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HOTEL AND TOURISM MANAGEMENT

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FACULTY OF HOTEL MANAGEMENT AND TOURISM IN VRNJAČKA BANJA

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Editorial

Менаџмент у 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, *Менаџмент у 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, nineteen issues have been published so far.

Менаџмент у хотелијерству и туризму – Hotel and Tourism Management includes the following sections: Original Scientific Paper, Review Article, Short or Preliminary Announcement and Scientific Critique. The Journal does not consider PhD theses as prior publication and welcomes excerpts from the author's dissertations. 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.

The Journal has a reputable international editorial board comprising experts from the United States, the United Kingdom, Australia, Israel, Sweden, Spain, Italy, the United Arab Emirates, India, Poland, Finland, Greece, the Russian Federation, Slovenia, Bulgaria, Serbia, Croatia, Montenegro.

I am glad to announce that *Менаџмент у 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), ProQuest, EBSCO (EBSCO Information Services), Ulrich's Web (Ulrich's Periodicals Directory), CAB Abstract, SCIndeks (Serbian Citation Index), Scilit, 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 Board 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

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Original Scientific Paper UDC: 338.48-44(439-285.2)

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Whose responsibility is it? – Evaluation of sustainable tourism development at Lake Balaton

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Abstract: Organisations play an important role in creating well-being of society and the environment. The main objective of the study is to map perspectives on sustainability among selected stakeholder groups including tourists/temporary visitors, local communities, and public and private decision-making professionals (public, non-profit, and for-profit) in the Lake Balaton region. The study is based on a combined methodology. First, insights from tourists and local residents were collected in a quantitative survey. Insights about sustainable tourism development from public, non-profit and for-profit tourism industry professionals were collected using semi-structured interviews. Results show that from an environmental perspective sustainable tourism represents nature-based tourism development. As regards a profit/economic perspective, buying local products and choosing locally owned restaurants, local markets play a significant role in the region. Differences in consumption patterns among locals and visitors are reflected in the lower need for off-season tourism offer. Interviewed stakeholders recognized the need for knowledge sharing and attitude forming.

Keywords: tourism, sustainability, stakeholder, development, nature-based destination
JEL classification: Z32

Čija je odgovornost? – Evaluacija održivog razvoja turizma na Balatonu

Sažetak: Organizacije igraju važnu ulogu u stvaranju blagostanja za društvo i životnu sredinu. Glavni cilj studije je mapiranje perspektiva o održivosti između odabranih grupa zainteresovanih strana, uključujući turiste/privremene posetioce, predstavnike lokalne zajednice i javnih i privatnih organizacija koji donose odluke (javne, neprofitne i profitne) u regionu jezera Balaton. Studija je zasnovana na kombinovanoj metodologiji. Prvi uvidi turista i lokalnog stanovništva prikupljeni su u kvantitativnom istraživanju, a uvidi o održivom razvoju turizma dobijeni od strane javnih, neprofitnih i profitnih profesionalaca iz turističke delatnosti prikupljeni su korišćenjem polustrukturiranih intervjua. Rezultati pokazuju da u ekološkoj perspektivi održivi turizam u suštini predstavlja turizam zasnovan

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na prirodi. Što se tiče profitne/ekonomske perspektive važnu ulogu imaju kupovina lokalnih proizvoda i poseta restoranima u lokalnom vlasništvu, odnosno lokalna tržišta imaju značajnu ulogu u regionu. Razlike u obrascima potrošnje između lokalnog stanovništva i posetilaca ogledaju se u manjoj potrebi za turističkom ponudom van sezone. Intervjuisani akteri prepoznali su potrebu za razmenom znanja i formiranjem stavova.

Keywords: turizam, održivost, zainteresovane strane, razvoj, destinacija zasnovana na prirodi
JEL classification: Z32

1. Introduction

In the new global economy, sustainability has become a central issue for all economic sectors. Tourism, being a global and significant industry, has a key role in both supporting sustainability and being responsible for unsustainable practices. Various stakeholders of the tourism value chain (ETC – UNWTO, 2011) have their own responsibilities and tools to contribute to a more sustainable world. However, this depends on resources, attitudes, power etc. Recent tourism developments have given an increased focus to sustainability in the wider sense, namely including environmental, social, and economic pillars. Destinations with a highly valued natural environment (like the Lake Balaton area discussed in the current study) face sustainability challenges. The main concern is the preservation of natural values. However, in the case of rural areas, the empowerment of local communities is also a big concern. Besides the environmental issues, the spatiotemporal imbalance of visitor flows also has an impact on the economic sustainability of involved businesses. From the societal point of view, the increasing interest of non-conventional segments (e.g. second home owners, sharing economy) results in a heterogeneous society of these places where every group has a different consumption pattern, and so a different land use. The COVID-19 pandemic has affected nature-based destinations as well. The growing need for nature puts increasing pressure on these places (especially in summer 2020 and summer 2021), so sustainability has become even more important. Although the pandemic has caused changes towards a more conscious behaviour of consumers, in the case of tourism, this is not evident. As some surveys (e.g. Tourban, 2022) project relevant results) point out, there is a significant share of travellers who are not focusing on sustainability once they can travel again.

The main objective of the current study is to map perspectives on sustainability among selected stakeholder groups including tourists/temporary visitors, local communities, and public and private decision-making professionals (local government, destination management organisations, and tourism service providers). As a result, the research can identify common interests, needs for development, and also can find gaps within the stakeholder groups. From a non-business marketing point of view, the findings can reflect the complexity of interest and marketing environment at the different stakeholders. Gaining a deeper understanding of the subject enables us to support future tourism development, and dedicate responsibilities and tools to relevant actors.

2. Background

2.1. Concept of sustainability and sustainable tourism

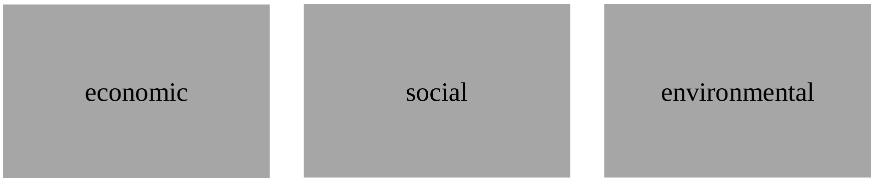
Tourism is one of the most dynamic economic sectors in the 21st century. The industry affects a large ration of society as travellers and as a workforce. Tourism researchers and industry stakeholders intend to gain complex information, knowledge, and data about this complex system. Within academic tourism research, the survey of *sustainable tourism* and *its perspectives* among stakeholder groups plays a highlighted role.

A sustainability approach is becoming increasingly important in our daily lives. In addition to a growing number of national and international scientific publications, economic organisations, stakeholders and local authorities have also adopted a circular, sustainable approach and tried to conduct their activities accordingly. Individuals (people, consumers, travellers) have their own responsibilities to cater for their well-being. Furthermore, organizations, companies play an important role for creating well-being for society through their production and operation. A growing number of stakeholders have therefore started to implement sustainability efforts in their operations and within their business model (Fobbe & Hilletofth, 2021; Holliday et al., 2002; Schaltegger et al., 2020).

Sustainability usually refers to an approach that focuses on meeting the needs of the present without compromising the ability of future generations to meet their needs. There is no universally agreed definition, although there are consistent themes (see Brundtland report, UN, n.d.). The term sustainability has been defined in numerous ways; approximately more than three hundred alternative definitions exist (Borowy, 2013; Hult, 2011; Santillo, 2007). The authors believe in the straightforward connection between sustainability, tourism and quality of life (Liburd et al., 2012), suggesting the following definition: "Sustainability is a dynamic process which enables all people to realise their potential and to improve their quality of life in ways that simultaneously protect and enhance the Earth's life support system." (Forum for the Future, 2022).

Sustainability does not just mean caring for the environment. Sustainability experts often refer to the *three pillars of sustainability* including economic, social, and environmental pillars.

Figure 1: The nested spheres model



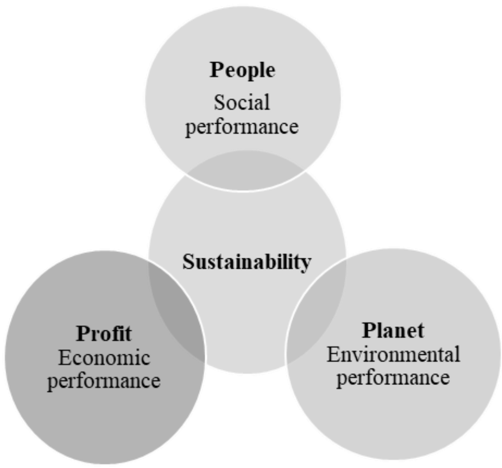
Source: Sandhu et al., 2014, p. 5

These principles are also often categorized as *People, Profit, and Planet* (or the 3Ps) in the private sector and referred to as the Triple Bottom Line (TBL). According to Correia (2019), "most commonly accepted model to describe sustainability and the TBL is the nested spheres model, also called the Venn diagram explanation. Sustainability can be illustrated as the place where the three dimensions overlap. However, one of the limitations of this approach is that it does not show levels of hierarchy between the three dimensions" (p. 30).

- "The *economic dimension* of TBL – Profit – focuses on the value created by the organisation and goes beyond its financial performance and financial concepts as sales growth, cash-flow, shareholder value, etc. to include the economic and operational business impact on the society" (Correia, 2019, p. 31);
- "The *social dimension* – People – encompasses the impact of an organisation on the people's welfare, including both employees and community, and addressing issues like education assistance, community interaction, charitable causes, and fair fare practices" (Correia, 2019, p. 31);

- "The *environmental dimension* – Planet – relates to the organisation´s attempts to minimise environmental impact as well as their use of energy and waste production to reduce their ecological footprint. Some evidence that the greening of the marketplace is becoming mainstream is the proliferation of green products, eco-labelling" (Correia, 2019, p. 32).

Figure 2: Triple Bottom Line (3Ps)



Source: Correia, 2019, p. 31

Despite the extensive literature on sustainable and responsible tourism, the contribution of theories to practical implementation is very limited. One of the reasons for this is to be found in the meaning of 'sustainable tourism' (Waligo et al., 2013), as the term is somewhat controversial and, according to some researchers (Wheller, 2012), even paradoxical. In tourism, the idea of sustainability can be seen as an approach that (Hegedűs et al., 2022) – while easily adaptable for organisations involved in destination management - is difficult for profit-oriented service providers or stakeholders to grasp.

2.2. Literature review

The tourism sector consists of a large number of actors (e.g. local residents, local organisations, volunteers, non-profit and civil society organisations, local or regional government, tourism destination organisations, tourism providers, and visitors), who are *stakeholders* in the sector (directly or indirectly benefiting financially from tourism), or affected by it (feeling its effects, impacts). There is a consensus in the literature that all stakeholders in the sector have a role to play in making tourism more sustainable. However, while some studies emphasise the responsibility of the supply side (Abbas et al., 2021), others emphasise the responsibility of the consumers (Budeanu, 2007; Hassan, 2000). Previous studies about sustainable tourism (Byrd, 2007; Chia et al., 2018; Dimitrovski et al., 2021; Ng et al., 2017) pointed out the different roles of stakeholders.

Research on the potential role of sustainability in the global tourism system (Bhaskara & Filimonau, 2021; Gössling et al., 2021) has also been carried out clearly showing that rebuilding the sector on a more sustainable basis can only be achieved through effective cooperation between stakeholders. It is essential to examine the responsibilities of the main stakeholders, consumers, service providers and the state.

According to the recently published ETC analyses, *travellers' attitudes* are also changing; overall, "they are most likely to adopt sustainable practices while in destinations (e.g. interacting with local communities, learning about local traditions, buying local products and choosing locally owned restaurants). The survey of pre-pandemic, current and projected travel behaviour, value orientation, and belief and norm patterns revealed *four distinct clusters*. The four clusters are the following (ETC 2022, p. 6):

- *"Frontrunners*: Low-footprint travellers with the highest likelihood of adopting sustainable travel behaviour in the future. The cluster with the strongest biospheric and altruistic value orientation;
- *Comfortable Crowd:* Habitual low-footprint travellers with interest in alternative destinations in ones' proximity and in travelling in low season;
- *Entitled Stewards:* Medium-footprint travellers who are less likely to compromise on location and time of travel but willing to adjust otherwise;
- *Laggards*: Habitual high-footprint travellers with the lowest level of likelihood for considering sustainable alternatives in the future. The cluster with the weakest biospheric and altruistic value orientation".

3. Destination in focus

Lake Balaton, the greatest freshwater lake (with a water surface of app. 600 km^2) in Central Europe plays a significant role in the tourism of Hungary (Balatonland, 2022): it is the most popular area among domestic visitors, and the second most popular (after Budapest) area among foreign tourists (Hungarian Central Statistical Office, HCSO). The core attraction and base for various tourism experiences is the lake and the unique, protected natural environment itself, with summer waterside holidays still being a dominant product. In the 2010s, besides passive waterside tourism activities, auxiliary tourism products gained increased attention in tourism development. The development of water independent experiences such as cultural tourism, active tourism, and health tourism resulted in a growth in the spatial extension of the touristically attractive areas within the region. That enabled new micro destinations to enter the tourism sector (Sulyok & Lőrincz, 2016). The region that has a rural character covers altogether 174 settlements out of which 42 are located directly along the lakeside, the number of local inhabitants is around 270 thousand (Balaton Development Council, 2022).

The core attraction of the destination is the lake itself with tourism experiences closely linked to water (e.g. boating, sailing) or with experiences where the lake provides an added value (e.g. panoramic view) (Sulyok & Lőrincz, 2016). Previous studies addressing sustainable tourism in Hungary (such as Formadi et al., 2022) point to the room for attitude shaping of visitors towards more sustainable consumption.

Tourism around Lake Balaton has shown a continuous increase in the past few years. Commercial accommodation establishments registered 1.9 million guests in 2019 who spent, according to the figures of the Hungarian Central Statistical Office (HCSO, 2022), almost 6 million nights in the destination. Two-thirds of the guest nights were generated by domestic visitors. Although the COVID-19 pandemic situation stopped tourism for a certain period, the summers of 2020 and 2021 were very successful. In 2020, during June-August, the number of guest nights was 2.3 million, and in 2021, for the same period, it was 2.5 million. Besides tourism at commercial accommodation facilities, the region receives a significant volume of non-conventional tourists (e.g. one-day excursionists, second home owners, visitors staying with friends and relatives). Tourism at Lake Balaton has a strong temporal (dominance of the summer period) and spatial (popularity of shore areas) concentration that affects sustainability as well (Lőrincz et al., 2020).

4. Methodology and data collection

Based on the literature review, and the analysis of the tourism performance at Lake Balaton, the following conclusion can be drawn: three problem areas as key local obstacles resist successful and sustainable regional development. One is *extreme seasonality*, which means a short, intensive summer period with a high tourism load. Second, there is the *conflict relationship* among four segments: residents, settlers, summer cottage owners and tourists. Finally, *environmentally damaging investments* are occurring with increasing frequency.

This explorative study has set itself a dual research goal. On the one hand, mapping the development needs based on the type of stakeholder groups (decision-makers, locals, tourists). On the other hand – in close context of the previous goal – perspectives of the main pillars (environmental, economic, social) of sustainable tourism have been surveyed.

Considering the importance of multi-stakeholder perspectives and the complex nature of sustainability, current study is based on a three-stage methodology. From the wide variety of stakeholders, the views of tourists, local residents and decision-makers, tourism industry professionals have been tracked, using a combined methodology including quantitative and qualitative data collection.

For the purpose of exploring the development needs expressed by locals and tourists, data from previously conducted surveys were used. In 2018, a quantitative survey (online and face-to-face fieldwork) among tourists and local residents was conducted in the Lake Balaton region. The tourist-oriented survey mapped the main features of the temporary visitors (covering demographics, and leisure trip features), while locals-oriented survey tracked the main features of the areas as a residence (settlement features' evaluation). In the case of tourists, a convenient sampling was made. The criterion for filtering respondents was the realisation of at least one overnight leisure trip in the Lake Balaton area. In the case of local residents, the sample was representative with respect to gender, age and place of settlement within the Lake Balaton area's population. Data collection took place in person (with the assistance of tourism students at the University of Pannonia), and online (by sharing survey link on social media sites). In both cases (tourists, locals), participants of the research could share their opinion about necessary development areas at the local/settlement level by answering an open-ended question. This approach enables a deeper insight, a more detailed understanding of stakeholders' needs. The total sample size – the respondents who shared their views about future developments – was 318 tourists and 690 locals. In the case of the tourist sample, the results reflect the preferences of summer leisure holiday takers who make up the most significant segment in the destination.

The results of the quantitative survey have been coded. For coding, word frequency counting and tourism product development framework (ETC – UNWTO, 2011) were used. The infrastructure of tourism (ETC – UNWTO, 2011) identifies five levels: accessibility (transport systems – route, terminals, and vehicles), attractions (natural, man-made, artificial, purpose-built, heritage), and activities 1 (things to do – outdoors/indoors, land/water/air-based), activities 2 (accommodation and catering facilities, retail, other tourist services), and activities 3 (banks, telecommunications, posts etc.).

Table 1: Sample profile of the quantitative survey respondents

	Local community	**Tourists**
Gender	Male – 33.6% Female – 66.4%	Male – 44.1% Female – 55.9%
Age	Below 25 years – 30.9% 25-44 years – 31.3% 45+ years – 37.8%	Below 25 years – 44.7% 25-44 years – 29.6% 45+ years – 25.7%
Education	Primary – 2.3% Secondary – 48.4% Higher education – 49.3%	Primary – 3.0% Secondary – 58.6% Higher education – 38.4%

Source: Authors' research

Insights about sustainable tourism development from public, non-profit and private tourism industry professionals were collected using semi-structured interviews. The fieldwork was conducted in January-February 2022, altogether ten stakeholders participated in the qualitative research. Among them, three representatives of local government, three representatives of tourism destination management organisations, and further four private service providers (attraction, accommodation, and catering) were interviewed. Stakeholders were recruited via the partners of Lake Balaton Tourism Research Centre (operating at the University of Pannonia), and the participation in the survey was voluntary.

The semi-structured interviews, lasting 40-60 minutes each, covered the following topics: perceptions about sustainable tourism, sustainable tourism in Lake Balaton destination, stakeholders and their role in sustainable tourism, best practices, and future outlook. In line with the literature, environmental, economic and social pillars of sustainable tourism were tracked. In order to map the differences between stakeholder groups, the main actors, their roles and responsibilities were identified during the interviews.

Table 2: Sample profile of the interviews

	gender	**qualification**	**sector**	**organization profile**
interview 1	female	university	public	Municipality
interview 2	female		public	Municipality
interview 3	female		public	Municipality
interview 4	male		non-profit	destination management organization
interview 5	female		non-profit	destination management organization
interview 6	female		non-profit	destination management organization
interview 7	Male		for-profit	service provider
interview 8	Male		for-profit	service provider
interview 9	Female		for-profit	service provider
interview 10	Female		for-profit	service provider

Source: Authors' research

5. Results and discussion

5.1. Tourists' perspectives

Development needs expressed by tourists to Lake Balaton have been grouped into five main categories including infrastructure, settlement environment, attractions, services, and human resources. The ideas respondents shared are strongly oriented towards infrastructure: two-thirds of the tourists would like to see advances in the infrastructure. This is followed by attractions (14% of the respondents indicated this category) and services (13%). The settlement environment has a less significant role, one reason behind this may be that there were numerous developments aimed at the settlement environment (cleanliness, green areas, dustbins) in the region in recent years. Furthermore, the area has a rural character, so green spaces are easy to reach during travelling. Within the infrastructure, transportation is a significant element. With reference to sustainable modes of transport, tourists can be considered less sustainable: 31% of the respondents indicated that parking facilities should be developed (that means using their own car, and getting the closest possible to attractions, service providers). A more sustainable way to get around is public transport (11%) or cycling route (4%) that were also mentioned. In the case of public services, local supermarkets could be developed (indicated by 4% of the respondents). The existence of attractions is a key factor in tourism. Participants of the survey would mostly prefer developments at beaches (7%) (that is one of the most dominant service elements in Lake Balaton tourism), and developments of cultural programs (5%) that could be a popular activity during a trip. Attractions outside the summer season that could be directly linked with sustainable tourism (economic pillar) were mentioned only by a few respondents. Regarding tourism services, survey participants expressed the greatest need for catering, gastronomy facilities, followed by entertainment. At this point, a few respondents highlighted that restaurants should be opened also during the off-season period, which is again linked with the sustainable operation. In the case of accommodation developments, special groups' (e.g. dog friendly) need has been expressed. Although the lack of human resources in tourism has been an important issue in recent years, the survey did not reflect the need for this kind of development. Regarding human resources, a few respondents have mentioned that local residents should be more welcoming towards tourists, which can be linked with the social pillar of sustainable tourism.

5.2. Local residents' perspectives

Local residents had a little more than one development idea shared on average. The main categories are similar to those mentioned by visitors, so most (two-thirds) of the residents think infrastructure should be developed, which is followed by attractions (12.5%) and services (12.0%). Settlement environment and human factors have a more significant role for locals than for visitors. Within the infrastructure, roads and pavement (mentioned by 28.0% of the respondents), as well as public transportation (14.8%), are the most critical points. Commercial facilities were mentioned by 4.4% of the locals participating in the survey. Among the public services, utility services, healthcare system, educational institutions, and housing circumstances are at the forefront. Regarding the settlement environment, green areas are mostly prioritised by respondents. Attractions support leisure programs of residents, and for them beach development and cultural programs were the most mentioned regarding future development potential. Within the services available at the destination level, entertainment for youngsters, and catering/restaurant facilities are the ones preferred by locals. As with visitors, attractions development outside of the main season and services during the off-season period were mentioned by some of the residents. Because of the employment opportunities, locals put greater emphasis on human resources than visitors. Furthermore, they would welcome strengthening the local community. Only a few locals mentioned the need for a more harmonised relationship between visitors and locals. Local residents with a higher education degree are more interested in the development of attractions and services, which are probably in line with their consumption patterns.

Table 3: Main development needs of locals and tourists

Development areas	**Locals**	**Tourists**
Infrastructure	Roads, pavement **Public transportation**	Parking facilities **Public transportation** Cycling route
Settlement environment	Green areas	
Attractions	**Beaches** **Cultural programmes** **Off-season attractions**	**Beaches** **Cultural programmes** **Off-season attractions**
Services	Commercial facilities Public services Services for youngsters **Restaurants**	Local supermarkets Restaurants Special groups (e.g. dog-friendly)
Human resources	Local community Employment opportunity **More harmonised relationship between visitors and locals**	**Local residents more welcoming/positive attitude towards tourists**

Source: Authors' research

Comparing development needs expressed by locals and by tourists, some common areas can be found. Regarding infrastructure, public transportation can serve both target groups. In the case of attractions, locals and tourists shared similar views such as the need for further development of beaches, cultural programmes and attractions available during the off-season period. Regarding services, locals put a great emphasis on public services, while tourists would favour special segment services. Restaurants could be attractive for both locals and temporary visitors. In the case of human resources, the – not always harmonized – the relationship between locals and tourists was mentioned as a common area. The observed common areas and differences can result in conflicts between these groups, local stakeholders should find harmonized solutions serving both locals' and visitors' needs.

5.3. Industry stakeholders' perspectives

In the interpretation of sustainable tourism, the general opinion of the interviewees is that it means the tourist does not generate environmental damage. Seasonality generating overtourism has to be relieved to avoid extreme environmental load. Besides minimising persistent environmental load, the environmental footprint of service providers should be reduced. Finally, sustainability of the ecosphere is ensured by the long-term protection of flora and fauna.

They agree on the three dimensions of sustainability, but the *environment dominates their view*. As regards the economic dimension, labour shortages – which is partly due to seasonality – should be eliminated, while investments lacking in resources and long-lasting return on investments in time are to be supported. In the short term, the price policy challenges exacerbated by the pandemic can be counteracted by increasing the content of services. In the social dimension, the main obstacles to sustainability are on one hand different attitudes of the ageing residents and the settlers and the age gap in sustainability approach on the other hand.

Besides this, the interviews reflected that three key problems of regional sustainability are the extreme regional seasonality originating from the characteristics of the tourist destination area, the different and partly conflict preferences of resident / settler / summer cottage owner and tourist segments and the environmentally damaging investments in the region.

When asked what the *critical elements of the future of sustainable tourism* are, and what can serve to solve the problems several factors were highlighted by the respondents. In the environmental dimension, the optimization of the water quality and volume of Lake Balaton and the exemplary programs organised by the national parks are underlined. In the interviews, the sustainability contradiction has been experienced in countless popular destinations. On one side, visitors should be shown as much as possible. On the other hand,nature is already overloaded by the great number of tourists so tourism visitation should be limited Concerning economic issues, infrastructure development is the most critical element. It is because its bottlenecks – coupled with the weaknesses of public transport – result in extreme car use. Strengthening the sustainability dimension of development projects can also serve a better future in this sense. At the level of the small local service firms, the use of local products would be desirable. Generally, the latter is not typical but positive experiences are increasing. Among them, the risky phenomenon of mass tourism can be observed, i.e. if something works, a lot of service providers start copying it with more or less success. In social terms, the approximation of the approach of the above-mentioned four segments towards sustainability –for example, by community-forming programmes – could be a forward-looking practice.

In the interview, we asked if there were *metrics for managing sustainability* more successfully. There was a great deal of uncertainty and no consensus on this issue. As regards to tourism, the environmental impacts (energy use, recycling, waste management) of tourism flow is a significant issue. Furthermore, involved stakeholders see a potential in motivating visitors towards the use of sustainable transportation such as public transport instead of own car.

We did not exclude the *local service firms* from the series of interviews. They belong to the for-profit sector, which is apparently outside the non-business sphere. Nevertheless, in their marketing environment, numerous public and non-profit organisations make significant influence on their (business) effectiveness and vice versa. This mixed network of powerful actors makes up the total stakeholder structure. As far as the views of local entrepreneurs are concerned, with sustainability no substantial differences can be observed, except for some shifts in emphasis. For example, they better realise the contrast between short-term effects and long-term returns based on their own business management. As regards an opportunity to break out, they mentioned the protection of the original environmental milieu, including the preservation of cultural values. However, they believe that high cost of developing for sustainability will trigger a purification process. "*Only the strong survive*." In the segment policy, moving towards the premium category and higher quality can support long-term sustainability. They agree with non-business stakeholders that the current investment activity is environmentally destructive and eviscerates the lake.

Unfortunately, the COVID-19 pandemic situation has aggravated the environmental problems. Public utility networks and the ecological system are also suffering. The greatest attractiveness/advantage of Lake Balaton is that it is still relatively untouched. If we look at the European lakes, then Lago Maggiore, Lake Garda, which are in competition with Lake

Balaton on their scale, are already irreversibly overloaded. Besides this, in the opinion of local entrepreneurs, government and municipalities are the most powerful stakeholders in sustainability. Educational institutions such as universities, and other knowledge-sharing actors such as consultants, can act as a facilitator in the process, as well.

Finally, here are some citations from the interviews first, regarding the positive examples then the challenges:

"The Hungarian Tourism Agency prefers family-friendly and cycling-friendly aspects in beach developments, but these funds could also be given for (other) sustainability aspects."

"A good example is the beach bus that goes around the settlements…"

"The tourist... likes to use services where (s)he feels (s)he is local, so (s)he came here to get to know us, the people who live here, the customs that live here, eating the food here…"

"Sustainability is a way of life. And you can't think of it as being sustainable only from a tourist point of view."

"Civil organisations are represented in the city in large numbers, and they also have a very keen interest in this topic, so we have several attitude forming events…"

"Many people move in from the big cities, and they bring with them a more environmentally conscious approach, especially young families."

"The "death" of Balaton is local transport, because there is really a lot of tourists and everyone chooses the car…"

"Overtourism exists in a few highly preferred areas in the high season, while ten-fifteen kilometres from them there are attractive but under-visited locations…"

"…and the locals are very resentful that someone who is not constantly here wants to have a say in the issues that affect them."

"Developments on the lakeside are worth reviewing, so even the existence of the weeds is very important that Lake Balaton can be sustainable in the future."

6. Discussion

As highlighted in the literature review, the results of this study can be addressed on two levels: the level of sustainability's three pillars as well ason the level of certain stakeholder groups. The destination in focus is a nature-based tourism area where natural environment serves as a core attraction and unique selling point. Not surprisingly, industry professionals indicate the fundamental role of environmental sustainability. However, this is only partly supported by locals and tourists, as these groups expressed the need for – unsustainable - infrastructural developments, so 'convenience' of a contemporary tourist is ahead of a sustainable behaviour.

Economic sustainability has a greater role for industry professionals. Locals and tourists put less importance on developments such as off-season attractions and services that could contribute to a more sustainable operation of service providers. Social sustainability has a marginal role at the time of the research in the views of all involved stakeholders. The differences between the perceptions of stakeholder groups highlighted by the research point to the potential conflicts of interest; local decision-makers are the main actors in balancing these needs. Regarding the potential of more sustainable developments, the results of the study note the importance of cooperation between stakeholders (Gössling et al., 2021). New products, services may emerge as a consequence of tourists' and locals' needs, and parallel with this, industry professionals may have a decisive role in shaping attitude and motivate for a more sustainable behaviour.

7. Conclusion

The results of the current study underline the complex nature of sustainable tourism, and the heterogeneity of stakeholders involved in sustainable tourism. From an environmental perspective, sustainable tourism represents nature-based tourism development. Due to overtourism, the principle of *presenting nature protecting it at the same time* must be followed. Because Lake Balaton is a destination where natural environment is the core attraction and base for tourism, environmental pillar of sustainable tourism plays a cutting-edge role.

Tourism mobility still shows a significant temporal concentration around the Lake Balaton region. Recent years' developments in supply resulted in a diversification of tourism experience supporting the decrease of seasonality. In line with the tourism strategic documents, active tourism (such as cycling, hiking, and water-based products) can play a cutting-edge role in a more balanced tourism flow (Lőrincz et al., 2021).

As regards a profit/economic perspective, buying local products and choosing locally owned restaurants, local markets play significant role in the region. The rural character has an impact on sustainable tourism: development needs regarding infrastructure are strong among both locals and residents. Due to the lack of appropriate public transport, 'unsustainable' modes (e.g., own car) are preferred. The differences in consumption patterns among locals and visitors are reflected in the lower need for off-season tourism offer (locals do not need it that much; visitors consider the region as a summer destination). In the case of industry stakeholders, especially for profit-oriented business, the economic benefits are important.

From a people/social perspective, the interaction among local communities is a key element. Personal knowledge and commitment of industry stakeholders can influence perceptions on sustainable tourism. There is a recognized need for knowledge sharing and attitude forming. A special task is to attract young target groups who insist on modern communication tools. For them it is needed to find solutions to "look around then look for information and communicate on your smartphone". A firm opinion of interviewees pointed out that there is a need also for top-down regulation, since only bottom-up innovation cannot support successfully sustainable tourism (this is so probably because of the socio-cultural background of Lake Balaton region).

On the *sustainability tasks of public and non-profit actors* the main conclusions are as follows. Regarding the role-players in the public sector, responsible value selection framing with a long-term thinking must be in the focus. They have to be able to achieve a balance between the stakeholders. Creation a supporting environment motivates travellers to become more conscious, and enables for-profit organisations to realize the real benefit of sustainable operation. As for non-profit stakeholders, they must play a leading role in the formation of attitudes and knowledge sharing. In the practice, this attitude shaping may be in the form of information provision, offering sustainable products and services, or sustainable operation.

Research results may not be free of certain distortions. For example, the time difference between the surveys, namely 2018 in the case of the tourists and residents, and 2022 in the population of industrial stakeholders, may have caused small but not negligible inconsistencies. Concerning the limited generalizability of the results, a small number and relatively homogeneous composition of the interviewed stakeholders can be mentioned. The same effect is likely due to the special destination of unique features. This narrowing of the research target creates, however, an adaptation potential in the future to similar areas or exploration of other dominating pillars of sustainability in the case of different destinations. Nevertheless, the time period of second field work (interviews) included COVID-19, which cannot be ignored either. During the pandemic situation, sustainability came into the forefront, so this can limit long-term validity of the results.

Conflict of interest

The authors declare no conflict of interest.

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Annex

Semi-structured interview with stakeholders – Interview guide
Sustainable tourism development at Lake Balaton

Introduction
10 minutes

Short introduction by the moderator (not explaining any definition!).

Rules of interviews:

- No use of mobile phones.
- Microphon and webcamera.
- There is no bad answer, every opinion counts.
- Length of the interview: 1 hour.
- Interview recorded.

INTRODUCTION OF THE INTERVIEWEE: NAME, ORGANIZATION, PROFESSIONAL EXPERIENCE/BACKGROUND.

Topic 1 – Sustainable tourism at Lake Balaton, current situation
10 minutes

What comes to your mind when hearing 'sustainable tourism'?
What do you think about Lake Balaton tourism? Is it sustainable?
What is you opinion, can sustainable tourism be tracked at Lake Balaton?
Has it changed during the last years? What kind of trends can you observe?

Topic 2 – Main pillars of sustainable tourism at Lake Balaton
15 minutes

What do you think about the environmental pillar of sustainable tourism at Lake Balaton? What kind of positive and negative impacts could you mention?
What do you think about the economic pillar of sustainable tourism at Lake Balaton? What kind of positive and negative impacts could you mention?
What do you think about the social pillar of sustainable tourism at Lake Balaton? What kind of positive and negative impacts could you mention?

Topic 3 – Involved stakeholder groups, roles, task, and responsibilities
15 minutes

What do you think, how are the main actors in sustainable tourism at Lake Balaton?
What kind of tasks they have?
What kind of resources, responsibilities they have?
What kind of cooperation, networks can be found at Lake Balaton regarding sustainable tourism?

Topic 4 – Best practices
5 minutes

What kind of best practices you know at Lake Balaton regarding sustainable tourism?
What kind of negative examples you know at Lake Balaton regarding sustainable tourism?

Closing
5 minutes

Now I kindly ask you to summarize your thought. Is there any issue not yet mentioned that you would like to share regarding sustainable tourism at Lake Balaton?
What do you think about the future (next 5 years)? What do you think how sustainable tourism at Lake Balaton is going to be then?

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The determinants of the usefulness of online reviews in the tourist offer selection

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Abstract: The dynamics of the development of tourism sector is reflected, among other things, in the fact that an increasing number of tourists choose an offer based on online reviews. Although it is true that due to the intensive development of communication via the Internet, online reviews are one of the dominant sources of information, their level of perceived usefulness may differ. The aim of the research is to examine the extent to which textual comments, photos and ratings of tourist offers determine the usefulness of online reviews. In order to analyze the results, we used exploratory factor analysis. Moreover, by using regression analysis, it was confirmed that usefulness affects the level of trust in online reviews, as well as that trust has implications for the intention to purchase a tourist offer. Finally, we came to conclusions that may have numerous implications for the decisions of marketing managers in the field of tourism.

Keywords: electronic interpersonal communication, online reviews, online trust, intention to purchase a tourist offer
JEL classification: M31, Z30

Determinante korisnosti onlajn recenzija prilikom izbora turističke ponude

Sažetak: Dinamičnost razvoja sektora turizma ogleda se, između ostalog, i u tome da sve veći broj turista svoju odluku o izboru ponude bazira na onlajn recenzijama. Iako su usled intenzivnog razvoja komunikacije putem Interneta onlajn recenzije jedan od dominantnih izvora informisanja, njihov nivo percipirane korisnosti može se razlikovati. Cilj istraživanja je ispitivanje u kojoj meri tekstualni komentari, fotografije i rejting turističke ponude opredeljuju korisnost onlajn recenzija. Za analizu rezultata korišćena je eksplorativna faktorska analiza. Primenom regresione analize potvrđeno je da korisnost utiče na nivo poverenja prema onlajn recenzijama, kao i da to poverenje ima implikacije na nameru o kupovini turističke ponude. Na kraju, dolazi se do zaključaka koji mogu imati brojne implikacije na odluke marketing menadžera u oblasti turizma.

Ključne reči: elektronska interpersonalna komunikacija, onlajn recenzije, onlajn poverenje, namera o kupovini turističke ponude
JEL klasifikacija: M31, Z30

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1. Introduction

The Internet has drastically affected the way of exchanging information regarding a tourist offer. Unlike traditional approach, where users' attitudes about a tourist offer were formed mainly under the influence of oral communication, in digitalized environment, communication is carried out through various forms, which are all based on the use of web content (Gellerstedt & Arvemo, 2019; Martins et al., 2018). Hence, reviews of other tourists are one of the most important sources of information when it comes to choosing a tourist offer (El-Said, 2020; Filieri & Mc Leay, 2013; Guo et al., 2021; Zhao et al., 2015). The fact that in the era of digitalization, a large amount of information is available to tourists additionally emphasizes the question of whether all user-generated content is equally useful (Filieri, 2015; Zhao et al., 2015). Research on the usefulness of online reviews in the field of tourism, in accordance with textual, numerical and visual indicators, is not sufficiently represented in domestic literature.

The aim of this paper is to get relevant knowledge about the extent to which the textual content, rating and visual context of online reviews influence their usefulness. Another goal is to examine whether the usefulness of online reviews has an impact on trust towards a tourist offer, as well as whether that trust implies purchase intention.

The paper is structured in the following way. The theoretical overview refers to basic concepts, such as electronic interpersonal communication and online reviews, as observed in the field of tourism. Furthermore, we analyze the importance of studying the usefulness of online reviews and trust in online environment, in order to empirically examine numerous relationships through an integrative research framework. As for the qualitative research methods, we applied the content analysis method, deductive method, as well as analysis and synthesis. In order to test the hypotheses, a quantitative methodology was used, specifically, reliability analysis, exploratory factor analysis and regression analysis. After elaborating the key results, concluding remarks were given, and within them the most significant implications, limitations and directions of future research were presented.

2. Literature overview

2.1. The importance of online reviews in tourism

Tendency towards exchanging one's experience and ideas about tourist offer is additionally pronounced in online environment (An et al., 2020; Filieri & McLeay, 2013; Guo et al., 2021; Kocić & Radaković, 2019; Rianthong et al., 2016). In that manner, instead of traditional *word of mouth* communication, an increasing number of papers in the field of tourism and marketing is based on evaluating the role of electronic interpersonal communication when making the choice of a tourist offer (El-Said, 2020; Filieri & McLeay, 2013; Kocić & Radaković, 2019; Ladhari & Michaud, 2015; Martins et al., 2018; Mauri & Minazzi, 2013; Park & Nicolau, 2015).

Although there are many similar aspects from communicative point of view in relation to traditonal oral communication, one of the most significant and specific aspects of electronic interpersonal communication compared to traditional one is that positive and negative comments can be posted simultaneously, with the possibility of higher measurability and visibility (Mauri & Minazzi, 2013; Zhao et al., 2015). Electronic interpersonal communication can be done through various forums, blogs, online communities, social networks, thus it is a "more powerful" means of information compared to traditional oral communication (Borisavljević, 2021; Ladhari & Michaud, 2015). Comments on the Internet can play a very important role when choosing a tourist offer, especially having in mind the impossibility of evaluating the offer before using it (Filieri et al., 2018; Gellerstedt & Arvemo, 2019; Khare et al., 2020; Kim et al., 2021; Liu & Park, 2015; Xie et al., 2014).

Online reviews of other users are one of the fundamental forms of electronic interpersonal communication (Filieri, 2015; Filieri & McLeay, 2013; Jiménez & Mendoza, 2013; Li et al., 2019; Liu & Park, 2015; Ludwig et al., 2013; Martins et al., 2018; Mauri & Minazzi, 2013; Park & Nicolau, 2015; Racherla & Friske, 2012; Ristova, 2020; Zelenka et al., 2021). Through this form of communication, which can be in the form of positive, negative or neutral statements, recommendations or opinions (Filieri, 2016), potential or current tourists gain insight into additional information that can be significant for final decision (Filieri, 2015; Hlee et al., 2018). The users of the tourist offer very often perceive the information provided by other tourists as more honest and reliable compared to those originating from business entities (Borisavljević, 2021; Zhao et al., 2015). For this reason, it is very important to examine the various determinants of the usefulness of online reviews and their role in the process of creating tourist trust (Khare et al., 2020; Zelenka et al., 2021). As stated by Hlee et al. (2018), online reviews will reflect the potential demand for tourist products, which is one of the basic reasons for conducting this research.

Online reviews are particularly important in the field of tourism (Chan et al., 2017; Fang et al., 2016; Khare et al., 2020; Liu & Park, 2015; Park & Nicolau, 2015), having in mind that they can serve as one of the key resources for reducing risk and uncertainty (Fang et al., 2016; Gellerstedt & Arvemo, 2019; Ladhari & Michaud, 2015; Rianthong et al., 2016; Xie et al., 2014). With this form of electronic interpersonal communication, potential and current customers exchange information on the quality of a hotel offer, tourist destinations, tourist services (Zhao et al., 2015), or, for instance, on their satisfaction with a tourist offer (Filieri & McLeay, 2013; Ristova, 2020; Xie et al., 2014). As a very popular source of information (Hlee et al., 2018) and as one of the forms of electronic interpersonal communication with most impact (Jiménez & Mendoza, 2013; Mauri & Minazzi, 2013), online reviews have significantly changed the way package holidays are planned and realized (Filieri et al., 2018). This is particularly emphasized when collecting information related to destinations, accommodation facilities, restaurants, attractions, and the overall tourist offer (Hlee et al., 2018). In this paper, the importance of online reviews will be examined in relation to the tourist offer in general, without highlighting the differences in terms of its specific features.

Although there are numerous papers in the field of tourism which aim to examine online reviews (Chan et al., 2017; Rianthong et al., 2016), only few of them are based on the key question that precedes the intention to purchase a tourist offer: How useful are online reviews? The time and effort that tourism users invest in analyzing online reviews has further contributed to examine key characteristics when analyzing the content of online reviews (Jiménez & Mendoza, 2013). Although the usefulness of online reviews may depend on those who in fact leave the reviews (Chan et al., 2017; Fang et al., 2016), or, for example, - on the dimension of time (Lu et al., 2018), the most significant indicator of the usefulness of online reviews is actually their content (Fang et al., 2016).

The diversity of determinants that establish usefulness can be reduced if we observe some of the previous research that linked the question of the usefulness of online reviews to the textual, numerical or pictorial contents of the reviews (Filieri et al., 2018). When examining the influence of online reviews on the intention to book a hotel offer, Chan et al. (2017) state that the crucial components of online reviews are rating in the form of numbers and descriptive comments. One of the studies that included over two hundred thousand reviews was aimed at a comparative analysis of the relationship between textual comments and numerical ratings (Alantari et al., 2022). Equivalent to the conclusions of this study, in which we applied a method of machine learning by which the usefulness of online reviews of hotel offers was covered, it was observed that the rating is related to some of the keywords given in the form of textual or descriptive reviews. Based on the classification provided by Le et al. (2022), online reviews include textual comments, ratings in the form of numbers, i.e. stars, and photos of other users. Bearing in mind that most websites base their offer on a combination of textual and visual content (Kim et al., 2021), examining the influence of that content in choosing a tourist offer can provide significant scientific and practical implications.

2.2. Textual comments within online reviews

Textual comments can be very significant in the process of profiling certain offer, determining the rate of conversation (Ludwig et al., 2013) and determining the purchase intention (Li et al., 2019; Wu et al., 2021). When writing textual comments about a particular offer, users not only describe its features, but also express emotions and emphasize their opinions and attitudes as well (Kim et al., 2022). The qualitative content of online reviews allows a more detailed insight into the experience of other users in relation to the tourist offer and is often indicator of their quality (Ludwig et al., 2013). According to previous research, it has been determined that textual features can be key determinants of the usefulness of reviews (Wu et al., 2021). Textual comments within online reviews refer to opinion, the value of reading, comprehensiveness and quality of reviews (Le et al., 2022). Some authors go a step further, where the sentimental aspects of the reviews are analyzed more thoroughly within the textual comments (Ristova, 2020), which are brought into relation with sales (Li et al., 2019).

2.3. The significance of photos within online reviews

The impressions of potential or current tourists about a certain tourist destination will be more complete if user reviews, in addition to textual and numerical data, contain photos as well. Since it is not possible to test a tourist offer prior to using it, the photos that other travelers leave have a significant impact on the perception of the level of quality (Filieri et al., 2018), as well as on purchase intention (Le et al., 2022; Zhang et al., 2022). Online reviews by other users that contain photos get more attention from tourists, facilitate objective evaluation (Filieri, 2016) and enable easier processing of detailed information (Zhang et al., 2022). Photos by users are one of the ways to market the image of a certain tourist offer (He et al., 2022), because they enable the visualization of the tourist experience (An et al., 2020). Le et al. (2022) defined visual content by those contextual photos that enable easier perception of the content and clarify doubts regarding a certain offer. The link between online reviews of a visual nature and the usefulness of such reviews has already been identified in the literature (An et al., 2020; Hlee et al., 2018). Marder et al. (2021) found an association between online reviews containing photos and intentions to purchase a travel product.

2.4. Rating as a form of online reviews

Information overload in online environment often results in tourists basing their choice on the rating of a particular offer rather than on textual comments (Bigné et al., 2020). A tourist offer can be expressed numerically, in the form of certain numbers, in the form of stars or graphic representations that categorize the given offer, i.e. indicate its rating (Filieri, 2015; Jiménez & Mendoza, 2013; Li et al., 2019). Quantitative expression of users' attitudes, experiences or opinions is an integral part of online reviews (Kim et al., 2021; Li et al., 2019), which reduces the number of alternatives for tourists (Filieri & McLeay, 2013). Research has confirmed that tourists expect a high quality of service and better interaction with users from a hotel offer that is highly categorized, compared to those tourist offers that are rated low, where the priority is cleanliness, safety and security of tourists (Kim et al., 2021). Some studies have confirmed that when choosing a tourist offer, extreme rating values (one or five stars) are more useful compared to offers categorized with three stars (Liu & Park, 2015; Park & Nicolau, 2015). Rianthong et al. (2016) point out that the rating of the hotel offer has positive influence on both the number of reservations and the profit generated on that basis. In previous research, it was found that when examining purchase intention, it is important to observe the congruence between the rating and the textual comments of the reviews (Jiménez & Mendoza, 2013), and that this type of relationship contributes to increasing the value of online reviews (Wu et al., 2021).

2.5. The usefulness of online reviews

When potential tourists consider online reviews, they create certain beliefs that are actually created as a consequence of the extent to which such reviews are useful, informative and up-to-date (Sparks et al., 2013). In this sense, the usefulness of reviews is one of the crucial prerequisites for online reviews to influence behavioral intentions (Lee et al., 2017; Lu et al., 2018; Racherla & Friske, 2012; Wu et al., 2021). The heterogeneity of the tourist offer, as well as the large number of online reviews suggest that one of the main challenges for marketing managers is to see to what extent online reviews can be useful for other individuals (An et al., 2020; Filieri et al., 2018; Park & Nicolau, 2015). Although numerous studies seek to investigate the relationship between online reviews and purchase (Jiménez & Mendoza, 2013; Ladhari & Michaud, 2015; Sparks et al., 2013), the number of those papers that examine the usefulness of online reviews in the field of tourism is considerably smaller (Fang et al., 2016; Filieri et al., 2018; Park & Nicolau, 2015). Higher usefulness of online reviews is often one of the potential sources for providing additional value to consumers, especially in the area of tourism (Liu & Park, 2015). By examining the usefulness of online reviews when assessing websites for booking tourist offers, Liu and Park (2015) have analyzed quantitative and qualitative characteristics. The conclusions made in the paper written by Wu et al. (2021) imply that the interaction between content and rating of reviews implies more usefulness, i.e. it creates higher value for consumers. In accordance with the available literature, another variable whose effect on perceived usefulness will be observed is visual content. Similar to previous theoretical conclusions, we defined the following hypotheses in the paper:

H1: Textual comments within online reviews have a positive and statistically significant effect on the usefulness of those reviews related to a tourist offer.

H2: Photos within online reviews have a positive and statistically significant effect on the usefulness of those reviews related to a tourist offer.

H3: Rating within online reviews has a positive and statistically significant effect on the usefulness of those reviews related to a tourist offer.

2.6. Trust towards online reviews

A large number of online reviews does not always imply that those reviews will evoke trust in potential tourists. The matter of trust in the online environment is particularly significant if considering the pronounced risk and insecurity due to the inability to have insight into the tourist offer itself (Ladhari & Michaud, 2015). In that sense, trust towards online reviews is understood as truthful, non-commercial opinion of those who have experience with a certain product or service (Filieri, 2016, p. 48). Users' trust in the area of tourism is one of the phenomena that is often studied (Filieri, 2016; Khare et al., 2020; Ladhari & Michaud, 2015; Zelenka et al., 2021), and it has already been identified that in this area online trust can suggest the purchase intention (Khare et al., 2020; Kocić & Radaković, 2019). The number of the false reviews additionally strengthens the fear of users when choosing a tourist offer. For that reason, in order to identify false reviews, we applied textual analysis, as well as numerous mathematical and statistical methods (Zelenka et al., 2021). Useful online reviews tend to result in a higher level of trust (Liu & Park, 2015). However, few studies aim to establish interdependence between the usefulness of online reviews and trust towards those reviews. In accordance with that, we defined the following hypotheses in the paper:

H4: The usefulness of online reviews has a positive and statistically significant effect on the trust towards those reviews related to a tourist offer.

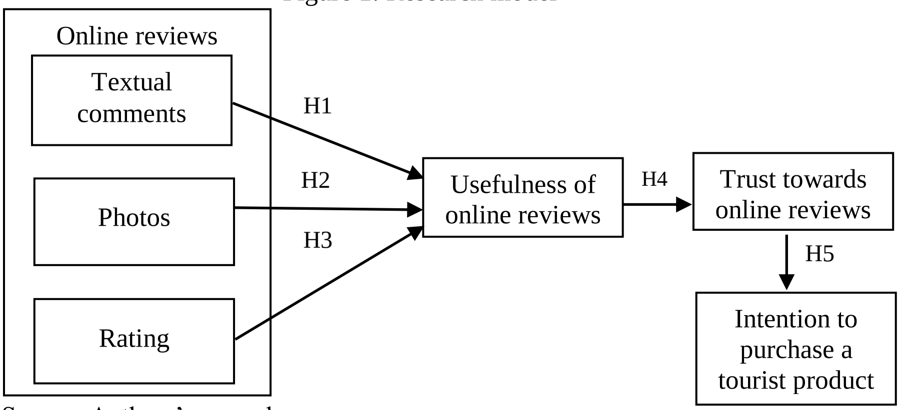
H5: Trust towards online reviews has a positive and statistically significant effect on the intention to purchase a tourist product.

3. Methodology

In order to conduct the empirical research, we used the survey method, and we used a questionnaire as an instrument to gather data, which we distributed electronically in the period from April to May 2022. The respodents were contacted by sending the online survey link to their social media accounts. The survey included only those respodents who were interested in reading online reviews before making the reservation of a tourist offer. The respondents expressed the degree to which they agreed with the statements in the questionnaire using a five-degree Likert scale. The variables used in the questionnaire were measured by statements that were adjusted according to the aim of the research. Statements related to textual comments within online reviews were adjusted based on the paper by Wu et al. (2021). Contextual photos were already examined by statements in the paper by Le et al. (2022). The significance of rating as a means of expressing online reviews was examined by statements in papers by Filieri (2015) and Le et al. (2022). The usefulness of online reviews was measured based on papers by Zhao et al. (2015). The level of online trust towards reviews was measured by statements that were adjusted based on the paper by Su et al. (2021), while the intention to purchase a tourist product was measured by statements based on the paper by El-Said (2020).

The analyses needed to make valid conclusions were made in the statistical software for social sciences SPSS, version 21. We interpreted the results of the research based on the results of the explorative factor analysis, reliability analysis and regression analysis. The research model is presented in Figure 1.

Figure 1: Research model



Source: Authors' research

The structure of the sample is such that out of 202 respondents in total, there are more women (51.5%) compared to men (48.5%). When it comes to the age criterion, most respondents belong to the age group 19 to 24 (27.7%), followed by those aged from 31 to 36 (26.2%), while fewer respondents belong to the category aged from 25 to 30 (22.8%), and above 36 (23.3%). Most respondents have university education (37.1%), while 27.7% of the respondents have undergraduate education, and 35.1% state that they have high school education. When it comes to the employment status, most respondents are employed (48%), followed by entrepreneurs (25.7%), students (20.3%), while the number of unemployed respondents is the smallest (5.9%).

4. Research results

As stated, we used explorative factor analysis to group statements into factors. In order to test whether using this analysis is justified, we showed Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin – KMO measure of sampling adequacy (Table 1). The value of the KMO measure is 0.892, which is significantly higher than the recommended limit value of 0.6 (Coakes, 2013). Bartlett's Test of Sphericity has a statistically significant value (Sig=0.000), which shows that there is a statistically significant correlation between the original variables.

Table 1: Value of KMO statistics and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.892
Bartlett's Test of Sphericity	Approx. Chi-Square	1072.835
	Degrees of freedom	78
	Significance	.000

Source: Authors' research

By using Principal Component Analysis, and after the factor rotation (varimax), three factors were singled out. The first factor pertains to textual comments; the second factor pertains to online reviews expressed by photos, while the third factor pertains to the rating of a tourist offer. The given matrix is interpretable, and only those statements whose values of absolute factor weights are above 0.5 were kept.

Table 2: Rotated Component Matrix

Rotated Component Matrix[a]			
	Component		
	1	2	3
text3	.777		
text1	.763		
text5	.761	.361	
text2	.752		
text4	.752		
text6	.749		
photo4		.737	
photo3		.711	
photo1		.693	
photo2		.670	
rating1			.829
rating2			.805
rating3			.678
Extraction Method: Principal Component Analysis Rotation Method: Varimax with Kaiser Normalization			
a. Rotation converged in 5 iterations			

Source: Authors' research

Table 3 includes the obtained factors, the values of factor weights in each factor, as well as the value of the Cronbach's alpha coefficient. The high value of the Cronbach's alpha coefficient – above 0.7 (Nunnally, 1978) indicates that the factors have good internal consistency. When deciding on a certain number of factors, it is important to point out that we kept the factors whose characteristic value was higher than 1, which was the case with the first three factors (it was 5.377 for the first factor, 1.798 for the second factor and 1.006 for the third factor). The total percentage of variability that these three factors explain is 62.93%, which is in line with recommendations given by Tabachnick and Fidell (2013).

Table 3: Results of the explorative factor analysis

Factors and relevant statements	**Factor weight**	**Cronbach's alpha**
Textual comments		**0.886**
Textual reviews about the tourist offer should be clearly understandable.	0.763	
Textual reviews about the tourist offer should express emotions.	0.752	
Textual reviews about the tourist offer should be long enough.	0.777	
Textual reviews about the tourist offer should be written in a clear writing style.	0.752	
Textual reviews about the tourist offer should be written in detail.	0.761	
Textual reviews about the tourist offer should be high quality.	0.749	
Photos		**0.758**
Photos within online reviews make the overview of the tourist offer easier.	0.693	
Online reviews contain photos that make the tourist offer attractive.	0.670	
Photos within online reviews enable clear visualization of the tourist offer.	0.711	
Photos within online reviews clarify my doubts about the tourist offer.	0.737	
Rating		**0.724**
The rating of the tourist offer within online reviews enables me to learn more about the offer.	0.829	
The rating of the tourist offer within online reviews enables me to understand the quality of the offer.	0.805	
When searching for tourist offers, I focus on those that have a high rating expressed in online reviews.	0.678	

Source: Authors' research

In order to examine the shared effect of the observed factors on the usefulness of online reviews, we applied multiple regression analysis (Table 4).

Table 4: Validity of the multiple regression model

R	Adj. R Square	St. error	F	Sig
0.793	0.623	0.26883	111.711	0.000

Source: Authors' research

The model is representative (Sig=0.000); the value of the Adjusted Coefficient of Determination equals 0.623, which shows that 62.3% of the varability of the usefulness of online reviews is explained by the defined factors.

The value of the growth factor variance which is lower than five for all defined factors confirms that the problem of multicollinearity does not exist in the regression model (Table 5). When observing them separately, textual reviews contribute most to the usefulness of online reviews (ß=0.609, p=0.000). Consequently, it can be concluded that the effect of photos within online reviews on the usefulness of online reviews is pronounced and very strong (ß=0.484, p=0.000). Rating within online reviews also has a positive and statistically significant effect on the usefulness of those reviews, but its effect has lower intensity (ß=0.152, p=0.000). We thereby conclude that hypotheses H1, H2 and H3 can be confirmed.

Table 5: Results of multiple regression analysis (with the usefulness of online reviews as the dependent variable)

Variable	ß	T	Sig.	VIF
Textual comments	0.609	14.071	0.000*	1.000
Photos	0.484	11.172	0.000*	1.000
Rating	0.152	3.513	0.001*	1.000

*The value is significant at the level equaling 0.05
Source: Authors' research

By using simple regression analyses (Table 6), we examined whether the usefulness of online reviews has any implications on the level of trust towards those reviews, as well as whether the level of trust affects the intention to purchase a tourist product.

Table 6: Results of simple regression analyses

	Adj. R Square	F	Sig(F)	ß	T	Sig.
Usefulness of online reviews→Trust	0.474	182.093	0.000*	0.690	13.494	0.000*
Trust→The intention to purchase a tourist product	0.439	158.402	0.000*	0.665	12.586	0.000*

* The value is significant at the level equaling 0.05
Source: Authors' research

We can conclude that 47.4% of the variability of trust towards online reviews as the dependent variable is explained by the usefulness of online reviews, and that 43.9% of the variability of the intention to purchase a tourist product online as the dependent variable is explained by online trust. Therefore, based on the above, hypotheses H4 and H5 can be confirmed.

5. Conclusion

The evident complexity of the tourist offer, the existence of a large number of criteria which tourists consider when making their choice, as well as the omnipresent insecurity in the online environment emphasize the significance of empirical analysis in this paper. In accordance with the conclusions of the empirical research, marketing managers should bear in mind that various forms of online reviews have certain implications on the perceived usefulness of online reviews. By adopting a proactive approach and by improving the exchange of online reviews, this form of communication can be used as an effective marketing means.

Although, this study represents a valuable resource for the tourism sector, its limitations should be explained. The limitation reffering to the representativeness of the sample could be overcome by enlarging the number of respodents in future research. This study examines the intention to purchase a tourist product in general, without specifying its components. In addition, most of conclusions are based on the analysis of online reviews, and future papers could also examine the significance of expertise, competence and credibility of the tourists who post reviews. Moreover, the research examined the significance of the online reviews regardless of the platform where the reviews were posted. Some future research should develop an integrative research framework that would identify the similarity of online reviews on different platforms, whether on websites of hotels and tourist agencies, or reviews on social media websites.

One more variable that could be included is the country of origin of tourists that post comments about a tourist offer. This could help get a more complete insight into additional factors that characterize the choice of the tourist offer made by Serbian tourists. Furthermore, the details contained in online reviews, as well as the ratio of positive to negative reviews, could also be a useful marketing tool in the area of promoting and selling a tourist offer. The paper is based on the analysis of the quality of the content of online reviews in terms of their rating, photos and textual comments. The quantity of such content could be examined based on related research in order to determine whether perceived usefulness changes if there are more reviews posted by other tourists in the online environment. The paper examines the direct link between textual content, rating and photos within online reviews and their usefulness. Some future papers could also examine the effect of the moderator, for instance, in order to determine whether some extreme rating supported by photos of a tourist offer provides higher usefulness for tourists.

Although the role of online reviews is more than obvious with the development of the Internet, it would also be desirable to perform a comparison of the degree to which tourists in our country give advantage to online reviews compared to recommendations received from family and friends, i.e. by traditional word-of-mouth communication. Research has shown that a higher level of usefulness of online reviews for tourists is also a potential source of trust, which later results in the purchase intention. Accordingly, a systematic approach and constant analysis of online reviews should be the imperative in order for business entities in the area of tourism to be able to do business successfully.

Conflict of interest

The authors declare no conflict of interest.

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The role of drones in communication and promotion of tourism experiences – A case of Poland

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Abstract: Tourists travel to collect images in either their memories or some tangible form. The contemporary trend of mass tourists' behaviour is to replace cameras with digital devices. The next step, but only taken by selected and more technology-oriented segments of tourists, is the use of drones (Unmanned Aerial Vehicles – UAV). The aim of the paper is the evaluation of UAV's role in tourism in Poland. In-depth interviews were conducted with Polish experts (N=13) in the field of drones. The survey questionnaire (N=1175) was conducted with Polish tourists. It was found that drones enhance user value and technology-induced experience. UAVs can also enhance tourists' experience. It is becoming an increasing trend, Polish tourists being no exception, to use them to commemorate some extraordinary moments or sites, but most of all tourists themselves. In Polish tourism market, the entities promoting most frequently with UAVs are venues: congress and trade centres, attractions and hotels. Drones are also used to widen the experiences of meetings and events' participants.

Keywords: drones (UAVs), photos, videos, experience, digital immediacy
JEL classification: L83

Uloga dronova u komunikaciji i promociji turističkih iskustava – Slučaj Poljske

Sažetak: Turisti putuju da bi prikupili slike u svojim sećanjima ili u nekom opipljivom obliku. Savremeni trend ponašanja masovnih turista je da se kamere zamene digitalnim uređajima. Sledeći korak, ali samo za odabrane i tehnološki više orijentisane turiste, jeste upotreba dronova (*Unmanned Aerial Vehicles – UAV*). Cilj rada je evaluacija uloge *UAV*-a u turizmu na primeru Poljske. Sprovedeni su dubinski intervjui sa poljskim stručnjacima (N=13) iz oblasti dronova, dok je poljskim turistima distribuiran anketni upitnik (N=1175). Utvrđeno je da dronovi omogućavaju stvaranje visoke vrednosti za kupce i potpuno tehnološko iskustvo. *UAV* takođe mogu poboljšati iskustvo turista. Postaje sve izraženiji trend, koji je karakterističan i za poljske turiste da ih koriste za beleženje nekih izuzetnih trenutaka ili mesta, a pre svega sebe. Na poljskom turističkom tržištu subjekti koji najčešće promovišu dronove su prostori: kongresni i trgovinski centri, atrakcije i hoteli. Dronovi se takođe koriste za proširenje iskustava učesnika sastanaka i događaja.

Ključne reči: dronovi (UAVs), fotografije, video snimci, iskustvo, digitalna neposrednost
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1. Introduction

The aim of the paper is the assessment of the role of drones (Unmanned Aerial Vehicles – UAVs) in tourism. Drones are able to provide aerial filming and aerial photography, customized for tourists or institutions. The majority of people are visualizers so influence on their sense of sight seems to be the most effective way of communication. Drones are used either by suppliers of tourist services and/or tourists, and both aspects are taken under consideration in the paper.

There are a few publications on the role of photography and videography in tourism (Bandyopadhyay & Ganguly, 2015; Belk & Yeh, 2011; Dinhopl & Gretzel, 2015; Dinhopl & Gretzel, 2016; Fairfax et al., 2012; Galí & Donaire, 2015; Gillespie, 2006; Jensen, 2015; Li et al., 2019; Robinson, 2011) and none of them focuses on drones use. Moreover, the issue of co-creation of tourists experience due to new technologies needs a thorough investigation and analysis because it is a relatively new phenomenon. Drones are the examples of modern technology which, in combination with other ICT tools, creates the spillover effect of digital immediacy (Bell & Lyall, 2005).

The analysis was conducted on the basis of Polish tourism market and it was the first research concerning this issue in Poland. The paper is structured as follows. The first part presents a review of the key literature related to the role of technology for tourism, visual means of communication, changes in tourists behaviour in the aspect of experience: creation, capturing and (re)presentation is performed. Next, drones are described, their advantages and disadvantages are pointed out, as well as the legal barriers of their usage. In the second part of the paper, the research methodology is briefly presented. Empirical part is based on the following results of (1) in-depth interviews conducted with the representatives of Polish tourist services providers, (2) survey questionnaire conducted amongst tourists in Poland and additionally (3) on secondary sources of information. The analysis of the interviews and survey questionnaire results is performed, the results are triangulated and presented, which is followed by a discussion. At the end of the manuscript, conclusions, managerial implications limitations and further research were discussed.

2. Literature review

2.1. Importance of photo and video content for tourists experience

Visual aspects are crucial in tourism. One of the main tourists' motivations to travel is collecting images, either in their memories or on some devices. Initially, it was suggested that through photography tourists tried to "understand destinations and attractions as tourist sights" (MacCannell, 1976, p. 17). Taking photos of unique tourism experiences was perceived as "a demarcation to the ordinary character of everyday life" (Urry, 1990). Pictures help to understand destinations and attractions as tourist sights (Chalfen, 1979; MacCannell, 1976). Recently, tourist photography focus was redirected towards a unique 'triangle' of social relations – between tourists and hosts, tourists at the destination and tourists and those who stayed home (Urry & Larsen, 2011). In the literature one can even find a modern definition of tourist photography which reads (Larsen & Sandbye, 2014): "a social practice, a networked technology, a material object and an image" (p. 13).

When discussing photography in tourism, the attention should be paid to the Urry's concept of 'tourist gaze', which has evolved in time (Urry, 1990; Urry, 2002; Urry & Larsen, 2011). Tourist gaze was determined by the subjectivity of experiences and ways of seeing and understanding things. As such, the tourist gaze is in accordance with Berger's ideas of never looking at things only, but "always looking at the relation between things and ourselves" (Berger, 1972, p. 9). "The tourist gaze is therefore an 'active and dynamic process in which tourists employ 'aesthetic reflexivity' to make sense of the visual" (Lash & Urry, 1994, p. 36). What is the most important from the general point of view in tourism, gazing or just looking, constitutes touristic consumption which is stressed by Crouch (1999) and MacCannell (1976). Tourists travel to collect images – they look at sights and 'consume' them with their eyes (Dinhopl & Gretzel, 2016). Dinhopl and Gretzel (2016) stress also that visual representation practices nowadays objectify places by "selecting, framing, and representing places in the visual media they produce of their trips" (Löfgren, 1999).

The change of the personal photography function – from commemorating places to increasing the importance of communication (Sontag, 2004), self-expression and identity formation (Shanks & Svabo, 2014; van Dijck, 2008) is also noteworthy. Certainly, it is strictly connected to and enabled by ICT development, in particular by social media.

There is another change connected with the abovementioned - the main object of a contemporary tourist photography is not an attraction or a sight but a tourist him/herself. As a result a *signum tempori* is a special type of photos – the self-picture, so called 'selfie' (Hess, 2015). The approach of Dinhpol and Gretzel (2016) seems convincing, they stress that the self-picture is characterized by "the desire to frame the self in a picture taken to be shared with an online audience".

Photography and tourism are "inextricably linked" (Sontag, 1977). Feighey (2003) explored the place of visual evidence in tourism research. Over the years photography prevailed in the comprehension of tourist experiences. The technology development "has created the possibility to make also videos" (Chalfen 1987, p. 61). It can be stated that the evolution has taken place, from photography to videography. However, nowadays both techniques coexist, having in mind the boost of social media for final consumers of tourism experience (tourists) communication, content creation of destination and user generated lifestyle impact.

The contemporary trend of mass tourists' behaviour is replacing cameras with digital devices, like smartphones or iPhones (Dickinson et al., 2014). In the adventure/sport tourism a camera has been substituted by a GoPro camera due to two main reasons. In adventure tourism, a fixed GoPro camera (to a helmet or a special harness) allows tourist to use hands in practicing an adventure activity. The second is a specific need of adventure travellers to capture and showcase and communicate the adrenaline experience of a certain tourism destination in an accepted form, such as social medial channels, e.g. Instagram, YouTube and others. The next step, but taken only by selected and more technology oriented segments of tourists, is drones usage.

The representation of tourist photos and videos was found to be markedly different. Tussyadiah and Fesenmaier (2009) stressed the capability of tourist videos to generate travel narratives. Similarly, Marlow and Dabbish (2014) highlight that photos and video provide a different form of tourist engagement (Daft & Lengel, 1986), in which video secured higher levels of immersion (being there feeling) for specific tourist destination.

Tourists' photos and videos are presented to others, shared, and there are many motivations to do it, of both push and pull character. The presentation of social practices rises in complexity as a result of the larger and more dispersed audience (Lo et al., 2011). If a tourist's experience was not perpetuated by photography or video, it is as if it has never happened.

While discussing the issue of photos and videos presentation it should be highlighted that there are special websites for sharing. There is a social network like Instagram (www.instagram.com) for photo-sharing and the website TravelByDrone allows users to acknowledge the "world from the perspective of drones".

Generally, social media evolve into the form of networked travel, providing a insight into tourists' experience with other tourists that have stayed home (Germann Molz, 2012) and are a foundation for the concept of networked travel (Germann Molz & Paris, 2015; Larsen et al., 2007). Tourists' photos and videos allow people to share their experiences with others, owing to the technology, nearly in the real time. In the literature it is called digital immediacy (Bell & Lyall, 2005). Bell and Lyall (2005) stress that "people share images with other people immediately to convey the emotions associated with it: 'not just, 'I was here'; but 'I am here, right now', having this experience in real time, and here is the evidence that this is the case" (p. 136). Immediacy argues the notion of visual co-presence (Ito, 2005) and the opportunity to 'interact' with those that have not been present (Germann Molz, 2012; Germann Molz & Paris, 2015). Esteeming immediacy was found to be vital for videos capturing sports events or concerts.

In the literature, it is claimed that in presentations photos privilege tourist settings over tourist activities or practices (Crouch & Lübbren, 2003) while it holds the other way round for videos (Dinhopl & Gratzel, 2015). Yet, it should be stressed that taking photos or videos from drones changes this situation. With widening the angle, it is possible to show both a person and a sight in a good quality. Thus, drones eliminate some barriers and remove the necessity of choosing, diminishing the difference between tourists photos and videos.

In relation to supply side of the tourism market, it should be noted that videos and photos have become a powerful tool for firms striving for effective communication with their clients. Schroeder (2004) uses the expression "emphasizing role of the visual in business" and calls it "image economy". Visual content is an inseparable part of any marketing strategy (Manic, 2015). Images and videos and innovative techniques for the production of graphical content are essential pillars of visual content-driven marketing strategies.

Images help to secure wider reach and recognition and strengthen the efficiency of marketing activities. Marketers have acknowledged the importance of visual storytelling in recent years and they have provided more and more engaging visual content for their customers. Drones are very important tool in obtaining this goal.

2.2. Revolution of tourists' experience through the photo and video self-content creation

Tourists' experiences are one of the crucial categories in contemporary tourism. It is a "core of tourism product" (Berbeka, 2016, p. 42). An experience refers to the 'experience economy' (Pine & Gilmore, 1998) and is discussed in many aspects of tourism (Berbeka, 2018).

It is worth paying attention to the Florida's concept of Creative Class (Florida, 2002), its participation in tourism and an approach of its representatives to experiences (Gretzel & Jamal, 2009). As Florida (2002) describes, Creative Class experiences are rich, "participatory and storied, narrated and shared through multiple media", often nature-based. The life of the Creative Class is a "mobile social life" (Larsen et al., 2007) in which "travel is an everyday experience and tourist experiences are part of everyday life". Creative tourists as "peak experience consumers" (Wang, 2002) continuously await transformative experiences, so over time, they are persuaded to push the boundaries to achieve peak and occasionally adventeures and extreme experiences (Florida, 2002). They want to capture this experience and share with others and here the technology is indispensable, both the tools to capture – like drones - and devices to share them like social media.

Moreover, experience co-creation by participants as a concept is also worth mentioning

(Payne et al., 2008). Korkman (2006, p. 27) also stress a "new logic for value creation where value is embedded in personalized experiences", "value is created by experiences" (Prahalad, 2004, p. 172). The experiential consumption approach (Holbrook & Hirschman, 1982) and consumer culture theory (Arnould & Thompson, 2005) emphasize affective, contextual and non-utilitarian consumption domains in which value resides in the consumption experience (Payne et al., 2008). It is a core idea of The Service Dominant Logic, stressing a value creation by a consumer at the moment of consumption (Lusch & Vargo, 2006) and transformed to the Customer Dominant Logic (Rihova et al., 2018)

Experience in tourism is determined by numerous factors (Jennings & Weiler, 2006). One of the most important is technology (Buhalis & Law, 2008; Gretzel et al., 2006). The increasing role of technology was stressed by the recognition of the phenomenon known as "Technology-Enabled Enhanced Tourist Experiences" (Neuhofer & Buhalis, 2012).

According to Tussyadiah and Fesenmaier (2007) as a consequence of ICTs impact on the tourist experience, the current tourist experience was distinctively altered. Thus, Gretzel and Jamal (2009) argue that novel experiences arise as a result of novel types of technologies capable to support these experiences.

Research results have also pointed out that technology stirred tourist experiences through the use of travel videos (Tussyadiah & Fesenmaier, 2009), smartphones (Wang et al., 2012; Wang et al., 2014) and technologies such as Google Glass (Tussyadiah, 2014). Aerial films and pictures may be added to these examples.

Nowadays, tourism theory stresses the significant role of visual media in allowing tourists produce and present tourist experiences (Cary, 2004). Visual media in tourism facilitates tourism experiences by exploiting novel technologies (Haldrup & Larsen, 2010; Urry & Larsen, 2011).

In fact, the attention is drawn to three phases: capturing experiences, mediating and presenting them. Drones have particular role in the first two phases. Blogs and social media encourage sharing of experiences, especially captured by visual media, influencing thus the third phase.

2.3. Drones as a new tool in tourism development

Drones, more formally acknowledged as Unmanned Aerial Vehicles (UAVs), are light flying robots which fly autonomously or through remote control following software driven GPS coordinates. Drones are able to provide both aerial photography and aerial filming. It is a lot of motion in the image they provide, that influences visual and kinetic aspect of people perception process. The majority of people are visualizers so an impact on their sense of sight seems to be the most effective way of communication.

Drones have become more and more popular in tourism, being used by tourists and by tourist services suppliers (Jiang & Lyu, 2022). Not only are they useful in capturing outdoor activities, but also they are used indoor, if there is enough space in a venue. The latter aspect is used in MICE sector (Kovačević et al., 2020).

Drones allow showing people the natural environment or the interior of any building from a different perspective. Professionals who steer-up drones make videos and pictures that are considerably cheaper and environmentally friendly in contrast to helicopters.

In regard to drones, three aspects should be taken into consideration: safety and regulations; commercial opportunity; and privacy (Jessop, 2016). There are different regulations and approaches to tourists' drone usage in various countries, from no regulation to a complete ban on drones. Furthermore, concerning safety, there are different regulations in various countries. Generally, it is forbidden to use drones in proximity of strategic areas like airports, military zones and other similar areas. The problem of privacy, also in tourism, is really serious and should be taken under consideration. Some hoteliers take precautions because they are concerned about clients' privacy.

Drones used for commercial services found their place as marketing instruments for hotels, events and destinations, even for real estate promotion. Drones are cost-effective marketing instruments that can fly over objects taking videos and photos of high resolution that could be supported with a proper soundtrack with an aim to encourage the attractiveness of the tourist product. As a consequence, many companies are emerging to offer services of UAV photography and other applications to governmental bodies, DMOs, hotels and travel agencies.

Tourists can use drones during their travel, but they can be as much helpful in the planning phase of a journey. Pictures and films from regarded destinations, venues or attractions taken from drones are important decision factors. It seems that taking a drone on a vacation has become an 'epic way to catalogue ones summer exploits'. Drones are considered essential equipment for travellers who can afford them.

In addition, selfies could be taken by drones. They have been designed with younger users in mind, such as representatives of the X and Z generations. They record eight to ten seconds of video that starts with a zoom in and moves back to show the entire location. There are some dedicated platforms, e.g. Dronelife.com, where digital networks are created.

The prices of drones differ significantly, from \$50 to \$10,000, but the price of a camera drone for private use is from approximately \$400 (Mavic Mini), through \$1,400 for a very popular DJI Mavic2 Pro, to \$3,000 for DIJ Inspire 2 (MyFirstDrone, n.d.).

In Poland, in 2013, quite liberal law regulations concerning drones were implemented. Namely, UAVs can be used by private owners without any certifications, whereas a licence of the drone pilot is necessary if a company commercially offers services. A professional drone pilot must be certified; there are two categories – VLOS (Visual Line of Sight) and BVLOS (Beyond Visual Line of Sight). Currently, there are transitional provisions adjusting the regulations to the EU Commission 2019/947. From January 2023, new regulations will be introduced, in accordance with EU regulations.

3. Methodology

The aim of the paper is an assessment of the drone's significance for tourism, taking into account the case of Polish market. Both sides of the market, demand and supply, are investigated. In reference to tourist service providers, the following main research questions were formulated:

- Which entities in tourism market use drones?
- What are the aims of UAVs usage?
- Has the scale of drone's usage increased lately?
- What are the main advantages and disadvantages of UAVs usage?

The identification of the UAVs role for tourist services suppliers was made on the basis of secondary sources of information gathered by the netnographic analysis and due to interviews with Polish experts in drones and their services market conducted in May-August 2018. Finally, the triangulation of results was applied.

Non-probability sampling was used in interviews with the UAV providers and industry experts within a rather small sample (N=13). Purposive sampling of participants was used due to a criterion or purposive attributes (Mason, 2002). In this way, the central themes and questions of the sample were explored (Bryman, 2012). Interviewees were purposefully chosen for the study based on their engagement within the industry, focusing on supply perspective, including providers, developers and industry experts, venue and tourist attractions managers. Each of them was asked the above 4 questions as an introduction to an in-depth statement. Responses were recorded and transcribed. The interviews lasted from 20 to 35 minutes.

The second research task was an exploration analysis of the demand side of the market. The main questions were:

- What is the scale of using drones by tourists?
- Why do they use drones?
- How is it organized?

The questionnaire survey was conducted in the summer 2018 in the direct form amongst Polish tourists in Krakow. The selection of a sample was of purposive-quota character. The gender and age of respondents were included as control variables. The size of the sample was N=1175, N=622 of which correctly filled in questionnaires. There were 23 questions. The questions concerning drones were as follow: Have you used a drone during your trips? (4 possible answers); Why have you used drones? (open question), Who has organized filming? (4 possible answers).

The sociodemographic characteristics of the sample are presented in Table 1.

Table 1: Sample description

	Number	%
Gender		
Female	336	54%
Male	286	46%
Age		
Younger than 18 years	22	4%
18-26 years of age	213	34%
27-35 years of age	144	23%
36-45 years of age	101	16%
46-55 years of age	65	10%
56-65 years of age	43	7%
66-75 years of age	22	4%
Older than 76 years	12	2%
Place of residence		
Countryside	115	18%
A small city (less than 20,000 inhabitants.)	117	19%
A medium-sized city (20,000 – 200,000 inhabitants)	201	32%
A big city (more than 200,000 inhabitants)	189	30%

Education		
Tertiary	331	53%
Secondary	255	41%
Vocational	22	4%
Elementary	14	2%
Occupation		
Pupil	36	6%
Student	158	25%
White collar worker	165	27%
Manual worker	76	12%
Self-employee	77	12%
Retired	41	7%
Housewife	48	8%
Unemployed	15	2%
Material situation		
Very good	76	12%
Good	282	45%
Average	233	37%
Bad	26	4%
Very bad	5	1%
Activity in media		
Facebook	499	80%
You Tube	370	59%
Instagram	234	38%
Snapchat	209	34%
Twitter	137	22%

Source: Author's research

4. Results and discussion

The interviews' results indicate that in tourism, referring to its typology, there are two main areas of drone's application: 1. MICE (meetings, incentives, conferences and events) tourism and 2. adventure and outdoor tourism. Taking types of tourist entities into consideration, the interviewees highlighted that drones were used by venues like congress, conference and trade centres, tourist attractions, hotels as well as by tour operators and some destinations.

To check these statements the netnographic analysis of all Krakow hotels' webpages (153) was conducted in July 2018. It reveals that only nine out of 153 hotels, which means 6%, use films or pictures taken by drones in their promotion. Four out of 153 have promotional films on YouTube. It should be noticed that two of these venues which make use of the films are five-star hotels and two other are four-star hotels. Five remaining hotels have pictures taken from UAV; one of them is five-star hotel and four are three-star hotels.

According to Polish interviewed experts, the main aim of using drones is the promotion of tourist products. The effect of aerial photography or films presentation is the rise of visual material quality and a possibility of 'deeper immersion' of clients experiences (Marlow & Dabbish, 2014). The aerial presentations allow getting the 'wow' effect and gain competitive advantage. However, experts stress that these are usually additional promotion activities.

Some venues allow meeting organisers to use drones to prepare their promotional materials, before and during a meeting. A very interesting solution is adopted by The ICE Kraków Congress Centre. The Congress Centre has full authors' rights to its promotional materials performed with drone's usage. And The ICE Kraków Congress Centre sub-licenses the use of these materials (or some part of them) to a meeting organiser while preparing the promotion of its own meetings. It is a solution which reduces organisers' costs and time.

Results of interviews prove that for two years there has been an increasing trend of drone's involvement in promotion of events in the meeting industry in Poland. The interesting remark is that the scope of using drones is often proportional to the size of meetings. The aerial filming seems to have particular effects in showing big events and meetings (for example, bigger than 1,000 participants).

Besides a promotional meaning, drones have improved the opportunities for adventure travellers to visit places that are not easily accessible. By capturing photos of inaccessible sites with the use of drones, adventure travellers have a better insight into how inaccessible sis could be explored.

Interviewees stress that an advantage of drones is that they give a virtual travelling experience. Hence, videos and images captured by drones provide a cost-effective opportunity for people that are physically or economically limited to take a peak at thease places without visiting them. The results of interviews also lead to the conclusion that drones advantages are unmatched manoeuvrability, environmental safety and real time of registration.

The active outdoor tourism was pointed as benefiting from UAVs potential. Thus, the second investigated issue was the usage of drones for promotion of Polish ski centres. All webpages of ski resorts associated in the Association of Polish Ski and Tourist Resorts were analysed. Out of 66 webpages of resorts members of the Association, 42 contain visual promotional materials prepared with the use of drones. It means that 64% of resorts use drones to promote their facilities. A detailed analysis reveals that there are differences between resorts located in various voivodships. In Lesser Poland and Silesia, where there is a high concentration of ski resorts, the percentage of UAV's materials is high, 68% and 80%, respectively. In Lower Silesia, in spite of also relatively high number of ski centres, only 40% of them post on the webpages materials made from drones.

The second research task was an assessment of tourists approach to drones being used during travels. The results of questionnaire survey showed that, in 2018, 88% of tourists in Krakow were equipped with smartphones, and 79% of the owners took photos and made films with them during their trip. When aerial photography is taken into consideration, 92% of respondents had never used the drones, 4% had used them once before, and over 3% had used them several times. A mere 1% of respondents take drones systematically with them on tourist trips.

The analysis of relations between the socio-demographic features of the respondents and the use of drones showed statistical significance only in the case of financial situation (test probability ratio p=,00622). Amongst those who use the aerial photography, the organization of filming was tested. One third of the respondents carried out filming on their own, whereas in 41% of the cases filming was done by the travel companions. For 19% of respondents the aerial filming from the drone was provided by the tour operator, 7% admitted that there were other cases, too. Cognitively interesting was the identification of the motivation to use the drones. Various reasons were indicated. They may be divided into a few groups.

Firstly, the motive of another perspective was mentioned, i.e. the opportunity to take an innovative look from above. This was expressed in the following statements: *for different perspective; I enjoy getting a bird's-eye view on the world; I wanted to see inaccessible places.* Secondly, the innovativeness of this solution was important*: for unique pictures and films; because it is an interesting technology; for films used on websites; for tests*. One of the motives was also curiosity connected with the novelty of this solution: *out of curiosity; because there was a chance*. It can be said that it was an experience for the tourists, who said: *because I wanted to have a souvenir; for entertainment; it was a super-experience; to record an important event*. There were also other explanations: *for the scenery*, i.e. experience in particular surroundings, in relation to the Mossberg's category of photo experience.

The need to record particular forms of sports activity was also signalled, e.g. filming sports activity. There was also the motive of convenience mentioned. As usual, a role is played by the reference group; their impact was also mentioned: *I was talked into it by friends.* Another motive was the appreciation of new technological solutions: *I like drones*.

The study touches the question of sharing photos from trips by tourists. The results prove that 78% of respondents share their photos in the Internet. Tourists mainly used the social media, as many as 56% admitted using this form of sharing. Over a quarter of the visitors sent them by email. 14% of respondents posted the photos on their website and the same percentage sent the photos to the Cloud, another 7% posted them on their blogs. This acknowledges the concepts of pursuing travel with a digital community, networked travel (Germann Molz & Paris, 2015; Larsen et al., 2007), and connected tourists experiences (Neuhofer, 2016).

5. Conclusions

Taking photos during a trip with the use of mobile devices, mostly smartphones, is behaviour typical of the tourists in Krakow (70% of respondents). Even more common, it is to share the photos and films in the Internet (nearly 80%), which confirms the networked travel and digital immediacy (Bell & Lyall, 2005). The fact of common sharing of the pictures from the trip shows that it should be treated as a potential viral marketing tool of a destination or tourist attraction.

The aerial photography is not yet popular with tourists visiting Krakow, only 8% of the respondents use them. Their motives are a desire to see the world from the air following Dedalus dream, innovativeness of the solution and striving for new experiences. Tourists using drones admitted that they allow gaining new experiences.

The results of interviews reveal that the advantages of drones are the following: unmatched manoeuvrability, environmental safety, real time of registration and lower costs than using helicopters.

The increasing role of drones and their significance in tourism is a result of continued interdependencies and convergences of tourism, digital culture, and communication technologies. Using them to commemorate some extraordinary moments or places is an increasing trend, Poland being no exception.

UAVs can also enhance tourists' experience; referring to the experience hierarchy drones allow reaching the fourth level - Technology-Empowered Experience (Neuhofer et al., 2013). These results are a theoretical contribution to knowledge about consumer behaviour and its determinants.

Drones are one of the tools necessary for the concept of networked travel (Larsen et al., 2007), but, as observed, Poland is still in the preliminary phase of this process. Some entities on Polish tourism market use drones to increase the efficiency of their promotional materials. Films are the means of storytelling in a visual way, so they may take the communication to a new level. In July 2018, only 6% of hotels in Krakow had aerial films or pictures in their promotional materials, all being high-standard hotels. On the other hand, 64% of Polish ski resorts members of the Association of Polish Ski and Tourist Resorts use drones for promotion.

It seems that in adventure tourism, in its 'hard' form, a replacement of helicopters by drones contributes towards limitation of risk taking. In the case when registration of a situation, event or any undertaking is easier (cheaper, repeatable), there is a smaller pressure on doing it in all conditions and circumstances. Thus, drones can indirectly increase safety of participants.

5.1. Managerial implications

Study findings provide several valuable managerial implications mostly in the context of tourism management and policy. The use of technology was found to be critical in the process of experience (co)creation. Drones could be used by tourism providers as an 'experience resource environment' grounded on the technological requirements of tourists in pre/during/post travel phase. Tourists commonly use their drones, however, additional technological support through the use of services, applications and infrastructure should be secured as well. The main managerial effort must be made to ease effective connection, engagement and sharing of tourists' experiences. Organisation of filming from drones can be a competitive advantage to a tourist services supplier. In adventure tourism, it could also increase the possibilities of exploring new areas. In addition, there are also ideas to use drones as an access point to the Internet for tourists (Rusdi et al., 2019).

5.2. Limitations and future research

The qualitative research (interviews) was conducted on a small sample, on the representatives of particular tourism facilities. The research requires broadening and deepening to determine the needs of supply side for film material and aerial photography and evaluate its effectiveness.

The drones are a tool used for recording of experiences relating particularly to active tourism. It is advisable to conduct research in this segment of tourists, identify the scope of the use of drones, and evaluate the scale on which they motivate taking more risk and moving boundaries.

Conflict of interest

The authors declare no conflict of interest.

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Linking residents' perceptions of pandemic quality of life with their support for sustainable tourism development in the post-COVID-19 era

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Abstract: The COVID-19 pandemic has changed tourist flows, reducing the number of international tourist arrivals around the world. One of the ways to protect the tourism industry from the ongoing health crisis was through the stimulation of domestic and proximity tourism. During the COVID-19 pandemic in Serbia, domestic tourists were attracted to spa destinations such as Vrnjačka Banja. Thus, residents of this small-town destination experienced a great influx of tourists, altering their everyday lives. This paper examines the quality of life domains of Vrnjačka Banja residents during the pandemic and their support for sustainable tourism initiatives in the viable future. Study findings suggest that *spirituality and support from friends* and *general quality of life* as identified domains of *quality of life during the pandemic* emerged as antecedents of *support for sustainable tourism*. The study contributes to the existing tourism knowledge by acknowledging the capacity of different domains of residents' quality of life in the pandemic context to frame future sustainable tourism initiatives.

Keywords: COVID-19, quality of life, support, sustainable tourism, Vrnjačka Banja
JEL classification: L83, Z30, Z32

Povezivanje percepcije lokalnog stanovništva o kvalitetu života tokom pandemije sa podrškom za održivi razvoj turizma u post-kovid eri

Sažetak: Pandemija COVID-19 promenila je turističke tokove, smanjivši broj međunarodnih dolazaka turista širom sveta. Kako bi se smanjile posledice krize u turizmu došlo je do podsticanja domaćeg turizma i putovanja do obližnjih destinacija. Tokom pandemije COVID-19 u Srbiji su banjske destinacije, poput Vrnjačke Banje, privukle domaće turiste. Lokalno stanovništvo ove, po površini male turističke destinacije, doživelo je pritisak zbog velikog priliva turista, koji je uticao na promenu njihovog svakodnevnog života. U radu se

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ispituje kvalitet života stanovnika Vrnjačke Banje tokom pandemije COVID-19 i njihova podrška održivom razvoju turizma u post-kovid eri. Rezultati studije sugerišu da *duhovnost i podrška prijatelja*, kao i *opšti kvalitet života* kao domeni *kvaliteta života tokom pandemije* utiču na *podršku održivom turizmu*. Predložena studija doprinosi postojećoj turističkoj literaturi isticanjem kapaciteta različitih domena kvaliteta života lokalne zajednice, u kontekstu pandemije, da stimulišu buduće inicijative održivog turizma.

Ključne reči: COVID-19, kvalitet života, podrška, održivi turizam, Vrnjačka Banja
JEL klasifikacija: L83, Z30, Z32

1. Introduction

The continuous growth of international tourism arrivals (from 2010 until 2019) (World Tourism Organization – UNWTO, 2020) was interrupted in 2020 by the biggest global health crisis in recent times – the COVID-19 pandemic (Luković & Stojković, 2020; UNWTO, 2021). During the pandemic, restrictive measures were applied (Grbić, 2022), including lockdowns, travel bans, restrictions on public gatherings and strict bans against business opening. Consequently, the pandemic led to the loss of USD 1.3 trillion in export revenues and a 75% decrease in the number of international tourist arrivals, which is an 11 times greater loss in comparison to the 2009 global economic crisis (UNWTO, 2021).

The pandemic in Serbia has so far taken 15,552 lives by 11 March 2022, along with 1,937,183 confirmed cases (Ministry of Health of the Republic of Serbia, 2022). Moreover, the number of tourist arrivals in Serbia decreased by 50.7%. Considering the nature of restricted measures, domestic tourism was widely promoted, distinguishing spas and mountains as the most visited places in Serbia during the pandemic. Thus, our study is focused on Vrnjačka Banja as one of the most popular tourism (spa) destination in Serbia that has been particularly in demand during the COVID-19 health crisis (Statistical Office of the Republic of Serbia – SORS, 2021) and the effects of this specific crisis on residents quality of life (QoL) and eventually their support for sustainable tourism initiative upon the pandemic end.

There is an agreement among tourism scholars that recovery strategies for the tourism industry should be designed to reach a 'new normal' in tourism development (Benjamin et al., 2020) and to transform tourism on the global level according to sustainable development practices (Brouder, 2020; Hall et al., 2020). These recovery strategies should be aligned with sustainable development goals and require the action of all critical stakeholders, especially host residents (Žikić et al., 2022). Since tourism has a direct impact on residents' QoL (Milićević et al., 2020), further investigation of residents' perceptions of tourism-induced QoL is of utmost importance (Ramkissoon, 2020). Since residents have experienced numerous social costs during the pandemic, their involvement in the tourism recovery is identified as critical (Qiu et al., 2020). The pandemic altered perceptions of peoples' QoL (Asadi et al., 2019; Gamage et al., 2020), since the pandemic led to many job losses (Vasić, 2020; World Travel & Tourism Council – WTTC, 2021), while social distancing, lockdowns and quarantining created psychological distress (Khan et al., 2021).

The rationale to implement the proposed research was based on the fact that due to restrictions to international travel worldwide, domestic destinations, especially those that could be perceived as smaller and therefore, more vulnerable to a considerable influx of tourists (Lin et al., 2022), such as spas, will witness considerable pressure on key residents' resources that will consequently lead to a decrease of their QoL. Vinerean et al. (2021) argued that residents' perspective on their QoL consequently determines their willingness to support sustainable tourism activities. Thus, a study examined how residents of lesser populated spa destinations exposed to domestic over-tourism evaluate their QoL during the pandemic and how it affects their support for future sustainable tourism efforts. The study findings will accelerate destination management efforts that foster 'QoL-centred sustainable tourism' (Mihalič & Kuščer, 2021).

Based on published literature, it is expected that residents with a positive attitude towards QoL would eventually generate support for further tourism development (Liang & Hui, 2016; Woo et al., 2015). This study focuses on the host residents' perceptions' of the pandemic-induced QoL dimensions in the most visited spa in Serbia, and its effect on support towards sustainable tourism initiatives upon the pandemic end. Hence, this study aims to investigate if the pandemic has driven Vrnjačka Banja's residents' perception of QoL dimensions towards their support for sustainable tourism development initiatives in the future.

2. Literature review

2.1. Host residents as stakeholders

According to stakeholder theory, to achieve sustainable development in tourism, there must be a balance in decision-making and the participation of all stakeholders to create economic sustainability, social equality and environmental integrity in tourism destinations (Seba, 2012). This theory, in general, emphasizes the importance of all stakeholders (Theodoulidis et al., 2017), however, when applying stakeholder theory to tourism, the local population have a key stakeholder role, as they, directly and indirectly, experience both positive and negative impacts of its development (Liu et al., 2014; Mbaiwa, 2015). Positive impacts are primarily reflected in tourism's economic contribution to residents' QoL, while tourism impacts on the environment are usually viewed negatively (Benckendorff et al., 2009). Alongside the stakeholder theory approach that embraces residents' being vital stakeholders, Hadinejad et al.'s (2019) study of residents' attitudes towards tourism proposes that "future researchers can also contribute to research on residents' attitudes by applying bottom-up spillover theory through investigating local community's QoL and their support for tourism" (p. 159). Kim et al. (2021) confirmed the applicability of bottom-up spillover theory for evaluating residents' QOL, especially in the context of touristified destinations, such as Vrnjačka Banja during the pandemic.

2.2. Residents' quality of life

Attitudes, and perceptions of tourism-induced residents' QoL, have been topical issues among academics for some time (Hadinejad et al., 2019). QoL generally refers to the (objective and subjective) well-being of people (Santos-Júnior et al., 2020). Subjective indicators imply that QoL is viewed as a resident's perceived QoL caused by the tourism in the destination (Cornell et al., 2019) or as general satisfaction of the local population with certain areas of life (Woo et al., 2015). Objective indicators refer to external indicators (eg. economic income) (Lai et al., 2021). Tourism development can positively improve residents' QoL, and conversely, may reduce it. According to Nopiyani and Wirawan (2021) "employment opportunities, community pride, cultural exchange and availability of facilities" (p. 134) are usually considered as positive impacts of tourism on peoples' QoL, while "health, safety, quality of the physical environment, cost of living, accessibility to public facilities, and social relations" (p. 134) are viewed as negative domains of tourism induced QoL. In the context of a pandemic, QoL indicators were more intangible, especially taking into account the severity of the crisis, thus, some other aspects of QoL deserve additional attention, such as those conceptualized by World Health Organization (WHO) within the QoL Instruments (WHOQOL-BREF), that has been recently empirically tested within the Algahtani et al. (2021). The QoL scale used in our study was grounded on three major dimensions of QoL identified in the WHOQOL-BREF scale: environmental, social, and religious. The environmental dimension considered the perception of safety, information access, and the pandemic's repercussions on income, social-relation aspects examined the effect of a pandemic on maintaining relationships with friends and family while spiritual/religious items examined the effect of a pandemic concerning resident spirituality (Algahtani et al., 2021).

It is evident that during the COVID-19 pandemic the QoL has been exposed to dynamic changes. For example, quarantine was reported as a solution for controlling the spread of the virus, but such measures affect the well-being and mental health of the community as well, particularly in the context of violated social relations and the misbalanced inner spirituality of residents. According to Eurofond (2021) research on QoL during COVID-19, there is a low level of mental health among young people who have lost their jobs, causing an increase in loneliness, worrying, tension and depression. Finally, people felt helpless and horrified, but on the other side, they had more time for rest from everyday work-related stress (Al Dhaheri et al., 2021). However, while the pandemic has negatively impacted residents' QoL it could also be perceived as an awaking call to reset the tourism industry and begin a new era of sustainable tourism development (Ioannides & Gyimóthy, 2020).

2.3. Residents' support for sustainable tourism initiatives

Previous studies have not taken into consideration changes in crucial stakeholders' sustainability behaviours that are the result of a health crisis (Senbeto & Hon, 2020; Talwar et al., 2022). "Residents with a higher level of QoL are more supportive towards future tourism development initiatives" (Uysal et al., 2016), thus distinguishing QoL as an important predictor of such support (Woo et al., 2015). Also, residents' support towards tourism has become increasingly important because the essence of sustainable tourism lies in the participation of local people in tourism development, not only in the form of sharing economic benefits but also through their active involvement in tourism decision-making and management (Wondirad & Ewnetu, 2019).

Chiang and Nguyen (2019) found a positive correlation between residents' life satisfaction and their support for sustainable tourism development. By analysing residents' perceptions of their QoL in rural areas of Serbia, Demirović Bajrami et al. (2020) concluded that support for tourism development was impacted by their overall QoL. Negative impacts of unsustainable growth may negatively influence residents' QoL (Mihalič & Kuščer, 2021), which may consequently negatively affect their support for sustainable tourism development. Szromek et al. (2021) study of residents' attitudes in the post-pandemic times, indicated that residents "support the preservation of cultural heritage and landscapes over business and profit-making" (p. 1), highlighting the growth of pro-sustainable residents' behaviour in post-pandemic times. The fear of the negative pandemic impacts on the economy can be recognized as a motivator for residents to support the reopening of tourism (Haryanto, 2020; Ramkissoon, 2020). However, there is a question of whether the residents, who are confronted with the fear of the pandemic's consequences, are aware that they need to be more supportive of sustainable tourism practices (Ramkissoon, 2020; Romagosa, 2020). There was also concern that residents' support for tourism might decline due to anxiety over tourists spreading the virus further (Abbas et al., 2021). Joo et al. (2021) confirmed that such "perceived risk was negatively associated with residents' support for tourism" (p. 1). While the crisis was seen as an opportunity for applying sustainable practices for tourism recovery, there might be concern about how it would be implemented. Thus, Hussain and Fusté-Forné

(2021) argue that "residents' perspectives must be kept in mind when developing a tourism recovery strategy" (p. 127). The theory of tourism resilience is widely discussed among academics in the context of the tourism industry's recovery from the COVID-19 crisis (Adams et al., 2021; Prayag, 2020). Both tourism resilience and sustainable tourism require continuous support and participation of all stakeholders, however taking into account the issues depicting ongoing pandemics, residents' support for sustainable tourism may be questionable.

Hence, support of the host community for sustainable development in the post-pandemic period is significantly determined by residents' perception regarding the effects of the ongoing pandemic on QoL, in particular, those conceptualized by WHO within the QoL Instruments (WHOQOL-BREF). Accordingly, the following hypothesis is set:

H1: Residents' perceptions of QoL (and its main dimensions) during the pandemic is (are) a significant predictor of support for sustainable tourism development in Vrnjačka Banja after the pandemic.

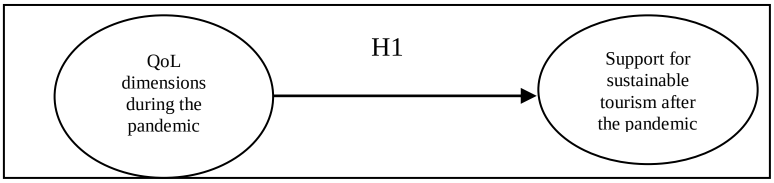
3. Materials and methods

A small town (population 27,527) – Vrnjačka Banja, has become one of the most famous Serbian tourism destinations primarily because of its mineral springs. In addition to health (spa) tourism, recreational and event tourism has been developed over time. In 2020, 211,496 tourists visited Vrnjačka Banja, out of which 200,879 were domestic and only 10,617 foreign (SORS, 2021). When the number of tourist arrivals was compared to 2019, the total number of tourists decreased by 25.4%, domestic tourists by 13% and foreign tourists by 80% (SORS, 2020). Irrespective of a significant decrease in tourist arrivals during the pandemic, it was interesting to evidence overtourism in the destination, especially since the destination of 27.527 inhabitants was exposed to the influx of 211.496 tourists, a ratio of almost 1:10 in favour of tourists.

In order to examine the QoL of residents during a pandemic and their support for sustainable tourism initiatives in Vrnjačka Banja after the pandemic, an online survey was implemented. Eleven items were adopted from Algahtani et al. (2021) study, initially proposed by the WHO, while items used to measure support for sustainable tourism were chosen based on Lee (2013) research. Respondents were asked to rate 11 items related to QoL and 5 items measured support for sustainable tourism, both of them using a five-point Likert scale. Only residents of Vrnjačka Banja could participate. The questionnaire was sent to 590 e-mail addresses through Google forms online survey (online format was chosen due to the ongoing pandemic) using a convenient sampling approach during July and August 2021. A total of 242 responses were collected, giving a satisfactory response rate for an online survey of 41.02%, as common response rates for online surveys range from 6% to 80% (Cobanoglu et al., 2001).

The collected data were then processed using SPSS 23 and AMOS 21. The following statistical analyses were deployed. Analysis of the descriptive statistics (mean values) provided insight into the level of residents' perception of QoL during the pandemic and their level of support for sustainable tourism. QoL domains during the pandemic were extracted through the use of exploratory factor analysis. The internal consistency of the sample variables was measured by Cronbach's alpha, followed by the validity of model fit based on the confirmative factor analysis. Finally, a structural equation model (SEM) was implemented to assess the effects of the identified dimensions of QoL based on the previously conducted factor analysis on the residents' support for sustainable tourism.

Figure 1: Initially proposed research model



Notes for model: H – hypothesis number
Source: Authors' research

4. Results

Out of 242 respondents, 117 were male (48.3%) and 125 were female (51.7%). Most respondents were 20-30 years old (45.0%) and 31-40 years old (26.9%). The largest number of respondents held a bachelor's degree (48.3%), followed by high school graduates (23.6%). In terms of work, 57% were employed and 39.3% were unemployed. More than 50% of respondents worked in the tourism industry or a job related to tourism (Table 1).

Table 1: Socio-demographic characteristics

		Frequency	**(%)**
Gender	Male	117	48.3
	Female	125	51.7
Age	20-30	109	45.0
	31-40	65	26.9
	41-50	39	16.1
	51-60	21	8.7
	>61	8	3.3
Education	Primary school	5	2.1
	High school	57	23.6
	Bachelor's degree	117	48.3
	Master degree	52	21.5
	Doctoral degree	11	4.5
Professional status	Employed	138	57.0
	Unemployed	95	39.3
	Retired	9	3.7
Tourism-related job	Yes	78	32.2
	No	111	45.9
	Partially	53	21.9

Source: Authors' research

Descriptive statistics indicate that the mean value for *access to health services* (M=2.88) and *satisfaction with the income* during COVID-19 (M=2.95) was rated lowest, highlighting their severe effect on residents' QoL during the pandemic in Vrnjačka Banja. Conversely, results indicate that residents express a higher level of *Support for sustainable tourism development* (M=4.11) and willingness to *participate in its planning and development* (M=3.77), *participate in cultural exchange with tourists* (M=3.74), and *promotion of sustainable tourism* (M=3.71) (Table 2).

Table 2: Descriptive statistics table

Quality of life dimensions during the pandemic (Independent variables)	**Mean value**	**St. dev.**
The quality of your physical environment during COVID-19 pandemic	3.24	1.146
The availability of information needed in your daily life	3.28	1.168
Your feelings of being safe in your daily life during COVID-19 pandemic	3.28	1.139
Your income during COVID-19 pandemic	2.95	1.300
Access to health services during COVID-19 pandemic	2.88	1.238
Your QoL during COVID-19 pandemic	3.67	1.098
Your general health during COVID-19 pandemic	3.76	1.099
Your personal relationships with friends and relatives during COVID-19 pandemic	3.21	1.244
To what extent does any connection to a spiritual being help you to get through hard times of COVID-19 pandemic	3.40	1.333
To what extent does faith give you comfort in your daily life during COVID-19 pandemic	3.59	1.216
Support you get from your friends during COVID-19 pandemic	3.44	1.232
Support for sustainable tourism (Dependent variable)	**3.81**	**1.124**
I would cooperate with other stakeholders (tourists, public sector, tourism enterprises, etc.) in order to plan and develop sustainable tourism initiatives	3.74	1.273
I would participate in planning and developing sustainable tourism	3.77	1.227
I would participate in the promotion of sustainable tourism, conservation, and environmental education.	3.71	1.291
I would participate in cultural exchange with tourists	3.74	1.305
I support sustainable tourism development	4.11	1.076

Source: Authors' research

In order to determine the dimensions within the general QoL variable specific to the study context, items used to measure the QoL during pandemics were subjected to factor analysis (Principal component analysis). According to Bartlett's Test of Sphericity, the statistical significance is 0.000 and the Kaiser-Meyer-Olkin value is 0.904, meaning that the data are suitable for factor analysis. Two factors have eigenvalues exceeding 1, which is followed by a break after the second one on the Scree plot. The Varimax rotation was used. The eigenvalue of the first factor named *General quality of life during the pandemic* is 4.298, explaining 39.07% of the variance. This variable depicted items of general importance for residents' QoL during the pandemic, including environmental, economic and social QoL aspects. The second factor named *Spirituality and support from friends during the pandemic* explains 26.23% of the variance and has an eigenvalue of 2.885. This variable encircled the distinct nature of residents' (spiritual) perspective of QoL during the pandemic, highlighting the importance of spiritual, faith and social support while residents were challenged with a health crisis. Cronbach's Alpha for the first factor is 0.904, and 0.827 for the second, indicating strong internal consistency. The loadings for both factors are all above 0.5. The correlation between factors is 0.592.

The mean rate of 3.48 for the second-factor *Spirituality and support from friends during the pandemic* indicates that residents of Vrnjačka Banja perceived spiritual practices, faith, and support they get from their friends during the pandemic as more favourable in contrast to some general aspects of their QoL (Table 3).

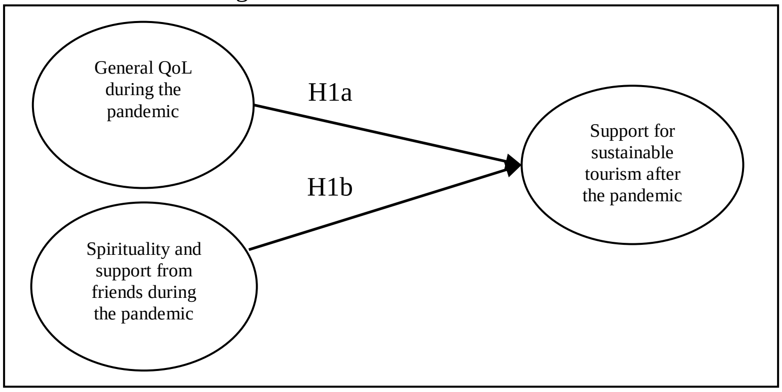
Table 3: Residents' QoL during the pandemic

Quality of life during the pandemic	**Mean value**	**St. dev.**	**Factor loadings**	**Cronbach's Alpha**
Factor 1: General quality of life during the pandemic (Eigenvalue = 4.298; Explained variance = 39.07%)	**3.285**	**0.912**		**0.904**
The quality of your physical environment during COVID-19 pandemic	3.24	1.146	0.846	
The availability of information needed in your daily life	3.28	1.168	0.788	
Your feelings of being safe in your daily life during COVID-19 pandemic	3.28	1.139	0.782	
Your income during COVID-19 pandemic	2.95	1.300	0.771	
Access to health services during COVID-19 pandemic	2.88	1.238	0.714	
Your QoL during COVID-19 pandemic	3.67	1.098	0.639	
Your general health during COVID-19 pandemic	3.76	1.099	0.549	
Your personal relationships with friends and relatives during COVID-19 pandemic	3.21	1.244	0.563	
Factor 2: Spirituality and support from friends during the pandemic (Eigenvalue = 2.885; Explained variance = 26.23%)	**3.476**	**1.086**		**0.827**
To what extent does any connection to a spiritual being help you to get through hard times of COVID-19 pandemic	3.40	1.333	0.857	
To what extent does faith give you comfort in your daily life during COVID-19 pandemic	3.59	1.216	0.862	
Support you get from your friends during COVID-19 pandemic	3.44	1.232	0.717	
Total variance explained	65.30%			

Source: Authors' research

Based on the exploratory factor analysis results dimensions within the QoL were identified, and therefore initial research model was revised to correspond to the novel understanding of the QoL during the pandemic in the context of Vrnjačka Banja tourism destination. Thus, a revised research model was proposed accompanied by supported hypotheses (Figure 2).

Figure 2: Final research model



Notes for model: H-hypothesis number
Source: Authors' research

To determine the model's internal consistency Cronbach's alpha values were analyzed. Cronbach's Alpha for the variable labelled *General quality of life during the pandemic* was 0.904, while for the second factor named *Spirituality and support from friends during the pandemic* was 0.826, indicating strong internal consistency. Finally, internal consistency was confirmed also for the variable labelled *Support for sustainable development* with Cronbach's Alpha coefficient of 0.948. All of Cronbach's alpha values were above the minimum threshold of 0.7 (Nunnally, 1978). Based on the confirmative factor analysis adequate model fit values were achieved (Table 4). Value χ^2/df is 3.16 which is below the threshold of 5.0 (Wheaton et al., 1977). The values of the CFI, TLI and IFI indices were also above the threshold of 0.9 (Byrne, 1998), while RMSEA is lower than 0.1 (Steiger, 1990).

Table 4: Model fit indices

Fit indices	**Recommended value**	**Value in the model**
χ^2 / df	< 5	3.16
CFI	> 0.9	0.925
TLI	> 0.9	0.911
IFI	> 0.9	0.926
RMSEA	< 0.1	0.095

Source: Authors' research

The proposed model has acceptable values for convergent validity, discriminatory validity, and composite reliability, as both values of CR (composite reliability) and AVE (average variance extracted) were above the threshold of 0.7 and 0.5 respectively. Moreover, AVE values were identified to be greater than the squared coefficient correlation between them (MSV and ASV) concluding that discriminatory validity was not an issue in the study (Table 5).

Table 5: Correlation matrix

	CR	**AVE**	**MSV**	**ASV**	**Spirituality**	**General QOL**	**Support ST**
Spirituality	0.837	0.632	0.461	0.368	0.795		
General QoL	0.905	0.545	0.461	0.334	0.679	0.739	
Support for ST	0.948	0.785	0.276	0.241	0.525	0.455	0.886

Notes: Spirituality – Spirituality and support from friends during the pandemic; General QoL – General quality of life during the pandemic; Support for ST – Support for sustainable tourism.

Source: Authors' research

The SEM analysis findings were presented in Table 6. Both *Spirituality and support from friends during the pandemic* and *General quality of life during the pandemic* as domains of *Quality of life during the pandemic* emerged as statistically significant antecedents of *Support for sustainable tourism*, confirming both main hypotheses (H1) and supported hypotheses (H1a and H1b). The stronger impact on *Support for sustainable tourism*, was identified for *Spirituality and support from friends during the pandemic* ($\beta = 0.402$, $p < 0.01$) in contrast to the *General quality of life during the pandemic* ($\beta = 0.182$, $p < 0.05$).

Table 6: SEM analysis findings

Relations	**β coefficient**	**Significance**	**Hypotheses testing**
H1a: Spirituality → Support ST	0.402	0.001	Supported
H1b: General QOL → Support ST	0.182	0.042	Supported

Notes: Spirituality – Spirituality and support from friends during the pandemic; General QOL – General quality of life during the pandemic; Support ST – Support for sustainable tourism.

** significance at level of 0.01; * significance at level of 0.05

Source: Authors' research

5. Discussion and concluding remarks

The results of this study indicate that residents of Vrnjačka Banja perceived neither low nor high, but rather medium QoL during the pandemic. Interestingly, when most of the destinations were closed for international travel (Lin et al., 2022), the investigated destinations have been exposed to the appeal of all the tourists that otherwise would spend their vacations abroad. The study acknowledged the unique residents' QoL dimensions specific to the COVID-19 pandemic (*General quality of life during the pandemic* and *Spirituality and support from friends during the pandemic*), in contrast to environmental, social and spiritual QoL aspects identified within Algahtani et al. (2021) study. Aside from study insight into residents' perceptions of QoL during the current pandemic, its effect on support for sustainable tourism development was also assessed. Based on the author's knowledge, there is an evident lack of empirical studies on this specific topic, in particular when residents' QoL was used to project their future behaviour concerning regenerative tourism practices, such as sustainable tourism (notable exception found within Matteucci et al., 2021). Since both investigated pandemic QoL domains had a significant effect on support for sustainable tourism, it could be concluded that residents' perception of QoL during pandemic has the initiated the urge to transform tourism in Vrnjačka Banja into a more sustainable form, confirming previous literature (Demirović Bajrami et al., 2020; Uysal et al., 2016). Study findings also support the applicability of stakeholder (Hadinejad et al., 2019) and bottom-up spillover theory (Kim et al., 2021) in the context of touristified destination, such as Vrnjačka Banja, emphasizing the importance of the residents as a key stakeholder group in the destination capable to utilize QoL to foster sustainable tourism initiatives as a part of the spillover process.

Thus, as managerial implications of the study, it is evident that planning strategies for sustainable tourism development in Vrnjačka Banja should be firmly grounded on the residents' QoL perception, or 'QoL-centred sustainable tourism' (Mihalič & Kuščer, 2021). Finally, the proposed study suggests that residents' QoL could act as a resilience instrument for the tourism industry during the current crisis (Adams et al., 2021) and also as a means of securing a more sustainable future. Following Matteucci et al. (2021, p. 180) "alternative governance paradigm", residents QOL require "contextualised political actions for the benefit of residents". Destination managers, especially those in small, vulnerable destinations exposed to considerable pressure of tourism (such as spas) should work on both residents' spiritual and functional aspects of living in order to drive its development towards sustainability.

The study is limited to the residents' QoL perspective, while other stakeholder groups, such as tourists were ignored. Moreover, due to the peculiarities of the investigated spa tourism destination, limited generalizability on a global scale could be achieved, thus additional studies in different geographical contexts would be appreciated. The study does not include the residents' perceptions of the tourism impacts (both benefits and costs) during a crisis, and their correlation with support for sustainable tourism, which might be an interesting add-on to current research efforts.

Conflict of interest

The authors declare no conflict of interest.

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The effects of organizational factors on work outcomes – The role of employee resilience in hospitality kitchens

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Abstract: This paper aims to examine the role of relationships between organizational factors, employee resilience and work outcomes, in order to test the mediatory role of employees in hospitality kitchens in Serbia. The paper represents a quantitative study; the research was conducted through a questionnaire which served as a means for collecting reliable data. The data were obtained from 182 respondents employed in hospitality kitchens in Serbia. The results of this research have shown that resilience has a mediatory role between organizational factors and work outcomes. This paper deals with an important research subject, which is currently not given enough attention, which is indicated by the fact that this type of research has not yet been conducted in hospitality kitchens.

Keywords: organizational factors, work outcomes, employee resilience, hospitality kitchens
JEL classification: J24 J28

Efekti organizacionih faktora na ishode posla – Uloga rezilijentnosti zaposlenih u ugostiteljskim kuhinjama

Sažetak: Ovaj rad ima za cilj da ispita ulogu odnosa između organizacionih faktora, rezilijentnosti zaposlenih i ishoda posla, sa namerom da se testira posrednička uloga zaposlenih u ugostiteljskim kuhinjama Srbije. Sam rad predstavlja kvantitativnu studiju. Ispitvanje je obavljeno uz pomoć upitnika koji je služio kao sredstvo za prikupljanje pouzdanih podataka. Podaci su prikupljeni od 182 ispitanika zaposlena u ugostiteljskim kuhinjama Srbije. Rezultati istraživanja su pokazali da rezilijentnost ima medijatornu ulogu između organizacionih faktora i ishoda posla. Sam rad se bavi bitnom istraživačkom tematikom, kojoj trenutno nije posvećeno dovoljno pažnje, što potvrđuje činjenica da ovakav model istraživanja do sada nije sprovođen u ugostiteljskim kuhinjama.

Ključne reči: organizacioni faktori, ishodi posla, rezilijentnost zaposlenih, ugostiteljske kuhinje
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1. Introduction

Without satisfied employees, there are no satisfied consumers either, especially when it comes to service industries such as hospitality, precisely because of the creation and provision of services (Huertas-Valdivia et al., 2019; Zhao & Ghiselli, 2016). Increased employee satisfaction leads to increased consumer satisfaction, and this is the reason why the key task of a company's management is to enable and encourage the development of employees. This investment pays off many times over, because in this way not only employees are affected, but also consumers (Blešić, 2019). Many factors affect both employee and consumer satisfaction and as per Robbins (2003), they can be classified into two large categories of organizational and personal factors. It has been proven that the resilience of employees significantly affects work performance such as job satisfaction, employees participation and lesser inclination towards work abandonment in the organizational context (Hodliffe 2014). However, there is a lack of studies in the hospitality industry which are focused on investigating the effects of employee resilience and its potential circumstantial impact on the organisation factor and work result ratio (Saad & Elshaer 2020). Even though the abovementioned relations are tested by Hodliffe (2014) in the context of a construction company, the authors claim the usefulness of the model testing in a service-oriented industry such as hospitality. The key assumption is that the resilience in the hospitality industry, with the frontline employees being in direct contact with the client, will show bigger effects and be a lynchpin between all organizational factors and work results (which is not entirely proven in the Hodliffe study).

Organizational factors include different organizational variables that can affect the levels of satisfaction of the employee in certain ways. Organizational factors include (Spector, 1985):

- leadership,
- work conditions,
- culture of learning,
- interpersonal relationships,
- the opportunity for improvement,
- reward system.

Personal factors related to the possibility for the improvement of the individual affect employees in the way that they are becoming aware of the importance of education and development of their own abilities (Peccei & Rosenthal, 2000). Employees in the organization strive for personal improvement, which is supported and encouraged, as the organization is gaining better and more professional staff.

The modern professional environment goes through constant changes, because of the intensive global competition, technological innovations and waverings in economic and consumptive trends, which are getting more rapid and unpredictable (Malik & Garg, 2017). Because of this market state, organizations have to be able to continuously renew and protect their human capital, providing the workforce that can adapt to dynamic challenges, followed by keeping positive state of mental health and performance, same as evaluating and reconsidering their decisions (Duchek, 2019).

In the modern environment, the service sector, especially hospitality, requires not only an increase in productivity and a reduction in costs of business operations but also great attention is devoted to positive communication between consumers and employees (Teng & Borrows, 2009). In the interaction with a guest, employees experience many feelings. Service orientation is a result of employee satisfaction and implies an expression of those emotions that guests find favorable (Lee et al., 2016).

Resilience is a term introduced into the Serbian language from English, and it is difficult to translate it into one word because its meaning is multi-layered. Perhaps it is best explained by the phrase "resistance to negative stimuli" (Alamene et al., 2017; Radović-Marković, 2017). How employees deal with everyday stress can be equally important for efficiency and productivity at work as well as the psychological and physical health of employees themselves. The research on this concept in the hospitality industry is particularly important considering the fact that the level of stress is increasing in all sectors that have direct contact with clients, so resilience is necessary to provide quality service. The needs and demands of customers are now more demanding than ever, so meeting their expectations is key to the service economy. The current state of the market puts additional pressure on workers who need to become more resilient – "how to quickly design and implement positive adaptive behaviors in accordance with the immediate situation, with minimal stress".

This paper aims to identify the effects of organizational factors and employee resilience on work outcomes in hospitality kitchens, to investigate the influence of organizational factors and resilience of employees on their satisfaction, participation in the organization and the intention to leave the job.

2. Background

Working conditions are factors that affect the workplace, that is, ensuring adequate conditions for work and creating a working environment that is adapted to the needs of the individual and that enables the expression of his potential, for the best possible business performance (Larsen, 2002). Factors related to the creation of interpersonal relations in the company are: creation of a positive working atmosphere, concern for the private life of employees, as well as a positive attitude of management towards employees (Mitchlitsch, 2000). The social context plays a significant factor in job satisfaction. Typically, employees are satisfied with their work if they cooperate with colleagues with whom they have developed and cherished close personal relationships including a pleasant social atmosphere at work as well. This view is especially true for people who are not particularly interested in mere career development. When an employee is on friendly terms with the management, if the management praises the employee more frequently, checks up their work and progress and has already built an open and trustworthy relationship with them, then the satisfaction of the employees is higher. It must also be noted that national culture can have deep impact on the importance of this job satisfaction factor. In collectivist cultures, the importance of warm and amiable social atmosphere and the absence of conflict is a very important factor in job satisfaction for most employees, even more important than the level of salary. Some recent investigations show that this is absolutely true for all companies with a collectivistic culture (Koderman, 2021). Based on the above, we can derive the following hypothesis:

X_1: Organizational factors have a positive influence on job satisfaction.

Lawler (2005) suggests that rewards linked to specific performance and result objectives incite and encourage employees' motivation, thus enhancing employee performance. In the same manner, it is underlined that employee empowerment refers to the allocation of power and responsibility among all levels of employees, leading to their independent development, innovation, motivation and decision-making (Kumar et al., 2009).

Additional responsibility for the effectiveness of decision-making enables employees to make significant contributions to improvement processes (Ooi et al., 2007; Sadikoglu & Zehir, 2010). Empowering and involving employees also creates a sense of contribution, initiates action and leads to better employee satisfaction (Jun et al., 2006), which consequently improves quality performance. A certain level of employee inclusion in the process raises employees' ability to solve problems leading to the product/service quality improvement and product rework reduction. Based on the above, we can derive the following hypothesis:

X_2: Organizational factors have a positive influence on attitudes to work.

Gallopin (2006) defined it as the capacity of a company to grapple with changes, adapt to and recover from negative influences stemming from the business environment. The key is the ability to take processes with a specific view to enhancing vulnerability and comprehending the interconnections and interdependencies between business processes, information and technology within the enterprise (Gomes, 2015). Countries that have well-developed and precisely tailored business plans and hazard action plans, as well as company resilience assessment programs, typically manifested a higher resilience index than those that did not. This concept also appears in interdisciplinary fields focusing on complex systems, such as enterprises, infrastructure systems and ecosystems (Carpente et al., 2001).

Considering the significance of resilience for organizations, Stephenson (2010) argues that organizational resilience directly affects and assists in the speed and success of community recovery after a crisis or disaster. Creating flexible companies is a strategic initiative that changes the way a company operates and connects its competitiveness (Sheffi & Rice, 2005). The authors emphasize that organizational resilience can be attained by cutting back on vulnerability and increasing flexibility, which points out to the capacity of a company to return to the 'right track' when a disturbance occurs (Naz, 2020; Stokes et al., 2019). When the organizational resilience of small and medium-sized companies is at stake, some authors specifically deal with the difference between large and small companies (Sullivan-Taylor & Wilson, 2009). It is argued that small and medium-sized companies appear to be more vulnerable than large companies, i.e. their resilience to climate and other disasters is much lower, given that they are not usually insured against disasters and have limited access to the credit choices. Additionally, creating organizational resilience hinges on employees and the management (Vogus & Sutcliffe, 2007) working in an organization that teaches them how to develop organizational systems capable of weathering turbulent conditions in the environment (Burnard & Ran, 2011). The results of research conducted in 2015 in hotels in Serbia showed that all organizational factors (learning culture, leadership, employee participation in the organization, corporate communication) have a strong positive collective relationship with employee resilience. This means that the more an organization, i.e. a hotel, dedicates itself to its employees, the higher their development will be. It is important to note that there are individuals who are resilient despite working in a non-resilient organization, as well as members of an organization who are only collectively resilient while having low resilience as individuals. This data indicates that individual resilience is not a guarantee of community resilience as well as that resilience of a community cannot guarantee the development of an individual (Trkulja, 2015).

In the field of tourism and hospitality, there is scarce literature linking employee resilience, organizational factors, and work outcomes. A study by Kuntz et al. (2017) conducted in four different organizations (one of which is from the field of tourism/hospitality) observed a correlation between regulatory profiles, workplace resources, and employee resilience. A recent study by Dai et al. (2019) conducted on employees in travel agencies discovered that employee resilience has a positive impact on their intention to stay in the organization as well as their work engagement.

Based on the above, we can derive the following hypotheses:

X_3: Resilience has a negative influence on the intention to leave the job.

X_4: Resilience has a positive influence on attitudes to work.

X_5: Resilience has a positive influence on job satisfaction.

Organizational learning occurs as a result of involving members of an organization in an exchange of knowledge and experience; we should differentiate between formal and informal organizational learning (Lau et al., 2019). It brings changes whose primary aim is to adapt the organization to changes in the environment and improve the competencies of the organization (Bishop, 2020; Lau et al., 2016).

Organizations with a strong culture of learning see changes as an opportunity for learning and improvement, not as a threat. Such cultures signal that the environment is rich in factors that promote resilience (e.g. feedback on the performance, support of colleagues and managers, responsibility for the results) and encourage the development of adaptive and proactive behaviors of resilience (Kuntz et al., 2016). Scientists have established a connection between the culture of learning and increased responsiveness to changes and more recently with the change of adaptability through the development of skills for facing current changes at work (Van Breda-Verduijn & Heijboer, 2016).

Limited empirical evidence so far suggests a positive relationship between learning culture and resilience (Marsick & Watkins, 2003). When offered constant possibilities to learn and improve their skills, employees feel safer disputing a status and experimenting with new ideas, thus becoming more adaptable and flexible (Malik & Garg, 2017). Such continuous learning improves a set of skills and a repertoire of behaviors, which facilitates adaptation to new or non-routine work events. Based on the above, we can derive the following hypotheses:

X_6: Organizational factors have a positive influence on resilience.

A key factor for encouraging organizational learning is leadership that prompts employees toward organizational learning (Richard, 2020). Good management or leadership is best reflected through corporate communication (Salehzadeh, 2019). Goodman (2000) says that corporate communication is a set of internal and external strategic communicational activities done by professionals in the name of an organization. It is characterized by the creation and maintenance of strong internal and external relations.

A set of all organizational factors best reflects employee satisfaction. Job satisfaction is defined as a pleasant feeling that arises from the perception that one's job is fulfilling or that it enables the fulfillment of important business values (Kolak, 2020). Happy employees are productive employees. The most frequently used definition of job satisfaction is: "a positive emotional state or satisfaction which is a result of one's work evaluation or work experience". Feelings, knowledge, and thoughts are incorporated into the evaluation of employee satisfaction. One of the most influential factors that affect job satisfaction is the perception of the job itself. The most significant situational factor that affects job satisfaction is the job itself, which is connected with the self-evaluation of employees in the workplace (Jakšić & Jakšić, 2014).

The intention to leave work is defined as an employee's subjective estimate of the possibility of leaving the organization in the short or long term (Dai et al., 2019; Theron et al., 2014). Voluntary fluctuation or voluntary leaving a job is particularly important for organizations because employees who achieve good results at the workplace have more opportunities for employment outside the organization, so it is more probable that they will leave the organization (Dai et al., 2019), which is why high rates of voluntary fluctuations can have adverse effects on organizational performances.

Whether an employee will leave the organization or not also depends on their perception of whether leaving the job will be easy or not for the other side. Their perception of the ease of leaving the organization is influenced by many factors (Milikić, 2010). A group of factors that influence an employee's perception of the ease to leave the organization includes organizational factors and factors outside the organization where employees work, and they are related to characteristics of the labor market such as representation and strength of unions, unemployment rate, supply and demand for a specific employee profile types, etc. (Cotton & Tuttle, 1986). Based on the above, we can derive the following hypothess:

X_7: Organizational factors have a negative influence on the intention to leave the job.

Influence of organizational factors on work outcomes and employee resilience

Brooks (2005) defines resilience as the ability to successfully reduce stress and pressure, same as the capability to deal with life difficulties in a careful, optimistic, decisive, responsible and compassionate manner. Moreover, employee resilience can be viewed as the capacity of employees to predict future circumstances, adapt to changes, and persevere after exposure to changes or difficulties in the workplace (Alamene et al., 2017). Concerning the workplace, employee resilience is seen as the capability to overcome negative situations such as difficulties, conflicts, and lack of success (Zhu et al., 2019). Resilience is considered to be the most important positive characteristic among all other aspects of dealing with stress (De Clercq et al., 2021). Luthans et al. (2007) assumed that four factors of psychological capital (self-efficacy, optimism, hope and resilience) have cognitive values and they defined psychological capital as “individual positive psychological state of development” (p. 542). Resilient employees are less likely to allow insecurity at work to change their view of their relationship with the organization. They are less likely to express negative reactions to insecurity at work, such as harmful interpersonal relations (Shoss et al., 2018).

An organization can create and strengthen employee resilience, and these variations in the levels of employee resilience are susceptible to changes as far as their availability and practical use is concerned (Näswall et al., 2019). That is why we may assume that organizational factors affect employee resilience in the workplace context. In this regard, Kuntz et al. (2017a) also argued that employee resilience is a behavioral ability supported by an organization. Accordingly, it is in the interest of organizations to identify organizational factors that can help employees to increase resilience (Kuntz et al., 2017).

In terms of organizational factors influencing resilience, Malik and Garg (2017) showed that a learning organization has a positive influence on employee resilience and participation in the organization, whereas employee resilience proved to be a mediator in the regression between a learning organization and work engagement. Hodliffe (2014) also discovered a positive influence of a culture of learning on employee resilience. Pramanik et al. (2020) found a strong positive correlation between resilience and the work engagement of employees in four-star hotels in Jakarta. Moreover, empowering leadership, a proactive personality and optimism were significantly positively connected with resilient behavior (Nguyen et al., 2016). Leadership is significantly related to tolerance of incivility in the workplace, which can be considered a form of individual resilience (Richard, 2020; Välikangeas, 2020). A study by Kim and Beehr (2018) showed that empowering leadership positively affects employee retention and psychological involvement, which can result in greater work engagement. Luthans et al. (2005) discovered that resilience affects the performance of the employees. A study conducted by Kašpárková et al. (2018) confirmed positive correlations between resilience and work performance: job satisfaction and work engagement. Scientists discovered that resilience had a positive, significant, and direct influence on job satisfaction. According to Luthans (2002) empirically, resilience is related to job performance, organizational commitment and job satisfaction. A study by Alola and Alola (2018) conducted in high-category hotels in Nigeria discovered that incivility in the workplace is unfavorable and that it significantly correlates with resilience. Resilience proved to be of great importance for general managers of hotels and their essential condition for the regulation of emotions. The study by Karatepe (2015) on the first employees in the hotel industry showed that resilience is one of the best indicators of psychological capital. In addition, Zhang et al. (2017) suggest that more resilient employees are more engaged and persistent in their work.

X_8: Resilience has a mediating role between organizational factors (a culture of learning, leadership, participation of employees, and corporate communication) and work outcomes (job satisfaction, attitudes to work, and intention to leave the job).

3. Materials and methods

A survey questionnaire used in this research consists of four parts. The first part measures the sociodemographic characteristics of respondents (gender, age, education, monthly salary, job, hotel category, years of work experience in hospitality, and years of work experience in a specific hotel/restaurant). The second part of the questionnaire measures employee resilience using the scale with 13 items (EmpRes) developed by Hodlliffe (2014). The third part examines organizational factors such as a culture of learning (a scale developed by Marsick & Watkins, 2003), leadership, and participation of employees (a scale by Bouckenooghe et al., 2009), modified by Hodliffe (2014)), and corporate communication (Hodliffe, 2014). The fourth part of the questionnaire measures work outcomes through attitude to work (Saks, 2006), job satisfaction, and the intention to leave the job (Vandenberghe & Bentein, 2009).

All statements were rated on a 7-point Likert scale (1 – I completely disagree, 7 – I completely agree). The obtained data were processed with the Statistical Package for Social Sciences, version 23 – SPSS. The research sample consists of employees in hotels and restaurants in Serbia. Research methods used are desk research of domestic and foreign literature, the analysis and synthesis method, survey research, and statistical methods: reliability (Cronbach's alpha), regression analysis, as well as descriptive analysis. Tabular displays will be used to display data and the results.

The research was carried out in the period from July to October 2021. An online questionnaire was also created and distributed via email to hotels and restaurants in Serbia. Employees in the hospitality industry participated in the research. In the survey, a total of 250 questionnaires were distributed. Of that number, 220 questionnaires were collected. There were 38 incorrect or incomplete questionnaires which were excluded from the research, so the total number of survey questionnaires collected in hotels for further analysis was 182.

4. Results and discussion

The next part of the paper presents the sociodemographic characteristics of the respondents.

Table 1: The sociodemographic characteristics of employees

Variable	N	%	Variable	N	%
Gender			**Income (expressed in RSD)**		
Male	122	67	Under 20.000	7	3.8
Female	60	33	20.000-30.000	8	4.4
Age			30.000-40.000	25	13.7
Up to 20 years of age	11	6	40.000-50.000	33	18.1
21-30 years of age	95	52.2	Over 50.000	109	59.9
31-40 years of age	46	25.3	**Number of years of work experience in hospitality**		
41-50 years of age	19	10.4	Up to 1 year	6	3,3
51-60 years of age	9	4.9	1-3 years	19	10.4
Over 61 years of age	2	1.1	3-5 years	27	14.8
Number of years of work experience in the present company			5-10 years	62	34.1
Up to 1 year	54	39.7	Over 10 years	68	37.4
1-3 years	63	34.6	**Hotel categories**		
3-5 years	45	24.7	**	1	0.5
5-10 years	17	9.3	***	5	2.7
Over 10 years	3	1.6	****	25	13.7
Level of education			*****	14	7.7
High school	82	45.1	**Current job position**		
Higher education or Bachelor’s degree	89	48.9	Leading (executive chef, assistant sous chef…)	61	33.5
Magistrate or Master’s degree	11	6	Cook, pastry cook, pizza chef …	106	58.2
Organization where you are employed			Assistant cook	15	8.2
Hotel	48	26.4			
Restaurant	134	73.6			

Source: Authors’ research

Table 1 shows the sociodemographic data of the respondents. The largest portion of respondents is male, which is 34% more compared to female respondents. If we observe the data concerning the age of employees in the kitchen, we can see that half of the employees are between 21 and 30 years old (52.2%), whereas the smallest number of employees are over 61 years old, as well as employees between 51 and 61 years of age. Employees between 31 and 40 are present with a share of 25.3% of respondents, and the next age group, between 41 and 50 years of age, has a share of 10.4% of respondents.

The next observed variable in the sociodemographic segment is the level of education. Employees in kitchens mostly have a secondary level of education (48.2%), but almost the same percentage of employees have higher education (45.5%), which tells us that highly educated staff work in the hospitality industry in Serbia. Another significant characteristic of employees is the amount of monthly income (expressed in dinars). The results of this sample have shown that the largest share of employees has a monthly salary of 50,000 dinars (59.9%), while a very small portion of employees has salaries between 20,000 and 30,000 dinars. It is expected that this characteristic of employees will have a great influence on outcomes related to work (job satisfaction and attitude towards work, and intention to leave the job). As for the years of work in an organization, at the time of the survey, the largest share of employees (39.7%) worked for one year, followed by a group of respondents who worked in one organization for between one and three years (34.6%). What is noticeable during the research is that cooks are predominantly employed in restaurants – as many as 73.6% of respondents. As for the respondents who work in a hotel (26.4%), they are mostly employed in four-star (13.7%) or five-star (7.7%) hotels.

4.1. The analysis of the reliability of the questionnaire

The next part of the paper presents the analysis of the reliability of results for all examined determinants.

Table 2: The results of the analysis of reliability for determinants of organizational factors, the resilience of employees, and outcomes related to work

Variable	Reliability (Cronbach's alpha)
Organizational factors	
A culture of learning	0.912
Leadership	0.971
Participation of employees	0.915
Corporate communication	0.961
Employee resilience	0.922
Work outcomes	
Attitudes to work	0.898
Employee satisfaction	0.765
Intention to leave the job	0.875

Source: Authors' research

The obtained results indicate that the measuring scales used for the given variables (Table 2) are reliable and that they exceed the recommended value of the Cronbach's alpha coefficient of 0.7.

4.2. Descriptive statistical analysis

Attitudes of employees in the hotel and restaurant kitchens in Serbia concerning their perception of certain organizational factors were examined, and the obtained results are shown in Table 4. The employee perception of a culture of learning in their organization has 4.07 score, which means that employees partly agree that their organization practices and supports learning. Employees partly agree that mistakes are openly discussed in their organizations to learn from them, and that honest feedback and required information are provided quickly and effortlessly. The position with which employees partly disagree is that hotel employees are rewarded for exploring new and improved ways of doing work. The standard deviation for all statements that measure the perception of a culture of learning is high, which means that large oscillation is present in the responses and that there are employees with a distinctly low perception of a culture of learning.

Regarding the perception of supporting leadership, the mean score obtained in this research is 4.11, which indicates that employees believe their leaders partly support them. The highest score was noted for the statement that the manager explains the rules and expectations to employees (4.57) and that they are worried about the welfare of employees (4.08). The two statements have lower standard deviation coefficients. It shows that employees believe managers partially involve them in business operations by encouraging them to participate. They also believe managers mainly explain the rules and expectations to them, with a lower coefficient of standard deviation (1.973) compared to other statements. What seems interesting about leadership is that all statements are generally rated the same with no significant variation.

Table 3: The results of descriptive statistical analysis for organizational factors

Factors	**M**	**SD**
Perception of a culture of learning	4.073	1.705
Leadership	4.114	1.894
Participation of employees	3.940	1.789
Corporate communication	4.057	1.939

Source: Authors' research

Employees rated the perception of involvement in the organization with a mean score of 3.94, and there is a higher degree of standard deviation in all statements. It is the same with the perception of corporate communication (score 4.05). At the same time, it should be noted that frequent and effective communication is present between departments, while to the slightest extent, employees believe that they receive information regarding goals and realization of that goal, as well as a general attitude that communication is the main feature of the organization. The standard deviation is high in most statements, which indicates an uneven situation concerning how employees see and experience their organization.

Table 4: The results of descriptive statistical analysis for employee resilience

Factors	**M**	**SD**
Employee resilience	5.088	1.725

Source: Authors' research

Table 4 presents the arithmetical means of the statement of the determinant of employee resilience. Employees in kitchens in Serbia believe that they learn from mistakes to the highest degree, thus improving their business (5.31), and the coefficient of standard deviation is the lowest for this statement. Next, they believe that they constantly revalue their performances and wish to improve them, that they know who to address if they need help, and not restrain themselves when they need to ask their manager for assistance. The biggest problem for employees is that they do not consider changes at work as opportunities to grow. This statement has the highest standard deviation coefficient (1.72506), which indicates that there are also employees who responded to this statement with a low score. Compared to all statements regarding employee resilience determinants, the statement that an invitation to an interview is considered an opportunity to evaluate their own business and advancement received the lowest score. That means that employees do not trust their organization enough or believe they will be rewarded for their work. The total score of resilience is 5.08, which indicates that employees are resilient at work. The findings of the study indicate that leadership and participation of the employees show a considerable positive impact on employee resilience. This claim is in accord with the previous studies which have confirmed the influence of organizational factors on the resilience of employees (Blešić et al., 2019; Kim & Beehr, 2018; Malik & Garg, 2017).

Table 5: The results of descriptive statistical analysis for job-related outcomes

Factors	**M**	**SD**
Attitude to work	4.877	1.573
Job satisfaction	3.791	1.346
Intention to leave work	3.111	1.864

Source: Authors' research

In Table 5, we can see that employees believe that they are fully committed to work and to what they do, as well as that they are highly interested in their job. Also, employees somewhat believe that they commit themselves to work to such an extent that they lose track of time and that they are highly involved in the business operations of their organization, i.e. much less than in the job itself, while they partly disagree with the statement that they think about what others are doing while they are at work. The total score of employees' attitudes to work, i.e. their commitment is 4.87, which shows that employees are committed to their work. The standard deviation is very low for this determinant, meaning that respondents' responses are predominantly uniform and that there was not much oscillation in the responses.

As to job satisfaction, employees are not satisfied with their jobs to a large extent (3.79). The statement that employees like working in the present organization have the highest value of standard deviation (1.898), which indicates that there is a higher number of respondents who disagree with the mean score for job satisfaction. The intention to leave the job was assessed with a mean average score of 3.11, which indicates that employees partly do not intend to leave the job to the extent that they do not have an attitude regarding this claim. However, we should note that the coefficient of standard deviation for all three statements is remarkably high, which means there is a large number of employees who definitely, and surely, want to leave the organization they work for when the opportunity arises.

4.3. Regression analysis

Standard (stimulation) multiple regression is used to assess the possibility of individual organizational factors (a culture of learning, leadership, participation of employees, and corporate communication) to predict employee resilience. Due to the lack of research on the abovementioned concept in the tourism and hospitality reference books, this study has been inspired by multiple investigation courses carried out at different organizations with a view to testing the model (the linking of the concepts) defined by Hodliffe (2014), with its application in the context of the hospitality industry. The following table shows the results of regression analysis of independent variables, i.e. organizational factor for a dependable variable of employee resilience.

The results have shown that all analyzed organizational factors have a significantly positive influence on employee resilience, whereas in research Hodliffe (2014) the participation of the employees was not significantly correlated with employee resilience. In the same manner, corporate communication was not considerably correlated with resilience in the paper Hodliffe (2014). The coefficient of determination (R^2) is relatively high in each of the presented models, which indicates that organizational elements predict employee resilience.

Observing the column (R^2), we can conclude that the highest percentage of variation of employee resilience as a variable dependable on organizational factors can be predicted by participation in corporate communication (42.2%) and a learning organization (30.5%). These data indicate that organizational factors (all four of them) affect employee resilience, but that they are not crucial if observed individually. Considering that all four organizational factors ranging from 28.7% to 42.2% affect the level of employee resilience, we conclude that hypothesis H6 is confirmed.

Table 6: The results of regression analysis between organizational factors and employee resilience

Independent variables	**Dependent variable – employee resilience**			
	R^2	**F**	**Sig.**	B
A culture of learning	0.305	76.755	0.000	$.552^{**}$
Leadership	0.287	70.008	0.000	$.536^{**}$
Corporate communication	0.422	127.820	0.000	$.650^{**}$
Participation of employees	0.420	126.817	0.000	$.651^{**}$

*******β significance at the 0.01 level*
Source: Authors' research

The next table presents the degree to which organizational factors and employee resilience can predict work-related outcomes, i.e. attitude to work, job satisfaction and intention to leave the job.

Table 7: Regression between organizational factors, employee resilience and work outcome

Independent variables	**R^2**	**F**	**Sig.**	**B**
	Job satisfaction			
A culture of learning	0.306	97.254	0.000	0.553^{**}
Leadership	0.366	103.528	0.000	0.605^{**}
Corporate communication	0.414	127.591	0.000	0.644^{**}
Participation of employees	0.474	161.530	0.000	0.689^{**}
Resilience	0.335	88.152	0.000	0.549^{**}
	Intention to leave the job			
A culture of learning	0.004	0.693	0.406	-0.062
Leadership	-0.320	15.881	0.016	-0.178^{*}
Corporate communication	0.112	2.267	0.134	-0.112
Participation of employees	0.010	1.904	0.181	-0.100
Resilience	0.018	3.120	0.079	-0.132
	Work ethics			
A culture of learning	0.191	42.501	0.000	0.437^{**}
Leadership	0.228	52.178	0.000	0.477^{**}
Corporate communication	0.265	64.924	0.000	0.515^{**}
Participation of employees	0.321	84.654	0.000	0.566^{**}
Resilience	0.652	328.072	0.000	0.808^{**}

*** β significance at the 0.01 level; * β significance at the 0.05 level*
Source: Authors' research

Based on the results in Table 7, we can state that resilience has a significant positive effect on job satisfaction and attitude towards work, while the assumed negative effect on the intention to leave the job has not been proven, which confirms hypotheses H5 and H4, whereas hypothesis H3 is rejected. When it comes to the effect of organizational factors on work outcomes, we conclude that all factors have a significant positive effect on job satisfaction and attitude towards work, while only a leadership dimension has a significant negative effect on the intention to leave the job. This confirms hypotheses H1 and H2, while hypothesis H7 is partly confirmed (only for one out of four dimensions).

Table 8: The mediatory effect of employee resilience on regression between organizational factors and work outcomes

Independent variable	**Dependent variable**	**Model 1**				**Model 2**			
		R^2	**F**	**P**	**B**	**R^2**	**F**	**p**	**β**
A culture of learning	**Job satisfaction**	0.306	97.254	0.000	0.553**	0.414	61.377	0.000	0.336**
	Intention to leave the job	0.004	0.693	**0.406**	-0.062	0.044	3.978	**0.000**	-0.194**
	Attitude to work	0.191	42.501	**0.000**	0.437**	0.652	163.178	**0.814**	0.013
Leadership	**Job satisfaction**	0.366	103.528	0.000	0.605**	0.457	72.854	0.000	0.414**
	Intention to leave the job	0.320	15.881	0.016	-0.178*	-0.105	10.108	0.000	-0.350**
	Attitude to work	0.228	52.178	**0.000**	0.477**	0.655	164.173	**0.238**	0.063
Corporate communication	**Job satisfaction**	0.414	127.591	0.000	0.644**	0.459	73.753	0.000	0.463**
	Intention to leave the job	0.112	2.267	**0.134**	-0.113	0.085	8.084	**0.000**	-0.342*
	Attitude to work	0.265	64.924	**0.000**	0.515**	0.652	163.217	**0.775**	0.017
Participation of employees	**Job satisfaction**	0.474	161.530	0.000	0.689**	0.502	87.086	0.000	0.543**
	Intention to leave the job	0.010	1.904	0.181	-0.100	0.080	7.477	0.000	-0.332**
	Attitude to work	0.321	84.654	**0.000**	0.566**	0.654	163.565	**0.324**	0.059

Source: Authors' research

The results presented in Table 8 show a mediatory role of employee resilience in regression between organizational factors and work outcomes. The full mediatory role of resilience has been achieved in mediation between:

- a culture of learning, intention to leave the job, and attitude to work (by introducing the resilience dimension, we change the impact of the organizational factors from insignificant to significant – intention to leave the job, and from significant to insignificant – attitude to work);
- leadership and attitude to work (the impact of organizational factor is changed from significant to insignificant);
- corporate communication, intention to leave the job, and attitude to work (by introducing the corporate communication dimension, the effect of organizational factors changes from insignificant to significant – intention to leave the job, and from significant to insignificant – attitude to work) and
- participation of employees and attitude to work (the effect of organizational factors changes from significant to insignificant).

Hereby we confirm that hypothesis H8 is partially confirmed.

Regression analysis results show that all analyzed organizational factors have a significant positive effect on employee resilience. The research data show that organizational factors (all four of them) affect employee resilience, but are not of crucial importance if observed separately. Considering that all four organizational factors ranging from 28.7% to 42.2% affect the degree of employee resilience, we conclude that organizational factors positively affect resilience. This indicates that each factor considered separately may be negligible, but that we should work on developing all four factors in order to get a resilient employee.

5. Conclusion

This research aims to examine employee resilience in hospitality kitchens in Serbia, as well as to examine its role in the business operations of hospitality facilities. The present study intended to test the correlation between employee resilience, organizational factors (a culture of learning, leadership, corporate communication, organizational commitment), and work outcomes (job satisfaction, work engagement, and intentions to fluctuate) in hospitality kitchens in Serbia. Resilience is in regression between organizational factors and work outcome. The main theoretical contribution is that it deals with a research gap in the field of tourism and hospitality because this is the first time this model has been applied in this research area.

The results of the research have shown that employees partly agree with the statement that their organization practices and supports learning. Employees partly agree that mistakes are openly discussed in their organization in order to learn from them, and that honest feedback and necessary information are given quickly and effortlessly. The statement with which employees partly disagree is that kitchen employees are rewarded for exploring new and improved ways of doing work, which indicates lower incomes in the hospitality industry. Research in the field of perception of supportive leadership gave us a mean score of 4.11, which shows that employees believe that their leaders partly support them.

Employees in the kitchens of selected hospitality facilities in Serbia believe they mostly learn from their mistakes, thus improving their business operations (5.13). They also believe that they constantly evaluate their performances and wish to improve them, that they know who to address when they need assistance, and not restrain themselves when they should seek help from their manager. The biggest problem for employees is that they do not believe that changes at work are growth opportunities. This problem in the economy could be avoided by encouraging the leader to see the team's mistakes, consider them, and then eliminate them with joint efforts.

Concerning all statements of employee resilience determinants, the worst-rated statement is that an invitation to an interview is perceived as an opportunity to assess one’s business operations and advancement. It means that employees do not trust their organization enough or assume that they will be rewarded for their work. The total score for resilience is 4.87, which shows that employees are committed to their jobs. As for job satisfaction, the research has shown that employees are not satisfied with their job to a large extent. This leads to a big contradiction that starts from the conclusion that employees do not have enough commitment to their organization, but they love their work and are very dedicated to it. This is evidenced by the very nature of job instability. Generally speaking, the problem could be overcome by contracts for permanent employment that would give employees security.

The intention to leave the job was evaluated with a medium average score, which indicated that employees partially do not intend to leave their jobs or to the point that they do not have an attitude regarding this statement. However, we should notice an exceptionally high coefficient of standard deviation regarding all three statements, which means that there is a large number of employees who definitely and surely want to leave the organization where they work when the opportunity arises.

The regression analysis has shown that resilience positively affects job satisfaction, as well as attitude to work. Also, regression analysis shows us that resilience does not negatively affect the intention to leave the job. Regarding the influence of organizational factors on work outcomes, the research has shown that all factors have a significant positive effect on job satisfaction and attitude to work, while only leadership has a significantly negative effect on the intention to leave the job. Research also showed that the H8 hypothesis is partially confirmed – that resilience has a mediatory role between organizational factors (a culture of learning, leadership, participation of employees and corporate communication) and work outcome (job satisfaction, attitude to work, intention to leave the job). This shows us that a resilient employee is a satisfied employee and has no tendency to quit his job, but also has a tendency to advance and improve. This research indicates to the management that it is very important to develop a resilient employee, but that this is only possible through the development of all the organizational factors.

Limitations and future research

The research sample consists of hotel and restaurant employees in Serbia. What can be seen as a limitation of the research is that hospitality facilities were included in the research by the method of convenient random sampling, and therefore, the results cannot be generalized. However, the size of the sample and the number of obtained responses are assumed to be sufficient for getting relevant results. The present study used a cross-sectional study in data collection. Although a cross-sectional study may prove practical, it could be hard to make a correct interpretation of causality. With this in mind, it would be more appropriate in future studies to use a longitudinal design that assesses correlations of the study associated with long-term collected data.

Future studies should carefully structure and examine the correlations of different roots of resilience. Determination of previous causes and effects of employee resilience, moderators, and reciprocal correlations between variables should be observed in more detail. In this regard, variables such as employee personalities should be studied concerning their resilience. Moreover, application of structural equation modeling can enable the determination of more complex correlations. This study empirically investigated resilience as a mediator between organizational factors and work results. Some other potential mediators such as stress symptoms, burnout syndrome, and negative affectivity may be investigated in future studies.

Conflict of interest

The authors declare no conflict of interest.

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Benefits from adopting technologies for the hotel's supply chain management

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Abstract: Information and communication technologies (ICTs) have a significant role in contemporary business activities, helping companies to improve quality, efficiency, flexibility and learning capacity, to reduce costs, and finally, to achieve competitive advantage. The aim of this paper is to examine the extent of implementation, as well as the benefits of ICTs used for the hotel supply chain management (SCM). A survey has been conducted involving 40 hotels in Serbia categorized as four- and five-star. The results reveal modest to scanty adoption of SCM-related ICTs among hotels in Serbia. Hotel managers find ICTs they use as very beneficial regarding: (1) more efficient and faster guest attraction, (2) more efficient communication with suppliers, (3) increased speed, (4) increased flexibility, (5) reduced costs and (6) improved guest services. It was also found that the size and affiliation of hotels do not impact the benefits, while the category is positively associated with benefits from using the SCM technologies.

Keywords: information and communications technologies (ICTs), supply chain management (SCM), hotel
JEL classification: M15, Z32

Koristi od korišćenja tehnologija za menadžment lancima snabdevanja u hotelskim preduzećima

Sažetak: Informaciono-komunikacione tehnologije (IKT) imaju značajnu ulogu u poslovnim aktivnostima, omogućavajući preduzećima da povećavaju kvalitet, efikasnost, fleksibilnost i sposobnost učenja, da smanjuju troškove i konačno, da dostignu konkurentsku prednost. Cilj rada je da se ispita u kojoj meri hoteli implementiraju i koje koristi ostvaruju od IKT za menadžment lancima snabdevanja. Sprovedeno je istraživanje u kome je učestvovalo 40 hotelskih preduzeća u Republici Srbiji kategorisanih sa četiri i pet zvezdica. Rezultati ukazuju na srednju do skromnu implementaciju IKT za menadžment lancima snabdevanja u hotelima u Republici Srbiji. Menadžeri percipiraju IKT koje koriste kao vrlo korisne za: (1) efikasnije i brže privlačenje gostiju, (2) efikasniju komunikaciju sa dobavljačima, (3)

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povećanje brzine, (4) povećanje fleksibilnosti, (5) smanjenje troškova i (6) poboljšanje usluge gostima. Takođe je utvrđeno da veličina i pripadnost hotela lancu ne utiču na korisnost tehnologija za menadžment lancima snabdevanja, dok je kategorija pozitivno povezana sa pomenutim koristima.

Ključne reči: informaciono-komunikacione tehnologije (IKT), menadžment lancima snabdevanja (MLS), hotel
JEL klasifikacija: M15, Z32

1. Introduction

Digital revolution can be considered as the most influential and widespread phenomenon in the contemporary business environment, challenging the traditional way of working and communicating. Information and communication technologies (ICTs) are intensively used in the hotel industry and various technological solutions have been developed to support activities, such as sales and marketing, communication, forecasting, planning, procurement, inventory control, etc. The purpose is to increase value added through enhanced visibility, accessibility, quality, efficiency, agility, safety and security. Not only activities within a hotel company are subject to technological innovation, but also those upstream and downstream its supply chain. A hotel's supply chain is a network including its suppliers, distributors and guests. The complexity of a supply chain may be different, depending on the number of participants. Short supply chains involve fewer members, whereas long supply chains contain multiple layers of suppliers and distributors, such as retail, wholesale, producer of specific products and producers of raw materials on the upstream side of the supply chain and tour operators, travel agencies, brokers, online portals, etc. on the downstream side, while transportation companies have important role both upstream and downstream a supply chain. ICTs are particularly important for managing long supply chains.

Supply chain management (SCM) involves integration of business activities intra-organisationally and inter-organisationally within a supply chain in order to exchange information efficiently, secure timely flow of products and services, and to react promptly to any request or change, with a goal to make the end-user satisfied. ICTs have enabled a real-time access to information between partners, contributing to greater visibility and more precise forecast, enabling in this way each participant to timely deliver products and services without keeping excessive inventories for unanticipated changes in demand. Additionally, integrated planning activities ensure alignment of goals and plans among supply chain partners. Such close cooperation is aimed at enhancing performance and competitive position of all supply chain members. Consequently, it can be argued that ICTs used for the SCM have a strategic importance. According to the Resource-based view, companies achieve competitive advantage based on superior resources, while distinction is made between physical, financial, human, and informational resources. ICTs therefore represent a company's informational resources, based on which a company may improve performance and competitive position.

According to the authors' knowledge, there is a rather scarce research dealing with ICTs implementation for SCM purposes in hotel companies. Therefore, the aim of this paper is to examine to what extent hotel companies in Serbia implement SCM-related ICTs and how beneficial these prove to be. Attention is further paid to examining the influence of hotel characteristics, such as size, category and affiliation on the level of utility of these specific technologies. The paper starts with literature review, including formulation of research questions, and description of the research methodology. It continues with data analysis, results presentation and discussion. The final part of the paper is devoted to conclusions.

2. Literature review

2.1. Supply chain management: development and challenges

Ayers (2006) defines a supply chain as processes involving the flow of materials, information, knowledge, and money between supply chain participants in order to satisfy the needs of end-users. Similarly, Mentzer et al. (2001) perceive a supply chain as an organisation or a collection of people who actively participate in the upstream and downstream movement of goods, services, money, and/or data from a source to a consumer. Despite the fact that "supply chain management" is a term that is frequently used in both academia and industry, there are still many misconceptions about what it actually entails. According to Grant et al. (2017), SCM is "an integrating function with a primary responsibility for linking major business functions and business processes within and across companies into a cohesive and high-performing business model" (p. 9). Min (2015) asserts that SCM goes beyond inter-functional coordination to include inter-organisational integration and coordination throughout the supply chain, so as to grasp synergy and improve decision-making. Ilić and Tešić (2016) follow up this view, asserting that when managing a supply chain it is necessary to observe the effects of business decisions not just on a specific company, but on the whole supply chain. Thus, participants in the supply chain enter in partnership relationships, sharing activities such as forecasting, planning, inventory control and reacting to disturbances. In other words, SCM transforms relationships among supply chain participants from purely transactional to sophisticatedly collaborative (Wallner et al., 2015).

SCM is popular within the hotel industry for a variety of reasons. Specific drivers include global sourcing trends, a focus on time and performance competition, and efforts to overcome rising environmental ambiguity, particularly during pandemics. Global suppliers are increasingly important to multinational and chain hotels. Supplier innovativeness, being determined by trust and consequently by intensive information flow, impacts supply chain integration and sustainable performance in the hotel sector (Espino-Rodríguez & Taha, 2022). Globalization and steadily increasing performance-based competition, as well as rapidly evolving technologies, rising prices, and food supply circumstances, all add to market volatility (Abou Kamar, 2022). Individual hotels and supply chains therefore must be more flexible due to the uncertainty, which usually requires more efficient, effective, and flexible SCM. Supply chain challenges in the hospitality industry have become more taxing as a result of today's consumers' unanticipated requests, employing and maintaining a skilled labour, rising competition and customer service expectations.

Progressively, studies centred on evaluating hotel SCM performance and factors influencing better collaboration within the chain network, most notable being those by Shi and Liao (2013), Thomas-Francois et al. (2017), and Hatamifar et al. (2018). Customer orientation, the quality of supply chains leadership, quality of supply chains strategies, quality of supply chains information, and process design all directly result in a rise of supply chain quality, according to Hatamifar et al. (2018). The service-oriented approach, as per Thomas-Francois et al. (2017) study on fostering better commitment between farmers and hotels, focuses on strengthening agriculture and tourism linkages. Strengthened ties based on local food are expected to help resolve socioeconomic problems (unemployment rate, low income of farmers, food insecurity and indigence). According to Shi and Liao (2013), collaborative trust and inter-dependence have a major impact on joint cohesiveness. Understanding supply chain relationships in hospitality services, according to their research, could provide useful insight for hospitality firms to manage supply chains.

There are numerous benefits suggested by Stadtler (2008) of effective SCM, such as allowing businesses to optimise their product flow (through precise demand and sales planning, as well as enhanced inventory control); information flow (accurate, responsive, comprehensive, and relevant information flow to prevent overlooked risks); and financial flow (to address cash flow challenges). However, there has been little guidance from academia on how to better manage this complex integration of relationships in difficult times. The significance of corporate culture, its compatibility with various business units, business process types, and technical and technological support in supply chains were all largely neglected (Lambert & Cooper, 2000). As a result, supply chain process integration and technological reengineering should be managed to improve overall supply chain process efficiency and effectiveness. It is critical that the benefits derived are distributed equitably. However, recent cybersecurity incidents have brought to light the negative effects on the economy, politics, and society. These incidents show that supply chain security is now a concern (Melnyk et al., 2022).

2.2. The rise of technological applications in SCM

In response to the increasing request for cost-effectiveness and demanding response time, SCM has progressed from manual, and mechanization-focused maximisation to advanced, web-based, and automated synchronisation of the supply chain components (Ivanov, 2021; Lee at al., 2022), which is crucial in dealing with the increasing complexities of today's worldwide supply chains (Ma et al., 2021). It mainly enables an efficient flow of products, information, and finances, allowing businesses to increase the value of their relationships, while also improving overall operational efficiencies (Johnson, 2006; Kumar 2001; Patterson et al., 2003). This is possible because the digital economy removes geographical, time, communication and other sorts of barriers (Veselinović & Stanišić, 2021). Krivokuća et al. (2021) argue that digitalisation plays an important role in defining the business model in the contemporary globalised market, providing various opportunities, especially for entrepreneurial firms as the supply chain members.

The importance of technological integration in the supply chain system is emphasised by Luthra et al. (2022), who argue that it is necessary to improve capacity and optimise resource utilisation in order to develop effective SCM. State lawmaking and legislation, cooperative value capture models, and Industrial revolution 4.0 technologies are the most impactful strategies for managing SCM, according to their research. Radun et al. (2021) highlight characteristics of Artificial Intelligence (AI) that have brought about its extensive usage, such as "interconnectivity, ability of self-learning, continual improvement and adaptability" (p. 871). Dora et al. (2022) concluded that using AI in food systems (FSC) can resolve unique issues of food security, standard, and disposal by enhancing visibility and accountability. However, the study found that considerations including such technology acceptance, confidentiality, data protection, customer experience, purported value, requirement volatility, regulatory requirements, rival companies' pressure, and sharing of information among partners all influence technology adoption in SCM. Moving forward, the integration of circular economy concepts into the company's SCM strategy has been accelerated by the implementation of sustainable supply chain practices. According to Mastos et al. (2021), circular SCM can be enabled using Industry 4.0 technologies to redesign supply chains for the circular economy.

The literature (Johnson, 2006; Kumar, 2001; Patterson et al., 2003) suggested that proper use of information technologies is critical to achieving value and cost advantages in the continuously changing, compound world of local and global supply chains. Early efforts to gain a competitive advantage through information technology centred on the implementation of model-driven, advanced forecasting systems to decrease volatility and optimise flows. Hotel SCM is typically dynamic and demand-driven, necessitating interconnection, cooperation, and coordination among business partners via information technology. Current and future studies will concentrate on systems that encompass highly complex and dynamic distribution networks, and provide immediate visibility across the supply chain as the notion of integration of digital SCM evolves (Kumar, 2001).

Patterson et al. (2003) and Johnson (2006) studies highlighted the importance and facilitating factors in applying technologies in SCM in the early days. Most industries now consider supply chain integration and the technologies that enable it to be a competitive necessity. However, the rate of technology adoption will be heavily influenced by the following factors: company size, company structure, previous financial results, and environmental uncertainty (Patterson et al., 2003). In addition, new information technologies such as radio frequency identification (RFID) and enterprise integration and collaboration tools have gained traction (Johnson, 2006). Sarac et al. (2010) find that RFID technologies have the ability to enhance the potential advantages of SCM by lowering warehouse losses, continuing to increase procedure speed and efficiency, and improving data accuracy.

According to more recent studies, as the worldwide ecological crisis worsens, consumers seem to be more eager to use environmentally friendly products, and hotel companies are more dedicated to digital innovation and investment to meet such preferences. A greater carbon reduction subsidy emboldens technology investments and boosts supply chain participants' earnings, according to the study of Ma et al. (2021) on the link between technology investment decisions, manufacturer-retailer cooperation, and government regulations. The study also discovered that when costs are shared and the government gets involved in, reducing emissions and supply chain performance are always superior than in other occasions. The 2019 pandemic, however, may have altered or added new considerations to such adoption. Ivanov (2021) asserts that the pandemic demonstrated that companies with end-to-end supply chain visibility, digital tech direction, and inbuilt versatility were capable of dealing with the pandemic's effects in a much more responsive, efficient, and resilient way, ensuring supply chain viability.

Despite many benefits and potential future prospects for adopting more technologically enabled applications for SCM, studies by Gurtu and Johny (2019), Almutairi et al. (2022), and Lee et al. (2022) have outlined some recent technological developments and barriers to such adoptions. Blockchain technology has the ability to improve trust by increasing the visibility within industries and across organisations. However, this technology is fraught with difficulties, such as "private" blockchain dependability, processing fees, energy usage, insurance costs, and governmental regulation (Almutairi et al., 2022; Gurtu & Johny, 2019). A major determinant of blockchain adoption in SCM is the existing number of players in a global supply chain. Each supply chain player has distinct capabilities and constraints that affect organizational effectiveness (Almutairi et al., 2022). While adoption of the Internet of Things (IoT) can improve performance of the supply chain, there will still be innumerable issues to overcome, significantly in relation of technical reliability and social-organizational adjustment (Lee et al., 2022).

2.3. Technology adoption in the hotels' SCM and the research gaps

Studies by Kothari et al. (2005) and Odoom (2012) suggested reasons why hotels should consider technological adoption in SCM. According to Kothari et al. (2005), information technology will automate all types of procurement procedures across entire hotel organisations. They contended that the fragmented nature of the hospitality industry creates inefficiencies in the purchasing process, necessitating the adoption of hospitality e-procurement exchanges. Odoom (2012), on the other hand, proposed that technological application as cost-cutting strategies to numerous logistics and distribution functions, such as inventory control, logistics and distribution, is important for optimization of end-to-end costs and efficiency.

Though there have not been many studies on evaluating the benefits and effectiveness of various technologies in the hotel industry, there have been a few (Al-Aomar & Hussain, 2017; Alsetoohy et al., 2019) that introduce newer concepts in SCM for hotel players to consider. The study of Al-Aomar and Hussain (2017) confirmed hotels' familiarity with green practices and awareness of green value, with one example being the implementation of Green Practices in the hotel supply chain. However, there was a knowledge gap in terms of effective green technology implementation all through the supply chain.

Recent studies on hotels' SCM have clearly identified issues that are causing low technological adoption among hotels. Alsetoohy et al. (2019) published a study on the factors affecting hotel managers' sentiments toward artificial intelligence technology (AIT) implementation in the hotel food supply chain. According to their findings, AIT acceptance was extremely low in the hotels studied. Potential benefits, reliability, human capital quality, data intensity, and industry abilities each had a statistically significant positive effect on hotel managers' willingness to implement AIT. Tarofder et al. (2017) deduced that "Management Support" constitutes the most significant aspect for effective diffusion of internet technologies in SCM. Individual supply chain members may lack the resources to learn complex technologies, making complexity among the most substantial negative factors affecting technology adoption in the individual domain. From an economic standpoint, Shamout et al. (2022) show the link between both the cost of digitalization and the implementation of technological applications in SCM. Milovanović et al. (2021) find that the COVID-19 pandemic caused disruptions in hotels' SCM, and decelerated the implementation of SCM-related ICTs.

Despite research indicating that information technology adoption has a moderating role in procurement performance (Cho et al., 2018), low adoption of SCM-related ICTs persists. To better gauge current attitudes toward technological applications in hotel' SCM, it is necessary to investigate the specific benefits hotel companies experience by implementing various technological solutions, with a special emphasis on perceptions of benefits across different scales, business structures, size, star-rated categories, etc. Based on the presented theoretical background and identified research gaps, the current study aims to investigate the level and benefits of SCM-related ICTs implementation among hotels in Serbia. Consequently, the following research questions are formulated:

RQ1: To what extent are the SCM-related ICTs implemented in Serbian hotels?

RQ2: What are the benefits experienced by Serbian hotels from the SCM-related ICTs?

RQ3: Do hotel characteristics of size, category and affiliation affect the level of utility from introducing the SCM-related ICTs?

3. Methodology

In the first phase of empirical research a questionnaire was designed containing single-choice and multiple-choice questions, as well as open-ended questions. It was decided to focus on four- and five-star hotels in the Republic of Serbia based on assumption that these hotels are more prone to implement ICTs related to SCM than lower-category hotels. An invitation for participation in an online survey was sent in May 2021 to top managers of hotels falling into these two categories, who were also contacted by telephone in order to increase the response rate. The final sample consisted of 40 hotels of different size (small, medium and large) and affiliation (chain or independent). Its characteristics are presented in Table 1. Respondents were asked which of the SCM-related technologies they implemented, if any, and whether and what kind of benefits they experienced by introducing these technologies. They were also asked to indicate the size, category and affiliation of their hotel. Descriptive statistics and multiple regression analysis (linear and non-linear) were employed for data analysis.

Table 1: Sample characteristics

	Hotel category		**Hotel size**			**Chain affiliation**		**Total**
	4-star	5-star	Small	Medium	Large	Yes	No	
Number	32	8	18	18	4	7	33	40
Percent	80	20	45	45	10	18	82	100

Source: Authors' research

4. Results and discussion

Regarding the RQ1, it can be argued that implementation of the SCM-related ICTs in Serbian hotels is modest. The most dominant ICTs are IoT, implemented by the majority of hotels, while e-commerce, cloud computing, Customer Relationship Management (CRM), AI, bar code system and big data fall far behind (Table 2). Other technological solutions for SCM represent less than 10% each.

Table 2: Popularity of specific SCM-related ICTs among hotels in Serbia

SCM-related ICT	**Frequency**	**Percentage**
Internet of Things (IoT)	30	75
E-commerce	12	30
Cloud Computing	11	27.5
Customer Relationship Management (CRM)	10	25
Artificial Intelligence (AI)	8	20
Barcode system	4	10
Big Data	4	10
Enterprise Resource Planning (ERP)	3	7.5
Computer-aided design (CAD)	3	7.5
Blockchain	3	7.5
Geographic Information System (GIS)	2	5
Intelligent Transportation System (ITS)	2	5
Supply Chain Planning (SCP)	2	5
Demand Forecasting Model (DFM)	1	2.5
Supply Chain Event Management (SCEM)	1	2.5

Source: Authors' research

When it comes to the number of SCM-related ICTs used by a single hotel (Table 3), most of hotels use only one or two ICTs, while two hotels use even six and seven ICTs, these being 5-star medium size independent hotels.

Table 3: The level of SCM-related ICT usage among hotels in Serbia

	Number of SCM-related technologies implemented						
	1	2	3	4	5	6	7
Number of hotels	10	7	2	2	0	1	1

Source: Authors' research

As for RQ2, all respondents claim that SCM-related ICTs proved significantly beneficial for their hotel's business. The introduction of the aforementioned technologies enabled hotels to achieve the following specific benefits: (1) more efficient and faster guest attraction, (2) more efficient communication with suppliers, (3) increased speed, (4) increased flexibility, (5) reduced costs and (6) improved guest services. The greatest benefit provided by the mentioned technologies to hotels is the improvement of guest services. Namely, 12 out of a total of 40 hotels state that thanks to some of the mentioned technologies, they significantly improved the services they provide to their guests. As there is no other scientific research related to evaluation of benefits achieved through adoption of SCM-related ICTs in hotels, to some extent a comparison may be conducted with studies dealing with hotels' benefits from implementation of ICTs in general. Perhaps more similar is the research of Jaremen (2016), concluding that only a half of the examined hotels implement ICTs, and in particular websites, hotel reservation systems, front office computer systems and social media. Further, the author finds that hotels achieve the following benefits from adopting ICTs: (1) improved service quality, and particularly speed of customer service; (2) higher number of guests and increased guests' satisfaction; (3) reduced operating costs; and (4) improved image and income. Thus, what is common to both studies is: (1) relatively low level of ICT implementation, (2) most of hotels implement only ICTs related to communication and service to guests, and (3) common advantage from ICTs are increased speed and number of guests, improved service, and reduced costs.

Finally, regarding RQ3, linear probability and probit models were used to determine if a hotel's category, size or affiliation influence the level of utility of SCM-related ICTs in Serbian hotels. Table 4 shows the results of the linear probability model. Breusch-Pagan/Cook-Weisberg test was used for testing the assumption of homoskedasticity. It was concluded that heteroskedasticity was not a problem since the test result ($\chi^2(1) = 1.12$, $p = 0.29$) was not statistically significant.

Table 4: Determinants influencing benefits of SCM-related ICTs

Dependent variable: Benefits	**Linear probability model**			
	Coef.	**Std. Err**	**t**	**Sig.**
Medium	-0.02	0.17	0.09	0.93
Large	0.41	0.29	1.39	0.17
Category	0.36	0.21	1.72	0.09*
Chain	-0.15	0.22	-0.70	0.49
Constant	0.42	0.12	3.43	0.00***
F	2.85			
Prob > F	0.038**			
R2	0.1201			

N=40, *p < 0.10, **p < 0.05, ***p < 0.01
Source: Authors' research

The results indicate that the variable Category is statistically significant at the 0.10 level, meaning that five-star hotels are 36% more likely to benefit from adoption of SCM-related ICTs than four-star hotels. Small, medium and large hotels benefit equally from introducing new technologies, as well as independent and chain hotels.

However, specific problems are associated with using the linear probability model with binary data, the most important being that the predicted probabilities are not limited between zero and one. For that reason, non-linear models such as the probit model are also used before final conclusions are drawn. Table 5 shows the results of the probit model where the coefficients are estimated using the maximum likelihood method.

Table 5: Determinants influencing benefits of SCM-related ICTs – Probit

Dependent variable: Benefits	**Probit model**			
	Coef.	**Std. Err**	**z**	**Sig.**
Medium	-0.04	0.46	-0.09	0.93
Large	1.12	0.77	1.47	0.14
Category	0.97	0.55	1.76	0.08*
Chain	-0.44	0.64	-0.68	0.50
Constant	-0.19	0.32	-0.61	0.55
Wald $\chi2(4)$	9.64			
Prob > $\chi2$	0.047**			
Pseudo R2	0.0914			

N=40, *p < 0.10, **p < 0.05, ***p < 0.01
Source: Authors' research

As in the linear probability model, in this model only the variable Category is statistically significant at the 0.10 level, meaning that five-star hotels are more likely to benefit from adopting SCM-related ICTs than four-star hotels. However, in the probit model, the magnitude of the coefficient estimate cannot be interpreted. It can only be concluded whether the effect is positive or negative. For that reason, average marginal effects are presented in Table 6.

Table 6: Average marginal effects for probit model

Variables	**Average marginal effects**			
	dy/dx	**Std. Err**	**z**	**Sig.**
Medium	-0.02	0.16	-0.09	0.93
Large	0.40	0.25	1.58	0.11
Category	0.35	0.18	1.99	0.05**
Chain	-0.16	0.23	-0.69	0.49

N=40, *p < 0.10, **p < 0.05, ***p < 0.01
Source: Authors' research

Based on the marginal effects, it can be inferred that five-star hotels are 35% more likely to benefit from introducing SCM-related ICTs than four-star hotels, which is almost identical result to the one obtained using the linear probability model. These results also suggest that small, medium and large hotels benefit equally from adoption of these ICTs, and the same is true with independent and chain hotels.

5. Conclusions

ICTs have become a necessity for everyday business operations and they also find application in SCM. The importance of SCM is reflected in its potential to capture synergy from close cooperation between supply chain participants, leading to the higher responsiveness to the needs of final customers, flexibility, resilience, reduced costs, innovativeness, and finally, to better competitive position and profitability. Since there are technological solutions aimed at supporting SCM, it is valuable to empirically estimate their effects. Nevertheless, according to the authors' knowledge, there is no research evidence of their utility. The current study attempts to fill this research gap by investigating to what extent hotels in Serbia implement these technologies and what benefits are experienced by their implementation. Theoretical foundation of the study can be found in the Resource-based view, as SCM-related ICTs represent a company's informational resources that can be employed for improving business performance and achieving competitive advantage. The research results reveal the modest implementation of ICTs related to the SCM in Serbian hotels. Those hotels implementing technologies consider them very beneficial for guest attraction and service, as well as for increased speed and flexibility, cost reduction and communication with suppliers. Although it was assumed that hotel size and affiliation impact benefits from using ICTs, the results do not support such assumption. On the other hand, in line with expectations, it was found that hotel category is positively associated with ICTs' utility.

The current study contributes to the SCM literature by demonstrating to what extent hotel companies in Serbia implement SCM-related ICTs, and what are the effects from that implementation. It also provides valuable practical implications by showing what type of benefits hotels usually achieve by adopting the mentioned technologies, which may have a motivational role for adopting SCM-related ICTs among hoteliers. Since the study provides evidence that ICTs utility is not dependent upon hotel size or affiliation, it is supposed to motivate smaller and independent hotels which were previously reluctant to adopt these technologies. By showing that the benefits increase with the hotel category, it is expected that higher category hotels become more interested in implementing SCM-related ICTs.

The main limitation of the study is related to the problem of generalization of results. Therefore, future studies are invited, especially in other countries, to enable the comparison of results. Additionally, it would be valuable to identify supporting and limiting factors for adoption of SCM-related ICTs.

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Conflict of interest

The authors declare no conflict of interest.

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Attributes of service quality – A report from Belgrade restaurants

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Abstract: The aim of this paper is analysis of the importance of service quality attributes in the Belgrade restaurants. The data were collected on a sample of 484 respondents, users of restaurant services in Belgrade and analyzed using the statistical package STATISTIKA 5.0. Three dimensions (Staff, Food, Restaurant facility) were formed based on factor analysis. It was found that the respondents' attitudes differ depending on their gender and level of education. The findings can contribute to improving the service quality of the Belgrade restaurants through improvement of the restaurant performances in accordance with the expectations of customers. The most important improvement is to provide food of excellent taste and quality which is better than in other restaurants.

Keywords: quality, service, restaurants, Belgrade
JEL classification: L83

Atributi kvaliteta usluge – Izveštaj iz beogradskih restorana

Sažetak: Cilj ovog rada je analiza značaja atributa kvaliteta usluge u beogradskim restoranima. Podaci su prikupljeni na uzorku od 484 ispitanika, korisnika usluga restorana u Beogradu i analizirani pomoću statističkog paketa STATISTIKA 5.0. Na osnovu faktorske analize formirane su tri dimenzije (osoblje, hrana, restoranski objekat). Utvrđeno je da se stavovi ispitanika razlikuju u zavisnosti od pola i nivoa obrazovanja. Nalazi mogu doprineti poboljšanju kvaliteta usluga u beogradskim restoranima kroz unapređenje performansi restorana u skladu sa očekivanjima kupaca. Od svih unapređenja, najvažnije je da se obezbedi hrana odličnog ukusa i boljeg kvaliteta nego u drugim restoranima.

Ključne reči: kvalitet, usluga, restorani, Beograd
JEL klasifikacija: L83

1. Introduction

Many factors are estimated as crucial for successful operation of the restaurants. Numerous studies indicate the existence of a large influence of different factors on the quality and long-term operation of restaurants from the aspect of restaurant success (Gadelrab_Ekiz, 2019;

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Sharma et al., 2021) such as staff-customer interaction, demographic characteristics of customers, mission, vision and business strategy, restaurant location, management, food quality, etc., while a significant number of authors observed the same factors from the aspect of their influence on the failure (Parsa et al., 2005; 2015; 2019; Self et al., 2015). In the past, such studies were mainly focused on financial factors (break-even point, cost of goods sold, overhead rate, prime cost, food cost percentage, gross profit), while other factors that influence business success were given less attention (Yoon & SooCheong, 2005). Parsa et al. (2005) classified those factors in two groups: internal (related to the company's competencies that directly affect its survival) and external (which are beyond the control of the individual and the company, such as the economic climate, market conditions, competition, etc.). Self et al. (2015) dealing with restaurant success/performance indicate that internal factors are more significant and have a greater importance for restaurant success than external. Later, Parsa et al. (2010) offered a classification on macro factors (economic factors, legislation, climate change, regional and urban planning, cultural and demographic changes, new forms of competition) and micro factors (capital, location, owner's quality of life, owner's entrepreneurial expertise, experience, owner's leadership skills, branding ability (restaurant name, restaurant design and layout), Taj Mahal syndrome, concept, cost control). Miksen (2019) highlighted four key factors, which have huge importance for a restaurant's success: environment, food, staff and customer service, and costs. The importance of these factors depends on characteristics of a restaurant and guests' demographics (Parsa et al., 2015).

Considering the trends in the development of tourism and hospitality and the increasingly better positioning of the Republic of Serbia on the tourist map of the world, it is necessary to create conditions for successful restaurant operations and achieving satisfactory competitiveness on the domestic and world markets. One of the essential prerequisites for business success is a high quality of service that meets the requirements of increasingly demanding users of restaurant services (Aftab et al., 2016). In order to reach the level of service that the modern market demands, it is necessary to determine the key attributes of the service quality, as well as which of those attributes have the greatest importance for achieving high service quality. The research of the service quality attributes is difficult because specific data can only be obtained indirectly by collecting data from users or experts and analyzing their perception of this problem. Different scales are used to measure the service quality, such as SERVQUAL, which is used to assess service quality in general (Parasuraman et al., 1988), while the DINESERV scale is adapted for restaurants (Stevens et al., 1995). In this study, a modified DINESERV instrument created by Kim et al. (2009) was used. Until now, attributes important for the service quality in Serbian restaurants were rarely studied. The aim of this study is to analyze the service quality attributes important for the Belgrade restaurants.

The findings of this study are important for business success of current and future restaurant owners in Belgrade. The research will answer which aspects of the service should be given special attention to in order to meet the expectations of the guests. In addition, the study will show which items of service quality are more important to males and which to females, as well as whether the attitude of customers towards them differs depending on the level of education and age.

2. Background

Service quality became a subject of interest in the 1980s, when Gronroos (1984) distinguished three dimensions of quality: technical (related to the result of the service received), functional (related to the process of service provision) and image (related to the image of the facility that is the service provider). Zaibaf et al. (2012) concluded that functional quality has a positive effect on image and quality perception. Defining service quality is very complex and significantly more complex than defining product quality, whereby service quality can be analyzed from the professional point of view or from the user point of view (Torres, 2014). Today's understanding of service quality implies that the user of the service has a positive perception of its quality. Similarly, Ali et al. (2021) give definition of quality as the level of satisfaction of the needs and demands of consumers, that is, compliance with their increasing requirements and expectations. Kotler et al. (2010) believe that service quality is a sum of attributes related to food, service, atmosphere, environment, etc., which are the result of possibility to meet the expectations and fulfill the needs of clients.

Service quality is highlighted as one of very important factors affecting success of restaurant business by many scholars (Chin & Tsai, 2013; Parsa et al., 2019; Rawal & Dani, 2017). Bichler et al. (2021) believe that the service quality is a very important factor for a successful operation of a restaurant. Service quality in the restaurant business does not only mean that the guest is satisfied with the service, but it should exceed the guest's expectations (Živadinović & Knežević, 2018). A quality service should have such characteristics that will meet the standards of both users and experts (Torres, 2014). Food and beverage service is a complex process, which involves much more (preparing, presenting, and serving food and beverages to customers) than simply taking the order, bringing the food and beverage to the guest, collecting the bill and clearing the table (Čačić, 2010). Several authors point to the advantages which high service quality ensure, including guest satisfaction, business image, customer loyalty, competitive advantage, repeat visits to the restaurant (guest behavior in the future) and positive recommendations (Al Ababneh, 2017; Bichler et al., 2021). Significant effect on business success Parsa et al. (2015) attributed to service style. Moreover, Aftab et al. (2016) analyzed the service quality in fast food restaurants and concluded service quality is the main success factor. Chin and Tsai (2013) found that when evaluating the quality of restaurant service, the leading place is taken by staff reliability, followed by staff empathy, innovation, tangibility, safety and sustainability. Wu Mohi (2015) concluded that understanding specific needs of individual guests imposes a need to analyze their thinking, feelings and behavior.

Service quality attributes were studied all around the world by many authors who consider service quality as multi-attribute construct (Bichler et al., 2021; Han & Ryu, 2009; Pakurár et al., 2019). The service quality attributes (e.g. value, service, atmosphere, food quality) enable restaurants to achieve competitive advantage in the market (Chin & Tsai, 2013). Unlike product quality, service quality cannot be tested or evaluated before use (Knežević et al., 2017). In various researches, various attributes of restaurants significant for service quality and customer satisfaction have been singled out. Sulek and Hensley (2004) consider food to be a key dimension of service quality, while Bichler et al. (2021) determined that food, service and atmospheric quality are of key importance for customer choice. Except for that, authenticity and price were highlighted as the most important factors influencing customer choice (Han & Ryu, 2009). Shahzadi et al. (2018) concluded that comfortable environment is necessary for the satisfaction of customers. Pakurár et al. (2019) identified several service quality attributes including tangibles, responsiveness, empathy, assurance, reliability, access, financial aspect, and employee competences, etc. Kim et al. (2009) examined the instrument for measuring service quality of restaurants and identified four dimensions of service quality in foodservice operations: Product/Service, Reliability, Greeter, and Physical Environment.

The authors from the Republic of Serbia neighbouring countries studied service quality in restaurants from different aspects, but those studies only partially focused on the attributes of restaurants important for service quality (Djekic et al., 2016; Jovanović et al., 2014; Marinković et al., 2013). Authors from the other parts of the world pay a lot of attention to staff characteristics, while other attributes are less studied. Therefore, the main gaps of those studies are concentration to selected the aspects of service quality. Due to that, our study applies a broader approach in order to provide as detailed as possible analysis of this segment of restaurant business. Djekic et al. (2016) analyzed "consumer perceptions of service quality in restaurants in four European cities (Belgrade, Manchester, Thessaloniki and Porto)" (p. 827). They found that servicing of food and taste of food are the most influential factors of service quality. Marinković et al. (2013) identified four key components of restaurants' service offers (serviceability, ambiance, price, and external visual elements) when analyzing service quality attributes in restaurants in Kragujevac. Jovanović et al. (2014) examine three restaurant attributes (food, service, and ambiance quality) on consumer behavioral intentions in both fine dining and quick service restaurants in the Republic of Serbia. They estimated that food quality has the greatest positive impact on consumer behavioral intentions. Both previous studies were done about 10 years ago. From then until today, there have been significant changes in the hospitality sector, as a result of which demands for improving the service quality have come to the fore. Accordingly, it can be expected that the attitudes of customers towards service quality attributes have changed. Marković et al. (2011) investigate different "aspects of service quality (tangibles, reliability, responsiveness, assurance, empathy, price and satisfaction)" (p. 235) in Croatian city restaurant settings and identify five factors that best explain expected service quality and eight factors that best explain perceived service quality.

In general, it is considered that competences of the staff that are in direct contact with restaurant guests' play a crucial role in achieving service quality. Namely, in order for the staff to create a convincing and unforgettable hospitality for the guest, they must possess competencies that go beyond the necessary technical competencies for performing this type of work (Bharwani & Jauhari, 2013). Employees who are in contact with guests represent an operational resource (Shaw et al., 2011) that significantly affects guest satisfaction, and thus their loyalty, i.e. behavioral intentions after leaving the facility. As a result, service companies pay great attention to employee satisfaction (Chehab et al., 2021). The same authors indicated that although job satisfaction does not directly affect user satisfaction, there is a high probability that in the case when employees are satisfied with their work, users will positively evaluate the quality of the service and feel greater satisfaction. Leonard (2009) determined that satisfied employees work more productively and creatively, which positively affects guests' satisfaction and loyalty. Furthermore, the orientation of staff towards the guest, which implies the availability of staff to meet guests' needs (Donavan & Hocutt, 2002), can influence the success of a restaurant indirectly through its influence on guest satisfaction. Namely, the level of guest commitment to the facility and its satisfaction depends on employees with a high level of guest orientation (Kim & Ok, 2010). Staff who are ready to change their service in accordance with the needs of the guest are referred to as customer-friendly staff (Lee, 2015). These staff have the ability to recognize the guest's non-verbal cues and listen carefully to their needs, then perform the requested service correctly and connect with them on a personal level (Lee, 2015). Jung-Suk and SooBum (2017) found that with an increase in employee orientation towards guests, restaurant performance increases. On the other hand, it is not a rare case that restaurant employees are exposed to inconvenience and permanent stress, which causes them to be in a bad mood (Adams & Webster, 2013), psychological stress (Wilson & Holmvall, 2013) and emotional exhaustion (Bi et al., 2021). The uncivilized behavior of guests towards employees is perceived by employees similar to situations when guests ignore them or speak to them in an incorrect and offensive manner (Bi et al., 2021). All such circumstances lead to burnout of employees at work and increase their turnover (Park et al., 2020), which adversely affects the success of the restaurant.

Food quality stands out as one of the main, and often leading, factors that influence the choice of a restaurant by customers (Akbar & Alaudeen, 2012; Kafel & Sikora, 2013). Customer satisfaction with food and beverage has a significant impact on positive comments about a restaurant (Dandotiya et al., 2020). Kiatkawsin and Sutherland (2020) claim that the core product of a restaurant is the meal experience. Apart from a comfortable environment and pleasant memories, modern guests also request new tastes (Gagić et al., 2013). Johns and Pine (2002) believe that high food quality, which is evaluated based on food temperature, presentation, freshness and range of selection can be an important factor in the success of a restaurant. The most important characteristic of food that is taken into account when evaluating its quality is freshness of food (Jaja Iroegbu, 2019). Great importance is also attached to the temperature of the dish, because the sensory properties, namely aroma, smell and appearance, depend on it (Delwiche, 2004).

Although food and service quality are important, scenery, interior design, above all the comfort of seating furniture, background music and other elements that determine the atmosphere are very important for guest satisfaction (Namkung & Jang, 2008). The physical environment of the restaurant is one of the important factors that influences the choice of the restaurant by the customers. Lee and Jeong (2012) define it as the environment of a restaurant that includes the complete appearance, ambience, design, lighting, decoration and aesthetics. Hanaysha (2016) found that the physical environment has a significant positive impact on restaurant image and customer loyalty. In addition, the physical environment of a restaurant exerts a significant influence on customers' perceptions and intentions (Hanaysha, 2016; Ryu et al., 2012). Thus, improving interior decoration, cleanliness, lighting, and colors can provide restaurant customers with pleasant experiences and increase satisfaction levels (Hanaysha, 2016). In addition, the physical environment plays a key role in differentiating a facility from competitors and building an image (Ryu et al., 2012).

Based on the defined aim of the research and literature review, the hypotheses of this study are:

H1a: Food quality is at a satisfactory level and represents an important segment of the restaurant offer in Belgrade.

H1b: The quality of the employed staff is at a satisfactory level and represents an important segment of the restaurant offer in Belgrade.

H1c: The quality of the restaurant facility is at a satisfactory level and represents an important segment of the restaurant offer in Belgrade.

H2a: There are statistically significant differences in the perception of restaurant service quality in relation to the gender structure of the respondents.

H2b: There are statistically significant differences in the perception of the quality of restaurant service in relation to the educational structure of the respondents.

From the listed hypotheses, a key research question arises: Which of the quality attributes are rated as the best, and as such can influence the long-term profitable operation of restaurants in Belgrade.

3. Methodology

In order to achieve the set aim and give an answer to the research question a survey was conducted in August and September 2022. The sample was taken from customers who visited the Belgrade restaurants in the study period. Restaurant managers were asked for permission to include their customers in the study. Customers who visited 12 randomly selected restaurants located in the city center were randomly selected for participation in the study. No precise record was kept as to whether the respondents were domestic or foreign customers, but both were represented. Although questionnaires were offered in Serbian and English, foreign customers from countries in the region filled out the questionnaire in Serbian. This study included volunteer participants and the respondents can be considered as valid. The questionnaires were distributed to 500 customers (who accepted to participate). From that number 484 questionnaires were completely filled out and were included in statistical analysis, while 16 were eliminated due to incompleteness. Response rate was 96.8%. The instrument was created based on the instrument used by Kim et al. (2009) in a similar study. The instrument was made of two sections. The first section contained demographic questions (age, gender, level of education), while the second section consists of 30 items, based on which service quality was measured. All items, except for demographic information, were estimated using a Likert scale of 1 to 5, with 1 signifying strong disagreement and 5 signifying strong agreement.

The statistical package STATISTIKA 5.0 was used for data analysis based on models: One-way ANOVA, t-test and Factor Analysis. The reliability was tested based on calculation of Cronbach's Alpha coefficient. T-test and analysis of variance (ANOVA) were used to test the significance of differences between average ratings for derived factors. Factor analysis was used to evaluate instrument validity. Considering that the category "Others" related to educational level encompass less than 10% of customers, that category was eliminated from the analysis. Therefore, for gender and level of education (variables with two nominal values), the Independent-Samples T test was applied, while for age (variable with three nominal values), One-Way ANOVA was used. The statistical conclusions were made with a significance level of 0.05 ($p<0.05$).

4. Results and discussion

The demographic characteristics of respondents (age, gender, level of education) in this study are presented in Table 1. Out of the 500 questionnaires that were collected, 484 were used for statistical analysis as incomplete questionnaires were discarded. The respondents were mainly aged between 30 and 50 years (51.24%). The dominant gender was female (63.84%), while dominant education level was university education (64.46%).

Table 1: Demography of participants in the study

Variable		Frequency (n=484)	Percent (%)
Age	<30	32	6.61
	30-50	248	51.24
	>50	204	42.15
Gender	Male	175	36.16
	Female	309	63.84
Level of education	High school	168	34.71
	University education	312	64.46
	Others	4	0.83

Source: Authors' research

The customers of Belgrade restaurants evaluated 30 items important for service quality in restaurants. Based on their responses, items were ranked according to importance (Table 2). Based on descriptive parameters analysis, the customers of Belgrade restaurants singled out 16 items whose Means (average rating) were between 4.01 and 4.74. That means customers evaluated these items as key for service quality. The item "The food quality was better than in other restaurants" has average score of 4.74 and takes the first position on the list of 30 items. Then follow the items (position 2 to 16) with slightly lower average values. Seven items (positions 17 to 23) had values between 3 and 4, which means that customers of Belgrade restaurants rate these items as less important that the first 16. However, these items are classified as more important than remaining seven items whose means are below 3.

Table 2: Restaurant attributes important for service quality in Belgrade restaurants

Position	Restaurant attribute	Mean	SD	SE
1.	The food quality was better than in other restaurants.	4.74	0.744	0.053
2.	The taste of my food was excellent.	4.71	0.730	0.049
3.	The restrooms were thoroughly cleaned.	4.58	0.800	0.056
4.	The staff provided a prompt and quick service.	4.55	0.963	0.068
5.	My server quickly corrected anything that was wrong.	4.53	0.971	0.069
6.	The seats in the dining room are comfortable.	4.41	1.026	0.072
7.	The food was attractively presented.	4.39	0.800	0.056
8.	My server served me in the time promised.	4.33	0.778	0.055
9.	The meal was served at an ideal temperature.	4.28	0.936	0.068
10.	The staff seemed well trained, competent and experienced.	4.21	0.857	0.600
11.	The greeter welcomed me to the restaurant with a friendly smile.	4.19	1.003	0.074
12.	The portions were larger than in other restaurants.	4.14	0.921	0.065
13.	The staff made me feels special.	4.11	0.924	0.056
14.	The greeter seated me within the time promised.	4.07	0.903	0.064
15.	The staff members are clean, neat and appropriately groomed.	4.04	0.778	0.055
16.	The staff gave extra effort to handle my special request.	4.01	0.806	0.057
17.	My server was dependable and consistent.	3.93	1.020	0.066
18.	My server was able and willing to provide me information about menu items, their ingredients and methods of preparation.	3.86	0.956	0.066
19.	My server served my food exactly as I ordered it.	3.78	1.022	0.071
20.	The dining areas were thoroughly cleaned.	3.66	0.997	0.069
21.	The staff was sensitive to my individual needs and wants.	3.24	1.342	0.095
22.	The staff could answer my questions promptly and satisfactorily.	3.11	1.003	0.064
23.	The staff members were sympathetic and react if something was wrong.	3.00	1.223	0.086
24.	The dining area is comfortable and attractive.	2.77	1.214	0.088
25.	The portions were ample.	2.74	1.314	0.092
26.	The greeter answered my reservation telephone call with a nice and friendly tone.	2.48	1.008	0.062
27.	The menu is visually attractive and reflects the image of the restaurant.	2.43	1.122	0.074
28.	The menu is easy to read.	2.14	1.131	0.081
29.	During busy times, staff helped each other to maintain the speed and quality of service.	2.12	1.230	0.088
30.	Parking areas and building exteriors are visually attractive.	1.86	0.946	0.067

Notes: 1= strongly disagree; 5= strongly agree; SD – standard deviation; SE – standard error
Source: Authors' research

Scale Reliability analysis was conducted on the data collected for the 30 initial items. The reliability levels (Cronbach's Alpha) for each item were above the recommended theoretical value of 0.7 (De Vellis, 2003) and indicated a high Scale Reliability of all items from which the instrument was formed. Therefore, the Cronbach's test did not recommend the elimination of any item in order to achieve a higher Scale Reliability.

Table 3: Findings of factor analysis

Factors	Factor loading	Eigenvalue	% of variance	Cronbach's alpha
Staff (17 items)		3.623	44.31	0.902
My server served me in the time promised.	0.820			
The staff made me feel special.	0.752			
The greeter answered my reservation telephone call with a nice and friendly tone.	0.743			
The staff provided a prompt and quick service.	0.721			
The greeter welcomed me to the restaurant with a friendly smile.	0.714			
The staff was sensitive to my individual needs and wants.	0.706			
The staff members were sympathetic and react if something was wrong.	0.701			
My server was able and willing to provide me information about menu items, their ingredients and methods of preparation.	0.693 0.678			
The staff members are clean, neat and appropriately groomed.	0.661			
The staff seemed well trained, competent and experienced.	0.622			
During busy times, staff helped each other to maintain the speed and quality of service.	0.614			
The staff gave extra effort to handle my special request.	0.604			
My server was dependable and consistent.	0.582			
The greeter seated me within the time promised.	0.577			
My server served my food exactly as I ordered it.	0.573			
The staff could answer my questions promptly and satisfactorily.	0.564			
My server quickly corrected anything that was wrong.	0.412			
Food (6 items)		1.107	13.72	0.891
The food quality was better than in other restaurants.	0.854			
The taste of my food was excellent.	0.832			
The portions were larger than in other restaurants.	0.761			
The meal was served at an ideal temperature.	0.694			
The food was attractively presented.	0.612			
The portions were ample.	0.396			
Restaurant facility (7 items)		0.906	11.31	0.874
The dining area is comfortable and attractive.	0.766			
The menu is visually attractive and reflects the image of the restaurant.	0.758			
The seats in the dining room are comfortable.	0.721			
The dining areas were thoroughly cleaned.	0.624			
The restrooms were thoroughly cleaned.	0.609			
The menu is easy to read.	0.531			
Parking areas and building exteriors are visually attractive.	0.487			

Source: Authors' research

According to the factor analysis of 30 items (Table 3), the first dimension was formed by 17 items. The name of the first component can be derived by analyzing the content of these items, especially those with the highest factor weights. They are dominated by the statements relating to the employees' behavior, appearance and treatment. Therefore, the first component on which the restaurant service quality depends can be called Staff. The second dimension was formed by 6 items, the contents of which unambiguously indicate food and meals characteristics. Based on this, the second dimension is named as Food. The third dimension was formed by 7 items from the content of which logically derives the name of the third component Restaurant facility. Similar to that, Miksen (2019) concluded that food, staff and environment, together with customer service and costs have huge importance for a restaurant's success. Although Kim et al. (2009) used almost the same instrument for measuring service quality of restaurants, they found four dimensions: Product/Service, Reliability, Greeter and Physical Environment.

The differences between customers' viewpoints on the importance of Staff, Food and Restaurant facility for service quality, depending on their gender and level of education, were confirmed by t-test. Contrary to that, in the study conducted by Kim et al. (2009), significant differences were not found between genders, age and educational levels. On the other hand, significant differences were not detected by One-Way ANOVA between customers from different age group relating to any dimension.

Significant differences between males and females regarding Staff were confirmed by t-test (Table 4), which indicate that staff should adjust behavior depending on customer gender. For example, males more appreciate serving in the time promised and reacting if something was wrong, while females more appreciate that staff make them feel special. Contrary to that, male and female customers had similar viewpoints regarding Food and Restaurant facility. The results obtained for Staff indicate that there are statistically significant differences in the customers' viewpoints according to their gender for 7 items (marked with * in table 4) at significance level $p<0.05$.

Table 4: Differences between customers according to the gender (Staff)

Staff	**Mean value**		**t-test**
	Male	**Female**	
My server served me in the time promised.	4.88	4.01	0.024*
The staff made me feels special.	2.96	4.76	0.008*
The greeter answered my reservation telephone call with a nice and friendly tone.	2.63	2.39	0.326
The staff provided a prompt and quick service.	4.59	4.53	0.116
The greeter welcomed me to the restaurant with a friendly smile.	4.15	4.21	0.248
The staff was sensitive to my individual needs and wants.	3.27	3.22	0.311
The staff members were sympathetic and react if something was wrong.	3.04	1.72	0.011*
My server was able and willing to provide me information about menu items, their ingredients and methods of preparation.	3.89	3.84	0.502
The staff members are clean, neat and appropriately groomed.	4.01	4.06	0.273
The staff seemed well trained, competent and experienced.	4.24	4.19	0.332
During busy times, staff helped each other to maintain the speed and quality of service.	2.38	1.98	0.013*
The staff gave extra effort to handle my special request.	3.30	4.41	0.007*
My server was dependable and consistent.	3.98	3.90	0.344
The greeter seated me within the time promised.	3.87	4.18	0.021*
My server served my food exactly as I ordered it.	3.73	3.80	0.302
The staff could answer my questions promptly and satisfactorily.	3.13	3.10	0.433
My server quickly corrected anything that was wrong.	4.28	4.67	0.048*

Source: Authors' research

Significant differences related to the Staff (Table 5) and Food (Table 6) between customers with high school and university education were confirmed by T-test. The customers' viewpoints related to Staff statistically significant ($p<0.05$) differ between groups with different level of education for the 5 items (marked with * in Table 5). The customers with high school education rated all those items higher than the customers with university education (Table 5). Those findings indicate that customer expectations increase with the level of education.

Table 5: Differences between customers according to the educational level (Staff)

Staff	**Mean value**		**t-test**
	High school	**University**	
My server served me in the time promised.	4.21	4.39	0.324
The staff made me feels special.	4.23	4.04	0.154
The greeter answered my reservation telephone call with a nice and friendly tone.	2.32	2.57	0.109
The staff provided a prompt and quick service.	4.41	4.62	0.556
The greeter welcomed me to the restaurant with a friendly smile.	4.57	3.98	0.042*
The staff was sensitive to my individual needs and wants.	3.25	3.23	0.812
The staff members were sympathetic and react if something was wrong.	3.50	2.73	0.023*
My server was able and willing to provide me information about menu items, their ingredients and methods of preparation.	4.09	3.74	0.045*
The staff members are clean, neat and appropriately groomed.	4.06	4.03	0.531
The staff seemed well trained, competent and experienced.	4.11	4.26	0.176
During busy times, staff helped each other to maintain the speed and quality of service.	3.01	1.64	0.008*
The staff gave extra effort to handle my special request.	4.03	3.99	0.472
My server was dependable and consistent.	4.34	3.71	0.044*
The greeter seated me within the time promised.	4.09	4.06	0.328
My server served my food exactly as I ordered it.	3.84	3.75	0.241
The staff could answer my questions promptly and satisfactorily.	3.08	3.13	0.116
My server quickly corrected anything that was wrong.	4. 58	4.50	0.093

Source: Authors' research

A significant difference ($p<0.05$) between customers with different level of education was found only for one item regarding Food (The portions were ample), which was rated higher by customers with high school degree. Differences between customers regarding Restaurant facility were not detected.

Table 6: Differences between customers according to the education level (Food)

Food	**Mean value**		**t-test**
	High school	**University**	
The food quality was better than in other restaurants.	4.78	4.71	0.541
The taste of my food was excellent.	4.77	4.68	0.111
The portions were larger than in other restaurants.	4.16	4.13	0.231
The meal was served at an ideal temperature.	4.35	4.24	0.417
The food was attractively presented.	4.21	4.49	0.092
The portions were ample.	2.99	2.60	0.041*

Source: Authors' research

5. Conclusion

Service quality has a very important role in success of restaurant business, through enabling meeting the customers' expectations and fulfilling their needs. It ensures many advantages, including guest satisfaction, business image, customer loyalty, competitive advantage, guest behavior in the future and positive recommendations.

The service quality in the Belgrade restaurants was analyzed with the aim to estimate the service quality attributes important for the Belgrade restaurants. Based on literature review we came to several hypotheses. The general research question is: Which of the quality attributes are rated as the best, and as such can influence the long-term profitable operation of restaurants in Belgrade. Questionnaires consisting of 30 items were used for data collection and statistical analysis confirmed high Scale Reliability of all items included in the questionnaire. Among the list of 30 items, "The food quality was better than in other restaurants" occupies the first position (Mean - 4.74). Factor analysis showed that 30 items formed three dimensions: 1) Staff (formed by 17 items), 2) Food (formed by 6 items) and 3) Restaurant facility (formed by 7 items). Kim et al. (2009) used similar items to examine the reliability and validity of an instrument for measuring service quality of restaurants and identified four similar dimensions (Product/Service, Reliability, Greeter and Physical environment). Customers' viewpoints on the importance of Staff, Food and Restaurant facility for service quality depended on the respondents' gender and level of education. Significant differences between male and female respondents regarding Staff were confirmed, while these two groups of customers had similar viewpoints regarding Food and Restaurant facility. Moreover, differences in viewpoints regarding the Staff and Food were detected between customers with different levels of education.

The findings of this study can contribute to both academy and practice. It can be of great importance for both the current and future restaurant owners in Belgrade, who can use these findings to improve the business performance of their restaurants. Restaurateurs should pay special attention to staff characteristics, food quality and appearance and comfortability of restaurant facility. The most important for them is to provide better quality food with excellent taste compared to other restaurants. Moreover, it is very important that they take care of the cleanliness of the toilets, etc. Furthermore, staff should adjust behavior depending on customer gender, because males more appreciate serving in the time promised and reacting if something was wrong, while females more appreciate that staff make them feel special. As customer expectations increase with the level of education, restaurateurs should adapt service quality to the requirements of customers with different levels of education.

This study has several shortcomings. The sample of respondents included customers without defined criteria for including restaurant customers in the study, which calls into question the representativeness of the sample. In future studies, it is necessary to improve the research methodology and apply the appropriate sample validity model. Secondly, the study did not include all attributes important for service quality, so future research should also take into account service innovation and service responsiveness. The survey included only customers of restaurants in the city center, so future research should be conducted in different locations in Belgrade. Moreover, future studies can incorporate comparative studies from other hospitality sectors and for domestic and foreign visitors.

Conflict of interest

The authors declare no conflict of interest.

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Ethical leadership concerning the establishment and promotion of sustainable tourism in the hospitality industry: A review of literature and qualitative analysis

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Abstract: This research study is a succinct review of the literature concerning ethical leadership in the hospitality industry and challenges with the establishment and promotion of sustainable tourism. The study takes a qualitative analysis approach to discover congruent themes concerning ethical leadership's establishment and promotion of sustainable tourism. The aim of the research is to provide a launching point for additional inquiry as it is foundational in purpose to illicit further examination.

Keywords: sustainable tourism, ethical leadership, promotion challenges
JEL classification*:* L83

Etičko liderstvo u vezi sa uspostavljanjem i promocijom održivog turizma u ugostiteljskoj delatnosti: Pregled literature i kvalitativna analiza

Sažetak: Ova istraživačka studija je sažet pregled literature o etičkom liderstvu u ugostiteljskoj delatnosti i izazovima sa uspostavljanjem i promocijom održivog turizma. Studija koristi pristup kvalitativne analize kako bi otkrila kongruentne teme koje se tiču uspostavljanja etičkog liderstva i promocije održivog turizma. Cilj istraživanja je da obezbedi polaznu tačku za dodatna istraživanja jer je od temeljnog značaja za dalje ispitivanje ove problematke.

Ključne reči: održivi turizam, etičko liderstvo, izazovi promocije
JEL klasifikacija: L83

1. Introduction

Sustainable tourism is certainly on the rise in the hospitality industry (Harris et al., 2016). As with growth in any industry, ethical methods of operations and accountability must be

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adhered to for the betterment of humankind and society as a whole. Because of this fact, it is pertinent and a responsible act (Sieber & Tolich, 2012) to research areas of problematic or questionable sustainability practices to improve possibilities and probabilities for future generations to enjoy what this world has to offer.

The fragility of economic, environmental, and social sustainability needs ethical leaders to make principled decisions to transpire the success and promulgation of this field of endeavor in the hospitality industry. Much research has been produced over the years concerning sustainability in areas of the hospitality industry. However, when trying to delve into the ethics of leadership in establishing and promoting sustainable/eco-friendly tourism practices, limited knowledge has been produced, relatively speaking, compared to other subject areas within this field. It is interesting to note that problems of being able to establish environmentally, socially, and economically sustainable businesses are discussed in the current research literature. However, when one looks at the leadership aspects of decision-making concerning these enterprises, the availability of knowledge is limited. For this reason, a knowledge gap is recognized and realized, and this study intends to provide a launching point for future research to commence regarding this subject.

In any research, problems must be defined, and then a structure, or a frame, should be constructed to enhance the progress of the research and its validity (Gournelos et al., 2019). For this paper, a literature review is conducted to define and discuss ethics and ethical leadership, in a multidisciplinary fashion. Also, sustainability and sustainable tourism are researched to assist with framing the subject of ethical leadership in establishing and promoting eco-friendly tourism. Finally, areas of problematic coordination concerning sustainable tourism are discussed within the literature review.

For analysis and discussion, multiple scholarly publications including peer-reviewed academic journal articles, instructional texts, and conference proceedings were garnered and analyzed for qualitative thematic discovery and congruency. For the purposes of this study, three top themes were realized and considered pertaining to ethical leadership and sustainable tourism exploitation.

2. Literature review

A literature review is facilitated to provide a foundation of context to the study being completed. A review of literature is more than a collection of evaluations of individual studies. "The review of literature is an interpretation of the meaning of those evaluations, and it can be said that the review of literature is a researcher's attempt to 'measure' what is known and unknown in a body of work" (Dellinger, 2005, p. 41). The literature review not only assists in providing the reader with information concerning the subject, but it also enhances the validity of the research (Borsboom et al., 2004) through the illumination of needs within the current field of study.

The review for this study culminated with an extensive search of relative academic literature across multiple databases. Major search terms included ethical leadership, sustainable tourism, establishment, and promotional challenges. Databases from the New Mexico State University Library, Lander University Jackson Library, Texas Woman's University Library, and Google Scholar, the most prevalent academic research database (Gusenbauer, 2019), were used to find multiple articles for review and analysis. A plethora of information was garnered, however, substantial literature concerning ethical leadership in sustainable hospitality was difficult to acquire.

This literature review provides foundational information on what ethics and ethical leadership are in the corporate environment, what sustainable tourism is, and what challenges are presented to the industry in the realms of establishment/exploitation and promotion. The review provides a foundation for the analysis and discussion of the problem at hand.

2.1. Ethics and ethical leadership

In recent years both scholars and the public have grown interested in exploring the relationship between ethics and leadership. To do that, the definition of both must be studied. The role of leadership includes "creating the moral organization, promoting development in others, and institutionalizing values within the organization's culture" (Lawton & Paez, 2015, p. 2). The literature discusses the importance of self-regulation with a correlation to social norms, which dictate the way professionals behave ethically (Sama & Shoaf, 2008). Understanding the differences between ethical leadership and other areas of ethics is a crucial factor within the literature.

According to Velasquez et al. (2010) "ethics is based on the standards of right and wrong and how humans should respond. These standards normally include terms of rights, obligations, benefits to society, fairness, or specific virtues". Ethics is often considered to be the "heart" of leadership (Cullen, 2020). Secondly, ethics is said to refer to the study of one's ethical standards. This means that we continuously examine our thoughts and beliefs to ensure that they are reasonable and justifiable.

2.1.1. Ethical leadership

Defining ethical leadership entails asking what characteristics ethical leaders possess, why they do what they do and how they do it. In a study conducted by Lawton and Paez (2015) they identify the framework of the three different dimensions of ethical leadership as Virtues, Purposes, and Practices (Lawton & Paez, 2015). Self-regulation and social norms are also discussed as factors that affect the way professionals behave ethically (Sama & Shoaf, 2008). In the literature, there is a view that there is a difference between "being" rather than "doing" (Lawton & Paez, 2015). The definition of ethical leadership used in the literature defines it as "the demonstration of normatively appropriate conduct through personal actions and interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision making" (Brown et al., 2005). Within this context ethical leadership involves the way a person conducts themselves in a way that is deemed ethically appropriate when they are making decisions and creating new relationships that would inspire others to follow them. When discussing what characteristics an ethical leader possesses, the literature focuses on the virtue concept.

Honesty and integrity are the main points when discussing a virtuous leader. Leaders with integrity are said to coherently display moral behavior in their beliefs and the way they act (Legrand et al., 2016). Treviño et al. (2000; 2003) researched to find out what exactly ethical leadership means to executives and observers. With interviews completed on twenty senior executives and twenty ethics/compliance officers from a variety of industries, they were to consider an ethical leader that they knew and answer questions about their behaviors, characteristics, and motives (Brown & Trevino, 2005). The literature shows evidence from the interviews "ethical leaders were thought to be honest, trustworthy, fair, care about people and society, and behave ethically in their personal and professional lives" (Brown & Trevino, 2005, p. 4).

When self-regulation within ethical leadership is discussed, literature states that professionals are "intrinsically motivated and their work is thought to be better executed" (Sama & Shoaf, 2008. p. 4). Self-regulation is achieved through what one calls ethical codes within social and cultural norms. Ethical leaders must practice the skills they developed from their professional training but also apply leadership over others (Sama & Shoaf, 2008).

The literature points to two types of leadership styles: transactional and transformational. In transactional leadership, the leader focuses on rewards. "It motivates the followers to achieve the goal and focus on the bottom line" (Sama & Shoaf, 2008. p. 4). So, because of the emphasis on achieving the tasks and the outcomes, this causes management to continue without referencing any type or "moral compass".

Transformational leadership, however, focuses on vision, trust building, core values, and long-term sustainability (Sama & Shoaf, 2008). This type of leadership creates motivation within the followers to focus on the end goal with all stakeholders involved. Organizations that operate with this type of leadership in mind tend to create an environment of individuals that lead, by example, implementing a learning culture with continuous employee development. Leaders that activate their moral intelligence engage in only doing the right thing consistently while recognizing their moral responsibility to their community (Sama & Shoaf, 2008). Ethical leaders create an environment of inspiring others to follow in pursuit of achieving moral good and maintaining core values.

Transformational leadership generates an environment that flourishes with success and maintains that success. With this style, the organization stands firm on the idea that ethics and social responsibility are the principal factors in their organization where workers also share these values and principles (Sama & Shoaf, 2008).

2.1.2. Ethical leadership in hospitality

Ethics are one of the most important key factors in the hospitality industry. Within the literature, we discover that ethical leadership within the hospitality industry leads to a sustainable industry. Research shows that employee performance, quality of work, and job satisfaction increase with the organization's ethical climate. An organization that maintains a healthy ethical environment has a low turnover rate and increased productivity and profit (Knani, 2014). On the other hand, ethics can be a challenge in the hospitality industry. The industry is open to unethical practices such as overbooking, theft, leading guests with misinformation, and situations of what is called "no harm". Literature shows the comparison of how influential ethical leadership is to the outcome of the workplace (Mostafa & El-Motalib, 2020).

According to Mostafa and El-Motalib (2020), the driver for work engagement in public organizations such as the hospitality industry is ethical leadership. The self-concept theory that the literature recalls, is what helps encourage work engagement by employees creating a moral obligation to the work they are completing. Ethical leadership creates meaningful work, and employees recognize the organization or company achieves the goal in mind (Mostafa & El-Motalib, 2020).

Understanding the meaning of work engagement is important when trying to make the connection to ethical leadership. According to Mostafa and El-Motalib (2020), "work engagement is a positive motivational, work-related state of mind characterized by vigor, dedication, and absorption" (p. 4). The roles of the hospitality and public sectors are shaped by the importance of both ethical leadership and work engagement.

Within ethical leadership, we have the two main aspects of morality that exist. The first is the moral person and the second is the moral manager (Brown & Trevino, 2005). Brown and Trevino (2005) stated that the moral person is personally committed to those moral obligations. While the moral manager practices ethical behavior and rewards employees for following suit.

Some scholars believe that implementing ethics in hospitality in hospitality school programs is important in developing these skills by employees. Knani (2014) emphasizes that by doing this, students can prepare for daily situations they will be faced with in the future. The literature discusses the important level of ethical standards concerning tourism and hotel management students. This is because they are provided with the opportunities to be educated and trained in ethics more often (Knani, 2014).

With training, evaluating employees' work values, and instilling the moral manager concept, hospitality companies are more likely to create a work environment where ethical leadership is a norm. As we can see from the literature, ethical leadership in the hospitality industry can create successful work environments where employees want sustainable success for themselves, and the company without compromising any ethical codes.

2.2. Sustainable tourism

Sustainable tourism, while still a relatively young entity in the hospitality industry, is on the rise as many consumers are becoming more aware of the impact that humanity has on the environment (Mtapuri & Giampiccoli, 2019). To effectively analyze and define what sustainable tourism is, we first need to delve into how sustainability is defined and how it is perceived. It can be construed as a triple impact on the environment, economy, and society (Legrand et al., 2016). The literature, while succinct, does give specific insights into what sustainability is, and how it has impacted the tourism industry.

The history of sustainability as a policy concept dates back to the Brundtland Report by Keeble (1988), where it was referred to as a development that meets the present needs without compromising the ability of future generations to meet their own needs. Moreover, the United Nations Environment Programme (UNEP, 2005) explained it as "improving the quality of human life while living within the carrying capacity of supporting ecosystems". It is related to planet protection, climate change halt, and social development promotion. Sustainability had three related pillars: environmental protection, social development, and economic growth.

The environmental dimension emphasized the impacts on flora and fauna in the ecosystems as well as the air, water, and land that we use (Chen et al., 2010). Nature and the environment are not infinite sources of resources, and they must be protected and used rationally (Sustainability for all, n.d.). The second dimension seeks to promote social development, which also aims to strengthen the cohesion between the communities and cultures to reach a reasonable level of life quality, healthcare, and education (Sustainability for all, n.d.). The last dimension is economic growth which refers to the organization's ability to manage its resources in a way that generates profits and economic benefits in the long term for local people (Chen et al., 2010).

As Cruz (2003) mentioned, the advent of sustainable tourism can be traced back to the 1960s during the environmental movement in Europe and North America, as well as the Declaration of the United Conference on the topic of the Human Environment which included twenty-six guidelines on environmental preservation. Then in 1972, the term was used for the first time in a report named "The limits to growth" by MIT scientists in which the main criterion that could prevent the growth on the planet were studied which included population, agricultural production, natural resources, industrial production, and pollution (Meadows et al., 1972). Years later, the Brutland Commission brought the world's attention to the critical need for a development that does not threaten the environment and takes care of the existing resources (Keeble, 1988). After that, in 1992, it was given further recognition and turned into a powerful basis for the United Nations Conference on Environment and Development in Rio de Janeiro. 10 years later, in 2002, in Johannesburg, South Africa, its principles were affirmed and eight main goals and eighteen related strategies for the sustainable development agenda were defined (Brokaj, 2014).

The early debate around sustainable tourism began by explaining what sustainable tourism is and what it is not, and then reached a level that revealed that more research must be conducted to study practical ways of moving all forms of tourism towards sustainability (Clarke, 1997). It was understood to move back from mass tourism, and thus they were categorized as the “good” and the “bad” (Clarke, 1997). They were opposed to each other as in sustainable tourism, the individual is preferred to the group, a traveler to the tourist, specialist operators than the large firms, small, not large, local accommodation rather than the multi-national hotel chains, and in one word, good versus bad (Wheeller, 1991).

Nowadays, more than ever, the practice of sustainability in tourism destinations is of significant importance for tourism stakeholders as more destinations are planning to restart tourism. After the outbreak of coronavirus, destinations and tourism activities are gearing up to reopen, more emphasis is on sustainability to balance the exposure of resources in the destination and the tourism consumption that results in the destination’s benefits (Seyedabolghasemi, 2022). Generally, sustainable tourism is frequently understood as a strategy.

Sustainable tourism encompasses various aspects that each of the authors and researchers expound upon. For example, Briguglio (2008) stated, the term “sustainable tourism” often refers to the delicate relationship and balance between economic and environmental concerns. Initially understood as the need to ensure the conservation and preservation of the environment, sustainability in tourism gradually developed into a more general approach that makes a balance between the economic, social, and environmental aspects (Šaparnienė et al., 2022).

Eber (1992) claimed that sustainable tourism is tourism that is associated with those kinds of infrastructures that: “both now and in the future operate within natural capacities for the regeneration and future productivity of natural resources; recognize the contribution that people and communities, customs and lifestyles make to the tourism experience; accept that these people must have an equitable share in the economic benefits of local people and communities in the host areas” (p. 3). Moreover, the World Tourism Organization (WTO, 1993) defined it as tourism that meets the needs of existing tourists and host communities while at the same time protecting and enhancing future opportunities. Further, years later, the Countryside Commission (1995) pointed out that it is a form of tourism that can sustain local economies without destroying the environment on which it depends. According to Obradović et al. (2021), it can be characterized as a kind of tourism that is related to the quality of residents’ life as well as the quality of visitors’ experience. Also, Choo and Halim (2022) noted, it contributes to lessening the negative impact on the local culture and environment by concentrating on the tourism vision. Therefore, sustainable tourism is the attempt to concentrate as much as possible on the local world for understanding the local preoccupations, appreciating local values, and the history of customs and traditions in a specific location.

In 2005, UNWTO and the United Nations Environment Programme (UNEP) indicated that sustainable tourism is about the principles of operation rather than being a form of tourism and introduced twelve different aims of sustainable tourism including its contribution to economic viability, local prosperity, employment quality, social equity, visitor fulfillment, local control, community wellbeing, cultural richness, physical integrity, biological diversity, resource efficiency, and environmental purity. According to Šaparnienė et al. (2022), minimizing the environmental impacts and maximizing tourism's positive contribution to environmental preservation, economies, and the well-being of both visitors and local communities are seen in various reports of governments and businesses.

Sustainable tourism has specific characteristics that include (Mitra, 2018):

- Informative by nature, which refers to the experience of tourists. When tourists get involved in sustainable tourism, they not only know about the destination but are also educated about local traditions, culture, folklore, customs, and sentiments. Moreover, the residents of a sustainable tourist destination realize how the basic facts about regular and familiar things and systems can be of great interest and value to foreign people;
- It promotes the value of conserving the resources of the destination for both guests and hosts;
- It emphasizes the engagement of locales to generate local employment and improve the overall local economy. Sustainable tourism also improves the locals' interest in the tourism business, helping the overall development of the business;
- It enhances the integrity of the destination.

According to Mitra (2018), sustainable tourism development has principles which are:

- Support and involvement of local people are crucial for the development and conservation of tourism in any destination;
- The benefit of the growing tourism industry in a specific area must be shifted to locals, therefore creating a direct connection between the local tourism business and its benefit to the local people;
- For the larger growth of sustainable tourism, strict guidelines, codes, and ethics must be specified;
- Education programs and training must be introduced for better management and promotion of the importance of natural and cultural resources.

As ever-changing technology, economy, and society continue to exist, the sustainable development of tourism must be harmonized with them (Higgins-Desbiolles, 2018). Moreover, Juganaru et al. (2008) noted that sustainable tourism is about discovering and knowing about a foreign culture. To do so, tourists need to:

- Be curious but consider the natural environment;
- Choose accommodation having in mind the criteria of respect for the environment;
- Prefer rural accommodation in rural houses;
- Respect the local lifestyle, by displaying interest in their culture and spoken language;
- Adapt as much as possible their nutritional habits to local traditions.

Several types of sustainable tourism have been identified in the literature opposing mass tourism. They include ecotourism, green tourism, responsible tourism, agrotourism, and community tourism, which are all defined in the following:

- Ecotourism: Ecological tourism or ecotourism was first developed to refer to nature-based tourism activities (Wallace & Pierce, 1996). According to Ceballos-Lascurain (1987), ecotourism is a kind of tourism in which patrons travel to relatively undisturbed or untouched natural areas for studying, admiring, and enjoying natural sceneries, flora, and fauna, as well as visiting the cultural heritage of the destination. The most agreed definition of ecotourism is the one raised by the International Ecotourism society which describes it as "responsible travel to natural areas that conserve the environment, sustains the well-being of the local people, and involves interpretation and education".

- Green Tourism: One of the important components of sustainable tourism which is also known as small-scale tourism is green tourism. It involves visiting natural areas while valuing the environment, minimizing the negative environmental impacts, and preserving natural resources (Smallbone, 1996).

- Responsible Tourism: According to the International Coalition for Responsible Tourism, this type of sustainable tourism is defined as "any form of development or tourist activity which respects and preserves in the long term natural, cultural and social resources and contributes in a positive and fair way to the development and the bloom of people who lives, works and spend their holiday in this place".

- Agrotourism: Defined by the National Agricultural Law Center (n.d.), it is a type of commercial enterprise, linking "agricultural production and/or processing with tourism to attract visitors onto a farm, ranch, or other agricultural business for the purposes of entertaining and/or educating the visitors while generating income for the farm, ranch, or business owner." Also, sometimes visitors can work in the field with the farmers, coffee growers, fishermen, and vineyardists (Juganaru et al., 2008).

- Community Tourism: Community-based tourism is a type of tourism that is focused on engaging local communities in a tourism development localized and developed to their benefit (Juganaru et al., 2008). They often invite tourists to visit their communities and enable them to discover the local flora and fauna and respect their traditions and cultures. Moreover, overnight accommodation is often provided (Francis, n.d.).

Mass tourism, popular before the nineties, contributed to environmental and socio-cultural negative impacts on locals that were studied broadly. When the negative impacts of mass tourism were investigated, the interest in the concept of sustainable tourism increased to minimize the costs and impacts in destination areas (Ioannides, 1995). In the late eighties, when sustainable development gained significant attention as an environmental management concept, a growing number of studies were done on the principles and practices of sustainable tourism development (Hunter, 1995). It was suggested that controlling the size and volume of tourism might help control the situation especially because many tourism destinations are located in fragile environments (Kilipiris & Zardava, 2012). Therefore, researchers raised concerns about different issues. The importance of the carrying capacity was brought to the fore. The carrying capacity of a destination is analyzed and determined in terms of the natural environment, socio-cultural environment, capability of infrastructure, and heritage structure. In other words, it refers to the amount of use beyond which environmental degradation may happen (Holder, 1988; Inskeep, 1988). Therefore, if the number of visitors to a destination increases and goes beyond the carrying capacity, negative impacts such as soil compaction, decreased soil surface and vegetation density will rise (Kourandeh & Fataei, 2013). The other concern is related to the intergenerational aspect which discusses that in the absence of any information and knowledge of future generations, their preferences, and technologies, finding a suitable substitution that would provide the same level of welfare is challenging (McMinn, 1997).

In developing countries, tourists tend to visit and experience the Indigenous culture which leads to high interest in visiting "off-the-beaten-track or less visited areas" (Mowforth & Munt, 2003, p. 67). The tourism industry is adapting itself, adjusting to contemporary trends, and seeking innovations. As a result, it encourages the creation of new forms of tourism businesses and provides new territories (Santana-Talavera & Fernadez-Betancort, 2015).

2.2.1. Establishment and promotion of sustainable tourism

Establishing a new entrepreneurial venture is most challenging and risky to stakeholders as the chances of failure are high, especially in hospitality endeavors (Chon & Yu, 1999). However, with efficient and effective operations being facilitated by ethical and cognizant leadership, new establishments have a better chance of survival (Madanchian et al., 2017). By utilizing ethical leadership in effective manners, new forays into the hospitality field could have better chances of survival. However, with the challenges facing sustainable tourism, many of these challenges could be even greater than traditional instances of entrepreneurship. Multiple trials are typically faced with trying to launch a new business in this field of endeavor. The simple fragile nature of the environment surrounding these institutions has to be taken into consideration, and leadership is faced with ethical challenges when trying to establish and promote sustainable tourism and hospitality industries in general.

Leadership is challenged with the task of making the right decisions with establishing sustainable tourism that will not impact the environment, society, and economies negatively. While it is quite possible to establish and promote areas of tourism that do not consider the fragility of society and the planet, is this an ethical stance in business?

Many challenges that face establishing and promoting sustainable tourism are focused on the impacts it may have on the environment (Dabour, 2003). Implementing new foreign entities into ecosystems could facilitate the deterioration of the native environment and it is an ethical dilemma to decide whether or not to move forward with facilitation. Also, the disruption of local communities comes into light as new tourism ventures certainly impact those within the vicinity of the new enterprise (D'Amore, 1992). Finally, can economic sustainability in tourism (Fowler, 2022) be achieved while providing socially and environmentally conscious offerings to a tourism-hungry public?

As the public becomes more cognizant of sustainable practices in tourism and hospitality as a whole, it will be up to leaders to make the right choices to establish and promote new ventures within the hospitality field. If ethical standards are not adhered to by considering the environment and society, while maintaining economic viability, one may find that potential consumers are less likely to patronize an establishment (Nicolaides, 2020). The utilization of true, authentic, ethical leadership (Mostafa & Abed El-Motalib, 2020) that considers the triple-bottom-line (Jayswal et al., 2011) of sustainability in decision-making should be advantageous to the enterprise as well as those around it. Because of these considerations, one may also deem leadership to be "ethical" in nature. Is it ethical leadership that drives the decision-making, or does the decision-making define ethical leadership? That is a question to be asked and answered in future research. However, if one takes historical ethical stances on decision-making (Brown & Treviño, 2005) in the field, potential negative impacts could be less probable.

3. Methodology

The purpose of this study is to review the current academic literature considering ethical leadership and its challenges with the approaches to establishing and promoting sustainable tourism. "To coincide with a review to garner a succinct understanding of the subject, a concise meta-analysis was performed to uncover the main qualitative themes in the articles reviewed. A rigorous search and data analysis of the literature was performed" (Fowler, 2022, p. 30).

3.1. Data collection

A search commenced concerning academic literature that focused on ethics, ethical leadership, sustainability, and sustainable tourism. Google Scholar and electronic database libraries from New Mexico State University, Lander University, and Texas Woman's University were searched for relevant information concerning the subject. Thirty scholarly articles were selected for analysis based on publication date, relativity to the subject, rigor, and citations. The articles were organized into a Mendeley reference library repository for ease of association and analysis. The articles were reviewed and analyzed using qualitative assessment software. MAXQDA2020 qualitative research suite was utilized to organize the articles, facilitate lexical searches, and manually code the thematic instances. "The literature included publications considered scholarly in nature, including academic journal articles, textbooks, and conference proceedings" (Fowler, 2022, p. 30).

3.2. Data analysis

Documents were reviewed for content, rigor, and relevancy concerning ethical leadership and challenges with sustainable tourism. Using MAXQDA2020 qualitative research suite, a lexical search was employed to determine the emerging similar qualitative themes. The analysis uncovered multiple themes, over ten, that were identified within the literature. However, a succinct account of the top three themes is presented in the results and discussion? (Fowler, 2022, p. 30).

4. Results

4.1. Themes

Over ten substantial qualitative themes were discovered during qualitative analysis. Three themes are predominant with frequency and are applicable for discussion. A list of the top three themes is illustrated in Table 1.

Table 1: Top thematic instances

Thematic code *n=30 documents*	**Instances**	**Number of documents**
Environmental impact	85	18
Societal impact	62	19
Financial/economic impact	51	16

Source: Authors' research

Each of these themes is discussed below.

4.1.1. Environmental impact

Environmental impact with eighty-five instances is the foremost qualitative realization in the data analysis. A realized lack of negative environmental impact and promulgation of positive impact on the environment were both identified. The texts present concern for the future and present conditions of the environment, and the abilities to confront these challenges. A sample of excerpts is found in Table 2.

Table 2: Environmental impact

Source	Text extract
Dabour (2003)	"environmental impacts of ecotourism"
Fui Yeng & Yazdanifard (2015)	"environmental issue is a sizzling topic"
Buzova (2022)	"reducing their environmental footprint"
Worku et al. (2019)	"components of the park ecosystem, keeping the highly fragile soil of the area intact"

Source: Authors' research

4.1.2. Societal impact

Negative and positive impact on society, *n*=62, is also a primary concern within the sustainable tourism industry. Samples of found instances are illustrated in Table 3.

Table 3: Societal impact/disruption

Source	Text extract
Worku et al. (2019)	"wellbeing of the local community"
D'Amore (1992)	"respecting our traditions, customs, and local regulations"
da Silva Junior et al. (2020)	"impacts on local people"
Dellinger (2005)	"based on current societal values"

Source: Authors' research

4.1.3. Financial/economic impact

As a capitalistic industry, the ability to make money is a foremost concern for businesses. The economic validity of sustainable tourism, negative and positive, was evident in the literature with fifty-one discovered instances. Text extracts of literature instances are illustrated in Table 4.

Table 4: Financial impact

Source	Text extract
Stronza et al. (2021)	"failed to generate financial support for"
Chon & Yu (1999)	"characteristics and economic impact of the service"
da Silva Junior et al. (2020)	"needed for its economic growth"
Pratesi (2019)	"visitors spending money on hotels, restaurants, souvenirs, and attractions"

Source: Authors' research

5. Discussion and concluding remarks

The results of the data illuminate true concern for the triple-bottom-line of sustainability within the tourism industry. The challenges that hospitality industry leadership face to establish and promote new ventures are valid, as the public is more aware of the stances taken by businesses to consider fragile ecosystems and societies in their endeavors. While ethical leadership is well-defined in the context of traditional corporate environments, it is not well understood in the hospitality trade. Similar concerns for societal and ecological impact across multiple business disciplines outside of the hospitality industry are addressed by ethical leadership in manners that are positive for both the corporate and societal entities. The tourism industry should follow suit by implementing ethical practices in leadership to "do the right thing" and promulgate economic viability while maintaining moral stewardship of the environment and society. It has proven positive in corporations across the globe (Mostafa & Abed El-Motalib, 2020), and should provide viable opportunities for success in the tourism field.

Researchers, students, and practitioners in the field may find this study to be a foundational start or launching point for additional investigation. Also, the analysis provides validity for current research of the most significant themes discovered that are parallel with other industries outside of hospitality. This can provide the groundwork to begin an additional inquiry into the field of endeavor and assist with additional rigor possibilities. Also, this can assist practitioners to provide them with insights into what ethical stances are necessary by leadership to address to promote economic viability in the industry while maintaining sustainable processes.

It is evident that there is heightened concern for three different areas of sustainability in the tourism industry. Consideration for the environmental and societal impacts of enterprises while maintaining economic stability is evident in public consumer cognition. It is up to ethical leaders, those with a fine-tuned moral compass, to make the right decisions while diminishing negative impacts on sustainability. Furthermore, when authentic leaders (Wang & Xu, 2019) make ethical decisions concerning the environment and society before launching an entrepreneurial venture, the adorning public may consider this to patronize the establishments. It will take moral leadership within the hospitality industry to follow these considerations to promote success within the field. It is a win-win-win scenario for capitalism, the environment, and for society.

This study was a succinct review of limited literature concerning ethical leadership and sustainable tourism. It is limited by a small sample of available literature and a narrow focus of exploration. Additional literature could be garnered to facilitate a larger sampling and provide potentially more robust results to facilitate additional validity. Furthermore, additional areas of inquiry could include debate and discussion concerning ethics driving decision-making within the hospitality industry, or decision-making driving ethical perceptions. Additional research could commence by expanding the scope of the investigation.

Conflict of interest

The authors declare no conflict of interest.

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Review Article

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The tourism sector as a determinant of reducing the balance of payments deficit in the Republic of Serbia

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Abstract: The importance of the tourism sector for the successful functioning of the national economy differs considerably from one country to another. Economic research has mainly dealt with the impact of tourism on economic growth, development and employment. The subject of this paper is an examination of the tourism sector as a possible factor in reducing the balance of payments deficit in the Republic of Serbia. The goal of the research is to find out to what extent the tourism sector can contribute to the correction of the disequilibrium in balance of payments of the Republic of Serbia. Secondary data analysis, comparative methods and correlation analysis were used in the research. The results of the research indicate that the decline in imports of tourist services, due to the change of direction of domestic tourist demand, can have a positive effect on the reduction of the current account deficit and, consequently, the balance of payments deficit in the Republic of Serbia.

Keywords: tourism, tourist services, balance of payments, current account deficit, the Republic of Serbia
JEL classification: Z39, F30

Sektor turizma kao faktor smanjenja deficita platnog bilansa Republike Srbije

Sažetak: Značaj sektora turizma za uspešno funkcionisanje nacionalne ekonomije značajno se razlikuje od zemlje do zemlje. Fokus ekonomskih istraživanja u prošlosti uglavnom je usmeren ka ispitivanju uticaja turizma na ekonomski rast, razvoj i zaposlenost. Predmet rada bazira se na ispitivanju značaja sektora turizma kao mogućeg faktora smanjenja deficita platnog bilansa Republike Srbije. Cilj istraživanja je da se utvrdi u kojoj meri sektor turizma može doprineti uravnoteženju platnog bilansa Republike Srbije. U radu su korišćene analiza sekundarnih podataka, kao i komparativna metoda i korelaciona analiza. Rezultati istraživanja ukazuju da smanjenje uvoza turističkih usluga, kao rezultat preorijentacije domaće turističke tražnje, može pozitivno uticati na smanjenje deficita tekućeg računa, a samim tim i deficita platnog bilansa u Republici Srbiji.

Ključne reči: turizam, turističke usluge, platni bilans, deficit tekućeg računa, Republika Srbija
JEL klasifikacija: Z39, F30

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1. Introduction

The tourism sector, as an integral part of the economic system, plays a significant role in the functioning of national economies. The importance of tourism in stimulating economic development is reflected in the fact that it contributes to the increase of production and employment, but it can also play a part in improving the balance of payments (BoP) as well. Given that many developing countries are experiencing persistent BoP annual deficits, tourism could be an important factor in improving the service trade balance as an important component of the overall BoP. By attracting foreign tourists and increasing their consumption of domestic products and services, the state increases the so-called “invisible export”. At the same time, the state can stimulate the reorientation of domestic tourist demand from foreign to domestic tourist destinations, which reduces “invisible imports”, that is, the consumption of domestic tourists in other countries.

Regarding the contribution of tourism to the BoP deficit reduction, this impact varies significantly from country to country, although some general conclusions can be applied. The contribution of tourism in financing the BoP deficit is most significant in countries that attract a great number of tourists, as is the case with the Mediterranean countries, where tourism generates high revenues. However, tourism can be an important factor in improving the BoP in both developed and developing countries. As for the Republic of Serbia (RS), the tourism sector is far less important for the national economy in comparison to countries reliant on tourism. Regardless of that, tourism certainly plays a significant role in the economic development of the RS, which is also the main motive for examining its potential to reduce the BoP deficit in the RS.

The importance of the tourism sector in improving the BoP in the RS has become noticeable in 2020 and 2021 when the surplus in tourist service trade was recorded for the first time. Hence, the main research contribution of the paper is reflected in highlighting the potential of tourist service trade surplus to offset the BoP deficit in the RS, given that the presence of the tourist service trade deficit from 2007 to 2019 adversely affected the current account (CA) balance and the BoP. Also, to the best of the authors’ knowledge, the relation between the tourist service trade and the BoP financing has not been previously studied in the RS.

The paper is organized as follows. After the introduction, the second part of the paper presents an overview of relevant research that analyzed tourism as a factor in improving the BoP. In the third part, a description of the data and methodology used in the paper is provided. The fourth part of the paper is devoted to research results and discussion. In the last part, appropriate conclusions are drawn.

2. Literature overview

Researchers have examined the impact of tourism on the economic performance of individual countries from different perspectives, but predominantly their focus was on the impact on economic growth, GDP and employment. Regarding economic growth, Dritsakis (2004), on the example of Greece, proved the existence of the long-term relationship between tourism and economic growth. Similar conclusions were reached by Balaguer and Cantavela-Jorda (2002), on the example of Spain, who also confirmed the relationship between tourism income and economic growth in the long term. The indirect impact of tourism on economic growth is achieved through triggering other complementary activities, such as the hotel industry, retail and wholesale, transportation, agriculture and others. Apart from the positive impact on economic growth, tourism has a positive impact on employment and job creation (Soukiazis & Proenca, 2008).

The impact of tourism on the BoP began to attract the attention of researchers over the last couple of decades. Hundt (1996) was among the first researchers to point out the positive contribution of the tourism sector in correcting disequilibrium in the BoP. The existence of a positive impulse of the tourism sector in financing the CA deficit in the case of Barbados was confirmed by Lorde et al. (2010). Recent research also confirms the role of the tourism sector as a factor in improving the BoP and financing the CA deficit. Ongan (2008) confirmed the growing importance of the tourism sector in financing the CA deficit in Turkey, and identical conclusions were reached by Cetintas and Bektas (2008), Arslanturk and Atan (2012), Alp and Gene (2015), as well as Cihangir et al. (2014). Celik et al. (2013) found that the increase in tourism income in the period from 1984 to 2012 influenced the reduction of the BoP deficit in Turkey by 14%.

Recently, Santacreu (2016) has investigated the impact of tourism sector on China's CA balance in the 2000-2015 period. China recorded a continuous CA surplus since 2000, which means that the Chinese economy stands as a net lender to the rest of the world. The author concludes that a positive goods trade balance played a key role in maintaining the CA surplus in China. When it comes to the services trade balance, Santacreu (2016) concluded that the services exports were equal to imports from 2000 to 2007, after which an increase in the service trade deficit occurred. By the end of 2015, the service trade deficit accounted for approximately 1.7% of China's GDP. The tourism sector was a major factor that triggered the increase in the service trade deficit, since the import of tourist services surpassed the exports starting from 2015. As a consequence of the increase in the deficit of tourist services, the CA deficit of China recorded a slight growth at the end of the observed period despite the presence of goods trade surplus.

The role of tourism sector in improving the BoP has also been recognized by the World Tourism Organization (UNWTO). In the publication dedicated to global tourism trends in 2019, UNWTO (2020) pointed out that tourism revenues have the potential to reduce the service trade deficits in many countries, which improves the BoP. The 2019 data revealed that among the countries with the highest tourist services trade surplus there were highly developed economies, such as the United States, France, Italy, Spain, France, but also developing countries, such as Thailand, Macau, Mexico, Malaysia, Dominican Republic and Morocco. The above once again confirms the importance of the tourism sector in improving the BoP in both developed and developing countries.

Gidey (2021) observed the impact of tourism sector on offsetting the CA deficit on the example of Ethiopia. In order to determine the existence of the causality relationship between tourist service trade and the CA deficit the author implemented ARDL methodology and the Granger causality test. Gidey (2021) came to the conclusion that tourism sector positively affects the CA balance in Ethiopia and tourism revenues could serve as an alternative means of minimizing Ethiopia's CA deficit. Rafiq et al. (2021) investigated the asymmetric impact of tourism sector on the BoP deficit in Pakistan. The research covered the period from 1995 to 2019 and the ARDL model was used. The authors confirmed the asymmetric relationship between tourism and the persistent BoP deficit. Namely, as a result of positive changes in the tourist service trade balance, the BoP deficit decreased by 27%, while negative changes in the tourist service trade balance led to an increase in the CA deficit by merely 2.3%.

When focusing on Western Balkans, it can be stated that tourism plays an important role in reducing the BoP deficit. Thano (2015) found that tourism sector is the most important in the export of services in Albania. In the 2004-2013 period, the export of tourist services accounted for 60% to 80% of the total export of services. However, the rapid growth of the outflow of Albanian tourists abroad reduced the effect of the tourism sector on the Albanian

BoP. The outflow of funds due to the import of tourist services in 2013 increased by 115.7% compared to 2004. When looking at Montenegro, it can also be said that it is an economy reliant on tourism. This reliance is particularly evident in financing the CA deficit. Due to its high dependence on imports, Montenegro suffers from a chronic CA deficit, and the tourism sector significantly contributes to its reduction. Research conducted by Veličković and Tomka (2017) indicates that in the 2005-2008 period, the tourism sector did not have an impact on CA deficit financing in Montenegro, since despite the increase in tourism income, an increase in deficit was recorded. However, in the 2009-2014 period, the increase in tourism revenues had a positive effect on the reduction of the CA deficit. The authors concluded that from 2005 to 2008 an increase in tourism revenues of one million euros would result in an increase in the CA deficit of 3.40 million euros. On the other hand, when looking at the 2009-2014 period, an increase in tourism revenues of one million euros would reduce the CA deficit by 1.95 million euros. Also, Albania and Montenegro were included in research conducted by Bacović et al. (2020), which analyzed the short-term and the long-term impact of the export of tourist services on the CA balance and economic growth in Mediterranean countries in the 1998-2018 period. The authors found that tourist services had a more significant impact on CA balance dynamics compared to other types of services in Mediterranean countries.

3. Data and methodology

Secondary data collected by the National Bank of Serbia (NBS, 2022) as part of external economic statistics were used in the paper. For the research period the 2007-2021 period was taken, considering that in this period the BoP methodology in RS was harmonized with the methodology of the International Monetary Fund (2009) for the preparation of the BoP (BPM6 – BoP and International Investment Position Manual, Sixth Edition). As the initial year of the observed period 2007 was chosen, given that in the period before 2007, the BoP methodology in RS was harmonized with the previous IMF methodology – BPM5 (NBS, 2006). The data used in the analysis refer to the CAD, service trade balance, as well as the export and import of tourist services.

The methodological approach used in the paper is based on quantitative analysis, with the primary goal of examining the impact of the tourist service trade balance on the CA deficit in RS. The secondary data analysis, comparative analysis and correlation analysis were carried out in the paper. In order to indicate the importance of service trade balance in financing the CA, secondary data analysis is used. A comparative analysis was used to assess the role of the tourism sector in comparison to other components of the service trade account in achieving the service trade surplus, and, consequently, in reducing the CA deficit. Correlation analysis was used to examine the relation between the tourist service trade and the CA deficit in the observed period.

The main research hypotheses examined in the paper are:

H1: The tourist service trade balance affects the reduction of the CA deficit in the RS.

H2: The Covid-19 pandemic has contributed to the increase of the tourism sector's impact on improving the BoP in the RS.

4. Results and discussion

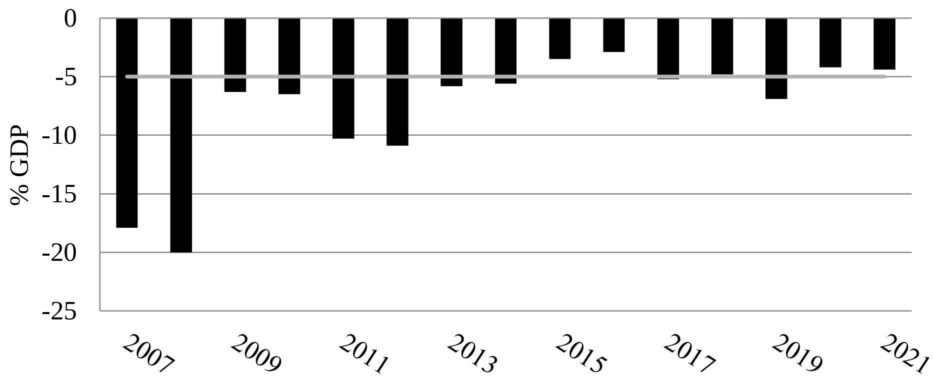
This part of the paper presents the results of the analysis of the tourism sector's contribution to improving the CA deficit in the RS. In order to conduct a comprehensive analysis of the importance of the tourism sector as adequately as possible, the composition of the service trade account is first shown, considering that the effects of the tourism sector on the CA are directly manifested through the service trade account. In Section 4.1. the decomposition of the services account was carried out to determine the role of the tourism sector in comparison with other components of this account and ultimately show the role of the service trade account in financing the CA deficit. The contribution of tourism sector to minimizing the CA deficit is analyzed in Section 4.2.

4.1. Export and import of services and the CA deficit

The BoP in RS is characterized by persistent annual deficits, which are primarily the result of the annual CA deficits (Malović, 2008). Figure 1 shows the CA deficit in the RS in the 2007-2021 period, expressed as a percentage of GDP. The CA deficit fluctuated considerably in the observed period, reaching the highest level in 2008 (over 7 billion euros), while the lowest level of deficit was recorded in 2016 (a little over one billion euros) (NBS, 2022). Although there is no consensus in the economic literature about the acceptable size of the CA deficit, from the aspect of long-term macroeconomic sustainability, a level of up to 5% of GDP is considered sustainable (Janković, 2015).

In most of the observed period, the CA deficit of the RS exceeded 5% of GDP, while in the first two years of the observed period it amounted to 17.8% and 20% of GDP, respectively. In 2015, for the first time, the CA deficit amounted to less than 5% of GDP. Until the end of the observed period, the CA deficit remained at a level of less than 5% of GDP in all years, except in 2017 and 2019 (5.2% and 6.9% of GDP, respectively).

Figure 1: CA deficit as % of GDP of RS in 2007-2021



Source: NBS, 2022

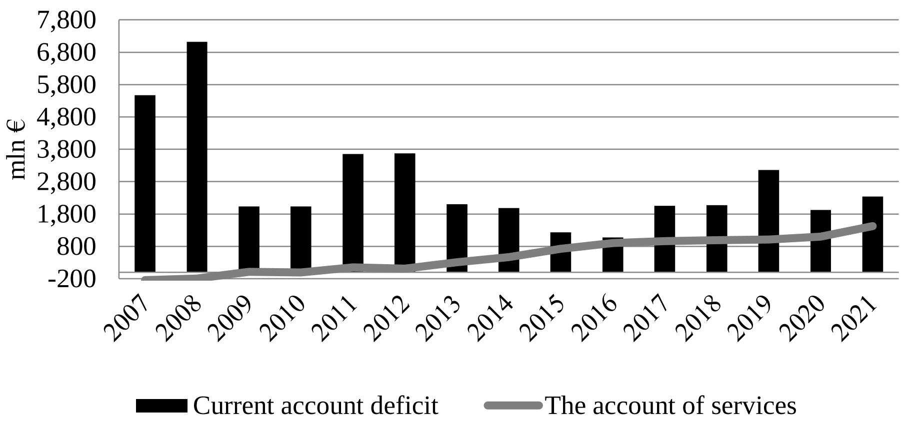
A more thorough analysis of the components of the CA can detect the key factors that impact its dynamics in the observed period. In this sense, changes in the value of the account of export and import of goods and services, as well as the account of primary and secondary income are the main components that can affect the reduction of the CA deficit.

First of all, it should be pointed out that the existing CA deficit is primarily the result of a multi-year goods trade deficit (Knežević & Penjišević, 2021). Also, the primary income account contributed significantly to the CA deficit, primarily due to the growing outflow of income stemming from foreign direct investments (Kovačević, 2020). On the other hand, the increase in services trade surplus and the continuous surplus in the secondary income account led to the gradual decrease in the level of the CA deficit in the observed time period. Secondary income account (primarily remittances from workers from abroad) which recorded a surplus of 4.5 billion euros in 2021 has been a particularly important factor in reducing the deficit (Đekić et al., 2022). Regarding trade in services, there seems to be an increase in its potential for reducing the CA deficit since the trade surplus in services has been rising in the entire observed period (Vemić, 2021).

When looking at the trade in services, the trade deficit was recorded in the initial years of the observed period (2007-2010), but from 2011 until the end of the observed period, a continuous increase in the services trade surplus was recorded (Figure 2). The presence of the services trade deficit in the initial years of the observed period was primarily caused by errors made in conducting the economic policy (Marjanović & Marjanović, 2019). However, the surplus reported starting from 2011 was not merely sufficient to completely offset the CA deficit. For example, the services trade surplus amounted to 111 million euros in 2012, while the CA deficit amounted to slightly more than 3.6 billion euros.

The more dynamic increase in service trade surplus since 2015 emphasized its potential in reducing the CA deficit. Thus, in 2015, the services trade surplus was sufficient to finance more than 50% of the CA, while in 2016 the services trade surplus was only slightly lower. However, the upward trend recorded in the CA deficit dynamics since 2017, along with slower growth of the trade surplus in services, resulted in lowering the impact of services trade surplus on financing the CA deficit.

Figure 2: The role of service trade surplus in financing the CA deficit, 2007-2021

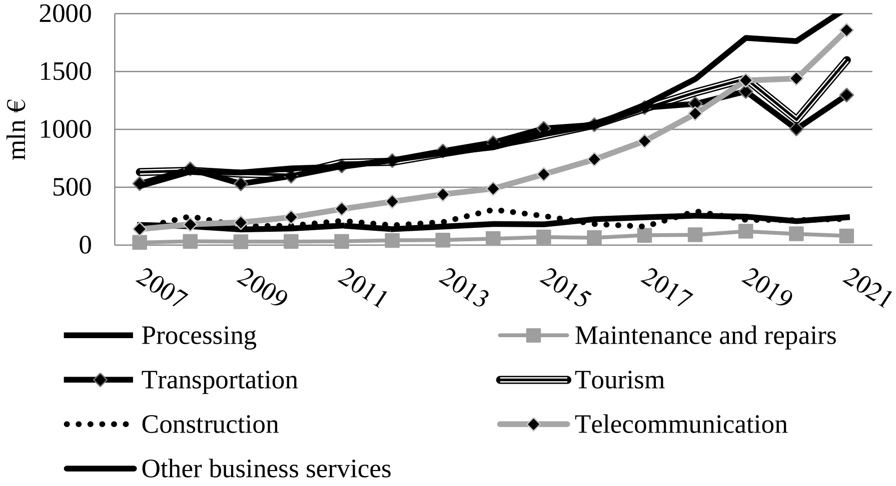


Source: NBS, 2022

Nevertheless, it can be said that the trade surplus in services has become an increasingly important factor in reducing the CA deficit. In 2021, the services trade surplus amounted to over 1.4 billion euros, which is almost 10 times more compared to the level reported in 2011. On the other hand, goods trade deficit was recorded in the entire observed period. From 2008 to 2016 the goods trade deficit declined from almost 8.5 billion euros in 2008 to just over 3 billion euros in 2016. However, since 2016, there has been an increase in the trade deficit in goods due to a more dynamic growth of imports than exports.

By looking at the export and import of services separately, it can be observed that, on the export side, telecommunication and tourist services are the most important ones. As Figure 3 shows, at the end of 2021, other business services (research and development services, professional and managerial consulting, technical and other services) recorded the largest export in the amount of more than 2 billion euros. Telecommunication services also recorded the upward trend in the observed period.

Figure 3: The export of services in the RS, 2007-2021

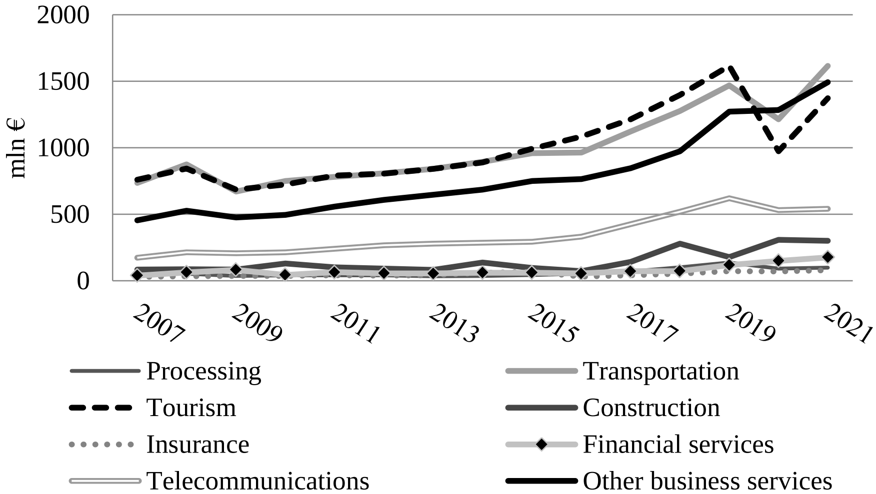


Source: NBS, 2022

At the end of 2021, telecommunications were the second largest item on the export side with the value of 1.8 billion euros approximately. The third largest export belonged to tourist services. After the apparent rising trend in the period from 2007 to 2019, a sharp decline in 2020 was recorded due to the Covid-19 outbreak. Transportation services export follows, which at the end of 2021 amounted to approximately 1.3 billion euros. The export of other services groups in the observed period was significantly lower compared to telecommunications, tourism, transport and other business services.

In the structure of import of services, other business services, transport and tourist services dominate. The import of telecommunication services was smaller than the export and amounted to 540 million euros in 2021 (Figure 4). In most of the observed period, tourist services were the most imported ones, but in 2020 a sharp decline was recorded due to the closure of national borders that followed the Covid-19 onset.

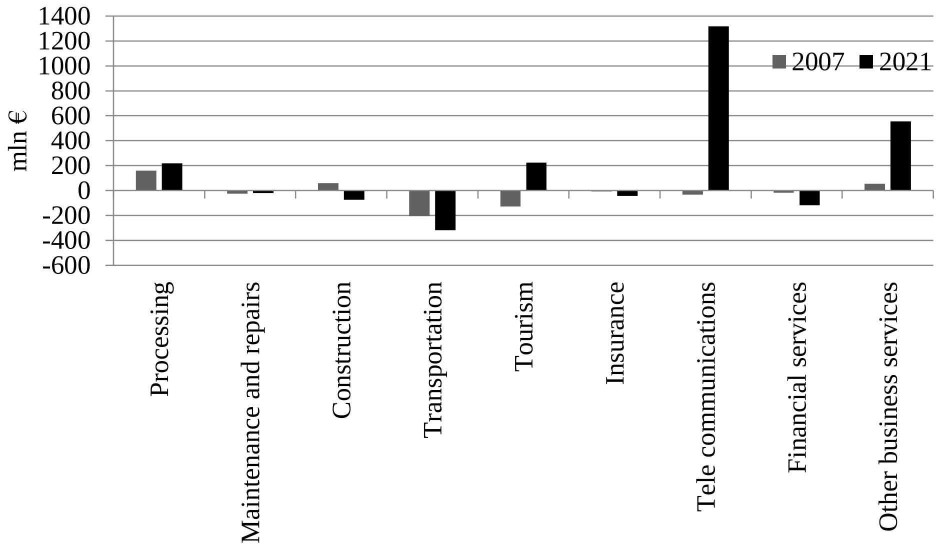
Figure 4: The import of services in RS, 2007-2021



Source: NBS, 2022

As can be seen from Figure 5, the increase in the services trade surplus largely contributed to the trade surplus in telecommunications, which significantly increased in 2021 compared to 2007, as well as the trade surplus in other business services. Also, processing and tourist services contributed to the increase in trade surplus, but to a minor extent.

Figure 5: Trade balance for different services groups in the RS, 2007-2021



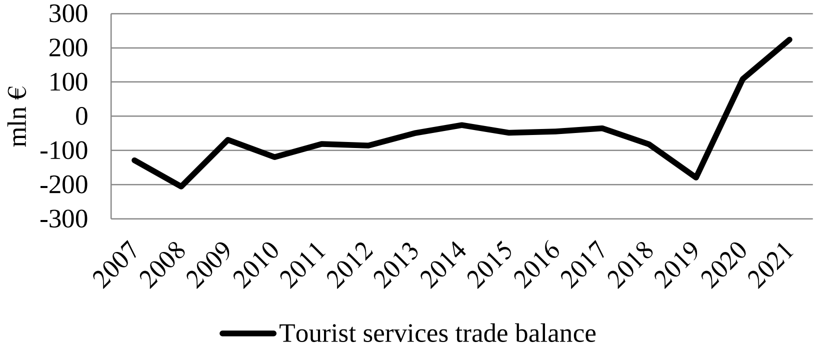
Source: NBS, 2022

In addition to the services trade surplus and secondary income account as two items that significantly offset the CA deficit, it is very important that the creators of economic policy additionally encourage exports of goods to reduce the goods trade deficit. Also, with an appropriate investment policy government must encourage foreign investors to reinvest the realized profit instead of the current practice of profit repatriation, which would positively affect the primary income account deficit reduction (Kovačević, 2017). The aforementioned measures would ultimately contribute to the deficit reduction.

4.2. The role of tourism sector in offsetting the CA deficit

The trade balance in tourist services has shifted from the deficit recorded in 2007 (129 million euros) to the surplus recorded at the end of 2021 (224 million euros). A closer look at the trade balance in tourist services, as shown in Figure 6, reveals that from 2007 until 2019 the trade deficit in tourist services was recorded in every single year (Petrović et al., 2016). The tourist service trade deficit was largest in 2008 (205 million euros), but in the final two years of the observed time period, a surplus was recorded as a result of larger exports to imports of tourist services.

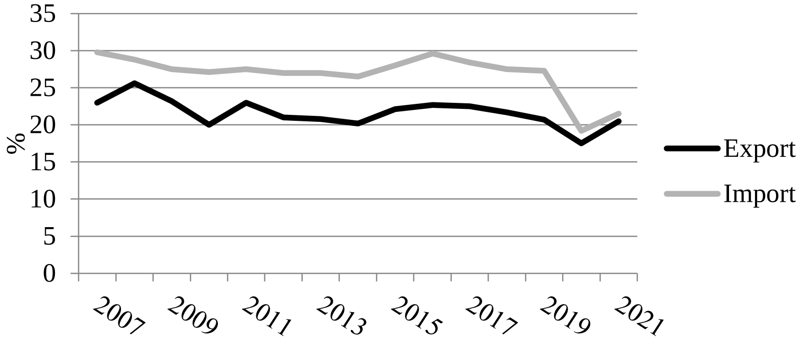
Figure 6: Tourist services trade balance in the RS, 2007-2021



Source: NBS, 2022

Tourist services have a significant share in both the export and import of services in the RS. In Figure 7, it can be seen that the share of tourist services in the total export of services was approximately 20% in 2021, but it was slightly higher at the beginning of the observed period (25.6% in 2008), which suggests that in addition to the increase in the tourist service exports in the last two years in absolute terms, a further progress can be achieved. More precisely, in the following period, efforts should be made so that the export of tourist services reaches and surpasses the share in the total export of services from the beginning of the observed period.

Figure 7: Import/export of tourist services as % of the overall import/export of services, 2007-2021



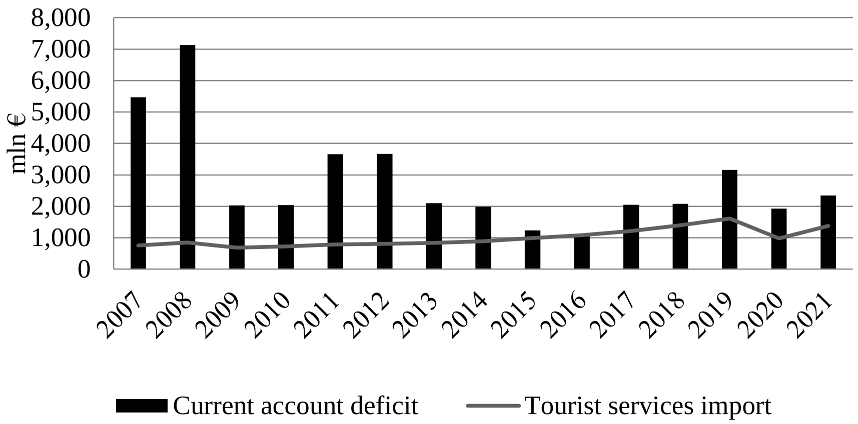
Source: NBS, 2022

Given the significant share in the export of services, the tourism sector can particularly contribute to the increase of the trade surplus in services and the reduction of the CA deficit. The condition for tourism to take over this role is that income from foreign tourists spending time in the RS surpasses the income spent by domestic residents abroad. The Covid-19 pandemic has greatly influenced the change of course of domestic tourist demand, in the sense that it forced domestic tourists to spend their vacations in one of the tourist destinations in the country rather than abroad (Bošković et al., 2020). The above resulted in a decrease in the outflow of tourist services and a trade surplus in tourist services.

Outflows of funds stemming from domestic tourists spending time in foreign countries negatively affected the CA in the RS. Namely, in the period from 2007 to 2019, the import of tourist services was larger than the export, which resulted in the trade deficit in tourist services. The observed dynamics had a negative impact on the services trade balance and, consequently, the CA deficit. Figure 8 shows the relationship between the import of tourist services and the CA deficit. As can be seen, the size of tourist services import had eventually become much closer to the size of the CA deficit with the passage of time.

In the initial years of the observed time period, the import of tourist services was relatively low compared to the CA deficit. However, starting from 2015 until the end of the observed time period, tourist services accounted for larger share of the CA deficit. In 2016, the import of tourist services was practically equal to the value of the deficit. From 2017 to 2019, imports of tourist services were between 1 and 1.6 billion euros. In 2020, the import of tourist services fell sharply to a level of 975 million euros, while the CA deficit amounted to 1.9 billion euros. Furthermore, in 2021, the CA deficit amounted to 2.3 billion euros, while the import of tourist services amounted to 1.3 billion euros.

Figure 8: Import of tourist services and the CA deficit, 2007-2021



Source: NBS, 2022

In order to examine the contribution of the tourism sector to neutralizing the CA deficit, Table 1 first shows the tourist service trade balance and its share in the CA deficit. In the period from 2007 to 2019, the tourist service trade deficit and the CA deficit were reported in each year, with the largest share of the tourist service trade deficit in the CA deficit recorded in 2010 (5.84%). However, in 2020 and 2021, the tourism sector directly contributed to financing the CA deficit, considering that the tourist service trade surplus was reported in this period. Thus, in 2020, the tourist service trade surplus was sufficient to compensate for 5.65% of the CA deficit, while in 2021 this effect was even greater, since the tourist service trade surplus was sufficient to finance 9.56% of the CA deficit. These dynamics certainly point out to the rising potential of the tourism sector in neutralizing the CA deficit in the RS.

Table 1: Tourist service trade balance and the CA balance, 2007-2021

Year	**Tourist service trade balance (mln EUR)**	**CA balance (mln EUR)**	**Tourist service trade balance as % of the CA balance**
2007	-129	-5,474	2.36
2008	-205	-7,125	2.88
2009	-69	-2,032	3.40
2010	-119	-2,037	5.84
2011	-81	-3,656	2.22
2012	-86	-3,671	2.34
2013	-49	-2,098	2.34
2014	-26	-1,985	1.31
2015	-48	-1,234	3.89
2016	-45	-1,075	4.19
2017	-35	-2,051	1.71
2018	-82	-2,076	3.95
2019	-179	-3,161	5.66
2020	**+109**	**-1,929**	**5.65**
2021	**+224**	**-2,343**	**9.56**

Source: NBS, 2022

Based on the above, it can be concluded that the tourism sector certainly affects the CA deficit, considering that it represents its integral part (Selimi et al., 2017). The impact of tourism sector is manifested indirectly through the service trade balance, where the tourist service trade deficit adversely affects the services trade balance and CA deficit. On the other hand, the trade surplus in tourist services positively affects the service trade balance and the CA balance as well.

Table 2: Correlations between tourist services trade balance, CA balance and service trade balance

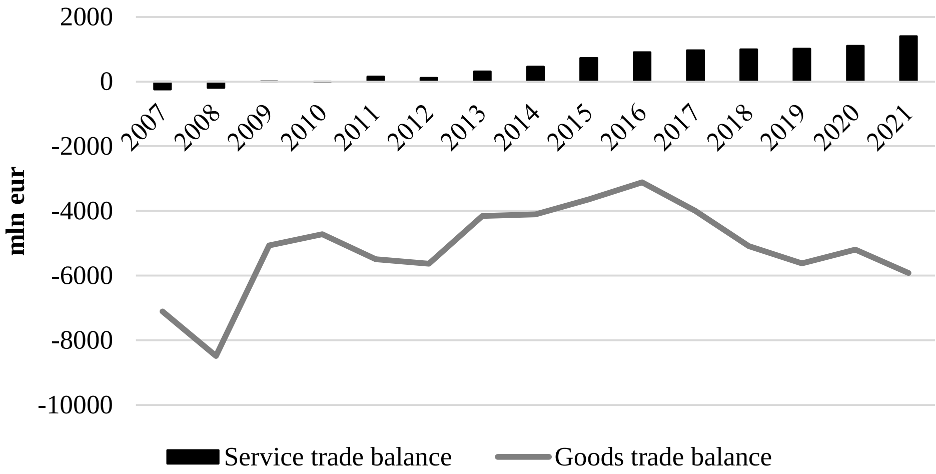
		Tourist service trade balance	**CA balance**	**Service trade balance**
Tourist service trade balance	Pearson Correlation	1	.498	**.648****
	Sig. (2-tailed)		.059	.009
	N	15	15	15
CA balance	Pearson Correlation	.498	1	**.593***
	Sig. (2-tailed)	.059		.020
	N	15	15	15
Service trade balance	Pearson Correlation	**.648****	**.593***	1
	Sig. (2-tailed)	.009	.020	
	N	15	15	15
**p<0.01 (2-tailed)				
* p<0.05 (2-tailed)				

Source: Authors' research

From Table 2, it can be seen that a high positive correlation ($r=0.648$, $p<0.01$) between the tourist service trade balance and the service trade balance exists in the observed time period. A slightly lower level of positive correlation ($r=0.593$, $p<0.05$) is reported between the service trade balance and the CA. Finally, there is a positive correlation ($r=0.498$) between the tourist service trade balance and the CA balance, but it is not statistically significant. This can be explained by the fact that in the last two years a surplus was recorded in tourist service trade, while at the same time an increase in the CA deficit was recorded.

The surplus in the tourist service trade recorded in the last two years of the observed period contributed to the increase in the service trade surplus. However, the increase in the goods trade deficit recorded in the same time period, shown in Figure 9, more than compensated for the positive effects of the tourist service trade surplus, which resulted in an increase in the CA deficit. Hence, Hypothesis 1 can only be partially confirmed.

Figure 9: Goods trade balance and services trade balance, 2007-2021



Source: NBS, 2022

The annual surpluses in tourist services trade recorded in 2020 and 2021 are primarily the result of the reorientation of domestic tourist demand (Mandarić et al., 2022). The Covid-19 border closures had a positive effect on the tourist service trade balance. In 2020, a decrease was recorded on both the import and the export side of tourist service trade when compared to 2019, but the relative change was larger on the import side. The above can be observed from Table 3, which shows the annual changes in the import and export of tourist services in the period prior to the outbreak and during the Covid-19 pandemic. Looking ahead to 2021, an increase was recorded on both the export and import side, but this time the relative change was larger on the export side.

Table 3: Export and import of tourist services, 2019-2021 (mln EUR)

Year	Export		Import	
	Value	% change	Value	% change
2019	1,436	/	1,615	/
2020	1,084	-24.5	975	-39.6
2021	1,596	+47.2	1,372	+40.7

Source: NBS, 2022

In this way, Hypothesis 2 can be confirmed, given that Covid-19 triggered the occurrence of a surplus in tourist services trade, which created the conditions for the tourism sector to contribute to the reduction of the CA deficit in 2020 and 2021. However, the confirmation is only partial, since the positive effects of the increase in the surplus of the tourist services trade and the services trade as a whole are more than compensated by an increase in the goods balance deficit.

5. Conclusion

The tourism sector, as an integral component of the CA and the services trade balance, can play an important role in reducing the BoP deficit in the RS. By looking back at the period from 2007 to 2021, it can be concluded that the tourism sector has achieved more importance in reducing the CA deficit, but only in the final two years of the observed time period. From 2007 to 2019, the tourism sector contributed to the BoP deficit build up, even though the tourist service trade deficit share in the BoP deficit was of minor importance. However, in 2020 trade surplus in tourist services was recorded for the first time and this was followed by a further annual surplus recorded in 2021. Owing to the recorded surpluses, the tourism sector has become a factor that contributed to reducing the CA deficit.

Although the impact of the trade surplus in tourist services on the BoP deficit is relatively modest in RS, the growing potential of tourism sector in financing the CA should be emphasized. As pointed out in the paper, the services trade surplus has been continuously rising and increasingly contributing to CA deficit financing. Covid-19 border closures have created opportunities for the tourism sector to account for a larger share in service trade surplus dynamics in 2020. A further increase in the surplus in the tourist service trade in 2021 induced the rise of the importance of the tourism sector as a source of financing the CA deficit in the RS.

In order for tourism sector to contribute to financing the CA deficit to a greater extent, it is necessary to encourage the export of tourist services. This implies the reversal of domestic tourist demand that has been primarily focused on foreign tourist destinations. Hence, it is necessary to encourage domestic tourists to spend their holidays in the country, but at the same time create an attractive tourist offer to attract foreign tourists. In this way, the export of tourist services would increase and conditions would be created for achieving continuously growing surpluses in the tourist service trade. In such circumstances, real possibilities would be created for the tourism sector to contribute to the reduction of the CA deficit in the RS.

The main limitation of the research lies in the fact that the positive effects of tourism in financing the CA deficit occurred only in the last two years of the observed period. Despite the growing importance of the tourism sector in financing the CA deficit in 2020 and 2021, the recorded surpluses in tourist service trade are not merely sufficient to eliminate the CA deficit, given that the positive tourist service trade effects are more than compensated by goods trade deficit movements. In the context of future research, it would be useful to include other countries (primarily Western Balkans countries and other transition economies) to compare the importance of tourism sector in reducing the BoP deficit by performing a cross-country analysis.

Conflict of interest

The authors declare no conflict of interest.

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The Future of Tourism

Key outcomes and conclusions of the 7th Tourism International Scientific Conference (TISC) held at the Faculty of Hotel Management and Tourism in Vrnjačka Banja, June 2–4, 2022

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For a seventh year in a row, the Faculty of Hotel Management and Tourism in Vrnjačka Banja successfully hosted the seventh TISC Conference titled "The Future of Tourism" in the period from June 2 to June 4, 2022. The key theme of this year's conference was the future of tourism in the circumstances surrounding global tourism recovery from the crises in the travel, destination and hospitality industry due to the outbreak of the COVID-19 pandemic. Two years after the COVID-19, the organizers are proud to have successfully organized this year's conference in the "new normal" conditions. The TISC 2022 conference was organized by the Faculty of Hotel Management and Tourism in cooperation with a number of national and foreign institutions and the support of the Ministry of Education, Science and Technological Development of the Republic of Serbia. The conference brought together a great number of both domestic and foreign participants from Bosnia and Herzegovina, Croatia, Cyprus, Japan, Malaysia, North Macedonia Romania, Russia, and Serbia.

Prof. Drago Cvijanović, the Dean of the Faculty of Hotel Management and Tourism in Vrnjačka Banja officially opened the conference. In his keynote speech, Prof. Cvijanović greeted the participants and thanked them for attending the conference and thus acknowledging the work and dedication of the Faculty. During the plenary session, the four keynote speakers, namely, Prof. Michael Anastasiou from Cyprus, Prof. Andrei Jean-Vasile from Romania (who presented the co-authored paper written together with Ovidiu Condeianu), Prof. Marcus Stephenson from Malaysia and Prof. Tsuyoshi Kigawa from Japan addressed the conference participants.

Michael Anastasiou, Ph.D., is the Academic Director at the Department of Culinary Arts and Catering Services at MIEEK and a Visiting Professor at the School of Hospitality at InterNapa College. Prior to his current position he worked as a lecturer at the University of Cardiff Metropolitan (Cyprus campus) and as a special teaching staff at the University of Central Lancashire Cyprus. In addition, he has a long teaching experience, in graduate and undergraduate level studies. Furthermore, he has administrative working experience in higher education institutions in Cyprus (American College, CDA College, Larnaca College). He has an extensive experience in the quality assurance and the accreditation process in

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higher education. He is primarily interested in the thematic areas of knowledge management, organizational learning, vocational and technical education. He co-authored four books, published various academic articles and participated in international conferences. He serves as a member in different scientific committees of academic journals and conferences. **Andrei Jean-Vasile**, PhD, is full professor at Petroleum-Gas University of Ploiesti and scientific researcher at National Institute for Economic Research Costin C. Kirițescu, 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. **Marcus Stephenson**, Ph.D., is a Professor of Tourism and Hospitality Management, and Dean of the School of Hospitality at Service Management at Sunway University (Malaysia). Prior to this appointment in October 2017, he was Professor and Head of the School of Tourism and Hospitality Management at the University of the South Pacific (Fiji). He also worked at Middlesex University Dubai (United Arab Emirates) as the Chair of Research and as an Associate Professor from 2005-2014. He is the co-author of 'Tourism and Citizenship: Rights, Freedoms and Responsibilities in the Global Order' (2014) and co-editor of 'International Tourism Development and the Gulf Cooperation Council States: Challenges and Opportunities'. He is a member of the editorial advisory board for several academic journals, and has been an external examiner and academic adviser for institutions in the Middle East, East Asia, Europe and the South Pacific. **Tsuyoshi Kigawa**, Ph.D., is a Professor at the Faculty of Tourism, Wakayama University. He was born in the Nishijin District of Kyoto, which is known as a district of Japanese filmmaking. His grandfather was an art joiner in films and worked with filmmakers such as Akira Kurosawa and Kenji Mizoguchi. After graduating from the Kyoto Institute of Technology, he explored several countries, Sri Lanka, China, and USA as an architect and studied urban morphology at the Graduate School of University College London. After his return to Japan, in addition to urban research, he conducted research on how to distill narrative stories from local cities; and wrote scripts on Rakugo and short films. He produced several short films as a producer and a director. His latest film is "Yokosuka 1953". In this film, he tried to find a real mother of a woman born of mixed races, who was born in Japan just after the war and was adopted and relocated to the United States. This film received the Grand Prix at the Tokyo Documentary Film Festival in 2021, 1st place in ethnography and society at the 2021 Terres Festival Awards. He currently directs Japan World's Tourism Film Festival.

The aforementioned keynote speakers gave presentations dealing with the key topics in modern tourism, travel and hospitality industry. The first presentation *"Gastronomy: the past, present and its future role in Tourism"* was given by prof. Michael Anastasiou. The second presentation titled *"Tourism, agriculture and circular economy developments in European Union: a global scan of expectations and future challenges"* was delivered by Prof. Andrei Jean-Vasile and Ovidiu Condeianu. The third presentation on *"Deciphering research-related tourism (RRT) as a multifaceted form of special interest tourism"* was held by Prof. Marcus Stephenson. The plenary session was concluded after the fourth presentation titled *"The future of tourism based on the trend of films about tourism"* was delivered by Prof. Tsuyoshi Kigawa.

The conference discussed a new multilateral approach to innovative, environmentally-friendly and sustainable tourism in the post-COVID-19 environment, as well as tourism planning, including the capacities to perceive and meet the needs of tourists and actively respond to challenges in different tourism and hospitality sectors. The center of the global tourism conversation referred to national and international recovery plans for the future period. The conference participants had a chance to learn about the practical experiences and examples of good practice through the presentations given by both international and domestic lecturers. These presentations were mainly focused on the issues pertaining to restarting ideas in tourism, travel and hospitality industry. A special session was dedicated to the presentation of papers and during this part of the conference the following papers were presented: "Determining the travel risk perception and travel behavior of Serbian residents during the post-pandemic period", "Applying technologies of the fourth industrial revolution and the future of ecotourism and tourism of protected areas", "Improving hotel performance in the "new normal" business context", "Digitalization and artificial intelligence: new dimensions in tourism". The Thematic Proceedings of this international conference (a total of 38 scientific papers written by 69 authors/co-authors) are available to the scientific community and other interested parties (ISBN9 978-86-89949-65-0). In addition, as a part of this event, the prizes were awarded to young researchers up the age of 35 by the Research Network on Resources Economics and Bioeconomy Association (RebResNet). Since 2 papers were of equal quality and merits, the authors of these papers shared the award. The awarded papers are: "Material basis in the function of future tourist development of Pčinja district" by Anđelina Marić Stanković and "The future of tourism requires origin: trace of an old cultural policy in Vrnjačka Banja" co-authored by Danijela Pantović and Nemanja Pantić. Other papers were presented in the form of poster presentations on the Faculty premises. The authors were given the opportunity to disseminate the findings of their research and answer the questions of all interested participants.

The conference outputs, conclusions and recommendations were agreed upon by the participants based on the inputs provided by the presentations of papers, exchange of practical and theoretical experiences, as well as relevant discussions. These are as follows:

- In terms of the COVID-19 crisis impact and consequently its numerous challenges to tourism, travel and hospitality industry, the following can be concluded: The tourism industry is very susceptible to the impacts of the different crisis situations that can affect tourism development patterns in the future. The issue of trust in the context of destination choice, transportation, health risk, etc, is still a vital matter and as such significantly influences the future of tourism.
- The "recovering tourism" trend implies the transformation of various sectors/industries directly or indirectly linked to tourism including gastronomy, food tourism, destination management, hotel performance in a new business context, tourism in protected areas, supply chain management, organization and performance of administrative tasks, marketing and promotion, etc.
- Tourism industry should come up with new solutions in order to address new challenges brought about by COVID-19 pandemics. With this in mind, the following should be considered: improving communication with travelers/tourists; building trust; travel companies need to improve the transportation offer and make travel more convenient. Modern tourists are well informed and they usually ask for a full-service package which requires a large number of suppliers. Therefore, the 4IR technologies and digitalization due to their transformational roles have a huge potential in terms of managing tourism destinations and hospitality industry by implementing Smart Tourism paradigmand/or artificial intelligence.
- The human-nature relationship should be considered as a basis for building a new environmentally sustainable tourism offer. A truly sustainable ecotourism development, i.e., ecosystem tourism, should be pursued in order to attract a larger number of tourists, especially those coming from abroad. Many destinations that were attractive and popular in the past are considered "out of fashion" nowadays. Production and broadcasting of travel TV shows, as well as films, are very

important since these easily reach a large audience and attract tourists to less known destinations. This should be used as a tool to support further development of the tourism and hospitality industry.

- Currently, while waiting for the tourism mobility to fully recover and for the tourists to accept the "new normal" circumstances in the post-COVID-19 era, it would be desirable that the tourism and hospitality industry embrace the virtual practices which are becoming increasingly popular among the people and accordingly the target population – tourists. In this respect, it should also be noted that people are becoming more confident in utilising new technologies which opens new opportunities for the introduction and application of the "Research-related Tourism (RrT)" as a multifaceted, dynamic, progressive, inimitable and adaptable model.

- Cutting-edge technologies and rapid technological advancement, as well as the two-year long COVID-19 pandemic, have brought about numerous challenges, particularly including social, economic and demographic ones. The hotel industry has thus been faced with many changes and challenges. Therefore, a quick and proactive response to new demands is required, as well as getting down to creating new business environment by improving hotel performance and implementing an innovative marketing approach, risk management and supply chain management.

- Tourism and agriculture are considered important sectors in terms of the transformation of the European economy and meeting the needs and expectations of the general public. These sectors must be prepared for proactively solving all possible future challenges. Adequate measures and models must be implemented so as to achieve long-term sustainable future, particularly focusing on bioeconomy and circular economy.

- The outbreak and long-term consequences of the COVID-19 pandemic are significantly affecting and reshaping the modern tourism and hospitality industry. The consumer demands are rapidly changing and becoming more complex and challenging. This is particularly noticed in the rural tourism, ecotourism and gastronomy sectors. The increased interst in nature tourism, natural food products, getting back to roots, heritage and tradition should be considered. In this respect, enhanced nature protection and green infrastructure development should also be promoted.

- Decades-long uncontrolled tourism growth and irresponsible travel have harmed the global economic, social, cultural and natural resources. The COVID-19 outbreak was a wake-up call for the tourism industry. It is imperative to achieve sustainable tourism development if the tourism industry wants to stay afloat. Therefore, the tourism and hospitality industry must focus on, as well as implement global tourism recovery principles.

- The models of tourism and travel industry recovery in the post-pandemic period are attracting increased attention. In this short period of time, domestic and leisure travel have recorded the greatest revival. However, the tourism industry's performance depends on numerous factors, where changing of market dynamics, consumer preferences, ability of businesses and destinations to adapt are among the most influential ones.

- Predicting the future of tourism is a very complex and demanding task. There is an infinite number of future solutions to be anticipated and a large number of

> circumstances to be considered. With this in mind, it is important to mention that the tourism experts emphasize that radical changes, both innovative and sustainable, are required in order to make the tourism industry sustainable and profitable one.

Considering the above-stated facts, it may well be argued that the tourism industry indeed has the promising future, despite all challenges including those brought about by the COVID-19 pandemic and associated restrictions and limitations. This also represents the general conclusion of the 7th Tourism International Scientific Conference (TISC) held at the Faculty of Hotel Management and Tourism in Vrnjačka Banja in the period June 2 – 4, 2022. However, all actors involved in the tourism, travel and hospitality industry should foster a multilateral and interdisciplinary approach to solving the identified issues and potential risks in this field. The exchange of experiences and knowledge, as well as the examples of best practices are vital for sustainable tourism development. In this respect, events such as this conference are very important. The dialogue between the actors, interested parties and travelers should be promoted, enhanced and facilitated – this is a win-win situation. Although the last two years were marked by the severe COVID-19 consequences and restrictions changed the way we live, work, communicate, interact and travel, we learned a lot and came out stronger. The pandemic has given rise to a new trend driven by the "sustainability-conscious" tourists. The demand for sustainability in all aspects related to tourism and travel, even the eco-verified destinations, has risen. Therefore, it is important to keep in mind that in the years to come sustainability issues and nature conservation will be of critical importance for tourists.

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

Title of the paper in English

Name Surname[1*], Name Surname[2], Name Surname[3]

[1] Institution
[2] Institution
[3] 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)

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)

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

* e-mail address of the correspondent author

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.

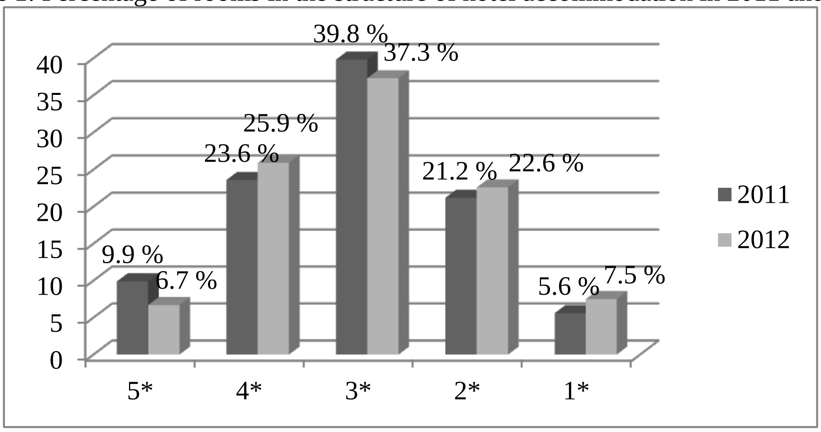
4. Results and discussion

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.

$$\mathrm{PVo} = \frac{\mathrm{FVn}}{(1+\mathrm{i})^{\mathrm{n}}} \tag{1}$$

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**.

The paper with all tables and figures should be sent as one data bank. Besides, all figures and tables should be sent as separate files in JPF or TIFF formats with the smallest resolution of 300dpi.

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. If submitted paper, or some part of the paper, represents an excerpt from the author's PhD thesis, the author must clearly specify it within this section.

Conflict of interest

The author(s) declare no conflict of interest.

References

The reference list should not contain sources which were not used in the paper. **All the sources mentioned in the paper should be hyperlinked to the corresponding sources in the bibliography** (e.g.: Harish, 2008; Luque-Martinez et al., 2007; Tew & Barbieri, 2012). **Use the initials of the first author of the submitted paper together with the first author's surname and the year of publication of the cited paper as a bookmark** (e.g.: ML_Harish_2008; ML_Luque_Martinez_et_al_2007; ML_Tew_Barbieri_2012) **(video instructions)**.

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When citing an author in the text, if the author and the original words are mentioned, the year of publication of the cited text should be given in parentheses after the author's name, whereas the number of the cited page should follow the last sentence of the citation, e.g. according to Đurković (2007), "the cited text" (p. 10) **(use of curved quotation marks (" ") is mandatory)**. When the author is not mentioned in the sentence, his surname, the publishing year and the cited page number should be given in parentheses at the end of a sentence. When paraphrasing or summarizing, the page number is not necessary (Đurković, 2007). Citations of two or more references of the same author published in the same year should be stated in the following way: (Harish, 2008a; Harish, 2008b). If there are two authors of the cited text, surnames of both authors should be given in the following way (Tew & Barbieri, 2012). Citations of references in the text to papers of three or more authors should be stated as follows: (Luque-Martinez et al., 2007). When citing the resource without pagination (e.g. electronic resources), the author's surname and the publishing year should be given. The author being a corporation or an organization, name of the organization/corporation and the publishing year should be provided (Ministry of Finance and Economy of the Republic of Serbia, 2013). If you refer to multiple sources in the same sentence, **list them alphabetically** (Harish, 2008; Luque-Martinez et al., 2007; Tew & Barbieri, 2012).

All **references** should be given at the end of the text in an alphabetical order. Authors should note that all references must be provided in the original language, while the title of the references that have not been published in the English language should be translated and provided after the original title, in square brackets. **Indicate the titles of publications in lowercase style**. There follow the examples of APA style for citing different types of text (a book, a paper published in a journal, a paper published in proceedings, electronic resources, etc.).

One-author book
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If there are more authors, they are all named. Before the name of the last author '&' is used. When there are more than seven authors, the names of the first six are given and the name of the last author is preceded by '…'.
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A book, translation
E.g.: Spic, E. H. (2011). *Umetnost i psiha: Studija o psihoanalizi i estetici [Art and psyche: A study of psychoanalysis and aesthetics]*. (A. Nikšić, Transl.). Beograd, Srbija: Clio.

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If a book is an anthology, editor is considered to be the author of the book. In such a case, his or her name is followed by (Ed.). If there is more than one editor, then use (Eds.).
E.g.: Đurković, M. (Ed.) (2007). *Srbija 2000-2006: Država, društvo, privreda [Serbia 2000-2006: State, society, economy]*. Beograd, Srbija: Institut za evropske studije.

A paper published in proceedings
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One-author paper published in a journal
E.g.: Harish, R. (2008). Brand architecture and its application in strategic marketing. *The Icfai University Journal of Brand Management*, *7*(2), 39–51.

Two-author paper published in a journal
If the cited paper is given a **DOI number**, it **should also be included as a link**.
E.g.: Tew, C., & Barbieri, C. (2012). The perceived benefits of agritourism: The provider's perspective. *Tourism Management*, *33*(6), 215–224. https://doi.org/10.1016/j.tourman.2011.02.005

A paper with more than two authors published in a journal
E.g.: Luque-Martinez, T., Castaneda-Garcia, J. A., Frias-Jamilena, D. M., Munoz-Leiva, F., & Rodriguez-Molina, M. A. (2007). Determinants of the use of the Internet as a tourist information source. *The Service Industries Journal*, *27*(7), 881–891. https://doi.org/10.1080/02642060701570586

An article with a known author
E.g.: Mišić, M. (2012, February 1). Ju-es stil smanjio gubitke [US steel has cut losses]. *Politika*, p. 11.

An article with no author given
E.g.: Straževica gotova za dva meseca [Straževica finished in two months]. (2012, February 1). *Politika*, p. 10.

A thesis
E.g.: Dewstow, R. A. (2006). *Using the Internet to enhance teaching at the University of Waikato* (Unpublished master's thesis). University of Waikato, Hamilton, New Zealand.

Documents or data bases taken from the Internet, a private or official Internet page with a known author
E.g.: Kraizer, S. (2012). *Safe child*. Retrieved October 29, 2012 from http://www.safechild.org/

Documents or data bases taken from the Internet, a private or official Internet page with an unknown author
E.g.: *Penn State Myths*. (2006). Retrieved December 6, 2011 from http://www.psu.edu/ur/about/myths.html

Documents or data bases taken from the Internet, a private or official Internet page with an organization or corporation as an author
E.g.: Ministarstvo finansija i privrede Republike Srbije [Ministry of Finance and Economy of the Republic of Serbia]. (2013). *Informacije o turističkom prometu u Srbiji [Information on tourist traffic in Serbia]*. Retrieved February 6, 2013 from http://www.turizam.mfp.gov.rs/index.php/sr/2010-02-11-17-24-30

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