovo strudel is the best cake of Banat?	no	2	40.0	23	15.9	25	16.7	0.194
	yes	3	60.0	122	84.1	125	83.3	
Do you find the program of this event interesting?	no	2	40.0	1	0.7	3	2.0	0.003
	yes	3	60.0	144	99.3	147	98.0	
Are you a member of the Association or a visitor?	association	2	40.0	84	57.9	86	57.3	0.651
	visitor	3	60.0	61	42.1	64	42.7	
Do you find the	no	4	80.0	7	4.8	11	7.3	0.000

competitive part of this event interesting?	yes	1	20.0	138	95.2	139	92.7	
Do you like the idea of organizing a collective wedding for the first time in this event?	no	0	0.0	8	5.5	8	5.3	0.757
	yes	5	100.0	137	94.5	142	94.7	
What are you taking as a souvenir from this event?	strudels	1	20.0	83	57.2	84	56.0	0.541
	handicrafts	2	40.0	14	9.7	16	10.7	
	memories	2	40.0	48	33.1	50	33.3	
The reason you came to Strudel Festival?	socializing	2	40.0	86	59.3	88	58.7	0.649
	strudels	0	0.0	41	28.3	41	27.3	
	curiosity	3	60.0	18	12.4	21	14.0	
Do you think that the Dolovo strudel is a recognizable brand?	no	2	40.0	8	5.5	10	6.7	0.036
	yes	3	60.0	137	94.5	140	93.3	

Source: Author's research

The results of Fisher's test indicate that those who consider the Dolovo Strudel Festival authentic are significantly different from those who do not find it authentic in their answer to the question: "Do you find the competitive part of this event interesting?";  $p=0.00$ . Those who find the event authentic at the same time like the competitive part of the event (95.2%), and those who do not think the event is authentic do not like the competitive part either (80%). When asked "What do you consider authentic in this event?", the respondents mostly replied "strudels" 104 (69.3%), then "program of the event" 38 (25.3%) and "competition" 8 (5.3%). Authenticity is a very important part of the brand. According to the respondents, strudels are something authentic and therefore they can be the main advantage in branding of this event.

The results of Fisher's test indicate that those who consider the Dolovo Strudel Festival authentic are significantly different from those who do not find it authentic in their answer to the question: "Do you think that the Dolovo strudel is a recognizable brand?";  $p=0.04$ . Those who consider this event authentic also think that the Dolovo strudel is a recognizable brand (94.5%). The connection is very significant from the aspect of authenticity and uniqueness of this event. When asked "Have you tried Dolovo strudel before?" 121 (80.7%) respondents said YES and they have already attended this event before, whereas 29 (19.3%) respondents said NO. The aim of the question "Which strudel do you like tasting most?" is to show which type of strudel is most tasted and sought after among visitors. Most respondents – 90 (60%) - confirmed that is the poppyseed strudel, then walnut strudel - 38 (25.3%) respondents, and the remaining three types of strudel are much less popular according to the respondents. Strudel is a cake that has traditionally been prepared and eaten in Banat for a long time. The question "Do you think that the Dolovo strudel is the best cake of Banat?" 125 (83.3%) respondents answered YES, and only 25 (16.7%) respondents said NO. When asked "Do you find the program of this event interesting?" 147 (98%) respondents replied YES, and only 3 (2.0%) said NO. This shows that the overall program of the Dolovo Strudel Festival is certainly well designed and interesting for visitors. The question "Are you a member of the

Association or a visitor?”, produced the following answers – 86 members of the Association (57.3%), and 64 visitors (42.7%), which is important in order to receive feedback from two different angles. When asked: “Do you find the competitive part of this event interesting?” 139 (92.7%) respondents said YES, and only 11 (7.3%) said NO, which indicates that the competitive part received a positive evaluation from the respondents. A collective wedding was organized in this event, so the respondents were asked “Do you like the idea of organizing a collective wedding for the first time in this event?”- 142 (94.7%) respondents replied YES, and only 8 (5.3%) said NO. The visitors were pleasantly surprised by the wedding, as this was an opportunity for a number of couples to get married as part of such a beautiful event. When asked “What are you taking as a souvenir from this event?”, most respondents said “strudels” -84 (56.0%), then “memories from this event” -50 (33.3%) and various types of handicraft 16(10.7%). An edible souvenir such as strudel can be something authentic and after the event the visitors have impressions to talk about. In reply to “The reason you came to Strudel Festival?”, most respondents said it was for socializing - 88 (58.7%), taking into account the fact that such events are a great opportunity for the members of the association and visitors to socialize and exchange experience, then “for strudels” - 41 (27.3%) and “curiosity” as they heard about his event - 21 (14.0%). When asked “Do you think that the Dolovo strudel is a recognizable brand?”, 140 (93.3%) respondents said YES, and only 10(6.7%) respondents said NO. The results of this research indicate that this is an authentic gastronomic event which, with its program and strudels, has a significant role in the gastronomic offer of Vojvodina and Serbia. Gastronomic events with an authentic gastronomic offer are increasingly attracting many domestic and foreign tourists. However, they are still not sufficiently promoted, and they can contribute to the strengthening of the economy, both in the region and the entire country (Čavić & Stojanović, 2018).

## 5. Conclusions

High attendance at a tourist destination and creating a brand at destination, through the development of event tourism, contribute to strengthening the competitive position of the destination, enable easier overcoming of geographical distance, attracting new and retaining existing tourists and visitors to the destination, while achieving favourable economic effects (Mandarić & Stamenković, 2017). The need for destination branding nowadays is becoming more pronounced as many destinations may have high quality content and services but are not necessarily recognizable on the market (Perić & Mandarić, 2020). Vojvodina has a large number of gastronomic events held regularly, every year at the same time. Each of these events is characteristic of the place where it is held, as it reflects and presents the people who live there, with their customs, culture and tradition. A number of associations and various societies have been formed, in order to present in an organized and adequate way an event that can become a kind of brand of a place, and thus an important segment of the tourist and gastronomic offer of Vojvodina and Serbia. The results of the research indicate that the gastronomic events held in Vojvodina are authentic in terms of the uniqueness of the dishes, desserts and wines they promote and that in certain cases they represent the brand of a particular village, town or city.

The Dolovo Strudel Festival is an authentic event traditionally held in Dolovo near Pančevo. The distinctive feature of this event are Dolovo strudels, which are unique and attract an increasing number of tourists every year. The research indicates that the Dolovo Strudel Festival is recognized by the tourists who visit it, but it is still not promoted throughout Serbia although it would enable it to have a better placement in gastronomic movements of tourists. Many events are recognizable, unique and represent the brand of the place where they are held and of Vojvodina as a tourist destination. According to the Strategy for the development of tourism in Serbia for the period 2016-2025, events are positioned in the

second place as a tourist product of special importance for the development of tourism. In the same document, gastronomic tourism is ranked among the modern trends in the motives of tourists to visit a destination (Ministry of Trade, Tourism and Telecommunications, 2016).

One of the research limitations of the present study is the application of dichotomous (Yes/No) questions, preventing the respondents from expressing their attitudes more freely. Another limitation is the fact that the research does not apply to larger-scale events. Furthermore, new gastronomic events appear every year, with a more complex content, which might affect the authenticity of this particular event.

It is recommended that the promotion of the Dolovačka strudel event, which was the subject of research in the paper, but also other gastronomic events that have great tourist potential, should be improved. Creating the perception and a positive image of a destination among potential tourists is important and it is something that all the capacities of the destination should be used to achieve. Marketing communication is very important in tourism and provision of information and the exchange of ideas and experiences (Marić et al., 2020) can help gastronomic events to achieve better higher attendance. Some of the recommendations are to improve the information on the websites of tourist organizations, make gastronomic films about the events, improve the contents and appearance of the brochures and leaflets, more frequent visits of the members of the Association in TV shows, form gastronomic routes through the places where food and beverages are promoted, as well as all other activities that could improve the promotion and create a recognizable image and brand of Vojvodina as a tourist destination. The authenticity and uniqueness of gastronomic events can certainly be and should be a good basis for the promotion of gastronomy, for destination branding and for attracting both domestic and foreign tourists.

## Conflict of interest

The authors declare no conflict of interest.

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## How do residents assess the social impact of tourism?

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**Abstract:** Tourism plays an important role in the economic and cultural development of society, producing many positive and negative effects. This study aimed to (a) assess the impact of tourism on modern life in Montenegro based on the attitudes of residents and (b) standardize instrument (questionnaire) for assessing these impacts. The sample formed by 521 adults from three different tourist regions (coastal, continental, mountainous). The questionnaire has high validity and reliability. Two components (two independent scales) have been extracted – the negative and positive social impact of tourism. It was found that the increase in positive impacts is followed by an increase in negative effects too. Type of the region, level of municipal development and engagement of respondents in tourism influence significantly the differences between attitudes of examinees. Those who live by tourism most respect its importance for local development.

**Keywords:** tourism, social impact, residents attitude, questionnaire, Montenegro

**JEL classification:** Z32

## Kako rezidenti procenjuju socijalni uticaj turizma?

**Sažetak:** Turizam igra važnu ulogu u ekonomskom i kulturnom razvoju društva, generišući mnoge pozitivne i negativne efekte. Cilj ovog rada je bio da: (a) proceni uticaj turizma na savremeni život u Crnoj Gori na osnovu stavova rezidenata i (b) standardizuje instrument (upitnik) za procenu ovih uticaja. Uzorak je sačinjen od 521. punoletnog stanovnika Crne Gore iz tri različite turističke regije (primorska, kontinentalna, planinska). Upitnik ima visoku validnost i pouzdanost. Izvučene su dve komponente (dve nezavisne skale) – negativni i pozitivni socijalni uticaj turizma. Utvrđeno je da porast pozitivnih uticaja prati i porast negativnih efekata. Tip regije, nivo opštinske razvijenosti i angažovanje ispitanika u turizmu značajno utiču na razlike između stavova ispitanika. Oni koji žive od turizma najviše vrednuju njegovu važnost za lokalni razvoj.

**Ključne reči:** turizam, socijalni uticaj, stav rezidenata, upitnik, Crna Gora

**JEL klasifikacija:** Z32

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## **1. Introduction**

The effects of tourism are predominantly linked with economic indicators (García et al., 2015; Liu & Wu, 2019) rather than with cultural and ecological changes, which results in social life of the local population being much richer in content (Coban & Yildiz, 2019). The measuring of effects of tourist development provokes a number of dilemmas. The economic development does not automatically lead to the satisfaction of the local population (Kim et al., 2013). For example, the income revenue grows due to the multiple increase in the volume of traffic, however the traffic jams and problems with parking increase simultaneously (Andereck & Vogt, 2000; Kuvan & Akan, 2005). New tourist facilities are built, but the amount of waste grows as well (Kuvan & Akan, 2005; Vargas-Sanchez et al., 2011). The number of tourists is increasing but safety is decreasing (Andereck et al., 2005; Haralambopoulos & Pizam, 1996). A different perception of tourism by the state institutions and by the residents widens this gap (Antonakakis et al., 2015). The ministry or the municipality measures the effects of tourism primarily by the economic results and presents them through numerical data (the number of tourists, the number of nights at the location, charged tax). Residents evaluate the effect of tourism very subjectively (García et al., 2015). For them, the most important factor is to not be disturbed by tourism, that their previous habits are not significantly impacted, that they do not come in conflict with tourists (Coban & Yildiz, 2019), that there are no issues with crowdedness and parking; simply, that their quality of life does not decrease (Boley & McGehee, 2014; Boley et al., 2014). The opinions of residents are of great importance for the objective evaluation of the impact of tourism industry (Joo et al., 2019; Lundberg, 2017), which is why they frequently serve as research target. Previous research studies have identified the positive and negative effects of tourism (Ap, 1992; García et al., 2015; Ko & Stewart, 2002; Lankford & Howard, 1994). Residents mostly recognize the economic benefits (primarily the increase in employment) as the main positive impact of tourism (García et al., 2015). Observations have been recorded regarding the positive impact on socio-cultural aspects of life, primarily on the improvement of services offered by the community (Andereck et al., 2005; Kim et al., 2013). The residents show interest in preserving their cultural heritage and lifestyle, which strengthens national pride and cultural identity (Andereck et al., 2005). Furthermore, the examinees also perceive the increase of traffic density and problems with parking as the most significant negative influences (García et al., 2015; Ko & Stewart, 2002). The residents queried in other studies note the increase in delinquency and vandalism as a negative consequence of tourism development (Andereck et al., 2005; Haralambopoulos & Pizam, 1996; Lankford & Howard, 1994). The analyses of ecological aspects of tourism also indicate both negative and positive effects. Residents gave a positive evaluation of the protection of natural resources, while environmental pollution and creating of a large quantity of waste were identified as negative influences of modern tourism (McGehee & Andereck, 2004; Teye et al., 2002). A significant section of tourist experiences was conditioned by supporting activities that do not exclusively depend on the direct participants in tourism industry (Ap, 1992; Lankford & Howard, 1994). This conditionality is seen in all those activities taking place in the everyday life of residents. The manner in which the local population treats the development of tourism is in direct correlation with the success of tourism at a certain destination (Andereck et al., 2005; García et al., 2015; Ko & Stewart, 2002). Considering that the integral product of a tourist destination is unimaginable without the local inhabitants (Cooper & Hall, 2008; Krippendorf, 1982; Laws, 1995; Leiper, 1989), all future efforts that have as their goal the evaluation of tourism impact, must seriously take into consideration the opinions of residents. The attitudes regarding the social impact of tourism are the starting point in overviewing the potential of tourism (Diedrich & García, 2009; Long et al., 1990; Vargas-Sanchez et al., 2011; Yoon et al., 1999), and can surely serve in defining developmental

strategies of countries that strive for competitive positions. Therefore, this study aimed to (a) assess the impact of tourism on modern life in Montenegro based on the attitudes of the residents and (b) standardize the instrument (questionnaire) for assessing these impacts. In defining the research subject, the assumption that tourism in the Republic of Montenegro would significantly contribute to the prosperity of the population is taken as the starting point. The research subject consists of the opinions of the local population regarding the evaluation of tourism impact on the entire social and economic development of Montenegro. The main data sources used in the analysis are the opinions and attitudes of the residents rather than the official statistical data regarding the economic effects. Specific characteristics of residents and destination complexity required the construction of a suitable instrument for data collecting (which is the secondary aim of this study).

## 2. Case study region

Montenegro is a relatively small country, but it has favorable geographical position and rich natural resources for tourism development. It is located on the Balkan Peninsula and is connected with the Adriatic Sea. According to the last population census from 2011, Montenegro has 621 810 inhabitants living in 21 municipalities and 1 256 settlements. Tourism in Montenegro is developed in three geographically different areas that are treated in official documents ([Ministry of Tourism and Environmental Protection of Montenegro, 2007](#); [Ministry of Sustainable Development and Tourism of Montenegro, 2014](#)) as three regions – coastal region (southern region), central (continental) region and mountain region (northern region) (Table 1).

Table 1: Sample by defined criteria

Criteria	Group	% of respondents	Respondents by municipalities	Group definition criteria
Region	<i>Coastal</i>	34%	Bar, Budva, Herceg Novi, Kotor, Tivat, Ulcinj	Ministry of Tourism and Environmental Protection, 2007; Ministry of Sustainable Development and Tourism, 2014.
	<i>Continental</i>	39%	Cetinje, Danilovgrad, Nikšić, Podgorica	
	<i>Mountain</i>	27%	Andrijevica, Berane, Bijelo Polje, Kolašin, Mojkovac, Plav, Pljevlja, Plužine, Rožaj, Žabljak	
Tourism level	<i>High</i>	20%	Bar, Budva, Herceg Novi, Ulcinj	Statistical Office of Montenegro - MONSTAT, 2014.
	<i>Medium</i>	47%	Cetinje, Kolašin, Kotor, Podgorica, Tivat, Žabljak	
	<i>Low</i>	33%	Andrejevica, Berane, Bijelo Polje, Danilovgrad, Mojkovac, Nikšić, Plav, Pljevlja, Plužine, Rožaje	
Engagement	<i>Professionals</i>	31%	All municipalities	Instrument (questionnaire)
	<i>No engagement</i>	49%		
	<i>Season</i>	21%		
Gender	<i>Male</i>	45%	All municipalities	Instrument (questionnaire)
	<i>Female</i>	55%		

Source: Author's research

What is characteristic of these regions is their large diversity of attractions, which contributes to the development of numerous forms of tourism (Milošević, 2017). According to official data, year after year, tourism in Montenegro is becoming increasingly important in overall economic development. The total contribution of Travel and Tourism to GDP was EUR988.2mn, 23.7% of GDP in 2017 and is forecast to rise by 8.9% in 2018, and to rise by 3.9% pa to EUR1,582.3mn, 27.9% of GDP in 2028. The direct contribution of Travel and Tourism to GDP was EUR459.1mn, 11.0% of total GDP in 2017 and is forecast to rise by 9% in 2018, and to rise by 4.2% pa, from 2018-2028, to EUR752.6mn, 13.3% of total GDP in 2028 (WTTC, 2018, p. 7). The importance of tourism is primarily seen in creating new workplaces. Increase in employment can be noted not only within the basic tourism sector (hotels and restaurants), but also in the supporting activities sector. In 2017 Travel and Tourism directly supported 14,500 jobs (7.6% of total employment). This is expected to rise by 4.5% in 2018 and rise by 1.1% to 17,000 jobs (8.1% of total employment) in 2028. In 2017, the total contribution of Travel & Tourism to employment, including jobs indirectly supported by the industry was 19.3% of total employment (36,500 jobs). This is expected to rise by 7.7% in 2019 to 39,000 jobs and rise by 1.3% to 45,000 jobs by the year 2028 (WTTC, 2018, p. 8). During 2019, 2,510 million tourists visited Montenegro, which shows 20.8% growth compared to the previous year (UNWTO, 2020).

### 3. Materials and methods

#### 3.1. Sample

The study included 521 adults (232 male and 289 female) who live and work on the territory of Montenegro. The number of examinees was proportionate to the size of the region. Therefore, the largest number of examinees originated from the continental region ( $N_2=203$ ), without a doubt the largest region, followed by the coastal region, which is at the same time the most developed in terms of tourism ( $N_1=177$ ), while the lowest number of examinees was from the mountain region ( $N_3=141$ ). All respondents were familiar with the research aim and participated in the survey voluntarily. According to the current statistical criteria used to determine sample size (Creative Research System, 1982), this number of examinees is on the level of significance of 0.05 (*Confidence Level* = 95%), which enabled conclusions to be drawn with confidence interval (*Confidence Interval*) of 4.29, and where a number of adult residents of the Republic of Montenegro were used as the basic set (*Population*) from which the sample was drawn. The acquired confidence interval ( $\pm 4.29$ ) can be considered acceptable for this type of demographic study. By inspecting the education structure of the examinees, results have shown that most of the examinees (49.1%) had high education, and then secondary education (24.6%). Regarding the employment status, the majority of the examinees had permanent employment, then part-time employment, while the lowest number was made up of students. The sample included almost all social strata in terms of the most significant socio-demographic criteria: students, unemployed, and those retired. The representation of all strata was proportionate to their total number represented in the entire Montenegrin society. Apart from the residential status, gender, age, and education level, data regarding employment were collected as relevant for this research, data regarding the significance of tourism to the everyday life of the examinees, as well as their ability to impact societal flows, primarily those connected to tourism. Among the examinees, most were not employed in tourism (48.6%), while those that regularly conduct tourism related affairs made up less than 1/3 of the sample (30.5%). To the question regarding the importance of tourism in ensuring material existence, almost half of the examinees responded as not depending on tourism (49.5%), while slightly more than a quarter (27.3%) stated that tourism is only additional activity used to improve their financial status. Only



5.6% of the examinees stated that they live off tourism, while a bit less than a fifth of the sample (17.7%) stated that they depend on tourism significantly.

### 3.2. Instrument design

The initial questionnaire was formed from the claims related to various aspects of tourism that were applied in previous papers researching similar problems. The first part of the instrument contains the relevant socio-demographic data of the respondents: gender, age, education level, employment status, engagement in tourism, knowledge of the municipal economy, importance of tourism for their financial status and the possibility of influencing decision-making in the place of residence (Andereck & Vogt, 2000; Boley & McGehee, 2014; Ko & Stewart, 2002; Kuvan & Akan, 2005; Lankford & Howard, 1994; Teye et al., 2002). The second part of the instrument was formed from 30 claims used by the examinees to state their opinion on a five-point Likert-type scale. After comparative content analysis of the most frequent questions, 30 claims/items were selected for this study that comprised the initial questionnaire (Table 2).

Table 2: Results of Scale reliability analysis for initial questionnaire of 30 items

No	Statements / Variables	Cronbach's Alpha if Item Deleted
1.	In my municipality, development of tourism is insufficiently encouraged	0.840
2.	Politicians do not work sufficiently on tourism promoting of my municipality	0.843
3.	My municipality can become an attractive tourism destination	0.835
4.	Tourism development contributes to gaining reputation of my municipality	0.831
5.	Tourism development increases traffic problems, pollution and noise	0.846
6.	Investment in tourism development is the only safe investment of my municipality	0.832
7.	Tourism development offers numerous possibilities for resident employment	0.829
8.	Tourism development is an important diplomatic activity	0.829
9.	Tourism will have a major economic role at my municipality in the future	0.831
10.	Government incentives for tourism development are insufficient	0.854
11.	Tourism development increases the crime rate in my municipality	0.843
12.	Tourists negatively impact the lifestyle in my community	0.841
13.	Tourism development will secure more parks and recreational spaces	0.834
14.	Only a small number of residents at this municipality have the benefits of tourism	0.841
15.	Tourism development in my municipality will attract investors and spending	0.831
16.	The living standard will significantly increase by developing tourism	0.827
17.	Tourism strengthens the image about my town in the country and the world	0.828
18.	Tourism development ensures high standard of roads and public facilities	0.830
19.	Tourism development incentivizes the restoration of historical places	0.830

20.	The importance of tourism is underestimated in our country	0.853
21.	Tourism significantly increases the tax revenues of the municipality	0.836
22.	Tourism can be the cause of changes in the traditional culture of the municipality	0.851
23.	Tourism development should be a priority in my municipality and country	0.829
24.	Tourism development contributes to good international relations	0.830
25.	My municipality and state would collapse without tourism	0.838
26.	The benefits of tourism outweigh the negative impacts	0.835
27.	I support the building of new tourist facilities that will attract more tourists	0.834
28.	My municipality has become overcrowded with tourists	0.853
29.	Tourism is the best ambassador of my city and country	0.831
30.	Tourism development is a chance to exit anonymity	0.830
<i>Cronbach's Alpha</i>		<b>0.860</b>

Source: Author's research

The key criteria for the selection of the aforementioned claims from previous studies were related to the: (1) evaluation of tourism impact based on opinions of the residents; (2) representation of the claims that had dominant sociological and economic approach; (3) statistically proven instrument reliability; (4) publishing of studies in referential journals; (5) sample and climate specificities taking into consideration the level of tourism development of Montenegro and the historical burden that it carries as one of the youngest countries in Europe. During the selection, priority was placed on the universal claims (regarding employment, income, destination preservation, safety) excluding certain claims that were not adequate to the context of Montenegro (e.g. statement about mass tourism, as well as claims related to highly developed destinations). Special attention was given to the claims used to evaluate the benefits of tourism for building a positive destination image. Those claims (No. 4, 8, 17, 24, 29, 30) were directly taken from previous studies that had as their aim to research destination attractiveness based on tourism development (Boley & McGehee, 2014; Boley et al., 2014; Kuvan & Akan, 2005; Lee, 2016; Styliadis et al., 2014). The remaining claims included in the sample were adapted to the diversity of the geographical area of Montenegro, which reflects the experience of the residents in the field of tourism engagement, as well as the level of tourism development of the destination. Therefore, the instrument contains claims that can be used to evaluate the primary economic dimension of tourism impact (No. 6, 7, 9, 15, 21), and which have been taken from previous studies (Andereck & Vogt, 2000; Ko & Stewart, 2002; Lankford & Howard, 1994). The economic dimension is the main reason for positive attitudes of the residents. Most of claims represented in the instrument (No. 11, 12, 13, 14, 18, 19, 22, 25, 27, 28) evaluate the socio-cultural dimension of tourism impact (Andereck & Vogt, 2000; Kuvan & Akan, 2005; Lankford & Howard, 1994; Teye et al., 2002). Tourism has an effect on local sociocultural characteristics at different moments in the lives of residents, threatening their cultural identity and social reality (García et al., 2015; Styliadis et al., 2014). The influences that were noted on the environment, such as problems in traffic, then pollution, noise, etc., were evaluated by using claims from previous proven studies (Ko & Stewart, 2002; Lankford & Howard, 1994). Also, the attitudes of residents towards tourism represented in the paper (No. 1, 2, 3, 10, 16, 20, 23) have been assessed in several previous studies (Andereck & Vogt, 2000; Haralambopoulos & Pizam, 1996; Lankford & Howard, 1994; Styliadis et al., 2014). The attitudes of residents towards tourism include general support of residents for further development of tourism, financing tourism development, increase in tourist volume, etc. (Ko & Stewart, 2002; Latkova & Vogt, 2012; McGehee & Andereck, 2004).

### 3.3. Procedures

The questionnaire that collected the data was completed in two ways: online version or classically, using the paper-pencil model. The survey was anonymous. Only fully completed questionnaires were taken for the final analysis. The survey included participants who: (1) are employed in tourism (professionals) (2) are not primarily engaged in tourism (seasonal), (3) do not work in tourism and have no experience in the tourism business (no engagement). The questionnaires were sent to the first group via e-mail. Online distribution was done by announcing the sending of a questionnaire by telephone or e-mail. The questionnaire was sent to employees of all registered public, private and civil organizations that carry out tourism-related activities in the territories of the municipalities covered by the survey. The Central Register of Economic Entities of Montenegro and direct contacts with local tourist organizations were used to search for e-mail addresses. Participants in the other two groups filled out the questionnaire by hand. Nine interviewers have distributed the questionnaires to participants. They contacted the participants and gave them sufficient time to answer all survey questions (no more than two weeks). Interviewers contacted residents on the street or in restaurants. Participants doing seasonal jobs in tourism (private accommodation, animators, beach bar, and season workers) were surveyed at workplaces. The survey was voluntary and completed by anyone who wished to do so. The only condition for the participants was to have a residence address at the municipality where the study was conducted. The questionnaire was available in the Serbian (Montenegrin) language. Participants completed the questionnaire electronically or in hard copy and expressed their opinion of each claim by selecting the proper position on a five-point Likert type scale. Position 1 marked the lowest, and position 5 the highest level of agreement. The scale reliability analysis confirmed that the questionnaire has good internal concordance in view of the fact that the Cronbach's Alpha was higher than the theoretically recommended value of 0,7 (DeVellis, 2003). In the first phase, participants from the coastal region (subsample N<sub>1</sub>) completed the initial questionnaire of 30 items. Explorative factorial analysis confirmed good metric characteristics for only 20 items. As the remaining 10 statements (items 6, 9, 10, 14, 20, 21, 22, 25, 26) did not have good metrics, they were excluded from the questionnaire. The largest number of variables were left out due to commonality lower than 0.3, and a smaller number was left out due to simultaneous saturation of both extracted factors (items 6, 9, 27). Three variables (items 10, 14, 20) were left out because they did not have significant correlation ( $r$ ) with any factor ( $r \leq 0.3$ ). Items 6, 20 and 25 contain an extreme and insufficiently clear assertion, while items 9, 22 and 27 are related to the assessment of uncertain effects of tourism in the future. The four other excluded variables (items 10, 14, 21, 26) require precise expert data that residents usually do not have. Such formulations have created uncertainty in the examinees regarding the selection of adequate responses and probably caused poor metric characteristics of excluded items. The reduced questionnaire of 20 items was tested by confirmative factorial analysis conducted on two new sub-samples – the residents from continental region (sub-sample N<sub>2</sub>) and the residents from mountain region (sub-sample N<sub>3</sub>). All three separate factor analyses (one explorative and two confirmative) gave very similar matrices with 2 factors (Table 3).

Table 3: Oblimin rotation factor loadings of the explorative PCA (Coastal region) and two confirmative PCA (Continental and Mountain region)

<b>Loading on (Pattern Matrix)</b>						
Variable	<i>Coastal region</i>		<i>Continental region</i>		<i>Mountain region</i>	
	Factor 1	Factor 2	Factor 1	Factor 2	Factor 1	Factor 2
<b>S17</b>	0.801*	-0.090	0.854*	-0.094	0.726*	-0.029
<b>S18</b>	0.749*	-0.080	0.806*	-0.052	0.650*	0.032
<b>S16</b>	0.739*	-0.127	0.748*	0.095	0.679*	-0.181
<b>S19</b>	0.721*	-0.041	0.723*	-0.134	0.658*	-0.048
<b>S23</b>	0.713*	-0.072	0.638*	-0.005	0.688*	-0.156
<b>S8</b>	0.711*	0.009	0.732*	0.076	0.699*	-0.029
<b>S29</b>	0.702*	0.035	0.692*	-0.047	0.559*	0.197
<b>S7</b>	0.696*	-0.046	0.719*	0.088	0.620*	-0.126
<b>S30</b>	0.686*	0.031	0.716*	-0.041	0.700*	0.032
<b>S24</b>	0.675*	0.088	0.782*	-0.142	0.599*	0.141
<b>S4</b>	0.637*	0.076	0.673*	-0.046	0.586*	0.093
<b>S15</b>	0.633*	0.043	0.765*	-0.074	0.577*	-0.148
<b>S13</b>	0.564*	-0.061	0.639*	0.041	0.422*	0.033
<b>S3</b>	0.486*	0.126	0.464*	0.230	0.488*	0.062
<b>S1</b>	0.188	0.746*	0.274	0.460*	0.292	0.378*
<b>S2</b>	0.075	0.643*	0.256	0.451*	0.294	0.568*
<b>S28</b>	0.085	0.604*	0.049	0.642*	0.047	0.518*
<b>S11</b>	-0.189	0.572*	-0.104	0.616*	-0.262	0.451*
<b>S12</b>	-0.109	0.546*	-0.298	0.682*	-0.098	0.702*
<b>S5</b>	-0.062	0.546*	-0.169	0.447*	-0.045	0.583*

Note: \* Significant coefficients of correlations between the variables and the factors; S – statement

Source: Author's research

The final 20-item instrument validation was conducted on a unique sample ( $N_{total}=N_1+N_2+N_3=521$ ). Norms (averages) for both factors were calculated for total sample and also for specific sub-samples (according to gender, the level of tourism development in the municipality and engagement of the residents in tourism).

### 3.4. Statistical analysis

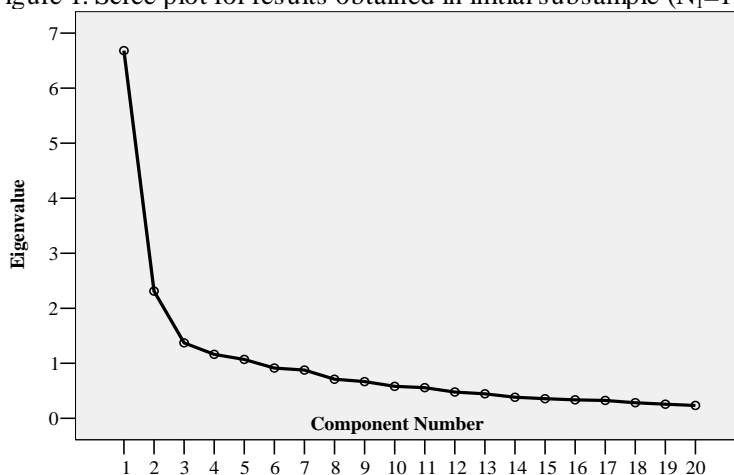
The data gathered were processed using descriptive and comparative statistical procedures. Validity of multi-items questionnaire was assessed by Factor analysis (model of Principal Components Analysis – PCA), with Direct Oblimin method of rotation and Kaiser Normalization. Descriptives (Mean and Std. Deviation) were calculated according to scalar values used by the examinees to express their opinion regarding individual claims from the questionnaire. For testing the significance of differences between arithmetic means gained on specific subsamples, One-Way ANOVA was used (for testing the differences between geographic regions, between groups with various degree of tourism development and residents with various tourism engagement) and T-test for independent samples (when comparing average scalar values of male and female). All conclusions were realized on 0.05 level of significance ( $p \leq 0.05$ ). Portable IBM SPSS v.21 application (License Stats Prem: 761b17dcfd1bf20da576 by Hearne software) was used for complete statistical analysis.

## 4. Results

### 4.1. Factorial validity of the questionnaire

For the purpose of explaining the latent structure of the purified 20-item questionnaire, factorial analysis of the main components (PCA) was conducted. The explanation of the main components was preceded by the evaluation of data suitability for the factorial analysis. By inspecting correlational matrix gained from the initial sample ( $N_1=177$ ), many coefficients of 0.3 value and higher have been recorded. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) was 0.902, which significantly exceeded the 0.6 value recommended by Kaiser (1970; 1974). The Bartlett's test of sphericity (Bartlett, 1954) also indicated statistical significance of the gained factorial model (Chi-Square=1457.833; Sig.<0.001). These data have indicated that the initial correlational matrix has good factorability. Main components analysis gained after oblimin rotation has revealed the presence of five components with Eigenvalues over 1.

Figure 1: Scree plot for results obtained in initial subsample ( $N_1=177$ )



Source: Author's research

The Scree plot (Figure 1) indicated that the breaking point is located after the third component. Based on the Cattell (1966) criterion, it was decided to retain only two components that were above the scree point. This decision was supported by the results of a parallel two-component analysis, the characteristic values of which exceeded the corresponding values of the statistic threshold (Watkins, 2000) gained using equally large random numbers matrix (20 variables x 177 subjects). This two-component solution explained the total of 44.957% of the variance, where the first component contributed with 33.404% and the second with 11.553%. All the communalities were over 0.3, which meets the recommended statistical criterion (Pallant, 2013; Thurstone, 1947) significant for a variable to be retained in the system. Following the oblimin rotation, each of the 20 variables had substantial factorial significance for only one of the two main components. The same PCA procedure was repeated in two additional confirmative analyses, one of which was realized on a sub-sample of the continental ( $N=203$ ), and the other on a sub-sample of the mountain region ( $N=141$ ). KMO and Bartlett's test confirmed high factorability of correlational matrices in both cases (in group Continental region, the values were: KMO=0.874, Chi-Square=2011,514, Sig.<0.001; in Group Mountain region, the values were: KMO=0.781, Chi-Square=1019.363, Sig.<0.001). In the Continental region group, two-component

solution explained the total of 47.292% of the variance (the contribution of the first component was 37.287%, and the second 10.005%), while in the Mountain region 38.498% of the variance was explained (contribution of the first component was 28.816%, and the second 9.682%). In both confirmative analyses, all commonalities were higher than 0.3, which confirmed a significant contribution of all 20 items to explaining the total variability. Considering the great similarity of correlation matrices acquired through the explorative and two confirmative factorial analyses, merging of the three groups of examinees ( $N_1, N_2, N_3$ ) was conducted in the final phase of instrument validation, and the PCA procedure was realized on the complete sample ( $N_{total}=521$ ). The data definitely confirmed high factorability of the two-component solution ( $KMO=0.89$ ;  $Chi-Square=4276.297$ ;  $Sig.<0.001$ ) and determined the hierarchical value of the variables significant for explaining the extracted factors. Once again, the same variables saturated the first and second factor. The communalities of all 20 variables were statistically significant. Two components of the final matrix explained the 45.95% of the total variance together, where the first component contributed with 33.174% and the second with 12.776%. The factor of positive impact retained the first hierarchical position. This indicates that the majority of the residents clearly recognizes the positivity coming from the tourism industry, and that that positive features better explain the variability between the opinions and the attitudes of the examinees. The most significant for the final validation of the questionnaire were the data regarding the structure of extracted components (Table 3). In both Pattern matrices gained from the two sub-samples clearly show that the same 14 variables that saturated the first factor have been abstracted (statements: 17, 18, 16, 19, 23, 8, 29, 7, 30, 24, 4, 15, 13, 3). At the same time, the six remaining variables (statements: 1, 2, 28, 11, 12, 5) statistically influenced only the formation of the second factor. The hierarchical relation of the factor was the same in all three matrices. Minor differences found were related to the order of certain variables within the same factor. All three factorial analyses (explorative and two confirmative) resulted in very low inter-factorial correlation coefficients (coastal region:  $r=-0.066$ ; continental region:  $r=0.12$ ; mountain region:  $r=0.047$ ). This indicates that the factors gained are relatively independent, meaning that applied questionnaire contains two scales that can be independently used in similar research studies. By analyzing the content of the 14 statements that saturated the first factor, it can be noted that they predominantly refer to the positive effects of tourism (promotion of municipality and the country in the world, economic progress, building of road). The first factor was labeled as Positive Social Impact of Tourism (PSIT). The remaining 6 statements indicate negative phenomena that accompany the development of tourism (crowds and jeopardizing the environment due to an increased number of tourists, rise in the crime rate, showing personal weaknesses). The second factor was labeled as Negative Social Impact of Tourism (NSIT).

#### 4.2. Normative scale data

It was noticed from the results that the positive social impact of tourism in all groups was significantly higher than negative (Table 4).

Table 4: Positive (PSIT) and negative (NSIT) social impact of tourism – Scale Means and Standard deviation for different groups (sub-samples)

	N	PSIT Scale		NSIT Scale	
		Mean	Std. Dev.	Mean	Std. Dev.
<b>Region</b>					
Coastal	177	<b>4.224</b>	0.654	<b>2.932</b>	0.769
Continental	203	<b>3.967</b>	0.741	<b>2.231</b>	0.573
Mountain	141	<b>4.030</b>	0.651	<b>1.967</b>	0.594
ANOVA		$F=6.979$	$Sig.=0.001$	$F=97.062$	$Sig.<0.001$

<b>Tourism level</b>					
High	106	<b>4.329</b>	0.580	<b>2.833</b>	0.732
Medium	243	<b>4.024</b>	0.751	<b>2.430</b>	0.766
Low	172	<b>3.980</b>	0.644	<b>2.083</b>	0.625
ANOVA		<i>F=9.662</i>	<i>Sig.=0.000</i>	<i>F=36.537</i>	<i>Sig.&lt;0.001</i>
<b>Engagement</b>					
Professionals	159	<b>4.232</b>	0.677	<b>2.610</b>	0.806
No engagement	253	<b>3.942</b>	0.696	<b>2.249</b>	0.693
Seasonal	109	<b>4.136</b>	0.671	<b>2.433</b>	0.780
ANOVA		<i>F=9.323</i>	<i>Sig.=.000</i>	<i>F=11.544</i>	<i>Sig.&lt;0.001</i>
<b>Gender</b>					
Male	232	<b>4.108</b>	0.669	<b>2.346</b>	0.796
Female	289	<b>4.042</b>	0.717	<b>2.439</b>	0.733
T-test		<i>t=1.071</i>	<i>Sig.=0.285</i>	<i>t=-1.379</i>	<i>Sig.=0.168</i>
<b>Total</b>	521	<b>4.071</b>	0.696	<b>2.398</b>	0.762

Source: Author's research

Both on the level of the total sample, and within each specific subsample, the average scalar value for PSIT was over 4, while for NSIT was always below 3. This, without a doubt, is a proof that the residents recognize tourism as a significant factor of general development. Most examinees gave significant advantage to the positive effects of tourism. However, what is important is that the higher marks for PSIT were regularly accompanied by higher marks for NSIT. This indicates that the residents are aware that by developing tourism, the chances for the negative social phenomena that jeopardize the quality of life in the community to be manifested also increase. The average scalar values gained for both factors (PSIT and NSIT) showed a statistically significant difference in relation to the region, degree of development and engagement of the examinees in tourism. Significant differences between the scalar averages of men and women were lacking in both factors (Table 4). Positive impacts of tourism were recognized in the highest degree by the examinees professionally engaged in tourism, followed by those from the most touristically developed municipalities, as well as those living in the coastal region. This finding is logical considering the fact that tourism in Montenegro is the most developed precisely in the municipalities of the coastal region. The data indicating the lowest scalar averages recorded in the municipalities where tourism is not developed (level low) are in accordance with this. Post Hoc Tests (Tukey HSD) indicated that the differences between the specific groups were more pronounced regarding the negative than the positive social impacts of tourism. All absolute differences between the values for the NSIT in various regions and municipalities with different level of tourism development were statistically significant. Post Hoc Tests conducted according to the criteria of examinee engagement as an only source of variation revealed significantly lower marks given by the examinees that are not professionally tied to tourism, both for PSIT and for NSIT. While overviewing PSIT, the main source of variability for various regions were the significantly higher marks given by the examinees from the coastal region accompanied by a lack of significant differences between the marks of the continental and the mountain region. When PSIT was analyzed in relation to the level of tourism development, the main source of variability were the significantly higher marks given by the examinees from the most developed municipalities. The marks for PSIT of the examinees from the municipalities with low or medium level of development did not show statistically significant difference. In summary, these data clearly indicate that tourism is most valued by those for whom it is a primary source of income. At the same time, they are the most aware of the dangers accompanied by the development of tourism.



## 5. Discussion

Taking the number of the examinees included in this study (N=521) as the starting point, the analyzed sample can be characterized as very representative. It is approximately 0.001% of the total electoral body of the Republic of Montenegro. If parallels were made with the largest European countries, this percentage would be equivalent to a sample of 45000 persons in Great Britain or France, and to as high as 60000 examinees in Germany. The opinions of the local population regarding tourism (to be more precise: regarding the perception of tourism impact) have been a subject of research for over 30 years (Andereck & Vogt, 2000). Early studies that focused on the opinions of the residents were directed towards measuring the impact of tourism (Jafari, 1986). These studies would usually include a series of statements that referred to several types of tourism impact (Liu & Var, 1986). Most research studies discovered one or more positive impacts or one or more negative impacts of tourism (Andereck & Vogt, 2000). Many more studies have resulted in positive opinions regarding tourism as the population believed that tourism benefits the local community (Andereck & Vogt, 2000). In most studies (Boley & McGehee, 2014; Kim, et al., 2013; Lankford & Howard, 1994; McCool & Martin, 1994) the residents did not indicate being overly concerned with the negative impacts of tourism, with the exception of a study conducted by Johnson et al. (1994), where the results indicated that the population does not have a positive opinion regarding tourism and believes that tourism has a negative impact on their local community. The results of previous studies regarding negative social impact of tourism are mostly in accordance with the results of this paper. The population in Montenegro also did not show great concern for the negative impacts of tourism. In most previous studies, two-factor models were constructed by applying factorial analysis. One of these studies, which was used to define the questionnaire in this paper, was conducted by Lankford and Howard (1994). They are the authors of TIAS scale (Tourism Impact Attitude Scale) that was widely used in the following years. The aforementioned authors grouped all items into two factors that were named as follows: (1) care for the local tourism development (18 items) and (2) benefits for the individuals and the local community (9 items). Wang et al. (2006) also had a two-factor structure that has proven to be highly applicable for measuring the opinions of the local population regarding the impact of tourism. These two factors explained 51% of the variance in the opinions towards the development of tourism, which is very close to the amount of variability explained in this paper. Woosnam (2012) also extracted two factors, first of which he named supporting tourism development, and the second - contribution to the community. Of course, there are similar research studies where more than two factors have been identified. However, what they all have in common is that the authors evaluated the factors through the positive and negative influence on the local community. So, Andereck and Vogt (2000) conducted a research study in local communities in the USA which resulted in a three-factor model: community development, negative impact, and the quality of life. The study of Látková and Vogt (2012) also resulted in three factors, marking them as: personal benefit from tourism (2 items), positive impact (12 items), and negative impact (8 items). Boley et al. (2014) also had 7 factors in a study conducted in Virginia (USA). Their factors were labeled as follows: psychological empowerment, social empowerment, political empowerment, personal economic benefits of tourism, support from tourism, positive impact, and negative impact. The opinions of the local population towards the social impact of tourism in Montenegro were analyzed in relation to 4 criteria: sex of the examinees, the development level of tourism in the municipality, region of the municipality, level of examinee engagement in the field of tourism (Table 1). Only a significant influence of sex was lacking, while the remaining three predictors had an impact on significant differences with both extracted factors (Table 4). Such findings indicate without a doubt that the examinees from touristically developed municipalities gave higher marks on average

compared with the examinees from the municipalities where tourism is less developed. What is significant is that the examinees from tourismally developed municipalities have shown a lower level of concern for the negative social impact of tourism. These findings confirm the conclusions of previous studies where the authors (Butler, 1980; Johnson et al., 1994; Yoon et al., 1999) stated that the opinions of the residents depend on the condition (development phase) of a tourism destination from which the examinees originate. However, studies can be found in which the level of tourism development did not have a significant impact on forming the opinions of domicile population regarding tourism (Andriotis & Vaughan, 2003). In a commentary of these results García et al. (2015) note that they were obtained on Cyprus, which is a mature tourist destination, and where most of the population lives off tourism, which is why most of them provide strong support for the development of tourism without serious criticism. For this reason, these results cannot be used as a rule for all destinations. In favor of these arguments are the results of most newer and older studies that state that the local population, regardless of the development level of their residing destination, always recognizes both positive and negative social impacts of tourism. At the same time, in most of the queried individuals there is a noticeable growth in the perception of positive and negative social impacts accompanied by the growth of tourism development level (Diedrich & García, 2009; Long et al., 1990). The findings of our study fully support the aforementioned observations of previous research studies. It is clear that the development of tourism in the local community is accompanied by a change in the inhabitants' perception regarding its positive and negative impacts. Positive impact of tourism is most noted by those that live in tourismally developed municipalities, and as far as Montenegro is concerned those are the destinations from the coastal (tourismally most developed) region. The inhabitants of the tourismally most developed municipalities recognize the benefits of tourism industry the most, which is why, in time, they become increasingly more tolerant to the negative impacts of tourism. Of course, this phenomenon explains why statistically significant lower marks for the second factor (NSIT) were recorded from the inhabitants of the leading tourist municipalities. The results of our study have shown that the engagement of the examinees in the field of tourism was statistically significant for the height of the average grades given by the examinees from various groups to the negative and positive impacts of tourism. Examinees who do not conduct business related to tourism, marked the first factor (PSIT) with lower grades on average than those who are occasionally or professionally engaged in tourism. Practically speaking, the examinees who value tourism less show a lower awareness of its positive impacts on the local community, while on the contrary, those who deal with tourism for a living evaluate it with higher marks. Even though the average grades for the second factor (NSIT) did not show a statistically significant difference, it can be noted that the scalar averages of the examinees who are professionally tied to tourism are slightly higher than the average grades of the examinees who are not engaged in tourism. This indicates that those who use tourism for a living are aware that tourism does not only have positive but also negative impacts on the society. This observation fully corresponds with the results of previous research studies (Andereck et al., 2005; Bujosa & Rosselló, 2007; Davis et al., 1988; García et al., 2015; Lankford & Howard, 1994) where it was determined that the examinees engaged in tourism related occupations have a better perception of its impact than those who are not directly engaged, as well as that they have more positive opinions regarding its development.

## 6. Conclusion

Based on the instruments used in previous research studies dealing with social impacts of tourism, a questionnaire suitable for the assessment of the opinions of the local population regarding tourism was constructed. The sample includes the residents of all municipalities of

the Republic of Montenegro, both those touristically developed and non-developed. The authors made sure that those persons professionally engaged in tourism were included amongst the examinees, as well as those who are not involved in tourism business. The starting point was the presupposition that the integral product of a tourism destination is unimaginable without the local residents and that the social impact of tourism cannot be overviewed without a serious analysis of residents' opinions. Their contribution to the reputation of the country is priceless, precisely because the residents establish direct and indirect contacts with tourists, and thus, represent themselves and the culture of their community. By analyzing the data gathered using the questionnaire constructed during this study, two factors were defined that can be used to explain the social impact of tourism – positive and negative. The results have indicated that the level of tourism development, as well as the degree of examinee engagement in tourism (active or passive) significantly impacts the creation of the residents' opinions. The residents of the municipalities where tourism is highly developed, as well as those that are actively involved in tourism industry are better at recognizing the positive impact. The economic effects were recognized as the most significant ones. In parallel with recognizing the positive impacts, the examinees clearly show awareness of the potential negative impacts accompanying tourism development, amongst which nuisances revolving around traffic and the fear of increased crime rate occupy the most prominent position. As the specific opinions of the residents constantly change under the influence of tourism development, it would be advisable to repeat this research after a certain time period in the same (already observed) municipalities. Repetition of this research would be of particular importance in the municipalities where significant changes in tourism activities are taking place. Theoretically, this research supports various studies that had a similar goal in focus. The results obtained provide useful information on impact assessment by population. Montenegro is a “new” destination in the Mediterranean whose focus in the coming years will be on tourism development. The information on the reactions of residents to tourism development is the main practical contribution of the study. Residents in the early stages of development are very sensitive to the positive impact of tourism and have shown awareness of some of the negative impacts, even when do not live at a tourist destination. These facts are important for planning development policies and guidelines for choosing the best strategies and implementing them. Finally, although studies such as that presented here can provide useful information to tourism development organizations, additional insights can be gained using qualitative methods such as interviews with community residents and business people.

### **Conflict of interest**

The authors declare no conflict of interest.

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## Profitability analysis of hotel companies in the Republic of Serbia

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**Abstract:** The purpose of the research is to examine the level and trends of profitability ratios of hotel companies operating in the Republic of Serbia in the period from 2016 to 2019. The research was conducted on a sample of 100 hotel companies, where profitability was measured by the operating profit rate, the net profit rate, the rate of return on total assets and the rate of return on equity. The results of the research show that the values of the used profitability indicators have increased in 2017 compared to 2016, but decreased in 2018 and 2019. Statistical analysis found that changes in the operating profit rate and net profit rate during the observed four-year period were not statistically significant, while the decline in the value of the rate of return on total assets in 2018 compared to 2017 and the decline in the rate of return on equity in 2018 compared to 2017 and in 2019 compared to 2018 was statistically significant. The results of the research can be important for (1) the management of a company, (2) its owners, because they enable gaining an insight into the level of profitability of entrusted companies, i.e. the companies that are in the ownership, and (3) investors and creators of tourism development policy.

**Keywords:** profitability, ratio analysis, hotel companies, comparison, Republic of Serbia

**JEL classification:** M41, G30

## Analiza profitabilnosti hotelijerskih preduzeća u Republici Srbiji

**Sažetak:** Svrha istraživanja je da ispita nivo i kretanje pokazatelja profitabilnosti hotelijerskih preduzeća iz Republike Srbije u periodu od 2016. do 2019. godine. Istraživanje je izvršeno na uzorku od 100 hotelijerskih preduzeća, pri čemu je profitabilnost merena stopom poslovnog dobitka, stopom neto dobitka, stopom prinosa na ukupna sredstva i stopom prinosa na sopstveni kapital. Rezultati istraživanja pokazuju da vrednosti korišćenih pokazatelja profitabilnosti rastu u 2017. u odnosu na 2016. godinu, ali opadaju u 2018. i 2019. godini. Statističkom analizom je utvrđeno da promene stope poslovnog dobitka i stope neto dobitka tokom posmatranog četvorogodišnjeg perioda nisu statistički značajne, dok su pad vrednosti stope prinosa na ukupna sredstva u 2018. u odnosu na 2017. godinu i pad stope

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prinosa na sopstveni kapital u 2018. u odnosu na 2017. godinu i 2019. u odnosu na 2017. godinu, statistički značajni. Rezultati istraživanja mogu biti od značaja za menadžment preduzeća, kao i za njegove vlasnike, jer omogućavaju sagledavanje nivoa profitabilnosti poverenih preduzeća, odnosno, preduzeća koja se nalaze u njegovom vlasništvu, ali i investitorima i kreatorima politike razvoja turizma.

**Ključne reči:** profitabilnost, racio analiza, hotelijerska preduzeća, Republika Srbija

**JEL klasifikacija:** M41, G30

## 1. Introduction

Tourism, as an economic activity, combines the activities of production and service of food and beverage, hospitality and transportation (Lee et al., 2019). “The tourism sector represents a significant potential of any national economy” (Milenković et al., 2017, p. 197). The benefits of tourism development for one country are reflected in employment growth, increased foreign exchange inflows (Lee et al., 2019; Milenković et al., 2017; Ren et al., 2019), as well as in the renewal of existing catering resources and increasing living standards of the population (Milenković et al., 2017). Due to the obvious economic benefits of its development, tourism has long captured the attention of national governments and individuals (Luo, 2018). By adopting tourism development strategies, national governments seek to maximize the economic benefits of tourism. In order to adopt an adequate strategy, it is necessary to get acquainted with the current situation in tourism.

According to Menicucci (2018) “it is well accepted that the tourism industry is a major source of income for many developed and developing countries and is one of the most profitable service industries. In fact, many studies consider tourism as one of the main elements of economic expansion” (p. 2845). The performance of a hotel is relevant for “stakeholders such as creditors, owners, managers and employees” (Lado-Sestayo & Vivel-Búa, 2018, p. 455).

One of the important aspects is to get acquainted with the existing financial performance of hotel companies. In other words, it is necessary to measure the financial performance of the company, because according to Krstić and Sekulić (2014) it is not possible to manage something that cannot be measured. As Haktanir (2006) states, the term “performance measurement”, as an important component of the management process, has been in use for many years, gaining its popularity with the development of new management accounting techniques in 1990s. “Measurement should not be a goal for itself; it must have some meaning - it should indicate the quality of achieving the goals as well as the ability (or inferiority) of the company in achieving the given goals” (Todorović et al., 2015, p. 46). As a systemic procedure, performance measurement should help the company achieve the set goals (Chen et al., 2011). These performances can be viewed in a narrower sense when they are focused only on the profitability of the company, and in a broader sense, when in addition to profitability, it is necessary to consider the liquidity, activity and solvency of the company (Bogićević & Stojanović, 2014). To test the financial performance of companies, ratio analysis is employed as a commonly used technique. Ratio analysis is defined as “the systematic use of indicators to interpret financial statements so that the strengths and weaknesses of an enterprise can be identified, as well as its historical performance and current financial condition” (Divyesh, 2014, p. 32). Ratios are a very useful tool that allows management to take quick and appropriate action. They express connections and facilitate the study of correlations in a given numerical data (Diakomihalis, 2011). Since profitability in the company’s operation is one of the conditions for its long-term survival and success in the market (Yazdanfar, 2013), it is necessary to constantly conduct profitability

measurement. As [Pavlović et al. \(2020\)](#) claim, the realization of a higher value of profitability ratios compared to the previous period indicates that there has been an improvement in the financial situation of the company.

For profitability measurement in this paper, the ratio of profitability indicators was used, focusing on operating profit rate, net profit rate, rate of return on assets (ROA) and rate of return on equity (ROE). The subject of this paper is to examine the level of profitability of hotel companies from the Republic of Serbia in the period from 2016 to 2019. The aim of this paper is to indicate the level of profitability of hotel companies from the Republic of Serbia, as well as to identify tendencies in the level of profitability trends.

The paper is structured from multiple logically defined and connected units. After introductory considerations, the paper contains a review of the literature which presents the results of previous research on the business of hotel companies in the world and, in particular, the area of hotel companies in the Republic of Serbia. The third part presents the sample structure, applied methodology and data. The results of the research and discussions are presented in the fourth part, while in the last part, the conclusions of the conducted research are given, as well as several limitations in the research from which the possible directions of future research arise.

## 2. Literature review

Year after year, the profitability of hotel companies all over the world is examined both in different countries individually and through a series of comparative analyses of the trends of profitability ratios among different countries. Profitability is an important aspect of performance appraisal and evaluation that indicates the ability of a company to perform various tasks in the most efficient way ([Divyesh, 2014](#)). In order to survive and achieve long-term financial sustainability, hotel companies must strive to increase their profitability. Determinants of profitability in hotel companies have been studied from different perspectives and in different economies. Both the external and internal factors and characteristics related to hotel policy management were investigated. Some research has confirmed that “external factors such as the economic crisis, government policy, economic growth, political situation, terrorist attacks and other economic and non-economic factors affect the performance and profitability of hotel companies” ([Dimitrić, et al., 2019, p. 1985](#)). The results of the research by [Sami and Mohamed \(2014\)](#) confirm that the financial performance of a hotel is related to the economic performance that is assessed by its technical efficiency. According to [Bai and Buvaneshwaran \(2015\)](#), “the hotel industry is a mature industry marked by intense competition. The increase in market share usually comes at the expense of a competitor” (p. 138). In such circumstances, the importance of measuring profitability and comparing it with key competitors is even more emphasized.

[Ryu and Jang \(2004\)](#) measured the performance of commercial and casino hotels in the United States using traditional ratios and ratios based on cash flows, with the research covering their business from 1998 to 2002. The research found that during the observed five-year period, casino hotels had a higher degree of liquidity, solvency and profitability compared to commercial hotels, with only a statistically significant difference found in the general liquidity ratio and reduced liquidity ratio. [Roška and Kuvačić \(2018\)](#) monitored the liquidity and solvency of 26 hotel companies whose securities were listed on the Zagreb Stock Exchange, observing their values in 2008, 2012 and 2017. The research established that the observed companies increased their liquidity and solvency in 2017 compared to 2012 and 2008.

[Aissa and Goaid \(2016\)](#), with the help of Data Envelopment Analysis (DEA) and Return on Assets (ROA), analysed the profitability on a sample of 27 hotel companies from Tunisia. This research results point to the fact that managerial efficiency is important when geographic and operational contracts are constantly held. Nevertheless, these two aspects have important implications for hotel profitability. Hotel size, level of indebtedness, exposure to crisis events and level of education of managers were also highlighted as significant factors. A study by [O'Neill and Mattila \(2006\)](#) on a sample of more than 1,900 US hotels during 2002 and 2003 showed that the percentage of the hotels' net operating income was most closely related to the occupancy, although the average daily rate (ADR) had a strong influence, as well as a market segment (also known as chain scale), age of assets and brand affiliation. [Sandvik et al. \(2014\)](#) study, based on the data from the financial reports, covering the sample of 298 hotels, shows that the relationship between innovation and profitability is positive.

[Mašić \(2013\)](#) examined the performance of hotel companies operating in Serbia in the period from 2004 to 2011, with the analysis covering about 31.35% of the total number of available capacities in the hotel industry. For the needs of performance testing, TREVPAR and GOPPAR indicators were used, and they were observed at the state level, within tourism clusters, as well as in the largest cities in Serbia. The research established that the observed hotel companies achieve low values of both indicators, while due to the economic crisis since 2008 there has been a significant decline in value. Further, it was determined that hotel companies based in Belgrade achieved significantly higher results compared to the national average, while the highest increase in the observed period was recorded in hotel companies in Kragujevac. Based on data from the financial reports for 2013, [Borovčanin \(2015\)](#) conducted a comparative analysis of the financial performance of 4 hotels (2 operate within international hotel chains, while 2 operate independently) in Belgrade. According to the author, there is a significant difference among the observed hotel companies between liquidity, financial structure, efficiency and profitability, although these are hotels that belong to the same category, have approximately the same number of rooms and are oriented towards the same or similar market segment. Having conducted the research on the sample of 60 hotel companies that gravitate to urban tourism, [Jovanović et al. \(2015\)](#) came to the conclusion that investments in selected projects did not bring a satisfactory rate of return, and that these investments in some years cannot cover interest costs. The authors state a high degree of indebtedness and inadequate allocation of capital as common characteristics of the observed companies. The reasons for the negative trend in the business of these companies can be external (global economic crisis, low living standards, underdeveloped infrastructure and insufficient incentives from the state) and internal (lack of vision, skills and expertise of management, incomplete restructuring of tourism companies, inadequate skills and professionalism of employees and business without respecting quality standards). [Radović and Stanić \(2016\)](#) conducted an analysis of the profitability of twenty 4- and 5-star hotel companies in the period from 2010 to 2015. In all 4 selected profitability indicators (operating profit rate, net profit rate, ROA and ROE), significant fluctuations in values were observed, which occurs as a consequence of the realized operating loss in some of the observed companies. The authors point out that the reasons for the adverse results in hospitality companies' operation are high fixed costs faced by hotel companies, indebtedness, economic crisis, and low-capacity utilization, which directly affects the level of income. According to [Milosavljević et al. \(2017\)](#), who have analysed the main drivers of the profit margin in the hotel sector in Belgrade, the tourism and hotel industry has attracted immense attention from many stakeholders. The results of the conducted research indicate that the perception of customers is the most important factor that drives the financial performance of a hotel. [Mitrović et al. \(2019\)](#) analysed the liquidity of companies whose shares are traded on the Belgrade Stock Exchange, and which according to the sector

classification are classified in Sector I - Accommodation and food services. The research found that most of the observed companies are characterized by the low value of used liquidity ratios (general liquidity ratio, reduced liquidity ratio, cash liquidity ratio and liquidity ratio based on net cash flow), i.e. liquidity ratios are below reference values, and there is a negative value of net working capital.

For the purposes of the paper's subject, it is important to point out the possibility of bankruptcy of hotel companies. In order to examine the possibility of bankruptcy in hotel companies from Serbia, Mizdraković et al. (2015) applied several models. The business of hotel companies was observed in the period from 2008 to 2012. It was found that from 2008 to 2011 there was a significant deterioration in the financial health of the observed companies, with the highest risk of bankruptcy recorded in 2011. After that, i.e. during 2012, the financial health of the observed hotel companies improved. Milašinović et al. (2019) dealt with the possibility of bankruptcy in 7 hotel companies from the Belgrade Stock Exchange. These are hotel companies whose market capitalization is higher than 100 million RS dinars. Altman's Z-score model was applied, which is adapted for companies operating in emerging markets, with the research covering the business of hotel companies from 2014 to 2018. Thus, in 2014, there were 3 companies in the "safe zone", 1 in the "grey" and 2 in the "problem zone", whereas in 2018, 3 companies were in the "safe" and 3 in the "grey zone". It is important to note that one hotel company in the first four observed years had a loss above the amount of equity, which would automatically position it in the "problem zone", thus the application of the model for assessing financial health would have no practical significance.

### 3. Methodology and data

The profitability analysis was performed on a sample of 100 hotel companies based in the Republic of Serbia that achieved the highest operating revenue. These are companies whose activity code is 5510 - Hotels and similar accommodation (see [The Government of the Republic of Serbia, 2010](#)). The structure of the sample from the aspect of size and legal form of the observed companies is shown in Table 1. The financial reports of the companies that were publicly available on the official internet presentation of [The Business Registers Agency of the Republic of Serbia \(2020\)](#) on August 1, 2020 were used as data sources for the analysis. For the needs of the paper, the data were taken from the mentioned reports for 2016, 2017, 2018 and 2019. Data on the balance of total assets and equity for the end of 2015, which are required when calculating the rate of return on total assets and the rate of return on equity for 2016, are taken from the balance sheet for 2016 based on the comparative data for the final state of the previous year.

Table 1: Sample structure in terms of company size and legal form

Size	Number of companies
Micro	8
Small	71
Medium	21
Large	0
Total	100
Legal form	
stock company	12
limited liability company	88
Total	100

Note: In the 2019, the classification was performed according to the Accounting Act from 2013

Source: Authors, based on data from the official internet presentation of [The Business Registers Agency of the Republic of Serbia \(2020\)](#)

The profitability of hotel companies from the Republic of Serbia in the observed three-year period was measured with the following indicators: operating profit rate, net profit rate, return on total assets and rate of return on equity. The method of their calculation is shown in the following table.

Table 2: Profitability ratios of hotel companies

Profitability ratios	Method of calculation
Operating profit rate	(Operating result/Sales revenue)* 100
Net profit rate	(Net result/Sales revenue)* 100
Rate of return on total assets (ROA)	(Operating result/Average assets)* 100
Rate of return on equity (ROE)	(Net result/Average equity)* 100

Source: Authors, adapted from Knežević et al. (2019)

Heikal et al. (2014) state that “ROE and ROA indicators, together with other financial performance indicators or looking at them individually, each shape the growth rate achieved by the company” (p. 101). ROA can make it easier and enhance the achievement of the company’s goals (Rico, 2006). He points out that the value of the ROA indicator can match the size of the company, which would mean a higher value indicator for larger companies. The ROA indicator can be very useful as a management tool in controlling and rewarding employees at the subsidiary level, but this does not mean that the ROE indicator is not important for managers (Todorović & Čupić, 2017).

Statistical analysis has been conducted in IBM SPSS Statistics Version 24. The results of descriptive statistics are presented below, as well as the results of Friedman’s test. Friedman’s test was used because the data applied in the analysis did not have a normal distribution. In the event that the Friedman’s test determines that there is a statistically significant difference that occurs somewhere between the three observed years, it is necessary to conduct subsequent tests comparing the years of interest. Subsequent testing includes individual Wilcoxon’s rank tests, with Bonferroni alpha correction to avoid type I error. When calculating Bonferroni’s correction, we start from the initial level of significance (that is 0.05) and divide it by 3, since the level of profitability of subsequent year is compared to that of the preceding one, i.e. the level of profitability in 2017 is compared to that of 2016, the one achieved in 2018 is compared to the one of 2017 and the one from 2019 is compared to that of 2018). In this way, a new level of significance of 0.017 is obtained (Pallant, 2007).

#### 4. Results and discussion

The results of the research are presented at the level of the sample and at the level of individual hotel companies. Table 3 shows the trends of the operating profit rate of hotel companies in the period from 2016 to 2019 in the Republic of Serbia.

Table 3: Trends in the operating profit rate of hotel companies

Elements	2016	2017	2018	2019
Total operating result (in millions of dinars)	1,665	2,199	1,962	1,772
Total sales revenues (in millions of dinars)	15,453	17,862	18,265	17,779
Sample of operating result rate	10.78%	12.31%	10.74%	9.97%
Average operating profit rate at the sample level	0.15%	6.27%	5.92%	5.06%



Minimum rate of operating profit at the sample level	-498.05%	-86.78%	-105.89%	-97.93%
Maximum operating profit rate at the sample level	53.42%	42.07%	36.86%	94.44%
Number of companies with a negative operating result	18	18	23	23
Number of companies with a positive operating result	82	82	77	77

Source: Author's research

Table 3 shows that the sum of operating results of the observed hotel companies at the sample level is positive in all four years, with the change in the observed period. Namely, in 2017, there was an increase in the total operating result by 32% compared to the previous year, and in 2018 and 2019, there was a decrease compared to 2017. When it comes to the total sales revenues of the observed hotel companies, there is a positive trend in their movement in the first three observed periods. Since the sum of operating results of the companies in the sample is positive in all four observed years, the rate of business profit at the level of the sample will also have positive values. Regarding the rate of operating profit at the sample level, variations in its value are noticeable. In 2017, the observed hotel companies at the level of the sample generated 12.31 dinars of operating profit for every 100 RS dinars of sales revenue, while in 2016 they realized 10.78 RS dinars. However, the increase did not continue in 2018 and 2019, since the operating profit rate was at a lower level compared to 2016. The trend of the value of the average operating result rate at the sample level is identical to the movement of the value of the operating result rate at the sample level (an increasing trend in 2017 compared to 2016, but a decreasing one in 2018 and 2019 compared to 2017). These oscillations occur due to significant changes in operating results during the observed years. In the case of 48 companies, the operating profit rate decreased in 2017 compared to 2016, while 52 companies achieved a higher operating profit rate. Sixty-seven companies in 2018 achieved a lower rate of operating profit compared to 2017, while in the case of 33 companies there was an increase in the rate of operating profit. The operating profit rate of 35 companies is higher in 2019 than in 2018, while there was a decrease in 65 companies. The results of the conducted Friedman's test ( $\chi^2(3, n = 100) = 10,020$ ;  $p = 0,058$ ) indicate that changes in the operating result rate of the observed individual hotel companies during the observed time are statistically significant (since  $p > 0.05$ ).

The following table shows the trend of the operating profit rate of hotel companies in the period from 2016 to 2019 in the Republic of Serbia.

Table 4: The trend of the net profit rate of hotel companies

Elements	2016	2017	2018	2019
Total net result (in millions of dinars)	355	2,528	1,705	1,653
Total sales revenues (in millions of dinars)	15,453	17,862	18,265	17,779
Rate of net results at the sample level	2.30%	14.15%	9.34%	9.30%
Average net profit rate at the sample level	-9.11%	8.32%	4.81%	-1.86%
Minimum rate of net profit at the sample level	-731.23%	-80.13%	-161.94%	-511.87%
Maximum rate of net profit at sample level	288.57%	256.38%	108.42%	68.59%



Number of companies with a negative net result	19	12	15	20
Number of companies with a positive net result	81	88	85	80

Source: Author's research

The total sum of net results of companies included in the survey is positive in all four observed years, with a significant increase in 2017 compared to 2016, while in 2018 and 2019 there was a decrease in value compared to 2017. These oscillations were also reflected in the changes in the value of the net result rate at the level of the sample in the observed years, i.e. in 2017 there was an increase in the net result rate compared to 2016, while in 2018 and 2019 there was a decrease in the rate in compared to 2017. The rate of net results at the sample level recorded the highest value in 2017, companies at the sample level made a net profit of 14.15 RS dinars per 100 RS dinars of sales revenue. In the case of 47 companies, a lower net profit rate was recorded in 2017 compared to 2016 (53 companies recorded a higher net profit rate), while in 2018, 61 companies achieved a lower net profit rate compared to 2017, i.e. 37 companies achieved a higher net profit rate. In 2019, 56 hotel companies achieved a lower net profit rate compared to 2018, i.e. 44 achieved a higher net profit rate. Based on the conducted Friedman's test ( $\chi^2(3, n=100) = 5,532; p=0,137$ ), it can be concluded that changes in the net profit rate during the observed years are not statistically significant (because  $p > 0,05$ ).

Table 5 shows the trend of the rate of return on total assets of hotel companies in the period from 2016 to 2019 in the Republic of Serbia.

Table 5: The trend of the rate of return on total assets of hotel companies

Elements	2016	2017	2018	2019
Total operating result (in millions of dinars)	1,665	2,199	1,962	1,772
Total funds at the beginning of the year (in millions of dinars)	72,302	73,459	76,922	80,057
Total funds at the end of the year (in millions of dinars)	73,459	76,922	80,057	80,595
The average value of total assets (in millions of dinars)	72,880.5	75,190.5	78,489.5	80,326
The rate of return of total assets at sample level	2.28%	2.92%	2.50%	2.21%
The average rate of return on total assets at the sample level	6.17%	6.43%	5.74%	4.47%
Minimum rate of return on total assets at the sample level	-8.08%	-36.63%	-11.37%	-15.43%
Maximum rate of return on total assets at sample level	100.90%	99.33%	75.18%	85.93%
Number of companies with a negative rate of return on total assets	18	18	23	23
Number of companies with a positive rate of return on total assets	82	82	77	77

Source: Author's research

Based on the results shown in Table 5, there is a noticeable increase in the rate of return on total assets at the sample level in 2017 compared to the previous year. In 2018 and 2019, there was a decrease in the rate of return on total assets at the sample level compared to 2017. Trends in the movement of the average rate of return on total assets at the sample level are identical to the trend in the rate of return on total assets at the sample level (an upward trend followed by a downward trend). In 2017, forty-two hotel companies achieved a lower return on total engaged funds compared to 2016, while 57 companies recorded an increase in the returns. In 2018, 67 companies achieved a lower rate of return on total assets compared to 2017, and 32 companies saw an increase in it. The rate of return on total assets is lower in 63 companies in 2019 compared to 2018, i.e. higher in 37 companies. One hotel company achieved the same rate of return on total assets in first three observed years. Further, the maximum rates of return on total assets (100.90%; 99.33%; 75.18% and 85.93%) were achieved by one company. The results of the Friedman's test show that there is a statistically significant difference between the rate of return on total assets in the four observed years ( $\chi^2(3, n=100)=17.434; p=0.001$ ) (because  $p<0.05$ ). The average value of the rank recorded the highest value in 2017 (2.88), while the lowest value was recorded in 2019 (2.15). Wilcoxon's rank test revealed a statistically significant decrease in the rate of return on total assets in 2018 compared to 2017 ( $z=-2.876; p=0.004$ ) with a small difference ( $r=0.20$ ). The median rate of return on total assets decreased from  $-Md=29.87\%$  in 2017 to  $-Md=28.56\%$  in 2018. Changes in the rate of return on total assets in 2017 compared to 2016, as well as changes in 2019 compared to 2018 are not statistically significant ( $p>0.017$ ).

The trend of the rate of return on equity of hotel companies in the period from 2016 to 2019 in the Republic of Serbia is shown below (Table 6).

Table 6: The trends in the rate of return on equity of hotel companies

Elements	2016	2017	2018	2019
Total net result (in millions of dinars)	355	2,528	1,705	1,653
Total equity at the beginning of the year (in millions of dinars)	44,512	44,699	48,710	49,570
Total equity at the end of the year (in millions of dinars)	44,699	48,710	49,570	50,138
The average value of equity (in millions of dinars)	44,605.5	46,704.5	49,140	49,854
Equity rate of return at sample level	0.80%	5.41%	3.47%	3.32%
Average rate of return on equity at the sample level	17.24%	16.09%	10.49%	13.36%
Minimum rate of return on equity at the sample level	-100.88%	-39.82%	-139.96%	-212.48%
Maximum rate of return on equity at the sample level	199.53%	113.61%	155.53%	603.43%
Number of companies with a negative rate of return on equity	19	12	15	20
Number of companies with a positive rate of return on equity	81	88	85	80

Source: Author's research

At the sample level, the observed hotel companies in 2017 achieved a higher return on equity compared to 2016, and in 2018 and 2019 there was a decline in the value of this indicator.

The average rate of return on equity recorded a downward trend during the three observed years, with the decline being most significant in the last observed year. In 2017, 45 companies achieved a lower return on equity compared to the previous year, while 55 of them increased their return on equity. The lower rate of return on equity in 2018 compared to 2017 was recorded in 68 companies, i.e. the higher rate of return on equity was achieved by 32 companies. The rate of return on equity is lower in 61 companies in 2019 than in 2018, and higher in 39 companies. The results of the Friedman's test ( $\chi^2(3, n=100) = 18.276$ ;  $p=0.000$ ) (because  $p < 0.05$ ) indicate that the change in the rate of return on equity is statistically significant in the observed four-year period. As with the rate of return on total assets, Wilcoxon's rank test revealed a statistically significant decrease in the rate of return on equity in 2018 compared to 2017 ( $z = -3.548$ ;  $p = 0.000$ ), with a small difference ( $r = 0.25$ ) and a statistically significant decrease in the rate of return on equity in 2019 compared to 2018 ( $z = -2.445$ ;  $p = 0.014$ ), with a small difference ( $r = 0.21$ ). The median rate of return on the own assets decreased by from  $Md = 3.94\%$  in 2017 to  $Md = 3.83\%$  in 2018, and the median rate of return on the own assets decreased by from  $Md = 3.83\%$  in 2018 to  $Md = 3.29\%$ . Further, Wilcoxon's rank test found that changes in the rate of return on equity in 2017 compared to 2016 are not statistically significant ( $p > 0.017$ ).

The summary of economic assessment after the profitability testing indicates several things. When it comes to the business result and the net result, there are oscillations during the observed four-year period (first a growing trend, and then a decrease in value). In the observed period, there is a trend of growth in the value of assets and equity of hotel companies, which may indicate an increase in investments that are mostly financed from their own sources of financing. Further, there is a decrease in the value of ROA and ROE indicators at the level of the sample and the level of individual companies. This may indicate that the observed hotel companies do not have adequate capital productivity, and this should be carefully analysed in order to reach a more precise conclusion.

## 5. Conclusion

The research found that in the observed hotel companies there was an increase in the value of all four used profitability ratios (operating profit rate, net profit rate, rate of return on total assets and rate of return on equity) in 2017 compared to 2016, and in 2018 and 2019 there was a downfall of their values. In addition, the research found that the changes in operating profit rates and net profit rates during the observed period are not statistically significant, i.e. it cannot be claimed that hotel companies from the Republic of Serbia increased or decreased profitability in the observed four-year period. When it comes to the rate of return on total assets, it was found that in 2018, there was a statistically significant decrease compared to 2017. When it comes to the rate of return on total equity, it was found that there was a statistically significant decrease in 2018 compared to 2017 and in 2019 compared to 2018. Moreover, it is necessary to mention that in the structure of the observed hotel companies from the Republic of Serbia during the observed four-year period, those companies that achieved positive profit rates (operating profit rates and net profit rates) and positive rates of return (rates of return on total assets and rates of return on equity) have a higher share than those that recorded the negative ones. Despite the small share of companies with negative (operating and net) results in the total number of observed companies, the losses they achieved were very large, which was reflected in significantly lower values of total operating and net results, and thus lower profitability rates at the sample level. The observed hotel companies in the period from 2016 to 2019 are also characterized by the growth of total funds, as well as equity. This may indicate an increase in investments, which are mainly financed from their own resources.

The contribution of this study is to describe the level and trend of hotels' profitability in the Republic of Serbia in the period before the COVID-19 pandemic. The scientific contribution of the study is reflected, additionally, in the existing, both foreign and domestic knowledge about the functioning of hotels. In addition to the contribution to the academic community, the results can be useful to the owners and the management of analysed companies, in order to be introduced to the functioning of not only their company but also other companies that operate within the same area of activity. Moreover, the results allow potential investors to make the decision to invest in those companies that will bring them the highest return. The results can be useful for economic policy-makers to get introduced with the analysed hotel's functioning and bring adequate incentives that would result in business improvement, as well as for other stakeholders who are interested in the functioning of hotels. This research offers valuable information to identify strategic proposals for various stakeholders such as hotel investors, hotel owners, managers, tourism development creators and government.

The conducted research also has several limitations from which the directions of future research arise. The first limitation is the short period of monitoring the operations of hotel companies due to the lack of publicly available financial reports of hotel companies. Therefore, in future research, we should try to monitor the operation for a longer period of time, with the possibility of forming a larger sample, which would increase the reliability and strength of the results. The limitations in the research are those that arise from the limitations of the ratio analysis itself (for more details, see [Knežević et al., 2011](#)). Since the research covers only the profitability of hotel companies, in order to gain a complete picture of the operation of companies from this industry, it is necessary to analyse their liquidity, solvency and activity. In addition to continuous monitoring of the level of profitability of hotel companies, it is necessary to identify determinants (factors) that had an impact on the level of profitability in order for the manager of the company to make adequate decisions. For this reason, it is necessary to conduct research aimed at identifying the impact of internal and external determinants on the level of profitability of hotel companies. In previous research, accounting measures (measures used in the paper) that are turned to the past are the most common as measures of company performance. Future research would focus on identifying factors that affect profitability, both operational and institutional. Further, future research could relate to the relationship between financial performance (measured ROA) and the growth of the observed companies. Therefore, in future research, it is necessary to focus more on market measures, measures based on cash flows and values (such as added market value and added economic value), as measures that are future-oriented. Further, the limitation stems from the data sources themselves. Namely, the financial statements do not contain (or contain to a small extent) non-financial information (e.g. information on the quality of products/services, customer satisfaction, business flexibility, etc.) which are very important and necessary in the process of business decision-making, improving competitiveness, as well as improving financial performance ([Janjić et al., 2015](#)). Therefore, the same authors state that in order to get a clear picture of the achieved results of the company, in addition to financial performance measures, it is necessary to use the non-financial ones.

### **Conflict of interest**

The authors declare no conflict of interest.

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## Recreational swimming as a physical aspect of wellness and its impact on health tourism

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**Abstract:** Changes in Fitness index values, monitored by the Urho Kaleva Kekkonen (UKK) Walking test, were examined in this study due to its practical application in the assessment of aerobic capacity, especially after planned wellness activities of moderate intensity. This research is designed as a quasi-experimental uncontrolled before and after study, and according to it, Fitness index values obtained by the UKK test and body mass index (BMI) were evaluated before and after 8 weeks of planned wellness activities (recreational swimming). After the wellness activity, the average Fitness index value was increased by 1.13% (the difference was statistically significant with  $p = 0.000$ ) while BMI value was significantly decreased by 1.82% ( $p = 0.000$ ). Considering our results, the Fitness index could have practical importance for the assessment of endurance performance in man. That means that Fitness index can be used for estimating aerobic capacity and effect of wellness on health improvement and disease prevention.

**Keywords:** Walk Test, wellness, aerobic capacity

**JEL classification:** I11, I31

## Rekreativno plivanje kao fizički aspekt velnesa i njegov uticaj na zdravstveni turizam

**Sažetak:** Promene vrednosti fitnesa indeksa, praćene Urho Kaleva Kekkonen (UKK) testom hodanja, ispitane su u ovoj studiji zbog njegove praktične primene u proceni aerobnog kapaciteta, posebno nakon planiranih velnes aktivnosti umerenog inteziteta. Ovo istraživanje je zamišljeno kao kvazi-eksperimentalno nekontrolisano, i u skladu sa tim, vrednosti Fitnes indeksa dobijene UKK testom i indeksa telesne mase (BMI) procenjene su pre i posle 8 nedelja planiranih velnes aktivnosti (rekreativno plivanje). Nakon velnes aktivnosti, prosečna vrednost Fitnes indeksa povećana je za 1,13% (razlika je bila statistički značajna sa  $p = 0.000$ ), dok je vrednost BMI značajno smanjena 1,82% ( $p = 0.000$ ). Uzimajući u obzir naše rezultate, fitnes indeks bi mogao imati praktični značaj za procenu performansi izdržljivosti kod čoveka. To znači da bi se Fitnes indeks mogao koristiti za procenu aerobnog kapaciteta i uticaja velnesa na poboljšanje zdravlja i sprečavanje bolesti.

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**Ključne reči:** test hodanja, velnes, aerobni kapacitet  
**JEL klasifikacija:** I11, I31

## 1. Introduction

The basic principle of wellness is a holistic, balanced approach to life and its defined by National Wellness Institute (NWI), as a process which helps people to make decisions and take steps towards successful existence. The basic approach was a six-dimensional model developed by the co-founder of the NWI, Dr Bill Hettler ([National Wellness Institute, 2021](#)). One of these elements was the physical dimension which is associated with an appropriate health care system, implementation of a healthy diet, the appropriate form of physical activity etc. ([National Wellness Institute, 2021](#)).

Social support, spirituality, emotions are important, such as other factors, for creating more appropriate and individualized plans for improving health and wellness by multidimensional influences each the other ([Bezner, 2015](#); [Stoewen, 2017](#)). Visitors used their tourist experiences to achieve unique health and well-being benefits ([Uysal et al., 2016](#)). This is recognized by [United Nations World Tourism Organization \(2015\)](#) through strategic investment in tourism to generate income by health-related services. Reasons for travel are relaxation, recreation, finding spiritual peace or on the other hand a specific medical service ([Smith & Puczkó, 2008](#)). On the one hand, the behavior of tourists in their free time is influenced by the residual culture, and on the other hand, their behavior is influenced by the tourist culture, and this together represents the continuum of Leisure - Tourism. Both behaviors are influenced by personal motivation, personal characteristics, and physical environment ([Carr, 2002](#)). This relationship can be significant for the behavior of tourists who have opted for services in health tourism.

Physical inactivity, more than smoking, leads to disease and premature mortality, causing Sedentary Death Syndrome (SeDS) ([Vanhees et al., 2012](#); [Wen et al., 2011](#); [Young et al., 2016](#)). It is caused by developed technology in all spheres of life but on the other hand, interest in healthy lifestyles is growing ([Gibbs et al., 2015](#); [Rezende et al., 2016](#); [Thivel et al., 2018](#); [Tremblay et al., 2017](#)).

Chronic diseases such as diabetes, hypertension, various types of cancer are the most common causes of death in recent decades. Therefore, within health care, it is necessary to conduct education on healthy lifestyles and give appropriate advice, especially to the elderly ([Devereux-Fitzgerald et al., 2016](#); [Mendis, 2017](#); [Tsay et al., 2017](#); [World Health Organization, 2016](#)).

Contraction of especially skeletal muscles affects the increase in energy consumption and in other words represents physical activity. It is very important because it makes bones and muscles stronger, increases self-confidence and affects better control of all parameters important for improving vitality and health ([Caspersen et al., 1985](#); [Cristina & Catalin, 2015](#); [Hanson & Jones, 2015](#)). Planned, structured and repetitive physical activity is known as exercise ([Caspersen et al., 1985](#)).

Moderate-intensity physical activity lasting at least 150 minutes per week or vigorous-intensity activity lasting at least 75 minutes per week or a suitable combination of these activities is very important for improving health of the adults ([Buchner, 2014](#)).

Direct and indirect tests are methods used for estimating cardiovascular fitness.

The aim of this paper was to evaluate the changes in Fitness index values estimated by UKK Walk Test, its relationship with body mass index (BMI), and its practical application in aerobic capacity estimation, especially after planned moderate wellness activities such as

recreational swimming. All this has an impact on health tourism development (Smith & Puczkó, 2008).

## **2. Materials and methods**

Thirty healthy men aged 20-65 (mean  $36 \pm 0.59$ ) without any wellness activities or habits volunteered to participate in this study. Respondents were randomly selected, contacted by telephone and if they met the criteria from guide for the UKK test (Oja et al., 2013), they were included in the study. The participants with: osteomuscular, neurological and cardiovascular disorders; any recent injuries of the foot, knee, or leg were excluded. This is a limitation of this study, which is why it cannot cover the entire population. All respondents have given their informed consent for participation in the research study. Objectives with all details of the applied procedures of this study were explained to all subjects. This research is designed as a quasi-experimental research uncontrolled before and after study. All procedures were performed in accordance with the ethical standards of the local Ethics Committee and the Helsinki Declaration. According to the design of the study, the Fitness index values obtained by the UKK test were evaluated before wellness activities (recreational swimming.) and after 8 weeks of planned wellness activities. All procedures of our examination were conducted in accordance with current epidemiological recommendations.

Within 48 hours before the test all participants were instructed: not to perform any hard physical activity, to avoid the use of cigarettes, alcoholic drinks, caffeinated beverages and heavy meal 2-3 hours before testing. All subjects were given instruction to be dressed appropriately for the examination and microclimatic conditions for all participants were the same (room temperature at  $21.7 \pm 1.5^{\circ}\text{C}$ , humidity at  $42.5 \pm 5.4\%$ ).

### **2.1. Recreational swimming**

Many people decide to start their fitness program with swimming. This is very important because most skeletal muscles are activated during swimming and thus improve cardiovascular capacity (Dishman & Washburn, 2004; Le Mura & Von Duvillard, 2004; Nieman, 2003). For 8 weeks, 3 days/week and 50 min/ days training program was performed by all participants. Conditions were consistent for all subjects. Before and after the planned wellness activities, a UKK walking test was performed.

### **2.2. UKK test**

The UKK Walk Test is Indirect test (method used to derive a Fitness index values) that provides a simple and inexpensive way to assess aerobic fitness. Character and type of aerobic activity was determined by Fitness index level (Laukkanen et al., 2000; Oja et al., 2013; Zakariás et al., 2003).

The Urho Kaleva Kekkonen Institute (UKK Institute) has developed the most important UKK Walking Test to assess aerobic capacity for anyone between the ages of 20 and 65 without having any disability or illness for which brisk walking is contraindicated. People who are overweight can use the test but not those who are in top form. Various factors can affect the validity of the test. Rough terrain, inaccurate measurement of heart rate, time and distance are some of these factors. Inadequate equipment, too slow walking, and medications used to treat heart problems can also affect results. The UKK Walk Test is important because it determines the maximum aerobic power (VO<sub>2</sub> max), the gold standard for assessing

cardiovascular condition, as well as the functionality of the musculoskeletal system, which is why the test is applicable to the general population (Oja et al., 2013).

The gains of performing UKK test on a treadmill are: the ability of precise determination of distance (2 km), monitoring heart rate during the test and constant monitoring subjects by trained personnel (Laukkanen et al., 2000; Oja et al., 2013).

Pulse monitor (Polar 610i), appropriate software, stopwatch, treadmill and environmental measuring device (KIMO HD200), are the necessary equipment used to assess the required parameters in the study.

The procedure is performed under the supervision of trained staff before and after wellness activities (recreational swimming). The software automatically calculates several parameters. Among them is fitness index important for representing endurance performance of participants. The Fitness class according to the fitness index (Oja et al., 2013) is:

Fitness index	Fitness class
< 70	Considerably below average
70 – 89	Somewhat below average
90 – 110	Average
111 – 130	Somewhat above average
> 130	Considerably above average

The BMI is obtained from the height and weight of the respondents. The BMI can also be calculated from an equation ( $\text{kg}/\text{m}^2$ ) (Douketis et al., 2005). For most adults, an ideal BMI is in the 18.5 to 24.9 range. If BMI is (Douketis et al., 2005):

- below 18.5 – underweight range,
- between 18.5 and 24.9 – normal (healthy) weight range,
- between 25 and 29.9 – overweight range,
- between 30 and 39.9 – obese range.

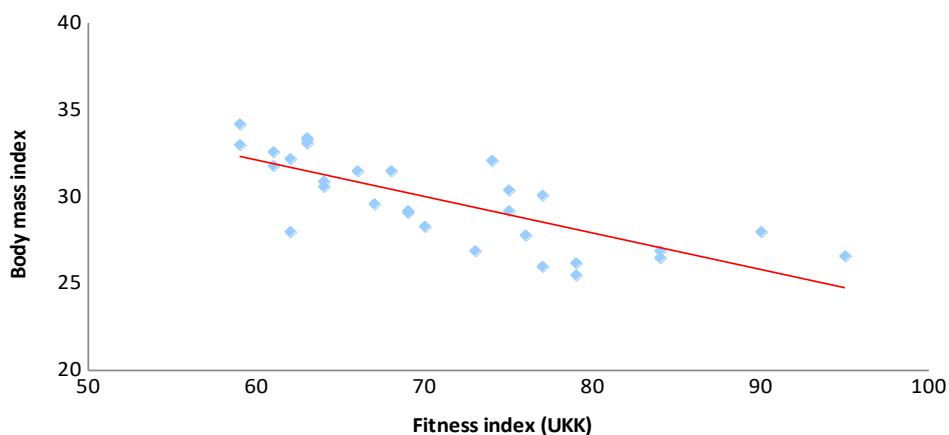
### 2.3. Statistical analysis

In this study, the results were presented as arithmetic mean and standard deviation (SD) and for data analysis IBM SPSS Statistics 20.0 was used. For checking the normality of the data distribution we used the Shapiro-Wilk test. Simple linear regression analyses and bivariate correlation were also performed to show relationships between the BMI and Fitness index values estimated by UKK test. The difference between the values of Fitness index and BMI before and after the 8-week wellness activity was determined using the paired-samples t-test or nonparametric Wilcoxon signed-rank test for variables that did not follow the normal distribution. The results were considered statistically significant if the value of  $p$  was less than 0.05.

### 3. Results

Simple linear regression was performed to show relationships between the BMI and Fitness index values estimated by UKK test ( $R^2 = 0.651$ ,  $y = 40.43 - 0.15x$ ) (Figure 1). For participants before wellness activities (recreational swimming), the Fitness index mean value with standard deviation was ( $70.9 \pm 9.36$ ), mean value of BMI was ( $29.8 \pm 2.58$ ) and correlation analyses revealed strong negative correlation between these parameters (Spearman  $r = -0.807$ ,  $p < 0.001$ ) (Figure 1).

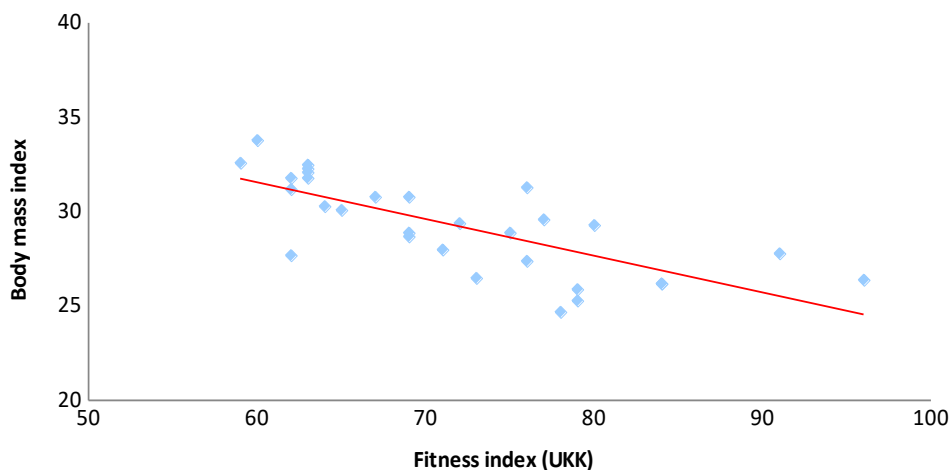
Figure 1: Simple linear regression analyses between the Fitness index values predicted by UKK test and BMI for participants before Wellness activities



Source: Author's research

After the recreational swimming according to the design of the study, Fitness index mean value was ( $71.7 \pm 9.45$ ), mean value of BMI was ( $29.27 \pm 2.48$ ) and strong negative correlation was confirmed (Pearson's  $r = -0.739$ ,  $p < 0.001$ ) (Figure 2). Simple linear regression was performed too ( $R^2 = 0.546$ ,  $y = 42.17 - 0.18x$ ) (Figure 2).

Figure 2: Simple linear regression analyses between the Fitness index values predicted by UKK test and BMI for participants after Wellness activities



Source: Author's research

When comparing the values obtained before and after the recreational swimming, the average Fitness index value was increased by 0.8 or 1.13 % and the average BMI was decreased by 0.54 or 1.82%. The difference between Fitness indexes estimated before and after 8-week activity was statistically significant (Wilcoxon signed-rank test gave  $p = 0.000$ ).

After wellness activity, the decrease of BMI was also statistically significant (paired-samples t-test  $p = 0.000$ ).

These results indicate an improvement in the aerobic capacity of the participants, represented by an increase in Fitness index and a decrease in BMI, which is important for improving health.

#### 4. Discussion

Physical activity such as recreational swimming causes certain positive effects on body composition and weight, by losing body fat (Mestek et al., 2008), decreasing blood pressure, lowering of heart rate, increasing flexibility, improving socialization and decreasing depression (McArthur & Raedeke, 2009). The metabolic risk factors were reduced, while endurance performance was increased by physical activity (Taliaferro et al., 2008). This affects the improvement of vitality and normal development, and it is important to say that it is also affected by other conditions such as air, water and healthy food (Bjelajac et al., 2021). We can recommend duration, intensity and frequency of recreational swimming by using Fitness index estimated by UKK Walk Test (Laukkanen et al., 2000).

Decreasing of BMI mean value approximately 1.82% was in agreement with results in study of Zahedmanesh et al. (2013), after 8 weeks wellness activities. The BMI values from our study were inversely correlated with fitness level, which is consistent with other studies (Brunet et al., 2007; Ortega et al., 2007; Parmar & Vaghela, 2015). Our research indicates that predicting physical fitness depends on physical activity performance as an important factor.

We also found 1.13% increasing in endurance performance after 8 weeks of an aerobic exercise program followed by subjects which is consistent with Sözen and Akyıldız (2018) study, who found 4% increase after an aerobic exercise program for the same time (8 weeks). Very similar results have been achieved in study of Overend et al. (1992) who reported that ten weeks of performing low and high intensity exercises had been beneficial for subjects. The study by Short et al. (2004) found that four months of aerobic exercise program is needed for 9% increasing in aerobic capabilities of the respondents. That leads to disease prevention and health improvement. It is a way to achieve individual and overall well-being and affects the promotion of health tourism whose part wellness is (Marmion & Hindley, 2019).

On the other hand results of Crowley et al. (2017) indicates that for a positive transition to swimming performance, the relationship between high speed and force, low volume and specific resistance training programs are important (Crowley et al., 2017).

Tertiary activities such as health, education, administration, networking etc. have significant role as new settings for physical activity promotion, because these worksites had the sedentary time effect on health. Moderate physical activity has a significant role in the elimination of this effect (Coradin et al., 1998; Ekelund et al., 2016).

Considering previous results, changing life habits (especially the bad ones) and adopting healthy lifestyles is of crucial importance for health benefits. This leads to the implementation of wellness activities, and the critical attitude of service users which is useful for improving the quality of services. This affects the decision-making about the choice, type and quality of services, which results in the improvement of health tourism in all aspects.

According to Fitness index values obtained during dynamic UKK test, we have an opinion that these results are giving a practical importance to Fitness index for the assessment of aerobic abilities in man. High Pearson's correlation coefficient indicates inverse dependence

between BMI and Fitness index. That means that Fitness Index can be used for estimating aerobic capacity.

In his study, Carr (2002) concluded that the behavior of people during their free time and their behavior as tourists should not be considered separately because, despite the potential differences, there are certain common influences that determine their behavior. So, those who are engaged in recreational swimming, in their free time, will most likely practice this habit at the destination they have chosen as part of their tourist trip.

This is very important for the physical aspect of wellness, which is an integral part of health tourism, and has a significant impact on its development and its promotion.

## 5. Conclusion

Considering results and limitation of this study, all that indicates that the Fitness Index could be used for assessment endurance performance obtained during moderate-intensity wellness activities. Our examination could be a basis for new more comprehensive research on a given topic. All this is important because it leads to the improvement of health, disease prevention, achieving individual and universal well-being and affects the promotion of health tourism and wellness, as its integral part.

## Conflict of interest

The authors declare no conflicts of interest.

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## Tourism Challenges amid COVID-19

Conclusions of the 6<sup>th</sup> Tourism International Scientific Conference (TISC) held at the Faculty of Hotel Management and Tourism in Vrnjačka Banja, June 3<sup>rd</sup> – June 5<sup>th</sup>, 2021

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For the sixth consecutive year, the TISC Conference “Tourism Challenges amid COVID-19” was successfully held at the Faculty of Hotel Management and Tourism in Vrnjačka Banja from June 3<sup>rd</sup> to June 5<sup>th</sup>, 2021. The main focus of this year’s conference was the situation caused by COVID-19 pandemic and its impact to the travel, tourism and hospitality industry. The specificity of the situation due to COVID-19 pandemic required a special organization based on the recommendations of respective institutions. All recommended epidemiological measures of the Ministry of Health and the National Crisis Committee for the Control of Infectious Diseases were implemented. The TISC 2021 was organized by the Faculty in partnership with numerous domestic and foreign institutions, with the support of the Ministry of Education, Science and Technological Development of the Republic of Serbia. Conference gathered a significant number of domestic and foreign participants from Austria, Czech Republic, Croatia, Romania, Slovakia, Montenegro, Bosnia and Herzegovina, North Macedonia and Serbia.

The meeting was officially opened by Prof. Drago Cvijanović, the Dean of the Faculty of Hotel Management and Tourism in Vrnjačka Banja, with the gratitude to all attendess which came to the meeting despite the COVID-19 pandemic thereby showing a special honor to the Faculty. In the plenary session, the attendess had an opportunity to hear three keynote speakers, Prof. Wadim Strielkowski from Czech Republic, Dr. Michael Wukoschitz from Austria and Prof. Andrei Jean-Vasile from Romania who presented the co-authored paper he prepared together with Mihaela Cristina Drăgoi.

**Wadim Strielkowski** is a professor at Prague Business School, Research Fellow at the Czech University of Life Sciences Prague, Senior Researcher at the Cambridge Institute for Advanced Studies, a Managing Director of Prague Institute for Qualification Enhancement, and a Visiting Professor at the University of California, Berkeley. He is a top reviewer in Cross-Field (top 1% in field). Profesor Strielkowski works as an expert for the European Commission and consultancies in several European Union countries, China, United States, and Russian Federation. **Michael Wukoschitz**, Ph.D., is Attorney at Law and Member of Vienna Bar since 1996. His practice areas include Travel & Tourism Law, Food & Drug Law, International Sales, Product Liability, Advertising, Unfair Competition, Intellectual Property, Consumer Affairs, Aviation. He is President Emeritus of International Forum of Travel and Tourism Advocates (IFTTA) and appointed President in several mandates (2008-

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2016). He is member of German Travel Law Association (DGfR), International Travel Law Network (ITLN), European Air Law Association (EALA), European Law Institute (ELI), International Association on Protection of Intellectual Property (AIPPI), International League for Competition Law (LIDC). **Andrei Jean-Vasile**, PhD, is full professor at Petroleum-Gas University of Ploiesti and scientific researcher at National Institute for Economic Research Costin C. Kirişescu, Romanian Academy. He is co-founder and Head of the Research Network on Resources Economics and Bioeconomy (RebResNet). Issues like agricultural and resources economics, bioeconomy, micro and macroeconomics are among his research and scientific interests.

Keynote speakers delivered presentations on the following topics: “*International Tourism and COVID-19: Post-Pandemic Recovery Strategies*”; “*Tour Organisers and Suppliers – Partners or Opponents in the Crisis*”; “*COVID Crisis and Tourism Evolution in Some European Countries: Adapt to Realities or Reinvent the Future?*”. The first presentations was delivered by Prof. Strielkowski via live video stream, followed by the presentations delivered on-site by Dr. Wukoschitz and Prof. Jean-Vasile.

The topic of the conference is current and refers to the problems that tourism is facing due to the COVID-19 pandemic. The participants had the opportunity to hear the practical experiences of lecturers from the Serbia and abroad regarding the condition of tourism in the last 15 months. The presentation of papers was organized in one session with the following papers: “A new context and aesthetics of Serbian traditional cuisine in the age of pandemic”, “Does EU funding support the diversification of the tourism offer in Serbia as a response to the COVID-19 pandemic?”, “The COVID-19 pandemic effects on the hotel industry”, “Psychological approaches in psychotherapy and health tourism during COVID-19 pandemic”, “Performance of regional tourism during COVID-19 in the area of northern Slovakia”. Thematics proceedings with a total of 33 scientific papers (59 authors/co-authors) is available to the scientific audience (ISBN 978-86-89949-53-7). The Research Network on Resources Economics and Bioeconomy Association (RebResNet) awarded appropriate prizes to the young researchers up to the age of 35. The quality of the works was equal, so the award was split between the authors of 3 papers. The first work entitled “The role of travel health insurance in tourism development – challenges and perspectives” is authored by Danijela Glušac. The second one “The role of employer brand in hotel companies during COVID-19 crisis” is co-authored by Jasmina Ognjanović and Marijana Bugarčić and third entitled “Tourism policy challenges amid COVID-19” is co-authored by Miljan Leković and Sonja Milutinović. Other papers were presented in the form of poster presentations in the Faculty premises. The authors had the opportunity to share the results of their research and answer the questions of all interested participants.

As a result of the presentation of papers, exchange of practical and theoretical experiences as well as discussions, the following conclusions of the conference can be pointed out:

- For the tourism industry, pandemic presents an opportunity – and at the same time a challenge – to restore the relationship of trust with travelers. Because in the future, the choice of destinations and means of transport will increasingly depend on the guarantees and securities that tourism providers can provide.
- Among the measures recommended by United Nations and OECD are that the countries have to protect jobs, as well as to implement new technologies. To mitigate the effects of the crisis and accelerate the recovery of tourism and the economy, the international organizations generally recommend the states to open their borders with responsibility, to implement safety and security protocols, to improve travelers’ confidence and to focus on innovation and sustainability as the new normal in the near future.

- Although some crises have a great global impact on the development of tourism, what has always accompanied such phenomena is the fact that tourism has always shown an exceptional ability to recover. Every crisis requires an adequate and timely response in order to overcome it.
- As the pandemic progresses, insurers must learn to provide current and reliable information to their customers; they must be proactive and prepared for quick reactions and answers. To keep their clients' confidence, they must continue to interact with them in a productive working atmosphere.
- The rapidly changing context in the modern tourism and hospitality industry has led to an increased emphasis on communication strategies, together with responding to the needs of increasingly demanding consumers, and with the fragmented nature of the marketing and media environment.
- Given that a number of restrictions remains in place and that it is not possible to predict how long the epidemic will last, it is difficult to estimate when the recovery of tourism will begin. Therefore, national and local tourist organizations will have to make a great effort in the realization of promotional activities aimed at foreign markets, but also towards domestic tourists in order to travel more within their country.
- The pandemic of COVID-19 disease caused by the new coronavirus SARS-CoV-2 quickly became a global and multidimensional problem. The fear of infection, social distancing, economic problems, cessation of normal daily functioning, and pervasive uncertainty are just some of the factors that affect mental health in the short and long term.
- The global tourism industry has faced a huge crisis due to the global COVID-19 outbreak. What is noticeable, based on the insight into statistical data, is that global tourism is in a far bigger crisis than domestic tourism. The closure of borders, the abolition of international routes and the "stay at home" recommendations and measures had a negative impact on international tourism.
- The COVID-19 virus pandemic is the biggest challenge the world has faced since World War II. Tourism needs open borders, and stable political and socio-economic climate, and, above all, safe health and security conditions.
- What is certain is that the COVID-19 pandemic will last for a significant amount of time. The consequences can only be glimpsed at for now, and we will be able to fully measure and understand them after the pandemic is over. Furthermore, their remediation will be a long-lasting process, and overcoming the consequences of the crisis and returning the world to a pre-pandemic situation depends on the economic policy carriers and their knowledge and experience.
- Although the COVID-19 pandemic has left very severe consequences on tourism as an industry, and it is still uncertain how long this effect will last even when and whether it will return to pre-pandemic levels, some areas of tourism may have their chance in such a difficult situation. This would be especially true for domestic tourism.

Finally, as a result of the exchange of experiences and knowledge of the conference participants, a general conclusion can be underlined that tourism, although the most affected economic activity, is still the activity that has the greatest potential for rapid recovery in the

post-crisis period. In support of this is, above all, the desire of people to travel and make up for what was lost during the COVID-19 pandemic.



## A model for preparing manuscripts for submission to the journal Hotel and Tourism Management

### Title of the paper in English

Name Surname<sup>1\*</sup>, Name Surname<sup>2</sup>, Name Surname<sup>3</sup>

<sup>1</sup> Institution

<sup>2</sup> Institution

<sup>3</sup> Institution

**Abstract:** This document presents a model for preparing the camera-ready manuscripts to be submitted for publishing in the journal Hotel and Tourism Management. The abstract briefly summarizes the article, at the same time enabling a reader to assess its relevance. The author(s) should elaborate the **goal** of their research or state the reason for writing the paper. They are additionally required to describe the **methods** used during the research and give a brief description of the **results** and conclusions of the research. The abstract should be between **100 and 150** words long.

**Keywords:** 3-5 keywords

**JEL classification:** 10pt ([http://www.aeaweb.org/jel/jel\\_class\\_system.php](http://www.aeaweb.org/jel/jel_class_system.php))

### Naslov rada na srpskom jeziku

**Sažetak:** Ovaj dokument predstavlja obrazac za formatiranje radova tako da izgledaju kao da su već spremni za štampu. Sažetak predstavlja kratak informativni prikaz sadržaja članka koji čitaocu treba da omogući brzu i tačnu ocenu njegove relevantnosti. Autori treba da obrazlože **cilj** istraživanja ili navedu razlog zbog koga pišu članak. Zatim, potrebno je da opišu **metode** korišćene u istraživanju i ukratko opišu **rezultate** do kojih su došli u istraživanju. Sažetak treba da sadrži od **100 do 150** reči.

**Ključne reči:** 3-5 ključnih reči

**JEL klasifikacija:** 10pt ([http://www.aeaweb.org/jel/jel\\_class\\_system.php](http://www.aeaweb.org/jel/jel_class_system.php))

### 1. Introduction

Papers should be written **in English** using Microsoft Word for Windows. The paper should be between **10** and **15** full pages long including the figures, tables, references list and appendices. The page should be formatted as **B5 (JIS)**. Allow **20mm** for the bottom and top margins and **25mm** for the left and right margins on a page. The line spacing within a paragraph is single whereas the spacing between two paragraphs is **6pt**. The text should be written using **Times New Roman** font. The maximum number of authors per paper is three.

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\* e-mail address of the correspondent author



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Author(s) is(are) encouraged to propose the **hypotheses** or **research questions** in the line with the aim and type of conducted research.

## 2. Background

The title page should contain the Title of paper in English (16pt). Names of authors, institutional affiliation, addresses and e-mail addresses should be typed as shown at the previous page. After the address of the last author, leave an empty row followed by a short abstract (10pt). Keywords should follow the abstract. Below the keywords, the title of paper and the abstract are to be given in Serbian.

For numbered first-level subtitles use a bold font of 12pt whereas a bold font of 10pt is used for second-level subtitles. The text and the references list should be written using the font size 10pt.

## 3. Materials and methods

Materials and methods section should provide a reader with sufficient details and argue all the necessary aspects in order to allow other researchers to replicate the research and build the published results.

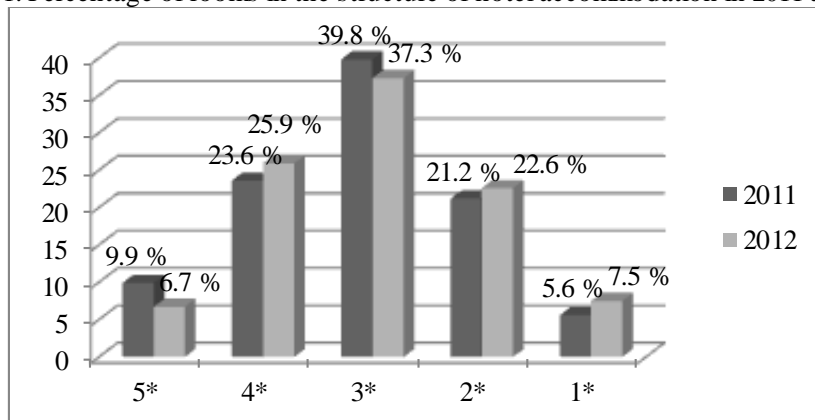
## 4. Results and discussion

The results obtained in the research should be described in this section. The discussion should highlight the main findings.

### Figures, tables and equations

All illustrations whether diagrams, photographs or charts are referred to as Figures. The name and number of figures should be centered on the line above a figure.

Figure 1: Percentage of rooms in the structure of hotel accommodation in 2011 and 2012



Source: [Ministry of Finance and Economy of the Republic of Serbia, 2013](#)

The equations are written using Microsoft Word (MathType); they are consecutively numbered and centered.

$$PV_0 = \frac{FV_n}{(1+i)^n} \quad (1)$$

The name and number of tables should be centered above the table.

Table 1: Percentage of rooms in the structure of hotel accommodation in 2011 and 2012

Category	2011	2012	Number of rooms (2011)	Number of rooms (2012)
5*	9.9	6.7	1,452	990
4*	23.6	25.9	3,486	3,911
3*	39.8	37.3	5,895	5,636
2*	21.2	22.6	3,102	3,420
1*	5.6	7.5	1,133	1,132
Total	100	100	15,068	15,089

Source: [Ministry of Finance and Economy of the Republic of Serbia, 2013](#)

If the study findings were presented graphically or in a table, author(s) is(are) encouraged to state the source below the picture or table in the following form: Author's research.

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## 5. Conclusion

The conclusion summarizes the results achieved during the research, along with the **limitations of the conducted research** and **future research recommendations**.

## Acknowledgement

For papers that came as a result of the project or programme, the title and number of the project, i.e. programme, and the name of the institution supporting the project would be appreciated. If persons other than authors were involved in important aspects of the preparation of the manuscript, their contribution should be acknowledged. If the paper was previously presented at a scientific conference (with the same or similar title), author(s) is(are) encouraged to specify it within this section.

## Conflict of interest

The author(s) declare no conflict of interest.

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