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CURRENT TRENDS IN SPA, HOSPITALITY AND TOURISM

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INTRODUCTION

International Scientific Conference

Current trends in spas, hospitality and tourism

TOURISM DIGITALIZATION

The use of various types of information technology and systems in the management of companies and other organizations in spas, hospitality and tourism is now a natural thing. The questions asked therefore no longer concern "if" and "where", but mostly "how" and "with whom", with regard to their maximum contribution in terms of increasing the performance and competitiveness of individual entities. Executives responsible for marketing and sales, human resources management, finance, and the operation of accommodation, catering, and other sections, face a wide range of different types of systems and related services. These systems support effective management of the organization based on the principles of business intelligence or competitive integration and allow significant simplification and automation of selected processes.

The conference answers a number of questions related to the relevance and use of modern information technologies and systems in companies and other organizations in spas, hospitality and tourism, and also focuses on other challenges related to the greater success of their implementation. technologies in business processes and further development of these technologies by their developers and suppliers.

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CONTENT

NEW IMAGING METHODS AND THEIR USE IN TOURISM

Július Alcnauer , Denys Kovaľov

Abstract

The paper focuses on currently used technologies in recording the experiences of tourism participants. It is also researching interest in virtual reality and augmented reality in tourism. The paper presents the results of a survey of a sample of 206 respondents. It verifies respondents' attitudes towards paying for special video recordings. It uses test statistics to examine which groups of respondents would be a suitable target group for this offer. It indicates the need for sustainable development and promotion of local monuments.

Key words

Virtual reality, Tourism, Sustainable Development

JEL Classification: Z32

Introduction

Tourism has been exposed to restrictions in the past period. Covid-19 caused a decrease in the number of visitors. Many managers ask questions such as how to increase the attractiveness of the facility and attract new guests. What new services to offer and how to differentiate yourself from the competition? We would find many similar examples. Underwater photography, attractive shots from slides in water parks and the use of GoPro action cameras or 360 panoramic shots in which we determine which direction we want to look. Drones have become very widespread lately. But on a family vacation in a foreign country, shooting your own drone pictures may not always be safe. The question is to which of the tourists we offer attractive shots of holiday experiences, what customer groups will be willing to pay for this service. “The way hotels advertise to customers has remained relatively stagnant over the years. Virtual reality (VR) can offer a new way to engage travelers. According to World Travel VR, there is no better way to promote your destination than to take your potential clients there virtually, which is what their platform achieves through VR, augmented reality (AR) and 360-degree video“ (Rogers, 2020).

Aims of the survey

Our research is focused on finding out how important it is to create holiday memorabilia for selected groups of respondents. We focus on identifying differences between men and women, respondents with higher and lower education. We find out the importance of creating holiday records and the willingness to pay for exclusive shots. We verified what percentage of respondents have experience with 360-degree video, virtual reality and augmented reality. We also found out the interest in borrowing the device, the course of its control or the interest in purchasing attractive shots, e.g., from a drone, action camera or underwater camera.

Methods and Survey Sample

To obtain the opinions and attitudes of respondents, we chose the questionnaire method. In total, the Slovak questionnaire had 23 questions. Only demographic questions (gender, age) were set as mandatory questions. The questionnaire was anonymous and was created in electronic form in Google Docs. We distributed the questionnaire via e-mail and social networks. The age of the respondents ranged from 15 to 79. Most respondents were between 17 and 25 years old (96.4%). There were 14 respondents over the age of 45.

Selected results of the survey

In determining the attitudes of individual groups of respondents, we compared their answers according to gender, median age and we also verified the differences according to education. In this article, we will focus only on some issues and differences between men and women and differences according to the education of respondents. When offering photographic services and pay-per-view videos, it is important to know what kind of the attitudes to creating photographic memories and presenting their holiday experiences men and women have. It is important if they have experience with virtual reality, desire drone shots or unique views obtained by a GoPro camera. The differences only turned out to be statistically significant when examining the importance of making photos and holiday videos.

Question no. 2 was How much do you agree with the statement: “Creating photos and videos of my vacation is very important to me”? Respondents had to choose an answer from a ten-point scale from 1-Completely unimportant to 10-Very important. 206 respondents responded to it. Responses ranged from 2 to 10. The arithmetic mean was 7.451, median 8, mode 10. To compare analyzed groups of respondents, we used the statistical program Statistica and the non-parametric Mann Whitney U-test for two independent selections. The results are shown in Table 1.

We tested hypotheses:

$H1_0$: There are no statistically significant differences between men and women in the answers to question no. 2.

$H1_A$: There are statistically significant differences between men and women in answering question no. 2.

Table 1: Mann Whitney U-test – Hypothesis H1

Variable	Rank Sum (Gr. 1)	Rank Sum (Gr. 2)	U	Z	p-value
Question 2	7435.00	13886.00	3694.000	-3.47337	0.000514

Source: author’s calculations - Statistica v. 15.3.

The test result is $p < 0.01$ show that we can reject the null hypothesis $H1_0$. The differences between men and women are statistically highly significant. The alternative hypothesis $H1_A$ applies.

In addition to a trivial comparison between men and women, we tried to find out whether it is possible to select clients willing to buy special records and non-traditional photos. We examined the differences by education. We compared the answers of respondents with a bachelor's degree and higher compared to the respondents who stated the highest graduation and lower education. The high statistical significance of the differences in the answers to question 2 was confirmed. It was strange that statistically significant differences were not confirmed in other questions focused on the purchase of records. Except for the last question No. 23. Would you be willing to have a recording made, for example, on a water attraction, on a trip, where they would film you with a drone, an action camera, while diving - with a waterproof camera? The hypotheses tested are shown in Table 2.

$H2_0$: There are no statistically significant differences between group 1-with a high school diploma and lower education compared to group 2-with a bachelor's degree and higher in the answers to question no. 23.
$H2_A$: There are statistically significant differences between group 1-graduate and undergraduate compared to group 2-undergraduate and above in the answers to question no. 23.

Table 2: Mann Whitney U-test - Hypothesis 2

	Rank Sum (Gr. 1)	Rank Sum (Gr. 2)	U	Z	p-value
Question 23	9283.50	12037.50	4432.500	-2.0104	0.044394

Group 1-graduate and undergraduate
compared to 2-undergraduate
Source: author's calculations - Statistica v. 15.3.

The test result is $p < 0.05$ show that we can reject the null hypothesis $H2_0$. The differences between group with high school diploma and lower education are significant. The alternative hypothesis $H2_A$ applies.

Discussion

Our survey was a probe and an attempt to map this area. The pattern of men and women differed. When comparing the education of men and women in our respondent formula, statistically significant differences appear. This could affect many things. E.g., higher education and the impact on financial rewards at work; different approach when presenting yourself on social networks, etc. The problem in interpreting the conclusion of our survey was the absence of a respondents aged 27-44. A large sample survey of what respondents emphasize when choosing a destination will provide more accurate conclusions about the role of social networks and the importance of new imaging methods. Tourism will use augmented reality; new methods of promotion and advertising of tourist destinations will appear.

Conclusion

Tourism is at the beginning of a new era. The offer of new services will be important for entrepreneurs who will want to survive. Which customer groups will be targeted will be the subject of further research. We've just tried a simple look at this complex issue. We also looked for relationships between other variables. According to our findings, the problem is complex and interest in these new services will change, e.g. also according to prices and availability of technical equipment. The simple preview given in the following quote will not suffice in the future. As Osman pointed out in 2009, we need to address issues: “It has been found that a virtual tour can be used as a tool to promote tourism because it provides an attractive panoramic view compared to still images found in brochures and websites. However, because the target users come from all walks of life and have different age ranges, more usability tests should be performed to meet the needs of most users ”(Osman, Ismail, 2009, p. 179).

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IMPACT OF THE COVID-19 PANDEMIC ON SELECTED SPAS

Pavel Attl, Josef Pátek

Abstract

The aim of this article is to analyze and compare the impact of the Covid-19 pandemic on selected spas – Františkovy Lázně, Karlova Studánka and Třeboň and also on their spa facilities. The authors focused on the measures that were taken in this connection by the state, individual cities and also spa organizations. The result of the research is the proven fact that the Covid-19 pandemic affected individual spas differently and that the measures taken contributed to mitigating the negative effects of the pandemic.

Keywords

Compensation, spa towns, spa organisations, postcovide measures

JEL

I30, I38, H52

Introduction

The Czech spa industry is an integral part of the health care system of the Czech Republic, together with outpatient and hospital care. Although there are significant differences in the international definition of spas and spa tourism (Georgiev, Vasileva, 2010), in the conditions of the Czech Republic it is a branch of health care, which is managed by the Ministry of Health of the Czech Republic, particularly by Inspectorate of Spas and Springs (hereinafter "ISS"). In addition, spa tourism is also an important form of tourism (Schwartzhof, 2016). From this point of view, the role of the Ministry for Regional Development (hereinafter "MRD") and especially its marketing agency ČCCR-CzechTourism, which supports spa tourism in the Czech Republic and abroad, is essential.

In addition to health, spa is also important for its economic, social, environmental and cultural impact (Smith, Puczkó, 2009, Erfurt-Cooper, Cooper, 2009). All these aspects are manifested mainly at the regional and local level. Spa is also an important part of what we call goodwill and the image of the Czech Republic. This fact became even more pronounced after the spas of the West Bohemian spa triangle - Karlovy Vary, Mariánské Lázně and Františkovy Lázně - were included in the UNESCO World Cultural and Natural Heritage List in 2021, together with eight other spas in Europe (Baden- Baden, Bad Ems and Bad Kissingen in Germany, Baden bei Wien in Austria, Montecatini Terme in Italy, Vichy in France, Spa in Belgium and Bath in the United Kingdom of Great Britain and Northern Ireland).

In the last two years, some authors have focused on the impact of the coronavirus pandemic on spas or on spa destinations and spa organizations. Of course, the authors mostly deal with the medical context and implications of the coronavirus pandemic (Bushra, Qadir, 2021). However, other authors discuss other contexts associated with the coronavirus pandemic. They monitor not only the direct effect of the coronavirus pandemic on spas (Attl, Friday, 2021), but they also monitor the effects of the pandemic on spas and spa organizations. They also note, for example, other possibilities for the development of balneology as a science and balneotherapy as a treatment method associated with the use of natural healing resources, as well as the possibility of expanding the range of spa services with new, non-traditional treatment methods, etc. (Och, 2021).

The importance of spas can be observed in several areas. It is primarily its health significance, but also its economic, socio-cultural and environmental significance (Plzáková, Crespo Stupková, 2019). It is especially important to perceive the influence of the spa in terms of its local and regional importance. On a local scale, the spa is a major employer, a source of business opportunities, affects the budget of municipalities and cities in the area of local fees, especially the residence fee (Studnička, Plzáková, 2021), affects the development of primary infrastructure and improve goodwill and spa image. As a rule, spa tourism in these places is the most important form of tourism.

Material and methods

For a long time, the authors have been dealing with the issue of spas and especially the impact of the coronavirus pandemic on this field of health care. They chose three spas for their research. Specifically, these are Karlova Studánka in the Olomouc Region, Třeboň in the South Bohemian Region and Františkovy Lázně in the Karlovy Vary Region. The primary difference is in their classification according to their importance and size. Františkovy Lázně is referred to as the International Spa of the II. category, Třeboň and Karlova Studánka as a national spa (Vystoupil, Šauer, 2011).

In addition to the different geographical location, the individual spas differ in their therapeutic focus (the so-called indication list) and also in the use of various natural healing resources. There are also significant differences among the selected spas in terms of form of ownership. There are several spa organizations in Františkovy Lázně, but Lázně Františkovy Lázně, a.s., which is a private company, has a dominant position. In Třeboň, both spa facilities (Aurora and Bertiny lázně) fall under the company Slatinné lázně Třeboň s.r.o., which is owned by the town. Finally, the Mountain Spa in Karlova Studánka has not yet been privatized and remains a state organization.

The authors based their work mainly on data from the Czech Statistical Office (hereinafter CZSO) and on the results of their own field research. CZSO data are published in the time series 2012-2020. From a methodological point of view, it is necessary to emphasize that the data used do not only concern spa patients. Statistical data on spa patients, published by the Institute of Health Information and Statistics (hereinafter "IHIS"), are available only until 2018. Therefore, CZSO data are used, which include all guests in collective accommodation establishments (hereinafter "CAE"). The share of
waters, healing gases, peloids and suitable climatic conditions. In addition, the city has a completely unique spa architecture. spa guests in the total number of guests and overnight stays cannot be qualified, but it can be stated that their share is dominant. CZSO statistical data for 2021 have not yet been published.

Results

The range of influences that affect the number of visitors to individual spas is very wide. These include economic (economic crisis, exchange rate changes), political (including war), environmental (flood) and health effects. The impact of the coronavirus pandemic on spas in individual spa places has been extreme in the last two years and is best seen in the development of the number of guests and overnight stays in individual spa places.

Františkovy Lázně

Since its founding in 1793, Františkovy Lázně has gradually become a world-famous spa and today is the third most visited spa town in the Czech Republic after Karlovy Vary and Mariánské Lázně. Among others, it is considered the first peloid[1] spa in the world. In 2021, Františkovy Lázně was included on the UNESCO World Cultural and Natural Heritage List. The uniqueness of Františkovy Lázně also lies in the fact that all four natural healing resources are used for treatment here - mineral

Table 1 Guests and accommodation in CAE in Františkovy Lázně in 2012-2020

Year	Guests total	of which		Overnight stays total	of which		Overnight stays on average
		residents	non-residents		residents	non-residents	
2012	90 295	40 523	49 772	747 355	300 827	446 528	8,3
2013	91 773	38 769	53 004	732 349	261 863	470 486	8,0
2014	94 665	40 542	54 123	776 657	292 385	484 272	8,2
2015	105 841	46 988	58 853	867 539	375 877	491 662	8,2
2016	114 704	50 017	64 687	872 232	285 672	486 560	7,6
2017	118 429	50 459	67 970	862 811	359 621	503 190	7,3
2018	127 890	58 331	69 559	937 153	438 592	498 561	7,3
2019	134 353	62 232	72 121	960 266	461 332	498 934	7,3
2020	83 067	53 736	29 331	554 168	365 074	189 094	7,1

Source: CZSO

[1] Peloids are natural substances of organic and inorganic origin used for spa treatments. They are further divided to humolites and mud. There are 10 peloid spas in the Czech Republic.

The number of guests in Františkovy Lázně grew dynamically between 2012-2019. Compared to 2012, the number of guests increased by 48.8% by 2019. However, the pandemic caused a deep drop in turnout in 2020. Compared to 2019, there was a decrease of 38.2%. Turnout was even 8.0% lower than in the base year 2012. The permanent trend is a gradual reduction in the average length of stay from 8.3 days in 2012 to 7.1 days in 2020. This trend is similar to most Czech spas.

The problems of Františkovy Lázně as a spa destination stand out even more in monitoring the development of the visitor structure in 2012-2020, namely the share of residents (natives) on the one hand and the share of non-residents (foreigners) from the Federal Republic of Germany (hereinafter "Germany"), Russia , Slovakia and other countries.

Table 2 Structure of guests in CAE in Františkovy Lázně by selected source countries in 2012-2020

Year	Guests total	Residents	Non-residents Germany	Non-residents Russia	Non-residents Slovakia	Non-residents other
2012	90 295	40 523	43 290	1 627	524	4 331
2013	91 773	38 769	38 769	2 381	517	4 521
2014	94 665	40 542	40 542	1 717	556	3 648
2015	105 841	46 988	46 988	1 333	900	6 171
2016	114 704	50 017	50 017	1 160	1 286	7 917
2017	118 429	50 459	50 459	1 160	951	6 529
2018	127 890	58 331	58 331	1 010	843	7 341
2019	134 353	62 232	61 740	1 206	1 106	8 069
2020	83 067	53 736	24 430	511	631	3 759

Source: CZSO.

From the above overview it is clear that until 2019 guests from Germany made up a significant part of all guests. This completely changed in 2020. While in 2019 there were 61,740 guests from Germany in Františkovy

Lázně, in 2020 there were only 24,430. Nevertheless, German guests remained the most important group of foreign visitors to Františkovy Lázně.

Třeboň

Třeboň is the largest spa town in the South Bohemian Region. It is also the largest peloid spa in the Czech Republic, using the unique bog with pyrite and marcasite for treatments. The use of the local peloids for medical purposes is recorded as early as 1666, and the spa itself was put into operation in 1883. There are two spa treatment facilities in the town, namely Bertiny lázně (formerly Lázně Berta) and Lázně Aurora (formerly ÚLHP lázně Třeboň), owned by the town of Třeboň. Both spa facilities are part of the spa organization Slatinné lázně Třeboň s.r.o.

Table 3 Guests and accommodation in collective accommodation establishments in Třeboň in 2012-2020

Year	Guests total	of which		Overnight stays total	of which		Overnight stays on average
		residents	non-residents		residents	non-residents	
2012	49 964	45 118	4 846	335 944	323 168	12776	6,7
2013	53 755	48 014	5 741	287 271	270 224	17 047	5,3
2014	58 400	53 425	4 975	343 532	329 665	13 867	5,9
2015	63 314	57 880	5 434	365 989	350 737	15 161	5,8
2016	65 646	59 144	6 502	405 433	389 462	15 971	6,2
2017	70 384	62 407	7 977	408 359	390 570	17 789	5,8
2018	71 688	61 471	10 217	422 393	401 112	21 281	5,9
2019	73 715	64 210	9 505	410 039	390 706	19 333	5,6
2020	50 779	48 293	2 486	317 063	311 124	5 939	6,2

Source: CZSO.

In Třeboň turnout fell significantly as well, between 2019 and 2020 by 31.1%. However, unlike Františkovy Lázně, Třeboň is a spa town where residents have dominated the number of visitors for a long time. This probably also contributed to the fact that the decline here was not as significant as, for example, in the West Bohemian spas. Compared to 2019, there was a significant drop in turnout, however, it stayed higher by 1.6% compared to the base year 2012. In terms of the average number of overnight stays, the trend is stagnant with a slight decrease compared to the base year.

Karlova Studánka

Karlova Studánka Mountain Spa is the smallest of the researched spas. Karlova Studánka is famous as a climatic spa, which also uses local mineral water for treatment. The local climate is reported to be the cleanest in the Czech Republic with parameters similar to the Alpine climate. The spa has not yet been privatized due to long-standing ownership disputes with the Teutonic Knights, which is the original owner of the spa. In January 2022, however, the Constitutional Court of the Czech Republic definitively rejected the request of the Teutonic Knights to return the spa, so the Mountain Spa could plan its further development without fear of other struggles.

Table 4 Guests and accommodation in collective accommodation establishments in Karlova Studánka in 2012-2020

Year	Guests total	of which		Overnight stays total	of which		Overnight stays on average
		residents	non-residents		residents	non-residents	
2012	15 259	14 535	724	49 126	47 261	1 865	3,2
2013	16 892	16 034	858	52 458	50 332	2 126	3,1
2014	18 249	17 500	749	64 555	62 473	2 082	3,5
2015	18 800	18 059	741	108 341	105 928	2 413	5,8
2016	17 888	17 284	604	111 067	108 528	2 539	6,2
2017	12 550	12 031	519	105 922	104 730	1 192	8,4
2018	16 589	16 337	252	116 338	115 663	675	7,0
2019	18 536	18 242	294	130 587	129 771	816	7,0
2020	11 590	11 433	147	86 888	86 442	446	7,5

Source: CZSO.

The development of the number of visitors to Karlova Studánka differs somewhat from the previous spas. It is the smallest and least visited spa. It is also a spa with the absolute lowest percentage of non-residents, which is, among other things, due to the worse availability of these spas in the heart of the Jeseníky Mountains.

Anyhow, even here the impact of the coronavirus pandemic can be seen at a glance. Despite the spa's long-term focus on residents, the drop in turnout is significant. In 2020, the number of guests decreased by 37.5% compared to 2019. Compared to the base year 2012, the number of guests decreased by 24.0%. Surprisingly, the average length of stay has more than doubled and is on the rise.
From the above three examples of selected spas, it is clear that the negative impact of the coronavirus pandemic in the form of reduced number of guests and accommodation was negative in all spas, regardless of their size, importance, geographical location and form of ownership. Although the drop in guests and overnight stays in individual spas differ mainly in terms of the structure of visitors (residents, non-residents), the overall impact is negative in all cases.

Discussion

The issue of the impact of the coronavirus pandemic on the Czech spa industry has been in the field of view of state administration bodies, local governments, professional organizations and, of course, individual spa owners and operators for a long time. Over the last two years, these bodies and organizations have individually or jointly developed a number of tools that seek to eliminate or at least mitigate the negative effects of the coronavirus pandemic.

From the point of view of state authorities, the most significant act was the introduction of so-called spa vouchers in 2020 and 2021. The marketing organization MMR ČCCR-CzechTourism, which was the distributor of spa vouchers through the Kudy z nudy portal, played an irreplaceable role in the spa support. In the period from 1 July 2020 to 31 December 2021, a total of 364,000 state spa vouchers worth CZK 4,000 were downloaded from the Kudy z nudy portal. In the eighteen months of the Covid-Lázně program, a total of 109,550 vouchers worth 438 million crowns (jedemedolazni.cz) were used and payed. Discounted spa stays were also offered within the subsidy program of the Ministry of Health to workers in health care and social services who participated in the treatment of patients with Covid-19 disease, while the total value of subsidies was approximately CZK 0.5 billion. Each employee was entitled to a voucher of CZK 8,000.

Due to the fact that the validity of the spa voucher expired in 31 December 2021, selected spa organizations in cooperation with the professional organization Confederation of Medical Spas (Jedem do lázní), the Association of Spas and the CCCR-CzechTourism prepared a new project called Spa Voucher 2022 These vouchers are funded by selected spa organizations, in some cases with the help of cities and municipalities. Only Františkovy Lázně offers this voucher from the above-rated spas. This voucher can also be used in Mariánské Lázně, Lipová-lázně, Karlovy Vary, Teplice, Luhačovice, Kynžvart, Jeseník, Lázně Libverda and Janské Lázně. The possibility of drawing on these vouchers has been from 1 January 2022 to 31 March 2022.

The importance of spas at the local and regional level has already been mentioned in the introduction. Therefore, local authorities are also working together to create conditions and tools to mitigate the effects of the coronavirus pandemic. For example, Františkovy Lázně had to react to the situation in several ways. The reduction in tax revenues was partially eliminated by the so-called compensatory bonus of CZK 1,250 / citizen. The significantly lower range of guests and the number of overnight stays and thus the expected lower fee for the stay in Františkovy Lázně were offset by an increase in the daily rate from CZK 21 / person / day to CZK 50 / person / day, starting on 15 April 2021. That helped to increase the total amount of the local residence tax collected from 7 million in 2020 to more than 19 million in 2021.

The product range of the spa has also changed fundamentally. The new offer thus responds to the problems associated with the coronavirus pandemic and is focused on the aftercare of Covid patients as well as on preventive stays. Specialized stays at Františkovy Lázně Spa a.s. include, for example, a Prevention treatment stay, a Convalescence treatment stay, a stay for health professionals (14-day spa care with bonus services), etc. Much greater emphasis is also placed on safety and hygiene measures in individual spas. The ways of marketing communication of spa organizations are changing as well. The priority orientation towards residents, ie domestic customers, is crucial. The current state also accelerates modern forms of communication via the Internet and social networks.

Conclusion

The further development of the spa presents a wide range of issues. These issues concern, for example, the position and role of spas in the health care system of the Czech Republic, the importance of spas as a form of tourism, the position of spas in regional development, environmental issues (especially protection of natural healing resources), protection of cultural and social heritage and other areas, which are associated with the spa.

During its existence, the Czech spa industry managed to deal with a number of problems and negative influences. Despite some negatives (in some cases, failed privatization, demise or malfunction of selected spas, negative interventions in comprehensive spa care by shortening the length of stays, etc.), the changes that the spa underwent after 1989 can be considered largely positive. However, the spa is extremely sensitive to a number of external influences and the current coronavirus situation has had a very negative effect on it. Only the joint efforts of state administration and self-government bodies together with professional organizations and especially individual spa organizations prevented even worse and more devastating impacts on Czech spas.

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MOTIVATION FOR THE IMPLEMENTATION OF TECHNOLOGICAL INNOVATIONS IN HOTELS IN THE BRATISLAVA REGION

Benešová Dana, Fodranová Iveta, Kubičková Viera

Abstract

Today, most service innovations in hotels come from technological innovation, which is a key driver of growth. For hotels, technology is bringing more information about clients, speeding up and making work processes more transparent, and thus contributing to achieving greater competitiveness. The aim of this paper is to investigate the level of implementation of technological innovation in the hotels located in the Bratislava region, the motivation of hotels to invest in technology and to identify the relationship between adoption and motivation for the implementation of technological innovation.

Key words

motivation, process innovation, service innovation, technological innovation

JEL Classification: O31, O32,

Introduction

Technological innovation is usually defined as the transformation of technological knowledge into new products, new services or new processes introduced to the market, as well as significant technological changes in products, services and processes. According to Freeman (1974) technological innovation is "an essential condition of economic progress and a critical element in the competitive struggle of enterprises and of nation-states". According to the Frascati Manual (OECD, 2002), technological innovation represents "new or significantly modified technological products and processes, where technological novelty emerges,

unlike improvements, from their performance characteristics". A significant theoretical shift was made by the Oslo Manual (2005), which defined types of technological innovation. According to the Manual, “technological product innovation is the result of the production and commercialisation of new goods (products or services) or with improved performance characteristics, while technological process innovation corresponds to the introduction or adoption of a new or improved production process”.
According to Orfila-Sintes (2009), two difficulties arise in the analysis of the innovation process in tourism industries: the first is the fact that the theory of innovation is based on technological innovation in the manufacturing industry, the second is the fact that the specificity of tourism is services, where the measurement of productivity is quite problematic. However, from the perspective of hotel customers, technological innovation is one of the most important attributes in the decision-making process of booking hotel accommodation (Chun-Fang Chiang and Wen-Yu Chen and Chia-Yuan Hsu, 2019). Despite the dynamic development of research, there is still a theoretical gap, which has been widened by the impact of the Covid pandemic. The ambition of our paper is to contribute to the existing studies and strengthen research in this topical area. The article is the output of the Kega project no. 007EU-4/2020, Interactive and interdisciplinary teaching of Services and Tourism Innovation subjects using information technology.

Material and methods

The aim of this paper was to investigate the current situation of the implementation of technological innovation in the hotels located in the Bratislava region, to identify the relationship between the introduction and motivation for the introduction of technological innovations. In order to achieve the goal we built hypotheses:
H0: There is no relationship between the introduction and motivation to introduce technological innovation into business processes in the Bratislava hotels.
H1: There is a relationship between the introduction and motivation to introduce technological innovation into business processes in the Bratislava hotels.
We used the method of questionnaire survey to detect and identify the relationship. The questionnaire survey was conducted electronically through Google Forms, and was carried out in the months of February - April 2020. 68 three and four-star hotels were contacted and we recorded 41 responses and hence the response rate of the questionnaire survey is 60%. It is divided

into two parts. In the first part, we examine the implementation of technological innovation in the hotel, and thus whether the hotel introduced a particular innovation, plans to introduce it in the near future, or the innovation has not been introduced yet. The second part of the questionnaire survey examines the motivations for investing in technological innovation in the hotel from different perspectives.

Table 1 Motivations for investing in technological innovation

Motivations for investing in technological innovation	Answer option
1. Guest appreciation 2. Cost savings 3. Possible competitive advantage 4. Increase in market value 5. Necessary for market retention	1 = disagree 2 = partially disagree 3 = partially agree 4 = strongly agree

Table 2 Introduction of technological innovation in hotels

Technological innovation in the hotel	Answer option
1. Online check-in option 2. Virtual tour of the hotel via the website 3. Presentation on social media 4. Cooperation with Booking, Airbnb, Expedia or other portals 5. Option to use Netflix or Apple TV by guests 6. Mobile application for staff connected to the reservation system 7. Use of chatbots (a computer program operating in a conversational environment such as messaging applications or voice assistants)	0 = no action taken 1 = intended action 2 = action taken

Dependencies were tested by Spearman's correlation coefficient, which expresses the degree of dependence of two variables x and y. It can take values of -1 (negative correlation), +1 (positive correlation) and 0 (no relationship between the variables).

The Spearman correlation coefficient has the form:

$$r_s = 1 - \frac{6\sum_{i=1}^{n} d_i^2}{n\,(n^2 - 1) - T_x - T_y}$$

d_i = difference between pairs of ranks
Σd_i^2 = sum of the differences squared
n = range of the set
where $T_X = \sum(t_x^3 - t_x)/2$, $T_y = \sum\left(t_y^3 - t_y\right)/2$, t_x, and t_y, are the number of equal values of the variable x and y, respectively.

For larger samples n > 30, the probability distribution needs to be approximated by a t-distribution with (n - 2) degrees of freedom. The test statistics takes the form:

$$t = r_s\sqrt{\frac{(n-2)}{(1 - r_s^2)}}$$

We accept the hypothesis at the significance level α = 0,05, if | t | ≥ $t_{1-\alpha/2}$, where $t_{1-\alpha/2}$ is the critical value of the Student's t distribution with (n - 2) degrees of freedom.

Results

Testing the hypotheses:

H0: There is no relationship between introduction and motivation to introduce technological innovation into business processes in the Bratislava hotels.
H1: There is a relationship between introduction and motivation to introduce technological innovation into business processes in the Bratislava hotels.

Table 3 Database for calculating the relationship between motivation and introduction of technological innovation

Hotel	Motivation to invest in tech. innovation (x)	Introduction of techn. innovation (y)	Ranking x	Ranking y	Di	Di^2
H1	3	0,86	9,5	8,5	1	1
H2	2,8	1,43	4,5	30,5	-26	676
H3	3,6	1	27	15	12	144
H4	3,4	1,71	22	38	-16	256
H5	3	0,71	9,5	4	5,5	30,25
H6	3,4	1,14	22	23	-1	1
H7	3,6	1	27	15	12	144
H8	2,6	1	2,5	15	-12,5	156,25
H9	3,8	1,57	31,5	33,5	-2	4
H10	3	0,29	9,5	1	8,5	72,25
H11	2,8	0,86	4,5	8,5	-4	16
H12	4	1,71	37,5	38	-0,5	0,25
H13	2,4	0,86	1	8,5	-7,5	56,25
H14	3,2	0,71	16,5	4	12,5	156,25
H15	3	0,57	9,5	2	7,5	56,25
H16	4	0,86	37,5	8,5	29	841
H17	4	1,14	37,5	23	14,5	210,25
H18	3,6	1,57	27	33,5	-6,5	42,25
H19	3	1,29	9,5	28,5	-19	361
H20	3,8	1,14	31,5	23	8,5	72,25
H21	3	0,86	9,5	8,5	1	1
H22	4	1,14	37,5	23	14,5	210,25
H23	2,6	1,14	2,5	23	-20,5	420,25
H24	3,2	1	16,5	15	1,5	2,25
H25	3	0,86	9,5	8,5	1	1

H26	4	1,14	37,5	23	14,5	210,25
H27	3,6	0,71	27	4	23	529
H28	3,8	1	31,5	15	16,5	272,25
H29	3,6	1,86	27	41	-14	196
H30	4	1,57	37,5	33,5	4	16
H31	3,2	1,14	16,5	23	-6,5	42,25
H32	4	1,29	37,5	28,5	9	81
H33	3,4	1	22	15	7	49
H34	3,4	1,71	22	38	-16	256
H35	3,2	1,71	16,5	38	-21,5	462,25
H36	3,2	1,71	16,5	38	-21,5	462,25
H37	3	1,14	9,5	23	-13,5	182,25
H38	3,2	1,43	16,5	30,5	-14	196
H39	3,8	1,57	31,5	33,5	-2	4
H40	3,4	1,14	22	23	-1	1
H41	4	1	37,5	15	22,5	506,25

Source: author's own, 2021

Σd_i^2 = 7 397
T_X = 765
T_Y = 741;

$$r_s = 1 - \frac{6\,.\,7397}{41\,(41^2 - 1) - 765 - 741} = 0{,}3413$$

$$t = 0{,}3413\sqrt{\frac{(41-2)}{(1-0{,}1165)}} = 2{,}2676$$

Since 2.2676 > 2.021 = $t_{0,975}\,(40)$, significance level α = 0.05, we accept hypothesis H1 and reject hypothesis H0. Hypothesis testing confirmed a weak relationship between introduction and motivation to invest in technological innovation in the hotels in the Bratislava region.

Discussion

On the one hand, the use of technology directly increases tourist satisfaction by providing faster and more personalized service, on the other hand, technological devices create a database of customer data that provides useful information needed by hotel staff and thus contributes to achieving higher profits by increasing the competitiveness of hotel and accommodation facilities.

The survey in question revealed that more costly technological innovation such as the use of chatbots have not been implemented by the majority of hotels. Despite the fact that currently hotels are not implementing new technologies on a large scale and especially more sophisticated technologies, we found that the motivation of the Bratislava hotels is high, especially in terms of guest appreciation. This is confirmed by the result of hypothesis testing, which verified the existence of a positive relationship between the implementation of technological innovation and the motivation to invest in it.

There may be several reasons why hotels do not implement more advanced technologies more intensively, namely the financial difficulty of technological innovation, the current pandemic situation, which has hit tourism companies and especially hotels in full measure, as well as the lack of support from the state in eliminating the consequences of the pandemic as well as the lack of interest on the part of the management of hotels to implement more sophisticated technologies.

Conclusion

Technological innovation is essential to ensure smart, sustainable and inclusive growth. The massive transformation of the environment, reinforced and accelerated by the trends of urbanisation and digitalisation, as well as growing consumer awareness, is leading to significant changes in the hotel industry. It is clear from the survey results that despite the pandemic satiation negatively affecting the tourism industry, which has been most critically affected by the pandemic, the hotels are motivated to introduce technological innovation, are aware of the risks arising from the lack of acceptance and adaptation of technological trends.

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IMPACT OF THE USE OF A MOBILE DIGITAL KEY ON PERFORMANCE IN ACCOMMODATION FACILITIES

Benešová Dana, Lifenko Karyna

Abstract

The dynamic and turbulent development of the Internet is causing constant changes in the tourism industry, bringing the digitalization of processes and products of tourism enterprises. The generation of new applications expands their functionality. By using a smartphone application, hotels reduce their costs, clients use their own mobile phone instead of a traditional card or key, as well as other functions of the application. The purpose of this paper is to find out the usage and satisfaction of clients with mobile digital key and the relationship of performance and usage of mobile digital key in accommodation facilities.

Key words

mobile key, smartphone application, technological innovation

JEL Classification: O31, O32

Introduction

Technological innovation is generally defined as the end result of innovative activity either in the form of a new technologically improved product or service introduced to the market or a new improved process, method of production of services used in practical activities (Poľuško, 2019).
Technological facilities and services have become attractive elements in hotel selection. Empirical testing and categorization of hotel technological innovation attributes, according to the Kano model (Chun-Fang Chiang and

Wen-Yu Chen and Chia-Yuan Hsu, 2019), points to four factors of technological innovation: the use of the Internet and apps, the use of smartphone as room key and for payment, e-housekeeping, and the use of electronic self-service systems.

Digital smart keys for guest room access or mobile access, digital kiosks and mobile check in allowing the guest check-in process to be done virtually and reducing the time spent at the front desk have become major technological innovations. There are now several innovative technologies such as NFC (Near Field Communication), RFID (Radio Frequency Identification), acoustics, Bluetooth, PIN (Personal Identification Number), biometrics and others.

In general, a mobile key app for hotel guest has the following functions: check-in and check-out, hotel reservation, loyalty program rewards to get discounts, general hotel information, digital feedback and comments, and hotel advertising (Torres, Arnelyn, 2018). In addition to these features, other features can be added to improve the functioning of a given app, potentially improving and speeding up the hotel's processes, streamlining the management of its employees, reducing the hotel's costs, and improving the guest experience. The characteristics of the technologies for digital access to rooms are identified in Table 1.

Table 1 Characteristics of digital key technology in accommodation facilities

Digital key technology	Function	Disadvantages
Smartphone with application	Prior to arrival, the guest checks-in via the respective app; and then, upon arrival, uses the app to activate a signal to unlock the hotel room door.	All family members (including children) must have their own smartphone, It does not work if the phone battery is low.
Traditional mobile phone	The hotel sends a text message to the guest prior to arrival; upon arrival, the guest activates an audible signal outside the hotel room door.	Expensive solution because the hotel needs to send a lot of SMS even abroad. Reliability of mobile reception is out of the hotel's control. Does not work if the phone battery is low.

PIN code	The guest will receive a PIN code before arrival via SMS or email. When he/she reaches the hotel door, he/she writes the code and opens the door.	When sending SMS: an expensive solution because the hotel needs to send a lot of SMS. The reliability of mobile reception is out of the hotel's control.
2D barcode	The hotel guest receives a 2D barcode prior to arrival; upon arrival, they scan a smartphone or printed code at the door.	2D barcode scanners are relatively expensive. 2D barcode scanners consume a lot of power.
Biometrics	Access to the hotel room is controlled by fingerprint or retina scanning devices.	Expensive scanning devices.

Source:Ivanov, Webster, 2019

The ambition of our paper is to contribute new insights in this topical issue. The paper is the output of the Kega project no. 007EU-4/2020, Interactive and interdisciplinary teaching of Services and Tourism Innovation subjects using information technology.

Material and methods

The aim of this paper is to find out the usage and satisfaction of clients with mobile digital key in accommodation services and to find out the relationship between hotel performance and the usage of mobile digital key. In order to fulfil the objective, we set up a question and hypotheses.

RQ1: What is the satisfaction of clients with the use of mobile digital key in hotel?

H0: There is no relationship between performance and usage of mobile digital key in accommodation facilities.

H1: There is a relationship between performance and the usage of mobile digital key in accommodation facilities.

We used a questionnaire survey method to determine guest satisfaction, 207 respondents from different countries of the world participated in the survey, 62.8% of them were women and 37.2% were men aged between 18 and 70 years. The largest group of respondents was between 19 and 30 years old (63.8%) and between 31 and 40 years old (18.4%) The questionnaire survey was conducted electronically through Google Forms, it was carried out in the months of March - April 2020. The survey form was distributed to travel groups, on social media and guests were also contacted directly at the hotels they stayed at.

Using correlation and regression analysis, we found the relationship between mobile digital key usage and the profit per room per year since the implementation of the mobile digital key in a sample of 37 hotels. The variable *x* (profit per room per year) were 0 and 1 and the variable *y* (no use or use of the mobile digital key). A linear regression model was used to find the additional profit/loss per room per year in the accommodation facility using the mobile digital key. Descriptive and analytical (inferential) statistics were used to evaluate the data and interpret the results.

The correlation coefficient can be written as:

$$r = 1/(n-1)\ \Sigma\ (\frac{x\ -\ \bar{x}}{S\_x})(\frac{y - \bar{y}}{S_y})$$

r - correlation coefficient
x - value of one variable,
y - value of the other variable,
$\bar{x}$ *- average value of x,*
$\bar{y}$ *- average value of y,*
n - number of values,
S_x *- standard deviation of x,*
S_y *- standard deviation of y.*
The standard deviation is calculated as:

$$S = \sqrt{\frac{\sum(x-\bar{x})^2}{n-1}}$$

where, S - standard deviation.

The function of the regressions is as follows:

$$f = \alpha + \beta x$$

where, to calculate α and β, the following formulas are used:

The value of β is calculated as:

$$\beta = r\frac{S_y}{S_x}$$

The value of α is calculated as:

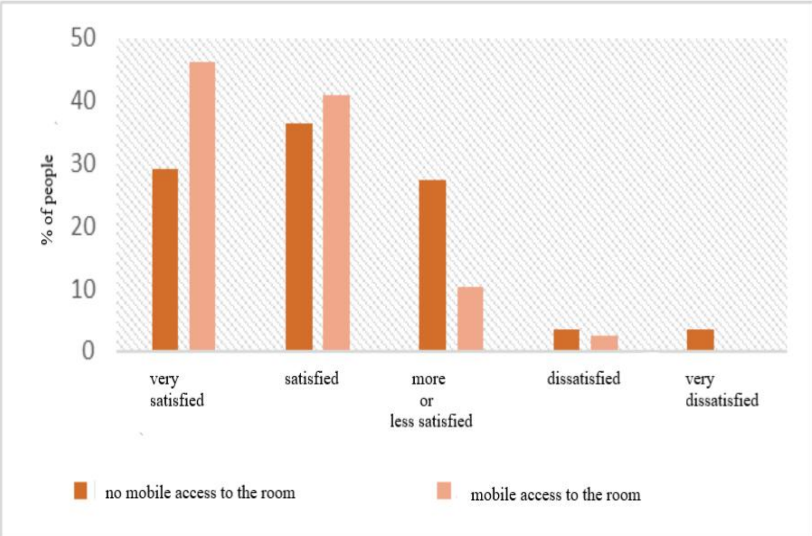
$$\alpha = \bar{y} + \beta\bar{x}$$

Results

The mobile digital key can significantly reduce the time guests normally spend at the reception upon their arrival and during check-in, as the key to open the room is available directly in the mobile application, through which the guests can check-in at a time that suits them best. Upon arrival at the hotel, the guest can go directly to the room, without having to wait in line at the front desk and without having to fill out a form at check-in. In the survey conducted, this was confirmed by respondents as a positive change that increases guest satisfaction.

RQ1: How satisfied are clients with the use of mobile digital key in the hotel?

Figure 1 Guest satisfaction with the check-in process in the hotels in 2020 (% of respondents)



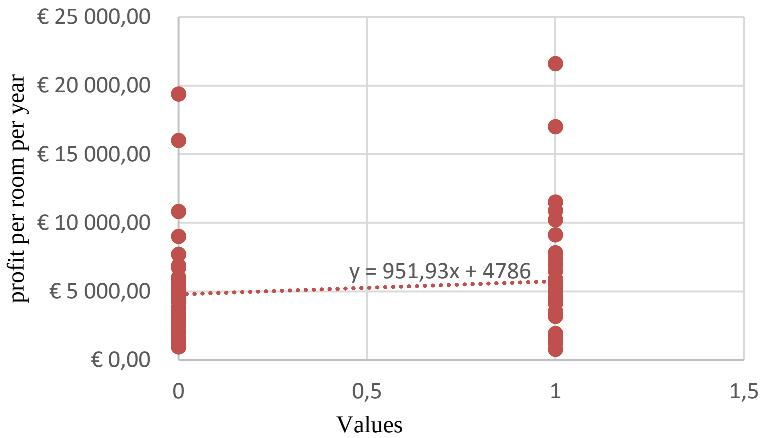
Source: authors´ own, 2020

Up to 46% of respondents confirmed very satisfied with mobile access to the room and the chek-in process, compared to only 29% of very satisfied respondents without mobile access to the room. Only 2.6% were dissatisfied with mobile access and there were no very dissatisfied respondents. Thus, it is evident that the use of mobile digital key in hotels increases guest satisfaction.

H0: There is no relationship between performance and mobile digital key usage in accommodation.

H1: There is a relationship between performance and mobile digital key usage in accommodation facilities.

Figure 2 Linear regression model of the hotel profits for the years before andafter the implementation of the mobile digital key



The correlation coefficient was r = 0.12. A correlation close to zero indicates that there is little direct linear dependence between the variables. This means that the implementation of the mobile digital key has little impact on profit generation, but nevertheless the dependency was demonstrated. Based on this, *we accept H1 and reject H0.*
The value of the regression line is y = 951,93x + 4786, which means that an increase of one unit in the variable x (that is, the implementation of the mobile digital key in the hotel) would on average generate €952 of additional profit per room per year in the hotel. The constant of equation (4786) in the regression analysis is the value at which the regression line crosses the y-axis.

Discussion

In most apps with a mobile digital key, there is an opportunity to order the products offered by the hotel without physically visiting the reception, restaurant and waiting in line. The questionnaire survey confirmed that the introduction of mobile digital key technology in hotels increases guest satisfaction. The main reason for the interest in using a mobile phone to unlock a room, even without the experience of using it, is the ability to have all the functions in one mobile device. According to the survey, the biggest barrier to using a mobile phone for room entry is the fear of a low mobile phone battery charge, which usually results from active smartphone use during the day. This is one of the technical issues that accommodation establishments need to find a solution to as soon as possible.

The implementation of mobile digital key as a factor affecting hotel performance indicators has a weak impact on the profit generation of accommodation facilities. Nevertheless, there is a positive correlation between the use of technological innovation and performance, so it can be assumed that more consistent adoption of technological innovation will positively affect hotel performance. This is confirmed by the prediction of additional profit.

Conclusion

Innovation and especially technological innovation most often implemented in hotels, bring new knowledge, new products, new services and new thinking for the management, hotel staff and clients. Technological innovation can simultaneously address systemic business process failures and make operational processes more effective. Mobile digital key technology benefits both accommodation facilities and their clients; by using a smartphone app, hotels reduce their costs, clients use their own mobile phone with the mobile digital key app, and other app features continue to be expanded and improved.

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PROBLEMS WITH THE INVOLVEMENT OF ACCOMMODATION PROVIDERS IN DOMESTIC TOURISM IN DESTINATION CARD SYSTEMS

Michal Blaško, Pavlína Sonnková

Abstract

One of the effective marketing tools to support inbound and domestic tourism are tourist cards. Through them, visitors will not only get an overview of the range of services and activities in the visited tourist area, but also a number of benefits. The aim of the paper is to clarify the reasons for the introduction of a new tourist card system in the tourist area of Opava Silesia and the problems with the involvement of accommodation providers in this unique system. The focus of the research is to find out the motivation of accommodation providers to participate in the card system and to identify user barriers. Due to the current limiting factors negatively affecting inbound tourism, the research results are practically usable in domestic tourism.

Key words

tourism, motivation, tourist card, accommodation providers, research

JEL Classification: Z32

Introduction

The Covid 19 pandemic has significantly affected the tourism sector and increased competition between individual tourist regions and areas of the Czech Republic. For destination companies, this meant responding quickly to new challenges and adapting marketing activities to changes in travel trends and visitor preferences. One of the ways to attract visitors to the destination is to offer a combination of uniqueness, quality and authenticity in the form of a tourist card. For destinations and destination companies, the tourist card is an important tool to support inbound and domestic tourism. In the professional literature, we encounter inconsistent terminology in the field of tourist cards. The same product is referred to differently, eg as a passport, visitor's card, visitor's passport, discount card and the like. The explanatory dictionary of tourism under the slogan visitor card states: a card that the visitor can receive for free or purchase for a fee. The card allows you to get discounts in the attractions of tourism, in tourism services, in transport at the destination (local transport can be free for cardholders). ” (Zelenka, Pásková, 2011, p. 371).

In contrast, Galvas (2008) works with the term discount card. She describes the Card as a marketing tool to promote the sale of a tourist offer. At the same time, it defines the basic principle of the card's operation: "The principle of operation of discount cards is on the one hand based on providing a number of discounts and benefits from accommodation, meals, transport, leisure, etc., whether for individuals or groups (eg family passports) and on the other hand supports higher shopping various tourism products that are involved in this system, which in turn not only brings higher profits for the stakeholders of tourism, but also helps to establish the much-needed partnership of various entities in the field of tourism." Jarolímková (2017) considers the visitor's card to be a comprehensive product of the destination (package of services). By purchasing it, the visitor gets the right to use the services in the destination at a discounted price. The condition for success in putting tourist cards into practice is undoubtedly the mutually beneficial partnership of stakeholders in the destination. Many foreign authors also deal with this issue. For example, Argasiński (2014) states in its research work on the Tatra Card project that tourism partnerships represent a competitive advantage for network participants. During the research process, the essence of the network partnership in the given tourist region was explained and an indication for its establishment and benefits from its operation were indicated. Research has shown that tourism partnerships enable the creation of unique tourism products. This partnership also makes it possible to gain a competitive advantage and build relationships between network partners. Research related to tourist cards can also focus on the behavior of tourists and day visitors. In their research, Zoltan and Mc Kercher (2015) examined patterns of tourist behavior in the canton of Ticino in Switzerland using a "destination card". The destination card offers free or discounted admission to partner attractions or activities often associated with free access to public transport. An expert research article presents how destination card data analysis can help attract managers better understand their markets and identify opportunities that can generate marketing benefits. Based on the collected data, a number of recommendations are also formulated here, especially for executive managers of destinations and operators of tourism facilities. The preferences of their users can also be examined through tourist cards. For example, Scuderi and Nogare (2018) examined tourist preferences by identifying the most common sequences of activities recorded by a destination card. The results of their research showed that most tourists prefer a certain diversity in the choice of attractions and activities and that cultural tourists are the only target group characterized by the choice of the same type of leisure activities. Tourist cards can even be the subject of regional policy. In his scholarly article, Bochert (2003) states that in addition to the economic impact of destination cards, a political question needs to be raised: “Is the growing influence of the regional government by offering destination cards acceptable? The article deals mainly with the political reasons for the introduction of destination cards and the associated problems.

Material and methods

The descriptive case study method was used to fulfill the objectives of the paper according to R.K. Yin. It is based on providing the most comprehensive description of the phenomenon. To this aim, the basic topics and aspects on which the research focuses are first identified. In the case of the Opava Silesia tourist area, these are the reasons for the introduction of the new tourist card system and the problems with the involvement of accommodation providers in the tourist card information and reservation system. The research itself uses the method of semi-structured controlled interviews with the partners of the destination company using the tourist card system.

The circumstances of the introduction of the tourist card in one of the six tourist areas of the Moravian-Silesian Region were more than dramatic from the point of view of the tourism industry. This was a period shortly after the end of the "lockdown" due to the COVID-19 epidemic in June 2021, before the summer season. Due to the limitations in the contacts of the persons involved in the preparatory phase (winter 2020, spring 2021), it was not possible to discuss the issue of the card information and reservation system in groups, for example in the form of workshops. On the other hand, destination management has been operating for many years and communication through modern means of communication has been sufficient. It could also be assumed that the readiness of all stakeholders to use the information and reservation system will be very good due to the need to communicate with people in a "lockdown" through modern means of communication. There was some uncertainty about the ability of accommodation operators to run their business. This issue was also discussed in the interviews.

Undoubtedly, the main reason for the introduction of the tourist card was the effort of the destination company to help start the operation of the tourism sector in its territory after the "lockdown". At the same time, the diagnosis of the marketing strategy of the Opava Silesia tourist area for the period 2020 - 2025 shows that modern communication tools are not sufficiently used in this destination to promote the destination. The tourist card offering online booking of entrances to attractions or events to target groups of tourists and one-day visitors that is one of the effective marketing tools for promoting the offer of Opava Silesia. Another reason for the introduction of the tourist card was the effort to make the destination's offer more attractive in the form of various bonuses and thus create a solid competitive position on the tourism market in relation to rival destinations after the "lockdown". In the summer season 2021, the tourist card of Opava Silesia was offered only to domestic guests through partner accommodation facilities and partner information centers. Due to the geographical location of the tourist area, it would be worthwhile to offer the tourist card to foreign visitors in the future, as the arrivals of foreign visitors in 2021 accounted for 9.44% of the total number of arrivals. Of the foreign guests, in 2020 the most numerous group of Polish tourists was with a share of 5,3 % of the total number of tourists. Therefore, it would be worth considering offering a tourist card to this foreign target group in the future. All aspects of the introduction of the new tourist card system are described in more detail in the following chapters.

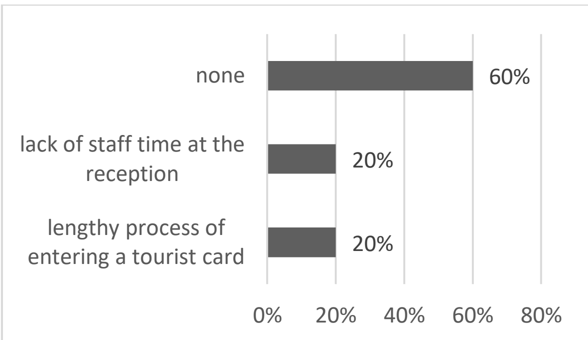
To better understand the issue of involving landlords in the tourist card system, it is necessary to describe this system. The tourist card offers a wide range of activities and attractions at a discounted price or with a benefit. Discounts range from 10 to 20%. The offer is quite diverse and includes mainly the area of culture and leisure activities. The visitor of the destination can currently conveniently visit 16 monuments and cultural objects, 6 objects focused on relaxation and leisure, 6 objects focused on sports activities and 2 gastronomy objects. An interactive map is a tool for choosing an attraction or activity, which, however, seems to be less user-friendly. When hovering the cursor, the description of the attraction or activity is not displayed and it is necessary to click several times to zoom in. The tourist card includes a reservation system for buying tickets or booking activities in advance. In the system, the visitor chooses a date or time, while immediately seeing whether the activity is free or busy. After payment, they will receive a ticket with a unique QR code in their mobile phone. The visitor can purchase a tourist card in physical or electronic form. The electronic version has the added benefit of online shopping and booking activities. Both cards work on the basis of a unique QR code, which entitles the visitor to use all the benefits that are attached to the card. On the tourist portal www.opavskocard.cz, both forms of the card are promoted in the form of understandable banners. There are two ways to use the card. The first option is to prove with the card at the activity provider and pay a discounted entrance fee or use another benefit on the spot. The second option, which only applies to the electronic version, is to buy the activity, including a discount or benefit, online and receive a ticket to a mobile phone immediately. The procedure of obtaining a card for free or purchasing it is again promoted in the form of banners on the tourist portal www.opavskocard.cz. Activities that a visitor can purchase online are marked with the "online reservation" flag and a reservation system is offered in the detail of the activity. . The visitor can thus choose a date or time and ensure that the experience is drawn in advance. At the same time, the visitor sees the current availability of the capacities of individual activities in the system. Every visitor who stays in Opava Silesia for at least 2 nights will receive a free card in the selected partner accommodation facility. The card is valid for the duration of the visitor's stay in the destination. The second way a visitor can get a card is to buy a three-day or five-day option at a partner in the tourist information center. The price of a 3-day card for one person is CZK 80 (discounted price CZK 40), a 5-day card costs CZK 130 (discounted price CZK 60). The system therefore motivates visitors to stay in the destination for several days and accommodation in certain accommodation facilities. Currently, the system is used by thirteen accommodation facilities, of which five hotels, five guesthouses, two campsites and one farm. In total, the system currently includes 43 partners of the destination company, of which 30 managers of attractions or activities and 13 accommodation providers. The tourist area of Opava Silesia has the potential to involve many more accommodation providers in the tourist card system, however, there are some problems with their involvement in the system, which is the focus of research in this paper.

The research was carried out by the Institute of Spa, Gastronomy and Tourism in cooperation with the destination management Opava Silesia Tourist Region. The research itself was carried out using the method of semi-structured controlled interviews with the partners of the destination company using the tourist card system. The initial phase of the research was focused on the operators of accommodation facilities in Opava Silesia. The landlords who joined the system in the summer of 2021 and actively offered the tourist card to the accommodated guests were contacted. The aim of the research was to obtain feedback on the motivation of accommodation providers to participate in the tourist card system and to identify possible user problems. 13 accommodation facilities joined the tourist card system and controlled interviews were conducted with their operators.

Results

The following part of the paper presents partial results of research focused on already involved accommodation providers in Opava Silesia. The results are further supplemented by an analysis of TO attendance and selected tourist attractions in 2021. As mentioned above, the aim of the research was to find out if there were any problems during the issuance of the cards. Before launching the tourist card system, the destination company trained the accommodation provider, so 60 % of the respondents had no problems with the introduction of the card. As can be seen from Chart 1, 40 % of respondents identified the lengthy card entry process and staff workload as problematic. One way to solve these problems is to create a visitor's card in the mobile application.

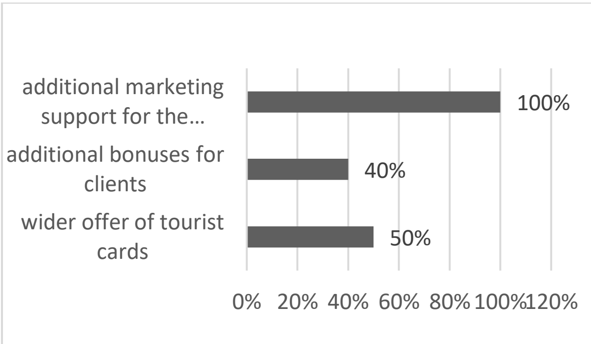
Chart 1: Problems with the introduction of a tourist card



Source: own research, 2022

Important information for the regional destination company is the motivation of accommodation providers to join the tourist card system (see Graph 2). Respondents had the opportunity to choose more factors. The research showed that a significant motivating factor for involvement is the expansion of the offer of attractions and activities (50 %) and additional bonuses for visitors (40 %), such as the possibility of winning a competition, small gifts and souvenirs. The most important motivating factor turned out to be the further expansion of marketing support from the destination company (100 %) in the form of posts on social networks.

Chart 2: Motivation to use the tourist card system



Source: own research, 2022

Discussion

As part of the long-term cooperation of the destination management Tourist Area Opava Silesia and the Institute of Spa, Gastronomy and Tourism, the staff of the institute prepared an analysis of attendance, including attendance of selected tourist attractions for the period 2013 - 2021. The number of visitors to the tourist attractions in Opava Silesia is gradually growing and in 2021 reached a record 280,582 people (see Table 1). The highest increase in attendance compared to 2020 was recorded by the attractions involved in the tourist card system, namely Obecní dům (increase by 53,105 visitors) and Dům umění (increase by 39,662 visitors). Interest in the visit of other involved attractions also increased, although it was no longer so significant (Kravaře chateau, National Memorial of World War II, Slate Museum).

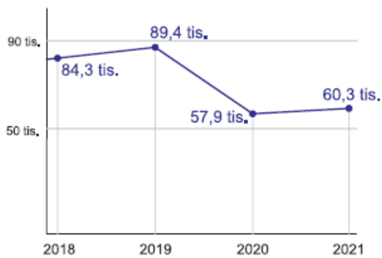
Table 1: Development of traffic of selected attractions

Název atraktivity	2013	2014	2015	2016	2017	2018	2019	2020	2021
Zámek Hradec nad Moravicí	34098	37546	37369	49876	48071	42951	51 817	55 706	51 045
Arboretum Nový Dvůr	30494	38102	33806	29154	30654	35389	38 331	23 284	31 583
Obecní dům Opava	34865	30710	36913	36913	35779	34474	51 297	39 767	92 872
Slezské zemské muzeum Opava	25353	33504	20636	26147	28991	28304	30 396	14 317	4 940
Dům umění Opava	22424	29937	23086	23086	21874	21987	19 556	11 170	50 832
Zámek Raduň	14979	24294	19011	22363	18486	20282	22 308	29 060	24 640
Zámek Kravaře	14325	17510	13687	14609	15955	14205	15 152	5 916	8 082
Národní památník II. sv. války v Hrabyni	14826	19971	21308	18739	20754	21416	20 321	8 034	10 996
Muzeum Hlučínska	6445	8728	6703	8655	10268	9260	9 772	2 726	1 721
Areál čs. opevnění Hlučín-Darkovičky	8614	12486	7193	7381	8300	6340	8 229	4 058	0
Muzeum břidlice Budišov n./Budišovkou	793	1053	2236	2010	2300	2404	2 072	1 723	2 015
Památník Petra Bezruče Opava	2171	1465	1681	1788	3559	2710	3 704	217	1 856
Skanzen Bolatice	319	555	550	1100	500	500	521	500	0
CELKEM	209706	255861	224179	241821	245491	240222	273 476	196 478	280 582

Source: own processing and Tourist region Opava Silesia

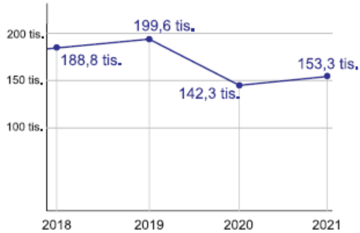
The interest of visitors in the tourist area of Opava Silesia in 2021 was also reflected in the increase in the number of people accommodated in collective accommodation establishments. Compared to the year, arrivals increased by 4,15 %, the number of overnight stays increased by 7,73 % (see Graphs 3 and 4) and the length of stay was extended to 3,54 days.

Chart 3: Total number of arrivals



Source: own processing and Tourist region Opava Silesia

Chart 4: Total number of overnight stays



Source: own processing and Tourist region Opava Silesia

Interest has increased, especially among domestic tourists. The number of accommodated guests increased on average by 10 % for accommodation establishments that joined the tourist card system. One of the reasons for the increase in the number of visitors is the marketing activities of the destination company in connection with the introduction of the tourist card.

Conclusion

The aim of the paper was to clarify the reasons for the introduction of a new system of tourist cards in the tourist area of Opava Silesia and the problems with the involvement of landlords in this unique system. The article presents the results of the first phase of the research and identifies problems with the introduction of the tourist card. Analysis of tourist data in the tourist area has shown that the introduction of a tourist card is a way to promote tourism.

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INFORMATION AS A STRATEGIC FACTOR OF BUSINESS DEVELOPMENT IN GASTRONOMY

Milena Botlíková, Josef Botlík

Abstract

The Covid 19 pandemic led to the closure and reduction of the restaurant business. They had to adapt to the conditions and switch to the contactless form of services (delivery services, contactless payments, etc.) and offers through websites. Gastronomy business has thus become dependent on information accessibility in the Internet space. The article deals with information accessibility of gastronomic companies in MSK. The availability of information will be evaluated using software applications and will be based, for example, on the WCAG methodology[1].

Key words

Moravian-Silesian region, accessibility, restaurants, specific groups, websites.

JEL Classification: D89, L83, Z32,

Introduction

Demand preferences on the demand side and political and social market developments force tourism companies (CRs) to adapt their product offerings so that they reflect these development trends (Pellešová, 2019).

[1] The article was created within the institutional support of the Ministry of Education, Youth and Sports at the Faculty of Arts and Sciences in Opava, Silesian University in Opava.

These trends undoubtedly include information technology. Industry, with the exception of tourism, is moving to the level of digitization and robotization in the context of the Industry 4 concept. The Internet is still one of the most frequented and most important sources of information in the field of tourism (Hruška, 2017).

Internet communication has great potential for companies, its advantage is that it allows you to reach a wide range of potential consumers; it has become a presentation and communication tool. Its importance deepened even more during the pandemic when the activities of tourism business activities were closed or reduced. The day when the activities of gastronomic services were restricted, companies lost their physical connection with their customers As a result of state measures, the gastronomic services market became more dependent on the provision of "over the road" services. During the covid period, the digital environment (Internet, www, social networks, etc.) became one of the basic links between gastronomic services and the customer. The offer of services, when it was no longer possible to offer their products in the classic form face to face, moved to the online environment, companies had to present their products through websites and communication platforms. The increased search for information through website traffic was also confirmed by the Consumer search trends survey (2022). During the covid, search and tracking of tourism websites increased (Consumer search trends, 2022). According to research by Pellešová et al. (2019), the possibility of booking online is also an important factor. The availability of information is largely conditioned by the visibility, readability and comprehensibility of the published content, even for specific groups of customers (visually impaired, etc.).

Research literature

The readability and comprehensibility of the company's website depend on its quality. Some authors deal with web quality issues in various industries. For example, García-Santiago (2017) evaluated the websites of cultural heritage sites based on the IPABA methodology (Identification, Presence, Audience, Browseability, and Accessibility). Maraková and Turková dealt with the websites of Slovak regional tourism organizations (2021), where they focused on the appearance of the site, content, position in search, placement on social networks, usability for smartphones and mobile applications, etc. Research by Albaladejo et al. (2021), assessed the information accessibility of Spanish councils for the disabled.

To make a website more visible and to make all information about the company accessible, web developers mainly use search engine optimization (SEO) techniques. SEO is the setting up of some key elements of a website (Gajura, 2021). Current user trends of web presentations are aimed at fast loading of pages and optimization of display on mobile and PC devices (responsive website), which was pointed out in 2016 by Groth and Haslwanter (2016), who confirmed the hypothesis that it is responsive in the tourism segment web more efficient than classic www and mobile www pages. "*For example, mobile websites are a must because many people are looking for restaurants and clubs on their phones. If the wait is too long for them to sit down or they don't like what the place looks like, they will check their phone and go somewhere else*." (PR Newswire, 2015). About 77 percent of guests said they were likely to visit the restaurant's website before dinner or by ordering delivery or delivery (MGH of 2019). A study by a marketing communications agency also found that 60% of clients were discouraged from dining or ordering or delivering because of the website ("Your website has a direct impact on your sales"). The slow opening of websites on a mobile platform discourages customers from visiting the site itself (Greer, 2021), a significant delay causes the site to be abandoned, which means the loss of a potential client. According to the UMÍ WEBY (2020) survey, users are willing to accept a maximum download time of 2 seconds, according to Rosenkrancová (2017), the average time is 7 - 11 seconds. The problem is caused by an incorrectly created website (such as bad image formats) or a lack of maintenance. Higher site speeds then allow for higher conversion rates and increased revenue opportunities. In their study, Tiago et al (2021) also point out the more specific connection with the sophistication of the websites of companies in the field of tourism and the sustainability of tourism.

Data and methods

The aim of the article is to analyze the quality of web portals in selected restaurants of the Moravian-Silesian region, ie to test individual websites on a sample file and to develop recommendations for improvement. It was hypothesized that 25% of restaurants in the selected sample will meet all the parameters for reliability and optimization of the site. The selected sample consisted of 276 restaurants in the Moravian-Silesian Region (see Table 1), the sample was created as random. Its size is set at the level of 95% reliability with 5% error rate, which copies the distribution of restaurant facilities in the Moravian-Silesian region according to the number of restaurants in each district. The website was subsequently tested using an

SEO tool (SEOMARK, 2022). Similar to García-Santiago (2017, IPABA), we focused on title representativeness, headline, loading speed, information placement, validity and SEO early. The name of the website makes it easier to index it in search engines and find a specific website on other platforms - Facebook, Twitter, and Instagram. The title is an HTML tag entry; it is one of the most important attributes of a website. Ideally, the caption should contain 10 to 70 characters (including spaces), according to Marketing Profs (2019), it recommends a headline length of 50-60 characters and the use of a company logo. Each page should have an individual title. The title should contain basic information about the content of the page. Page load speed for desktops and mobile devices web loading speed is important for both visitors and search engines. Today, the placement of information on social networks is one of the important information environments of the Internet. The current popularity makes it possible to expand the consumer base, (information sharing), further obtain feedback in the form of text messages or emoticons tools (I like it, I'm sorry, etc.). Website validation is the testing of a website for its error rate, which means that if a website is not valid, it will not appear correctly in any browser. Validity can be verified, for example, in the Opera browser using the keyboard shortcut SHIFT + CTRL + ALT + U (Procházka, Němeček, 2012), there are a number of tools for testing validity, eg validityw3.org. or evaluation of optimization seo-servis.cz. Overall SEO rankings represent website rankings, visibility, and ability.

Analysis of selected website accessibility factors

Quality of web presentation titles

Most companies have a properly created website title, which of the total number of companies was 231 (83.7%). 3.99% of companies had an error creating the caption, in most cases it was an incorrect caption range (3-8 characters) or a missing caption. As many as 35 companies (12.32%) chose a higher range of characters than recommended when creating the headline. Most pages with an excessive range of characters in the title, ie. companies in the Nový Jičín (19.44%) and Karviná (18.75%) districts required The high incidence of headlines with a small range of characters or the absence of headlines is reflected in the websites of restaurants in the Opava district, which had the highest share of websites with a correctly created headline (see Table 1)

Table 1: The quality of the title of the gastronomic company's website

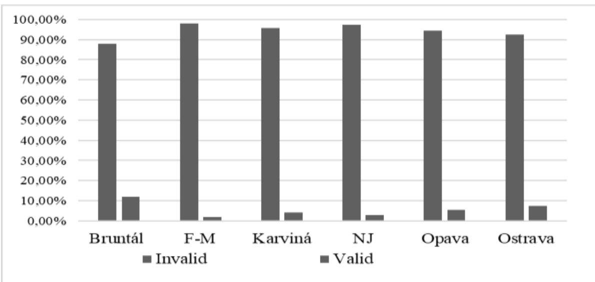
Title	OK		Improve		Repair		Total
Bruntál	22	88,00%	1	4,00%	2	8,00%	25
F-M	45	88,24%	1	1,96%	5	9,80%	51
Karviná	37	77,08%	3	4,17%	8	18,75%	48
NJ	28	77,78%	1	2,78%	7	19,44%	36
Opava	32	88,89%	3	8,33%	1	2,78%	36
Ostrava	67	83,75%	2	2,50%	11	13,75%	80
Total	231	83,70%	11	3,99%	34	12,32%	276

Source: own processing

Website validity - W3C

With the exception of 15 web presentations, not all remaining (261 restaurants) are valid, see chart 1. In absolute numbers, there are the most valid company websites in the Ostrava district (6 corporate websites) and then in Bruntál (3 corporate websites).

Graph 1: W3C in the gastronomic company's website



Source: own processing

Regarding the share in the total number in the given districts, then the highest share of valid sites is located in the district of Bruntál 12.00% and in the district of Ostrava 7.50%. The lowest share of valid pages in the total number in the given district is located in the Nový Jičín district (1 website; 1.96%).

Website loading speed

According to Michálek (2018), "*speed is fine within 100 milliseconds. Within one second: we know the delay, but we do not interrupt the task and over ten seconds: we lose attention and tend to start performing another task*" (Michálek, 2018). Table 2 shows that 15.22% do not have a fast enough page load: All 42 websites had a page load time in the range of 1.1 to 4.7/ second (mode 1.03/second, median 1.345 and the average value is 1.68/second). The slowest-loading pages are the pages of companies located in Nový Jičín (3.71 and 3.62/s) and companies in the Frýdek-Místek district (4.17 and 3.59/s). The high share of companies with low loading times is in the Nový Jičín and Ostrava districts, the low share of companies with long loading times is located in the Bruntál district.

Table 2: Website loading speed

	Speed >1,0		Speed < 1		Total
Bruntál	2	8,00%	23	92,00%	25
F-M	6	11,76%	45	88,24%	51
Karviná	7	14,58%	41	85,42%	48
NJ	7	19,44%	29	80,56%	36
Opava	6	16,67%	30	83,33%	36
Ostrava	14	17,50%	66	82,50%	80
Total	42	15,22%	234	84,78%	276

Source: own processing

Mobil and PC website download time

According to Michálek (2018), the speed using mobile networks does not equal the speed of a fixed connection, due to latency. Google has favoured fast-response websites in search results, which increases the competitiveness of the business. It is clear from Table 3 that in the case of using a PC, there is a higher percentage of slow downloads at websites in the districts of Frýdek - Místek and Nový Jičín. In the Frýdek - Místek district, on the other hand, the highest percentage of monitored corporate websites is loaded quickly. In the case of 9 companies, the loading of pages is evaluated 100 points (Ostrava, Karviná and Opava for 1 company, Frýdek - Místek, Nový Jičín, Bruntál for two company websites). The satisfactory situation in the speed of downloading the page on mobile devices is Bruntál (8%) and subsequently in the district of Nový Jičín (5.79%), which has a large percentage of websites with very slow loading. The situation in downloading pages on a mobile device is not satisfactory among companies in the Ostrava district (companies with fast downloads 0 companies). Among 276 companies, 5 companies have websites, the download of which is rated as -100 points fast (Bruntál, Karviná and Frýdek - Místek with 1 company website and Nový Jičín 2 websites).

Table 3: Download on PC and Mobile (in %)

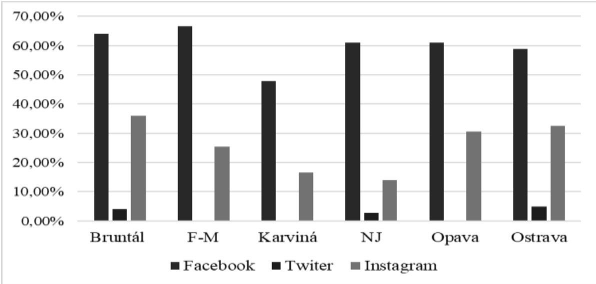
	Fast		Medium Fast		Slowly	
	M*	PC	M*	PC	M*	PC
Bruntál	8,00	52,00	48,00	44,00	44,00	4,00
Karviná	2,08	47,92	41,67	41,67	56,25	10,42
F-M	1,96	54,90	45,10	25,49	52,94	19,61
NJ	5,56	50,00	27,78	30,56	66,67	19,44
Ostrava	0,00	40,00	40,00	43,75	60,00	16,25
Opava	2,78	50,00	47,22	36,11	50,00	13,89
Total	2,54	47,83	41,30	37,32	56,16	14,86

*Source: own processing; (comment * mobile)*

Using social networks

Graph No. 2 shows that gastronomy companies are most often presented in MSK on Facebook, up to 60 % promote their products here. The second most commonly used platform is Instagram.

Graph 2: Use of social networks for company presentation



Source: own processing

Website quality according to SEO analysis

The websites of restaurants in the district of Ostrava are the best in the overall evaluation using SEO analysis. The companies with the lowest website quality rating are located in the Karviná district (2; 0.72 % of 276 companies), Nový Jičín (1) and Opava (1; 0.36 % of the evaluated MSK companies).

Table 1: Statistic analysis SEO enterprises gastronomy MSR

Body SEO	21-40	41-60	61-80	81-100	Average	Median	Mode	Minim
Bruntál		6	19		62,52	63	66	45
F-M	1	11	39		60,56	60	63	39
Karviná	2	17	29		62,42	63	60	39
Nový Jičín		8	28		61,15	60	63	45
Opava	1	5	30		64,17	63	60	51
Ostrava		32	47	1	63,88	66	69	39
SUM	4	79	192	1				

Source: own processing

Only one company in the region received a rating of over 80 points (Ostrava district 81 points). The most common score was 60 points (45, 16.30 % out of 276). The median score (median) for MSK restaurants is 63, the average score corresponds to the level of 62.24, ie there are more than half of the websites in the region with a rated value higher than 62.24. From the point of view of individual districts, then in the district of Bruntál, Opava and the district of Frýdek - Místek there are more enterprises with a rating lower than their average value (average higher than the median; see Table 4).

Discussion and Conclusion.

In this study, we focused on the analysis of digital Internet resources, in the context of online restaurant services. According to the CZSO (2021a) as of November 23, 2021, 83 % of people in the Czech Republic use the Internet and 57 % also shop through it. It is therefore clear that the sustainability of restaurant services is conditioned by the availability of information in the digital environment. In the European area, the Czech Republic ranks 13th in the number of people in EU countries searching for information on goods and services on the Internet in 2020 (76.6 %, EU 70 %, CZSO (2021b). This confirms the potential of digital content availability. According to the CZSO (2021c) press release of 23 November 2021, the number of people who ordered food from restaurants increased from 13 % to 20 % year-on-year. According to statistics (Weichetová, And Myšková Skarlandtová, 2021) the volume of information sought about Goods and Services increased to 74 % in 2021 (2020 71 %), the share of food orders from restaurants increased to 21% (2020 19 %), these orders were in third place after clothing and cosmetics. Statistics for catering establishments are difficult to find, eg at www.turistik.cz there are 225 records of restaurant establishments registered in the MSK, of which 67 in Ostrava-City, 53 in Karviná, 56 in Frýdek-Místek, 45 in Nový Jičín and only 4 in Opava, Bruntál is not registered at all. Therefore, the data was retrieved using the Google search engine, which means that it can be assumed that there are devices that do not have a digital offer and therefore could not be retrieved. During the research, the hypothesis that 25 % of restaurants from the selected sample will meet all the parameters for reliability and optimization of the website was not proven. However, given the ongoing pressures on digitization and SEO, it can be assumed that this number will be valid in the very near future. It can also be expected to increase the share of Off-Page SEO tools (activities aimed at creating and raising brand awareness that take place outside the site itself) because On-page factors that reveal hidden reserves and room for improvement (headlines, meta labels, headings, pictures) will be the standard. However, the quality of the website does not guarantee a higher recognition and popularity of the given restaurant facility, the popularity and recognition form a set of all marketing elements (product, background, people…). According to García-Santiago studies (2017), there is no correlation between trust and popularity (IPABA). However, the visibility of the site can lead to increased trust in the service provider.

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SPECIFICS OF WINE TOURISM IN THE CZECH REPUBLIC

Alexandr Burda, Pavol Plesník

Abstract

The article deals with wine tourism with a special focus on the market environment of the Czech Republic. This form of tourism has been very popular and varied in recent years and is based on different conditions of vine growing in different regions of Europe and more throughout the world. The aim of the paper is to identify the specifics and uniqueness of wine production in the Czech Republic. It is based on our own research on the quality of wine products in selected regions of the Czech Republic and a public opinion survey on the quality and popularity of wines in selected areas. The result is the identification of the conditions of viticulture and wine production in the Czech Republic and its connection with tourism.

Keywords

Tourism, Wine production, Wine Tourism.

JEL Classification: *Q130, Z320*

Introduction

Commercial viticulture is based on several basic assumptions. The first is the response to market demand for established and popular wine varieties. We find a varietal composition of about ten white and ten red wines in the retail network and gastronomic establishments. However, it is interesting for the Czech Republic that the varietal composition of the permitted varieties is at least five times higher.

The second precondition is a relatively cold climate in relation to the southern countries, which are the main grape growers and, therefore, also wine producers. This fact brings with it the risks associated with cultivation. Not all varieties are suitable for our climatic conditions. Therefore, there is a cross-breeding and breeding of new varieties that are resistant to frost, but also pests and fungi. The need for this approach not only in the Czech Republic, but also in Europe, has been confirmed by history several times.

The composition of the variety in the Czech Republic is rich. The State Variety Book, which is an official list of all plant varieties that have been registered in the Czech Republic for agricultural, fruit, wine and horticultural activities, has in its records a number of varieties that the average consumer will not encounter in his life.

Current state of solving the problem

Several authors at home and abroad deal with wine tourism. Gomez et al. (2019) analyzed 176 articles on wine tourism published in the years 1995-2014, with a major emphasis on research areas, research areas on wine production, applied theory and methodology, journals and authors publishing research in the field of wine tourism. The aim of the article was to provide a reference guide for future researchers through a systematic overview of wine tourism research over a 20-year period. The study contributes to existing reviews of the wine tourism literature and subsequently identifies key gaps for further study. Wine production and wine tourism have very different business philosophies within wineries. However, the findings reveal the importance of strengthening the synergies between wine production and tourism. This is one of the basic prerequisites to success. In addition, the findings revealed the differences in the research programs between the New World and Old-World wine growing countries. The first focuses on wine tourism, while the second focuses on wine production. The results reveal relevant findings for academics, winemakers, and tourism managers about the background and future trends of wine tourism. Santos et al. (2019) provided a theoretical and conceptual analysis of the experience with wine and wine tourism, which demonstrates the state of the art and provides some directions for future research. This article provides an in-depth review of the literature and an analysis of the content of previous work. The lessons learned from wine and wine tourism require further research. The boundaries of experience with wine and wine tourism were identified, along with the most important points and the strategic program for future events. Future research directions and approaches have been proposed based on key previous literature on wine and tourism experiences. Sevil et al. (2010) state that wine tourism has aroused huge interest in industrial and academic circles in the last two decades. Wine tourism is a hybrid activity that connects the wine and tourism industries. Many wine regions and wine producers promote their wine by visiting wineries. Wine, the wine region, and wine producers are essential elements of the wine tourism product. The positive experience of a tourist from wine tourism is directly proportional to the producer's view of the visit to the winery, the quality of the wine and a summary of regional attractions. However, tourism is often a by-product of winemakers who focus primarily on grape growing and wine production. However, it can be stated that wine producers have a significant influence on the development of the wine region and the quality of wine tourism experiences in this region. For small wine producers, wine tourism can be a marketing activity and a marketing tool. However, for large wine producers, wine tourism incurs certain additional costs for their operation. The purpose of this study was to determine differences in the perception of wine tourism between wine producers according to their size. A survey was conducted among 84 wineries to find the differences in the perception of wine tourism between wineries according to the level of their production. The results suggest that many wine producers are aware of the benefits and costs of wine tourism, but also vary depending on the size of the winery. Meler, M. (2015) examined the importance of wine tourism for the development of rural tourism in the Republic of Croatia and its intensity as a key force for this development. In their efforts to develop rural tourism, winegrowing regions rely heavily on wine tourism. Based on the applied comparative, induction, and deduction methods, the work proposed measures that are expected to facilitate the development of wine tourism and thus increase wine sales and, more importantly, increase demand for rural tourism products. According to the author's findings, wine tourism should gain special importance as an increasingly interesting component of the rural tourism product in Croatian tourism. Especially in terms of creating experiences and atmosphere for tourists during their stay in a certain rural tourism destination. Wine tourism is an attraction factor for rural destinations, as well as a strong centripetal force through well-designed marketing efforts. In this way, significant synergistic effects can be achieved in the combined development of rural and wine tourism. In a strategic sense, this also means connecting additional tourist attractions so that coordination, cooperation, and partnership between different tourism entities have maximum effects on the operation of rural tourism operation. The originality of the document is based on the claim that wine tourism should not be based solely on wine tasting and sales; but it should be connected with gastronomic, natural, historical, entertainment, and all other attractions in a specific rural destination. Getz et al. (2006) conducted research to examine the level and characteristics of long-distance wine tourism demand among wine consumers who are far from wine growing areas. In the article, specific attention is paid to the importance that wine consumers attach to the various attributes of the destination and the trip when deciding on the experience of wine tourism. A sample of 161 wine consumers in Calgary, Canada, provided data for a factor analysis that reveals the main characteristics of wine in relation to the general appeal of the destination and cultural products. It was found that highly motivated wine tourists from distant countries prefer destinations that offer a wide range of cultural activities. From this finding, the authors deduced the basis for the theory of wine tourism and the practical impact on the development and marketing of wine tourism destinations. The same author (2008) dealt with the interrelationships between the behaviour of wine consumers and wine tourism. Until recently, most wine tourism research has been done in wineries, which is very useful for assessing the quality of products and services, but it sheds little light on what wine consumers around the world think about wine-related travel. Wine tourism is defined in terms of demand and supply. The author has developed an empirical study that includes a sample of wine consumers in a region far from wine-growing areas. He identified their habits and preferences in wine consumption and behaviour in wine tourism. The purpose of the survey was to verify that those who are very interested in wine are more likely to travel for wine-related experiences and to differentiate their travel and experience preferences from less-interested wine consumers. The respondents demonstrated a high level of wine-related travel. The model framework and method do not allow generalization to the entire population, but it is clear that the link between wine consumption and wine-related travel is strong. Latisin et al. (2018) identified tourism as a very important sector of the world economy. The growth of wine tourism has become a key subject of activities for those involved in tourism and for those in the wine industry. The growth of tourism activity determines the development of some sectors of the national economy, such as industry, agriculture, construction, transport, and trade. This article presents the mechanisms of support for wine tourism in different countries of the world. The article also analyzes government programs and specific mechanisms to support and develop the wine sector in general and wine tourism in particular. Hanyková (2014) et al. deal in part with wine tourism in the Czech Republic. It identifies the basic preconditions for the development of wine tourism in the Czech Republic and compares them with Chile. They focus on aspects of international cooperation between Latin American countries and the approach to cooperation from the perspective of the European Union. The current situation of viticulture, winemaking, and wine tourism in both areas is at a relatively high level. The authors also evaluated examples of successful projects implemented in wine tourism and compared wine tourism in both countries.

Materials and Methods

All the varieties from which wine is produced in Europe come from a plant called the vine family (Vitis vinifera) in the vine family. It is sometimes referred to as the European vine or the noble vine. This species is divided into several varieties. The basic division is into grape, ground and table varieties. Sometimes there is a cross between “vitis vinifera” and some other species (the species is botanically superior to the variety). This creates the so-called PIWI varieties resistant to fungal diseases. The term interspecific, resistant, or hybrid variety is also synonymous. These varieties are suitable for bio-organic production because they minimize the use of pesticides in the vineyard. The choice of a suitable variety for a given location affects the yield and character of each wine. Other factors are climatic conditions, cultivation conditions, soil and vine treatment, and, last but not least, the production process.
In the text below, we deal with the interpretation of some lesser-known terms influencing the current viticulture and thus possible changes in the consumer behaviour of tourists engaged in wine tourism.

Effects on Viticulture

The quality of the grapes is influenced by several factors. For example, a given variety was planted in the right soil and in the right area. There is a lot of wine wisdom: "Variety is the mother of wine, the position of the father, and the year of his destiny."
We are based on the knowledge of variety sciences, ampelographic and soil sciences - Pedology. Important factors are age, quality of vineyards, profitability, quality harvesting, and, of course, the weather in a given year (Burda, 2013).
The most important factors could be mentioned as wine 4P for clarity. It is therefore the influence of climate, soil, location, and work.

1. *Climate*

The ideal average annual temperature is 9-12° C. Average of the warmest month above 19 ° C. Ideal climate: Winter with plenty of precipitation. Spring with rain before flowering, without spring frosts and strong winds. Summer is not too dry, hail is a threat, and rain thrives before ripening. Seasonal, sunny, fall rains cause fungal diseases and molds.

2. Soil

Vines require permeable soil, so they are not demanding on soil quality. Warm soils containing stones - gravel, sand, and clay, or limestone substrates are ideal for growing. Stones absorb heat during the day and "return" the vine at night, speeding up ripening. Cold, clay soils slow down ripening, muddy soils are harmful to wine. Soil science is called pedology.

3. Location

It affects the creation of the so-called microclimate. Growing wine on the slopes results in the ability to absorb sunlight. If the area is warm and sunny, the vineyards are located on cold slopes. In the northern hemisphere, the warm slopes are oriented to the south and the cold slopes to the north. In the southern hemisphere, the opposite is true. Wines that mature more slowly are more aromatic. If the grape ripens too quickly, it does not take up enough minerals from the soil, the balance between acids and sugars is disturbed, and this is reflected in its empty and light *taste.*

4. Work

The vineyard must be cared for regularly. Before the establishment of the vineyard, the soil is prepared by deep plowing and supplemented with the necessary minerals, the greenery is plowed. It is increasingly true that "wine is already made in the vineyard". This means that the emphasis is on the quality of the raw material. Even the best winemaker will not make quality wine from the wrong raw material. Unfortunately, it is also true that a good raw material can be spoiled by a poor and unprofessional intervention.

Trends in Vine and wine production

According to Burda (2013), winemakers and winegrowers are now returning to the old methods applied in the past. It is an exaggeration to say that modern is everything that was invented many centuries ago. In the methods of cultivation and production, winemakers return more to nature and the very essence of the taste of wine without beautification by enzymes, noble yeasts, and the method of controlled fermentation. Returning from sterile stainless-steel containers to wooden barrels and containers made of concrete or clay allows for greater wine stabilization and reduced desulphurisation. The return to natural wines is in harmony with the slow food movement and a modern response to the often-unified commercial winemaking.

Natural wines

This is a general term that emphasizes the natural expression of grapes. The aim is to produce a natural product from quality and healthy grapes based on the original varieties grown in the region. Climatic conditions do not always allow the collection of quality grapes, so wine is not produced in these vintages. This requires an ethical approach to the winemaker. The same as applied to the so-called great wines based on a long tradition. The basic principles are adherence to traditional methods, lower compactness, and stabilization by maturation.

Biodynamic wines

The founder of this approach to cultivation and production is Rudolf Steiner. Philosopher, mathematician and founder of the doctrine of anthroposophy, which he applied to agriculture. Anthroposophy is based on faith in the spirit, believes in karma, and reincarnation. This philosophy is followed by biodynamics, a philosophy of life, the teaching of which is based on the connection of the soul and the careful handling of nature. It is a view of the world that recognizes the existence of the spirit and the spiritual world as the primary, while matter is secondary, arising from the spirit or consciousness. Biodynamics seeks to harmonize the individual parts of the unit. The aim is to connect plant and animal production in harmony. It forms the basis for the healthy growth of plants that consume animals and restore energy to the soil in the form of fertilization. Soil diversity is affected by soil quality. Individual plants support each other in growth and prosperity. Today, approximately 4,000 wineries in 40 countries around the world. The production of biodynamic wines places great emphasis on sensory perception. Physical methods such as sur lie, batonage, coarse sludge mixing, and early malolactic fermentation are preferred to chemical methods. So2 crosslinking is minimal and fermentation temperatures are higher.

Orange wines

Orange wines are wines from nonblue varieties produced by fermentation on grape marc, similar to the production of red wines. The duration of fermentation is at the discretion of the winemaker. The source of extraction is husks, seeds or conifers that contain tannin. The aim of extraction is to release anthocyanins and polyphenols into the mash. Fermentation takes place spontaneously and fermentation is used to initiate it. Ideal for fermentation are special vessels from Georgia, but concrete vessels and barrels are also used. The intensity of the colour is based on oxidation and is influenced by the length of maceration and the choice of variety. The wines are opalescent, but they can also be clarified. The production process is a prerequisite for wines to last 15-20 years in bottles. The antioxidant properties of wines are the main health benefits.

Survey results and discussion

To find out the levels of opinion of potential participants in wine tourism, we conducted a survey of a sample of 300 respondents from 1 to 18 March 2022. All age and educational groups participated in the survey. The aim of the survey was to find out the habits associated with wine consumption, motivation to travel for wine, and knowledge about newly bred varieties in the Czech Republic. We consider the warning about the so-called new noblemen to be a strong future potential of wine tourism, especially in relation to incoming wine tourism in the Czech Republic. The survey also included questions about price preferences and the origin of the wine.

It is interesting that almost half of the respondents (45%) consume wine and try to understand it, 10% consume wine, it is a hobby and a leisure activity. We can state that more than half of the respondents are potential clients for wine tourism. The price preference for buying wine is in the range of CZK 100 - 250 (70% of respondents), with 63% preferring Czech wines 27% European wines and 10% wines from the rest of the world. In terms of sugar content, preference is given to dry and semi-dry wines (77%), sweet and semi-sweet are preferred by 22% of respondents. White wines are the most popular (60%), followed by red (27%), rosé (12%) and orange (1%). Interesting findings brought experience and motivation to buy wine. As many as 77% are guided by their own experience, 50% are recommended by friends, and 40% are recommended by experts. Quite a number of consumers focus on varieties or awards in competitions (27%). Most respondents consume wine once or twice a week. From the point of view of wine tourism, the issue of wine-related events was important. As many as 63% of respondents actively attend wineries, 56% attend wine tastings, and 69% attend wine tours and wine festivals. Half of the respondents said that when they are in a wine region, they are sure to taste local wines, and 19%

purposefully travel for wine. This information creates a prerequisite and a high potential for creating an offer in wine tourism. The special demand concerned newly bred varieties in the Czech Republic. There are currently more than 15 of them and they represent a high attractiveness and uniqueness of the environment. As expected, respondents know Pálava (86%) and Muscat Moravian (71%), Cabernet Moravia (62%), and André (55%) from the white varieties. The vast majority of respondents would recommend Pálava, from André red wines. As the survey indicated, a relatively large part of the population is actively engaged in wine, rationally approaching the selection of wine for consumption. We perceive this as a strong prerequisite for passive, partly also active participation in wine tourism.

From the results of the survey, as well as our own research, we recommend actively creating an offer of guided tastings in various areas of the Czech Republic. Emphasis should be placed on newly bred varieties in the Czech Republic which are in a way as authentic and unique as possible. We perceive wine production technology as the second important factor in creating an offer in wine tourism. Natural and biodynamic wines are very fashionable, but unique in that access to them is in most cases only possible directly in the winery, which creates a new and unrepeatable experience, for which the client is willing to pay a higher price.

Conclusion

In the article, we indicated a possible connection between wine production, consumption, and tourism. Based on the research carried out, we recommend actively supporting this form of tourism from our own research within the creation of product lines in wine tourism. The Czech Republic can be a top destination for wine tourism, especially thanks to newly bred vine varieties, which are known to the vast majority of potential domestic clients. For inbound tourism, this fact can act as a motivation for foreign clients to experience something exceptional and unrepeatable that they will not find in the surrounding countries. Wine production technology is another factor that increases the attractiveness of winemaking. The return to traditional technologies is fashionable and is increasingly sought after, which can increase demand in many, especially smaller wineries.

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EFFECTIVENESS OF TOURISM ORGANIZATIONS. INSIGHT FROM REGIONAL TOURISM ORGANISATIONS IN SLOVAKIA

Lenka Dzúriková, Vanda Maráková

Abstract

Tourism competitiveness at destination level has been a research topic since the 1990s. Destination management organizations are becoming strategic leaders in the field of tourism development and their activities can strengthen destination competitiveness, as well as ensure the sustainable tourism development. As resources for tourism development are limited, it is important to examine the effectiveness of the management organizations. The aim of the paper is to examine the effectiveness of the regional tourism organization in Slovakia through selected indicators. Based on a literature research, 47 indicators were determined, divided into 5 groups. The value of the indicators is determined on the basis of a structured interview with representatives of the Banská Bystrica Regional Tourism Organization. The paper provides recommendations for regional tourism organizations to strengthen the effectiveness of their activities.

Key words

Effectiveness, effectiveness indicators, regional tourism organization

JEL Classification: L83, Z30

Introduction

Competitiveness is essential for the destination's success and for ensuring its prosperity. It is therefore crucial that destinations realize what needs to be done to be more competitive than other destinations (Lusticky, Kincl, 2012; Luo, 2018; Rahmiati, et al., 2019; Cronjé, du Plessis, 2020; Gajdošík, Šebová, 2020). In addition to competitiveness, cooperation at the destination also has an impact on the sustainable tourism development. The increasing mobility of the population and the possibility of traveling almost all over the world have resulted in a large increase in the number of visitors in recent years (before the COVID-19 pandemic) (Koens, Postma, Pabb, 2018). Therefore, the sustainable development of international tourism must also be considered (Gúčik, 2020). For tourism to develop sustainably, it is necessary to develop a coherent vision and strategy for the private and public sector in the field of destination development (Koens et al., 2021), while it is important to monitor the effectiveness of the strategy (Polukhina et al., 2021). Resources for tourism development are limited, so it is important that the tourism management organizations use them effectively (Amoako, Obuobisa-Darko, Marfo, 2021).

Material and methods

Back in 1992 (Kaplan, Norton) and 1995 (Neely, Gregory, Platts), important management figures defined efficiency and effectiveness as business performance assessments. To evaluate performance in tourism, authors of the case studies use mostly indicators (Turková, Maráková, 2021). Indicators are a critical tool for destination planning and management and are often used by public administrations and policy makers to design measures, activities, and plans (Ivars-Baidal et al., 2021). The application of indicators is essential for evaluation and monitoring in the tourism planning and policy-making process (UNWTO, 2014) and has become a critical point in research on the sustainability and competitiveness of destinations (Ivars-Baidal et al., 2021).

The aim of the paper is to examine the effectiveness of the activities of the chosen regional tourism organization in Slovakia through selected indicators. The paper follows a survey by Ivars-Baidal et al. (2021), which is one of the most recent in the researched issue and the indicators used monitor the development of tourism in the destination in accordance with the practices of sustainable development. The original system evaluates 72 indicators, which cover 9 main criteria: management, sustainability, innovation, accessibility, connectivity, intelligence, information system, online marketing, development of activities in tourism. We tested the indicators in the regional tourism organization Banskobystrický Kraj Turizmus, as the organization, when established in 2018, identified the development of sustainable tourism as one of the priorities of its activities (KOCR BB, 2020). The preliminary set of indicators was pre-tested with the selected organization at the end of 2021. After the preliminary test, the indicators were refined, reformulated, and adjusted to the regional level according to the observed results and feedback from the organization's representatives. Feedback from the organization included suggestions to modify some indicators or delete those that could not be identified, mainly due to the unavailability of data from the statistical office and public sector bodies. Indicators for which there was no adequate and up-to-date information were discarded. After this process, we compiled a set of 47 indicators divided into 5 groups: economic indicators, marketing activities, visitor satisfaction, the level of cooperation of organization members and the sustainable tourism development (Table 1).

Table 2: Effectiveness' indicators

Indicators
Economic indicators
Interannual expenditure at the destination per person/day rate has grown in the past year
Revenues from tourism at the destination have been growing since the organization's establishment
The number of visitors in the destination has been growing since the organization's establishment
The number of overnight stays in the destination has been growing since the organization's establishment
Marketing activities
Web analytics tools (e.g., Google Analytics) are used at least once a month
Based on traffic analysis and brand monitoring, a global report is produced, at least once a year
The DMO has created a social media marketing plan
The destination has an official website (only for tourism purposes, not shared with other departments)
The DMO official website appears in the top five results when searching on main search engines “tourism/visit + name of destination”

The website URL includes the destination name (e.g., visitlondon.com)
New content, news or updates are published every week on the website
Social media profiles links are visible on the destination website
DMO has invested in SEM (e.g., Google AdWords) at least once in the past year
Return of Investment/impact of SEM has been calculated
DMO has invested in online promotion (banners, pop ups, influencers, etc.) in the past year
Return of Investment/impact of online promotion has been calculated
Website offers possibility to subscribe to destination newsletter
A new offer, discount or promotion is offer to newsletter subscribers at least every three months
DMO responds to all tourists' questions and doubts on social media before 24 h
DMO website has implemented a recommender system for personalised travel planning and recommendations
A general marketing plan has been implemented by the DMO
An online marketing plan has been implemented by the DMO
The online marketing plan involves public-private collaboration to promote the destination and local companies
DMO has used paid advertisement on social media in the past six months (e.g., paid to give more visibility to a page, post, tweet or event)
ROI of social media marketing campaigns is always calculated
DMO website offers direct accommodation booking options
DMO website offers direct experiences/activities booking options
Visitor satisfaction
Surveys among tourists show a general satisfaction degree above 8/10 in the past year
Interannual occupancy rate for all tourist accommodation typologies has grown in the past year
The months of July, August and September (or three most busy ones) had a negative interannual occupancy rate evolution (occupation decreased in the past year during these months as compared to previous years)

The level of cooperation of organization members
DMO is responsible for activities and results in the tourism development at the destination
The management and marketing activities of the DMO are transparent
DMO members are involved in management and marketing activities at the destination
DMO's organizational structure and voting rights are clear and fair
DMO supports the education of organization members
Sustainable tourism development
Development of social campaigns to raise awareness of the effects of tourism among citizens
Implementation of urban planning regulations adapted to the principle of sustainability
Implementation of specific plans for sustainable tourism development
Public support for sustainable mobility (transport)
Existence of improving energy efficiency strategies (public lighting)
Waste collection and management
Water supply efficiency, wastewater treatment and reuse
Implementation of tourism indicators for sustainable destination management
Development of information campaigns on sustainability aimed at the population
Creating programs to adapt to climate change
Use of ethics codes in tourism (regulation of activities, management, impacts)
Development of visitor-oriented sustainability information campaigns

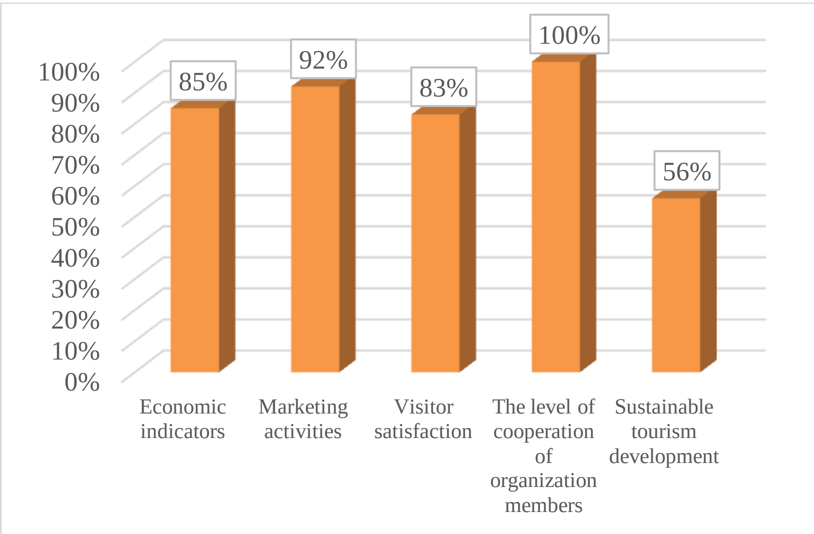
Source: Own elaboration based on Ivars-Baidal et al., 2021

Most indicators consist of several sub-indicators, while others are one-dimensional. Each group of indicators reaches a value from 0% to 100%, while is made up of indicators, which also reaches a value from 0% to 100% (0% - indicator does not exist, 100% - indicator exists). We compiled the value of the indicators based on a structured interview with representatives of the Banská Bystrica Regional Tourism Organization. The Valencian Network of Smart Destination Indicators provides detailed guidance for destination management organizations, where data is obtained from first-hand information. Compared to other approaches, it is a matter of supporting the evaluation of indicators by providing specific data, attached documents and information that demonstrate the degree of their fulfilment.

Results

The performed analysis allows to evaluate the degree of fulfilment of selected indicators, i.e., the current level of effectiveness of tourism development in the selected region (Chart 1).

Chart 1: Level of effectiveness of tourism development: Aggregated mean (%) by group



Source: Own elaboration, 2021

The results of the analysis show the activity of the management organization in all indicators and aggregated results for each group of indicators. The level of effectiveness of tourism development in the region is expressed in percentages, which are displayed on a scale from 0% to 100%. The results were obtained based on data provided by the organization's representatives and on the basis of an analysis of secondary sources. When evaluating the indicators, the representatives of the organization needed to prove how they achieved the final evaluation of the indicators. The research team verified these results, thus ensuring the objectivity of the results.

According to the level of selected indicators, the regional organization achieves the best results in the area of cooperation of organization members. It regularly supports the education of organization members who are involved in management and marketing activities at the destination. The management organization is responsible for the activities and results in the tourism development in the destination and the management and marketing activities of the management organization are transparent, published in the annual reports on the organization's website. The organizational structure of the organization and the voting rights are clear and fair, as well as published in the annual reports on the organization's website.

On the other hand, the organization achieves weaker results in the development of sustainable tourism. The main reason for the slower development of sustainable tourism is the unreachability of the management organization for the activities and strategic planning of the public sector. Existence of improving energy efficiency strategies (public lighting), waste collection and management, water supply efficiency, wastewater treatment and reuse, development of sustainability information campaigns aimed at the population and the use of ethical codes in tourism (regulation of activity, management, impacts) are areas that need to be managed by public sector bodies.

The regional organization achieves favourable results in the groups of indicators of marketing activity, economic area and visitor satisfaction. The biggest disadvantage of marketing activities is that the organization's website does not offer the possibility of direct booking of accommodation. On the other hand, the organization has worked intensively to operate a regional travel agency that offers 57 unique and original experiences through a website for sale. Economic indicators were mainly affected by the development of the situation regarding COVID-19. The number of visitors, the number of overnight stays and income from tourism before the pandemic increased annually. The pandemic also affected groups of indicators of visitor satisfaction, specifically indicators of the year-on-year occupancy rate and seasonality. However, visitor surveys have shown a general level of satisfaction over the past year.

Discussion

Despite the growing importance of evaluating the performance of tourism management organizations, studies aimed at examining tourism performance in destinations pay little attention and the authors disagree on what measuring the performance of a management organization in the destination means. Research in the field of management organization performance focuses mainly on the economic benefits of tourism, paying little attention to the social and environmental environment of tourism (Luo, 2018; Turková, Maráková, 2021). Case studies focusing on tourism performance are largely focused on measuring performance in hospitality businesses (Widayati, Riorini, 2018; Fatoki, 2019; Majumdar, Adhikari, 2020; Nam, et al., 2020). Authors Aureli and Del Baldo (2019), Ibrahim et al. (2019), Onuferová, Čabinová and Dzurov Vargová (2020) focused their research on evaluating performance in travel agencies. Case studies focused on the destination tourism development deal with the evaluation of the performance of management organizations (Sigala, 2014; Pike, Bianchi, 2016; Modica, et al., 2018), with the development of tourism in the destination, regardless of whether there is a management organization (Khezrimotlagh, 2015; Huang, Chen, Ting, 2017; Latif, Saudi, 2019) and the performance of the chain of services offered to visitors in the destination (von der Weppen, Cochrane, 2012; Palang, Tippayawong, 2019). Several authors of the studies focus on evaluating the performance of marketing investments (Sigala, 2014; Pike, Bianchi, 2016; Huang, Chen, Ting, 2017; Fatoki, 2019), while only von der Weppen and Cochrane (2012), Modica, et al. (2018), Nam, et al. (2020) assess the performance of tourism development regarding sustainable tourism. The presented paper thus contributes to research in the field of evaluating the effectiveness of destination management organizations with regard to the destination competitiveness and the development of sustainable tourism.

Conclusions

Significant growth in tourism development is putting pressure on the destination competitiveness, as well as on the sustainable tourism development. Resources for the tourism development are limited and financial resources for the tourism development in Slovakia at the regional and local level are formed mainly by subsidies from the state budget. It is therefore important to monitor and evaluate the effectiveness of destination management organizations. However, the topic of evaluating the effectiveness of the management organization's activities at the regional level has so far been insufficiently explored. The study presents a monitoring system applied in one of the selected regions of Slovakia. The aim of this paper was to apply a methodological framework for measuring the effectiveness of tourism development in a selected Slovak destination. We believe that our study can contribute to research into the effectiveness of management organizations at the regional level. The selected set of indicators can be applied in all regional management organizations in Slovakia and based on the results of individual groups, compare selected organizations in order to determine one as a benchmark.

Limitations: The data used in the selected model were obtained mainly by a primary survey supplemented by secondary sources. In the conditions of Slovakia, it is not possible to obtain data for indicators that are in the competence of the local government and the statistical office, and their analysis itself is time consuming. The advantage of the model used is that the data are relevant and reflect the real state of tourism development in the region. Due to the availability of data at regional level, the proposed system for monitoring and evaluating the effectiveness of destination tourism development uses 47 indicators instead of the original 72. The activities of the management organization may vary from region to region; available and which meet the specifics of the destination.

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COMMUNICATION IN TOURISM

Jaroslava Hošková, Eva Gawlasová

Abstract

The article summarizes the research of communication in Czech tourism during the years 2020-2021 with the use of digital data stored online and taken not only from blogs but also from discussions and online reviews posted by clients of six selected travel agencies. The objective of the research was to find out the frequency of different forms of communication as well as the choice of clients´ language resources of mutual communication between clients and agents of selected travel agencies. The results of this article are related not only to the satisfaction of clients with the professionalism of travel agents, delegates and travel guides, but also to the level of services and their organization offered by six travel agencies. Thus, the part of the research´ results are factors that influence the preferences of customers and the possible recommendation of the agency through the online environment. These results help to understand better the changes that the tourism sector experienced during the pandemic years 2020-2021 and that, currently, can lead to the possible future improvement of communication. Moreover, the results offer the detailed comparison of communication before and after the pandemic.

Key words

clients, communication, experience, reviews, satisfaction, travel agency

JEL Classification: Z390

Introduction

Over the past decades, tourism has been influenced by modern information communication technology (ICT). Undeniably, these digital tools, such as the Internet, have helped tourism organizations and experts in this area understand the clients´ needs more clearly. At the same time, it has allowed them to investigate the business environment and competition to improve, innovate, and reshape this attractive sector.

The following paper deals with the research, in which these ICTs were implemented not only for digital data retrieval, but also for the study of language and mutual communication between clients and travel agents during the pandemic years 2020-2021. The goal of the presented article, hence was to find out more in the field of the communication aforementioned since together with service quality and customer satisfaction, it has played a vital role in the tourism sector nowadays.

As stated by Shyju (2021), these issues are crucial for the profitability of the business because they undeniably, contribute to repeat business and customer loyalty in the longer period of time. Interestingly enough, in this present-day research as found on the Web of Science, Shyju (2021) also points out a very important trend caused by the Covid-19 pandemic, which is a paradigm shift in research orientation. According to the author, there has been a steady growth in the number of publications related to customer satisfaction and the level of services provided in tourism before the pandemic. Nevertheless, since the year 2020 is marked by the spread of the Covid-19, this led to the drop in the research and the number of the articles related to these affairs. Hence, by examining this trend in this field during the pandemic, it was possible to reduce the gap in the research and at the same time, provide the valuable findings and propose recommendations for the improvement in this field.

The following pages of the article, thus, describe these matters by answering the questions such as what was the level of the services provided by six selected travel agencies in the Czech Republic during the pandemic, what kind of communication took place most frequently, what were the factors influencing the customers´ satisfaction and finally, why or why not would the clients recommend the particular agents. The next chapter, thus, introduces the main material studied and the methods depicting the means by which this research was conducted.

Materials and Methods

The former encompassed the use of the Internet, where digital data was first searched and then collected from blogs, discussions, and reviews from clients of 6 selected travel agencies in the Czech Republic during the period of pandemic years 2020 and 2021. The latter included the process comprised of data compilation and categorization, and subsequently scrutinized through the newly created digital corpus. For the digital corpus, an online tool freely accessible for researchers on the Internet, Sketch Engine software was used. The following Table 1 summarizes the main corpus information.

Table 1: Corpus counts information

Tokens	20,372
Words	15,941
Sentences	788
Documents	1

Source: Sketch Engine

As can be seen in the table above, the texts extracted from the blogs and discussion were first inserted into a Word document, then uploaded to Sketch Engine programme, which automatically and within minutes created a new collection of the data representing a sample of the language, the corpus, from the document uploaded. In detail, this corpus contained 20,372 tokens, which according to Brezina are ‘running words’ (Brezina, 2018, p. 41), 15,941 words and 788 sentences. As such, these particular texts in the corpus could be better studied in terms of frequency, keywords, collocations, and phrases in the context and hence more clearly linguistically analysed and categorized. The results of the analysis of these texts follow.

Results

As the title of this article indicates, the most important part of our investigation dealt with tourism communication and how significant impact the positive or negative way of communication and treatment can have on the choice of travel agency due to or due to the online environment.

Table 2: Clients´ most positive experience based on communication and treatment of selected travel agencies (with the number of mentions in brackets)

Tour guides´ proficiency	TA Metal (11), TA Exim Tours (5), TA Fischer (3), TA Čedok (1)
Organization and programme of tours	TA Blue Style Agency (3)
Services	TA Invia (1)

Source: The authors´ own source

Firstly, the research focused on the most positive clients´ experience with selected travel agencies. Regarding TAs Metal, Exim Tours, Fischer and Čedok, it was found that the most positive reactions of these travel agencies were associated with the proficiency of the tour guides. As we can see in Table 2, we talk about 11 satisfied clients of TA Metal, 5 clients of Exim Tours, 3 clients of TA Fischer, and only one positive reaction of a client of TA Čedok. Regarding TA Blue Style Agency, in total, 3 positive experiences occurred in connection with the organization and program of tours, while for TA Invia most but only one positive reaction is related to service standing, for example, for the proficiency of bus drivers, receptionists, or services provided by Invia s call centers.

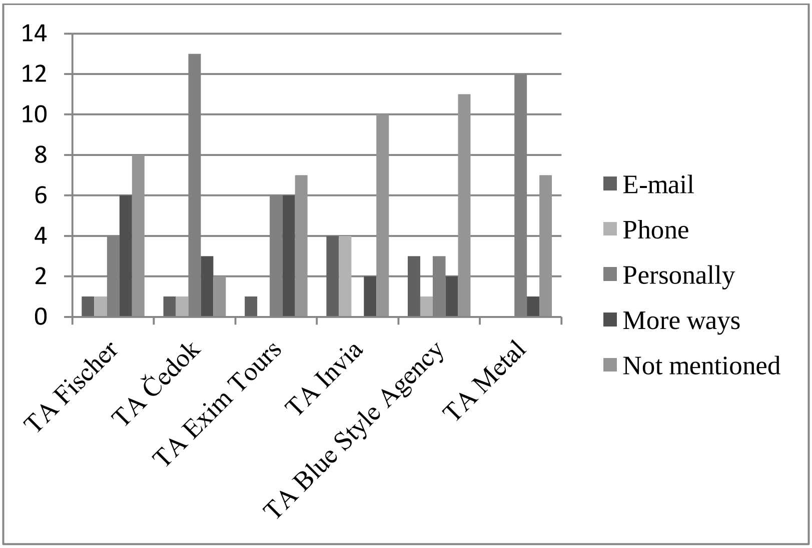
Table 3: Clients´ most negative experience based on communication and treatment of selected travel agencies (with the number of mentions in brackets)

Poor communication	TA Invia (12)
Services concerning trip cancellation	TA Blue Style Agency (10)
Tour guides´ proficiency	TA Čedok (10), TA Fischer (8)
Relevance of information received	TA Exim Tours (7), TA Metal (4)

Source: The authors´ own source

Secondly, not only positive but especially negative experiences with selected travel agencies prevailed during the pandemic years 2020-2021. In relation to TA Invia, 12 negative reactions were observed out of 20 in connection with very poor or even no communication between clients and Invia´s travel agents. Not surprisingly, it was the coronavirus situation during the years 2020-2021 that had a very significant but negative impact on TA Blue Style Agency in terms of services regarding trip cancellation: a cancelled trip in exchange for vouchers, unrealized spare tour without no possibility of refunding clients´ money or unexpected payments of trip cancellations are some of the examples of poor communication and treatment of TA Blue Style Agency during investigated years. Once the proficiency of the tour guides is evaluated, the most positive experience among the clients is the most positive, as mentioned above, in the case of TA Čedok and TA Fischer, it was the right opposite. 10 clients of TA Čedok and 8 out of 20 clients referred to very poor proficiency of both travel agencies tour guides. Untruthful, incomplete, or misrepresented information was the reason why 7 TA Exim Tours and 4 out of 20 TA Metal marked the lack of information as the biggest problem of these two travel agencies.

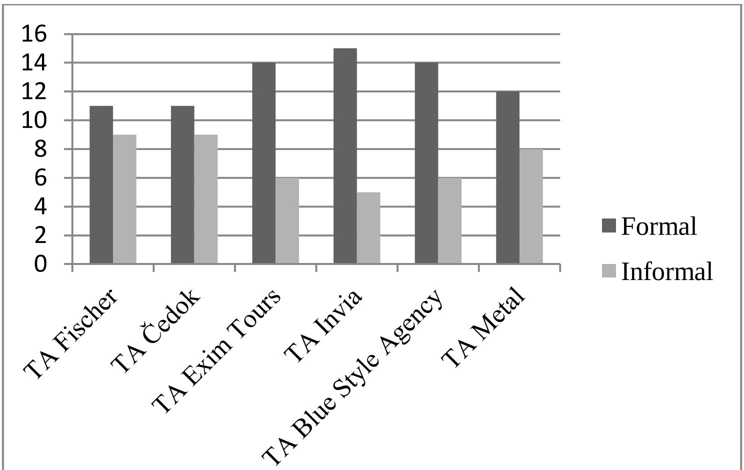
Graph 1: Ways of communication between clients and travel agents



Source: The authors´ own source

As for the second part of the investigation, the research also focused on the frequency of different forms of communication between clients and travel agents: email, phone, personal contact between clients and agents, and alternatively, more ways of communication were investigated. In terms of both TA Fischer and TA Čedok, the communication only via e-mail or phone occupies the lowest position, however, as we can see in the graph, TA Fischer preferred using more ways of communication with their clients while in TA Čedok the personal contact with clients predominated during the years 2020-2021. When investigating the communication methods of TA Exim Tours, it was found that personal contact and communication in more ways were at the same level; on the other hand, based on client reviews, not once the phone conversation was used. Following another two travel agencies, we can notice that the majority of the investigated clients neither mentioned the way of communication with both TA Invia and TA Blue Style Agency. In contrast, the most frequent ways of communication with Invia travel agents occurred by email and phone and, within the TA Blue Style Agency, by email and personally. Finally, it is interesting to compare that TA Metal did not use email or phone communication, but personal contact with clients prevails in spite of the pandemic situation during the years 2020-2021.

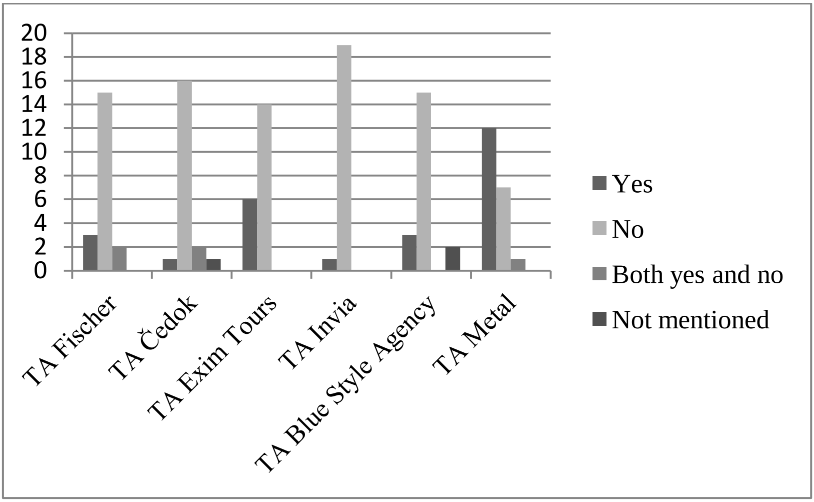
Graph 2: Choice of language



Source: The authors´ own source

As for the choice of language used in the written data, we can see that most people, i.e., 77 out of 120, used formal language. On the contrary, only 43 out of 120 people used the informal style to share their experiences with others online. More interestingly, only 25 of these selected reviews were positive, 90 reviews were negative, and in 5 cases the language contained positive and negative characteristics. The negative language in the investigated data consisted of these emotions: outrage, disappointment, irony, disgust, warning, or even threat. On the positive side, the language most commonly included helpfulness, approval, gratitude, or thanks for the comfort and services provided by the TAs.

Graph 3: Client satisfaction with selected travel agencies



Source: The authors´ own source

Based on the communication and treatment between travel agents and their clients, the way of communication, the choice of language, and the language resources, we can finally summarize and compare the satisfaction with selected travel agencies. At first glance, what we can read from the graph is that clients of all selected travel agencies, except TA Metal, were not satisfied with mutual communication and offered services. On the other hand, the most positive experience was observed in connection with the TA Metal followed by TA Exim Tours, while both satisfaction and dissatisfaction occur not only within TA Fischer but also, to the same degree, in TA Čedok.

Since the literal recommendation undeniably differs from the purely positive experience expressed in the reviews studied, the overall summary of this matter follows. Of the six travel agencies researched, most of the clients mentioned 6x that they would recommend TAs Metal and Exim Tours and 5x TA Fischer to others. On the contrary, no client recommended TA Invia and TA Čedok and Blue Style received only one recommendation from their clients. Surprisingly, 12x the clients did not recommend TA Exim Tours, 11x Čedok, 7x Metal, 5x Fischer, 4x Invia, and 3x TA Metal. The rest of the clients did not mention in their reviews or discussions whether or not they would recommend the TAs.

Discussion

As well as it is mentioned by Halkiopoulos (2021), the use of digital services on the Internet has contributed to the growth of digital tourism having, on one hand, advantages in the form of easy access to online information, on the other hand, one has to count with disadvantages such as insufficient personal contact with clients which may result in misunderstandings as observed in our research. However, the question that appears as the topic of discussion is if to put the blame related to the general satisfaction of customers only on the coronavirus situation which, besides other things, had negative impact also on tourism and service sectors as highlighted by Kumar et al. (2021), or whether travel agencies have noticed similar reactions before the pandemic or today.

Conclusion

The objective of this article was to investigate the communication in Czech tourism during the years of pandemic 2020-2021 based on the use of modern online communication technologies such as digital blogs, discussions and reviews of six selected travel agencies. In concrete, the way of communication, the choice of language resources for mutual conversation between clients and travel agents and general (dis)satisfaction were taken into consideration since these were key factors that fundamentally affected the clients´ recommendation of a travel agency through the online environment. Regarding the way of communication, we could find various communication channels between customers and agents to a different extent. More interestingly, results of this research helped to reveal that customers of five selected travel agencies of six were not predominantly satisfied with their communication and offered services. In concrete, we talk about bad administration related to Covid-19, improper handling of vouchers, unprofessional or even no communication of delegates, inadequate information about trips that, in addition to that, were badly organized. It was the only TK Metal in which customer satisfaction prevailed over dissatisfaction related, especially, to the proficiency of tour guides. However, when it came to the choice of language, within all selected travel agencies, the formal use of language predominated over the informal one which was expressed by emotions of gratitude, helpfulness, approval or thanks. In order to improve communication in investigated fields, these and other travel agencies could take advantage of these data and results scrutinized in this research and applied them in the positive way in the work environment. According to the data found it is also recommendable for travel agents to consider further and more detailed communication with their clients to support the overall understanding of the clients´ complaints and thus, by these means, easily improve mutual communication between clients and travel agents since, as it was observed, TK Metal had the biggest number of satisfied clients based exactly on clear communication of delegates and travel guides and also with offered provided. For this reason, it could be an inspiration for other travel agencies in this section.

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DIGITALIZATION IN RURAL TOURISM PRACTICE

Liběna Jarolímková, Jiří Vaníček

Abstract

The paper is based on the conclusions of the international project "Towards Smart Rural Tourism Development in Europe". It presents detailed results of the analysis of the digitalization of rural tourism in three selected protected areas in Northern Bohemia. The state of digitalization in the main types of rural tourism was analysed: agri-tourism, hiking, cycling, cultural tourism. Data were collected from in-depth interviews with employees of destination management companies, representatives of protected area administration and entrepreneurs, and from the analysis of websites of rural tourism entities. The research was focused on 2 main aspects: the state of digitalization in management activities and the extent of digitalization of visitor services. The level of digitalization was assessed using scales. It was found that only five establishments out of 61 evaluated ones had digitised their processes to a good level. About one third of the assessed facilities are on a very low level of digitisation and more than one third are not digitized at all.

Key words

Digitalization, rural tourism, natural protected areas.

JEL: *O32, Z32*

Introduction

Digitisation in general terms means converting analogue information into digital form so that this information can be processed, stored and transmitted through digital pathways, devices and networks (HÄRTING, 2017). Digitization can also be seen as a process of how digital technologies and systems based on them are adopted. The term digital technology refers to a combination of information (or data), computing, communication and connecting technologies. Digital technologies include all types of electronic hardware and software that use information in the form of a binary code. Digital technologies generate, receive, store, process, transmit and act independently of data. Increasingly, digital technologies are making it possible to capture data in and around them, communicate that data with other entities locally or globally, receive information from other things, use sophisticated computations / algorithms to extract insights from that information, and use combinations of algorithms and robotic capabilities to act on that information in the same way. Examples of these processes are product development, purchasing, customer acquisition, customer support methods, accounting processes, marketing processes, human resource management, strategy development processes, governance and risk management. Technology is increasingly being integrated into these processes in designing, facilitating, managing and optimizing processes (BUSULWA, 2020). Digital technologies have also advanced in the tourism industry. They are influencing the behaviour of guests and visitors. They can also contribute to increasing the competitiveness of a destination. Current tourism service managers should adapt and respond to the current digital transformation (ILIČ et NIKOLIĆ, 2018).

Nowadays, information and communication technologies are playing an increasing role in tourism (UNWTO, 2020), and are expanding to rural areas (VISVIZI et LYTRAS, 2018). The potential of digital technologies for rural development is argued by Sept (2020). The development of information and communication technologies and the internet have given rise to the term of e-tourism (BUHALIS, 2003). It is an umbrella term for the application of information and communication technologies in tourism, which are changing the nature of tourism services globally. E-tourism and the internet in particular promote interactivity between tourism businesses and consumers, thereby reorganizing the entire process of developing, managing and marketing tourism products and destinations. ICT enables tourism participants to identify, customise and purchase tourism products. They also support the globalisation of the sector by providing tools to develop, manage and distribute offers. ICTs are increasingly playing a critical role in the competitiveness of tourism organizations and destinations (BUHALIS, 1998).

The current rural tourism development strategy is based on the concept of sustainable development and the implementation of smart tourism principles (UNWTO, 2018). Digitalization is one of the tools of the Concept of Tourism Development in the Czech Republic (MMR, 2021). A characteristic feature is the use of modern technologies such as information and communication technologies (ICT), mobile communication, cloud computing, artificial intelligence and virtual reality. Digital technologies are a means to achieve the overarching goal of more efficient resource management, growth in competitiveness-ability and enhanced sustainability (ŠÍP et al., 2020). Although the resources for the digitalization of rural tourism are limited compared to other types of destinations (BODOSCA, 2014), more and more elements of digitalization are gradually penetrating here as well (VELIKOVA, 2019). For example, the development of digitization of folk heritage in Poland is documented by Krol and Hernik (2021).

The Department of Tourism of the Prague University of Economics and Business participated in the international project Towards Smart Rural Tourism Development in Europe in 2019-2021. The project contributes to the modern concept of rural tourism development, which includes digitalization. The authors of this article participated in the implementation of the project and carried out the research, the results of which are presented here. The aim of this paper is to present the detailed results of the analysis of rural tourism digitalization, which was carried out in three selected protected areas in North Bohemia. The state of digitalization in the main types of rural tourism was analysed: agri-tourism, ecotourism, hiking, cycling, cultural tourism.

Background and methods

The aim of the survey was to determine the state / level of digitalization in selected areas, which are characterized by developed rural tourism. The main types of rural tourism were investigated: agri-tourism, hiking, cycling and cultural tourism in rural areas (VANÍČEK et al., 2022). The research was carried out in 2020 and 2021 in three natural protected areas in North Bohemia: National parc České Švýcarsko, Protected landscape area Labské pískovce, Protected landscape area Lužické hory. The analysis focused on two aspects: 1/ Digitalization in destination management, and 2/ The extent of digitalization of visitor services (DREDGE, 2019). In total, 61 entities were evaluated.

As regards 1/ Digitalization in destination management, the processes of five institutions managing the territory were analysed. The main evaluation criteria were visitor monitoring and the use of data in destination management and product adaptation. In-depth interviews with responsible representatives of these institutions were the basis for the analysis.

As for 2/ The extent of digitalization of visitor services was analysed at 8 agrofarms, on 18 educational hiking trails, on 1 cycle path (Labská). Within cultural tourism, frequent tourist destinations were analysed: lookout towers, castles, museums and galleries (29 subjects in total). The main evaluation criteria were: presentation on websites, connection to online booking and review systems, mobile applications, use of digital marketing on social networks. The level of digitalization was evaluated using scales. The overall result of the evaluation is expressed for each evaluated entity by means of a score, i.e. the ratio between the number of points achieved on the scale and the maximum possible number of points. The scores range from 0 to 1, with a higher value indicating a higher level of digitisation. The use of digital data in destination management, presentation of the range of products, communication with visitors and online sales was assessed.

Results

The analysis shows that the level of digitalization is relatively low in the researched region and varies greatly from one entity to another. A summary is shown in Table 1.

Table 1: Evaluation of the level of digitisation

Achieved score (x)	Digitisation rate	Number of subjects (absolute value)	Number of subjects (Relative value in %)
x = 1	Full	0	0 %
x > 0,7	Good	5	8 %
0,7 > x > 0,4	Partial	17	28 %
x < 0,4	Minimal	18	30 %
x =0	None	21	34 %

Source: Own processing

The digitisation rate with an average score of 0.67 is for destination management organisations. Representatives of destination management organisations are aware of the importance of digitisation. The promotion of destinations, management of activities and communication with other actors or public authorities is largely based on technology, using cloud storage, web presence and social networks. As these are protected natural sites, much attention is paid to the sustainable use of space. Monitoring of visitor numbers using automatic counters and mobile operator geolocation data on exposed trails is ongoing. The data is used for destination management, promotion and other marketing activities (BIELOVIČOVÁ, 2021).

In the category of cycle paths only the Elbe cycle path was evaluated. Its digitization score is one of the highest, with a value of 0.8. The Elbe cycle path has an overarching unified management and marketing, is presented on its own website, social networks, Wi-Fi is available along the path, feedback can be shared on review sites and has its own mobile app.

Agri-tourism facilities have varying degrees of digitalization, mostly very low. An exception is the Czech Switzerland Ranch, which achieved a score of 0.75, but most facilities fall into the low digitization level. Most facilities have internet and Wi-Fi connections, but that is usually the end of their digitisation. Half of the agrofarms surveyed do not have their own websites, or their websites are outdated or not updated, and they do not have a social media presence. Only rarely can accommodation be booked online, and mobile apps and reviews of the services provided are practically non-existent (BIELOVIČOVÁ, 2021).

Cultural tourism destinations have a mostly partial digitisation rate with scores ranging from 0.4 to 0.7. Castles have a good to partial digitisation rate. The Lemberk Castle and the Grabštejn Castle (both administered by the National Heritage Institute) achieved the highest score of all the assessed entities (0.83). In addition to mobile applications, they meet all criteria, present their offer on websites and social networks, have internet or Wi-Fi connection, can sell tickets online and are active on review sites. Partial digitisation is the result for almost a third of museums, while the remaining museums have a minimal or zero level of digitisation.

Hiking is the most widespread activity in the region. The level of digitization in the entities related to hiking is very low, most of the nature trails are not digitized. The situation is similar for lookout towers, where only 3 entities have at least partial digitization, but most of them also have a minimal level of digitization.

There is clearly a higher level of digitalization in entities that have centralised management and support. For these entities, there is stronger support for the digitisation of processes in development documents and associated financial and staff resources. The low to zero digitization rate was for the entities that operate solitarily in the market. For these entities, engaging in digital transformation is in most cases very difficult to achieve.

Discussion

When assessing the level of digitisation in selected areas, there were several limitations, which may affect the overall results and distort the impression of digitalisation in rural tourism in northern Bohemia. It was the aim to include in the research a range of establishments active in rural tourism. The units surveyed are diverse both in terms of type of activity and ownership, and therefore they have different means of developing digitalisation. Digitisation is at a different level in their activities, with a relatively large variance. The research was carried out at a time when restrictions were in place to prevent the spread of the covid epidemic. During this period, the facilities did not have routine regular tourist service and visitation values were erratic. Some establishments tried to use this period to improve future services and also made digitalisation a priority. Other facilities, on the other hand, did not have the resources and slowed down or postponed the digitisation process.

As the digital transformation of society and tourism is ongoing, the results presented in this research are a snapshot of the state of the period. They can serve well as a benchmark for future evaluation of the progress made in this area in the years to come. The research has also shown which types of tourism establishments have difficulties in adopting digital technologies.

Conclusion

It can be concluded that the process of digitisation in rural tourism in the monitored area is uneven and disproportionate. The digitisation of processes is not centrally coordinated in this area, so facilities proceed it according to their preferences and capabilities.

Data collection and visitor monitoring is crucial for further development, adjustment of the offer and marketing. Clearly, digitalization increases the region's competitiveness, management efficiency and sustainable development. Digital transformation and the introduction of new technologies are expensive projects and not only entrepreneurs, but also destination management organisations and other companies operating in rural tourism do not have sufficient funds for these activities. Another barrier is the lack of experts to implement and manage digital solutions in rural areas. Central authorities and the professional association, the Union of Rural Tourism and Agri-tourism, which is already planning a project to promote digitalization, can help improve the situation.

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SELECTED TRENDS IN GASTRONOMY AS A CHALLENGE FOR ENTREPRENEURSHIP IN THE HOTEL INDUSTRY

Patrik Kajzar, Klára Václavínková

Abstrakt

The article focuses on the specific use of modern trends in the food service and hotel industry. The main aim is to identify the evolution of these trends in the context of the COVID pandemic and the limitations that have emerged. The authors identify the main trends that are relevant in gastronomy. The methods used are comparison and literature search. the introduction of new trends is a necessity from the customer's point of view. The main trends are digitalisation. responsible and sustainable tourism, thriving wellnessare walking (56% of travelers), visiting a spa or receiving beauty treatments (33%), cycling (24%), water sports activities (22%), taking a full body detox vacation (17%), changed views on mobility and hanged business travel.

Klíčová slova

Cuisine, hotel, pandemic, tourism.

JEL Classification: Z3

Introduction

Tourism is an interdisciplinary phenomenon, i.e. the subject of research of many scientific disciplines. Knowledge from individual disciplines forms an interdisciplinary science - the theory of tourism. Tourism theory performs an integrating and generalising function in relation to the disciplines that study tourism. Tourism is a form of tourism in which the participant moves by his or her own power (possibly using the power of animals, but in a nonmotorised way), so it is an active form of participation in tourism (Pásková and Zelenka, 2002). Tourism (tourism) is a complex social phenomenon as a totality of activities of tourism participants, the totality of processes of building and operating facilities with services, including the totality of activities of persons who offer and provide these services, affects not only its participants, but also service providers, destinations where tourism is implemented, and transit destinations (Gúčik, 2010). Authors addressing this issue include Gučík (2010) and Pásková and Zelenka (2002).

One of the first papers responding to the initial impacts of the COVID-19 pandemic on the tourism industry is presented by Škare, Soriano and Porada-Rochoń (2021) in Impact of COVID-19 on the travel and tourism industry. The authors of Persson and Liu (2021) discuss the overwhelming impact of the COVID pandemic on the tourism industry in The Impact of a Global Crisis on Areas and Topics of Tourism Research. Another publication addresses the use of digital marketing strategies during this tourism crisis (StayHome today so we can #TravelTomorrow: tourism destinations' digital marketing strategies during the Covid-19 pandemic) by Ketter and Avraham (2021). The ongoing crisis as an opportunity for reflection and the need to redefine tourism development strategies is discussed by Kowalczyk-Anioł, Joanna, Marek Grochowicz, and Robert Pawlusiński (2021) in How a Tourism City Responds to COVID-19: A CEE Perspective (Kraków Case Study). The COVID-19 pandemic has had a huge impact on the tourism industry worldwide. The tourism sector can use new technologies (e.g. virtual tourism) to respond to the challenges. This is discussed in a study by Junyu Lu, Xiao Xiao, Zixuan Xu, Chenqi Wang, Meixuan Zhang and Yang Zhou (2021), which aims to explore the factors influencing people's acceptability of using virtual tourism during the pandemic in China and to investigate how virtual tourism can help tourism recovery during and after the pandemic.

Currently, the Ministry of Regional Development has responded to the situation in the Czech Republic by preparing the document Crisis Action Plan for Tourism in the Czech Republic 2020-2021. The Crisis Action Plan for Tourism 2020-2021 (hereinafter also referred to as the "Action Plan" or "AP") is a document serving to rescue and subsequently restart the tourism sector (hereinafter also referred to as "CR"). The development of the Action Plan was necessary due to the situation in the tourism sector as a result of the epidemic of the coronavirus known as SARS CoV-2. The material responds to the fact that there has been an unprecedented disruption of an important sector of the provision of services to citizens with spillover into other sectors of the national economy (e.g., transport, hospitality and other tourism services) (MMR CR, 2020).

The main trends in tourism and gastronomy can be defined as follows according to available Internet sources: the introduction of takeaway counters, takeaway services, food delivery and emphasis on high hygienic quality and contactless payments. The main trends in gastronomy will also include online pre-orders and the use of tablets. The advantage of digital ordering is that companies not only save on finances for their staff, but can also present more photos of dishes and menus to the customer. This makes it much easier for the customer to imagine something under exclusive names and dishes. The kitchen can also work faster because the order goes directly to the chef. So restaurants score points primarily on speed. There is also a growing demand for the use of modern payment methods - restaurants that allow their customers to pay quickly online using their mobile phones or bill via an app will be another Gastro 2021 trend. There is also a focus on sustainability. (WISEFOOD, 2021)

Trends from a tourism perspective.

The booking.com platform (2021), after its own research, defines the trends as follows: Domestic travel dominates over international travel. Changing locations. Beaches have always been a popular destination for vacation. In a post-pandemic world, they may be even more sought after. Flexibility as an important factor. A global survey conducted in April shows that almost half (45%) of travellers would book a stay if they had the option to cancel for free. A third (32%) said they would book if they could change their dates for free. In other words, customers want to maintain flexibility when booking because they know that the unexpected spread of a virus could quickly lead to government-mandated restrictions and a state of emergency.

Other trends according to Rissanen, Ianioglo (2020) are shorter booking window and flexibility, the number of stays booked at the last minute is increasing and the booking window is getting shorter every month. However, in France and the UK, more people were not worried about booking one or two months in advance in July compared to June. Solutions such as last minute deals can help you capture bookings made at the last minute. In turn, you can attract customers who book in advance with early booking offers. Emphasis on cleanliness. Cleanliness remains a key criterion for customers, and more and more of them are demanding transparency about the cleanliness measures they follow. Since the outbreak of the pandemic, we have seen a significant increase in certain terms used by guests when asking about accommodation. Transport preferences. Travelers prefer to travel by car over airplane. With international travel still restricted by government regulations in many areas, we have seen an increasing number of people preferring to travel by car, usually to accommodation within a 2 to 3 hour drive of their home. The Czech Tourism Agency lists gastronomy as the second motive for vacations in the Czech Republic. Visiting cultural monuments is the first thing, followed by gastronomy, then tourism and natural sights.

Material and Methods

The authors used logical methods, which include a set of methods using the principles of logic and logical thinking. These include a trio of "paired methods" and these are abstraction - concretization, analysis - synthesis and induction - deduction. Within the logical methods, methods such as induction and deduction will be used in this thesis (Ochrana, 2006, Kozel, 2008). The authors work with theoretical backgrounds, the main part of which is a critical analysis of the literature and internet sources. Excel is used. Evaluation criteria were determined as follows. The authors work with data from general statistics. These are data on the numbers of arrivals, departures and overnight stays. The relevant time period is 2018 to 2021. The data come from the Czech Statistical Office and are compared with each other. The data on gastronomy are not sufficient; the authors try to reach relevant conclusions by deduction.

Results

We can see the main trends that the Covid pandemic has shown us. Main global trends identified for 2020 and post-Covid era: *Digitalisation*. The use of technology is expected to be maximised and tourism services will be characterised by an increased share of e-tourism. A number of museums during the lockdown introduced virtual tours. Customer demand for contactless and personalised experiences could lead to the implementation of cloud-based property management systems, automatic check-in/out in hotels and attractions, use of autonomous robots to clean, etc. Also, the move to digital will enhance work and educational opportunities in the sector. Gen Z, Millennials and the generations that follow are digital natives and their relationship with technology will continue to influence tourism service delivery. *Responsible and sustainable tourism*. A positive aspect of the pandemic is the environmental improvement due to the reduction in air, sea, and land pollution. The increase of perception in the value of nature could lead to more sustainable models of tourism industry. Sustainability should be a guiding principle in the recovery. Responsible tourism is becoming significantly relevant when booking a vacation, 45% of tourists prefer to choose tour companies that provide holidays that benefit the local community and economy. *Domestic tourism*. Domestic tourism, which accounts for about 75% of the tourism economy in OECD countries, has also been affected by travel restrictions, but is expected to recover more quickly. People will be mainly looking for safer destinations or places close to home. More than 50% of the global population now categorizes itself as 'middle class' or "rich", more and more people can afford to travel. The domestic market is very important to satisfy as it continues to remain the leading form of tourism as well as an important tool for regional economic development. Domestic travel decreases the impact of seasonality in tourism, it also improves the attractiveness of the city, which helps to attract highly educated young professionals and thus supports local economic diversity and eases investment decisions to the region. *Thriving wellness*. Health and wellness are expected to remain an important expectation of guests. The growing trend for health and wellness led to increased health-conscious travel. Health and wellness inspired activities are walking (56% of travelers), visiting a spa or receiving beauty treatments (33%), cycling (24%), water sports activities (22%), taking a full body detox vacation (17%), etc. *Changed views on mobility*. Tourists may be mainly looking for safer destinations, choose to move away from crowded destinations and give preference to outdoor activities (rather than indoor), cycling, etc. *Changed business travel*. The meeting and event industry experiences an essential change ever. Video-conferences have become widely used, including by business travellers, avoiding non-essential travel. Many business travelers will welcome opportunities to fly less. At the same time, a new generation of event professionals is emerging with an expected major shift in mindset that will change the way events are planned. Digital technologies and data play an important role in the fight against the pandemic. Mobile apps could strengthen contact tracing strategies and support public health authorities in monitoring and preventing the spread of the virus. Artificial intelligence and robotics can also help with monitoring and maintaining a safe distance in line with data protection legislation, or assisting with disinfection, especially in places with regular tourism flows.

The Commission will provide support through the Digital Innovation Centres to local tourism businesses to help them cope with the new conditions of this tourism season (e.g. disinfection and cleaning robots, crowd management, smart booking systems, etc.), including a hackathon on the use of digital technologies in tourism. (Cestovní ruch a doprava, 2020)

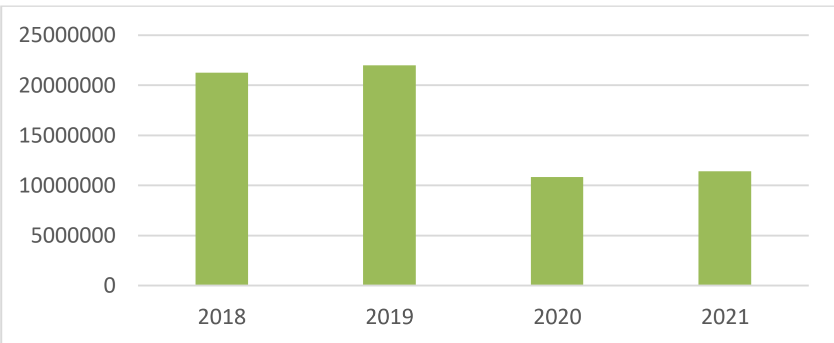
Tab. 1 The main tourism indicators

	2018	2019	2020	2021
Number of arrivals	21247150	21998366	10836448	11395756
No. of overnight stays	55513922	57024767	31385502	31956646
Avarage leght of stay (days)	3,61	3,59	3,9	3,8

Source : Own processing according to www.tourdata.cz

Table 1 describes development arrivals and overnight stays. The authors selected a range between 2018 and 2021. These data are currently available. We can see that there are significant decreases in all values. Catering operators are therefore forced to react flexibly and adjust their offer.

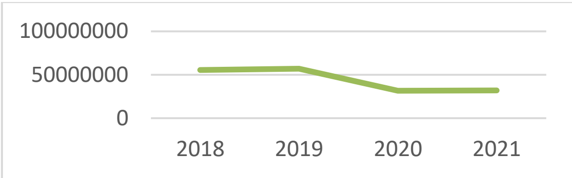
Tab. 2 Number of arrivals



Source : Adaptation to www.tourdata.cz

In chart number 1 we can see significant declines from 2019 onwards, with a slight improvement already in 2021. The restrictions during this period were not as severe, and there was a gradual loosening.

The graph 1 Overnight stays



Source : Own processing according to www.tourdata.cz

Chart number two describes the evolution of overnight stays. We also see the same trend as in chart number one, the most significant drop in values in 2021, then a gradual increase.

Discussion

Due to significant declines in arrivals and overnight stays. It is clear that there has been a decrease in visits to foodservice establishments. Of course, there was a period when it was not possible to visit the catering facilities at all, only to use the take-away windows or home delivery. There has been a significant rise in delivery services and the volume of online orders has increased sharply. The COVID-19 pandemic has had a huge impact on world economy. The lockdown has caused many problems in the daily activities also affected the functioning of gastronomy. When the economy was released from the lockdown, the gastronomy businesses had to adapt the new working conditions to strict guidelines that show the specific actions that reduce the risk of coronavirus infection (Malinowska, Szymańska-Bralovska, 2021). Based on the analysis of literature sources, the authors describe mainly changes in consumer behaviour. Growing popularity of food delivery from well-known chefs or well-known restaurants. Consumers are increasingly looking for dishes cooked by renowned chefs or restaurants. Most luxury restaurants did not offer food delivery before the epidemic, but that has changed as consumer demand for luxury menus, but also delivery, is growing. Tormo-Santamaria et all (2021) say that 70% cooked more often and spent more time cooking. More than 35% expanded their culinary knowledge, with an increase in web browsing and social networking. During confinement, traditional Valencian cuisine predominated and desserts were the preferred preparations. Group cooking increased by more than 11 percentage points, as did eating in company, although the use of audio-visual devices during the act of eating persisted. 84% changed their perception about some aspect related to food. The differences between the behavior before the pandemic and the one that developed during confinement have been shown to be statistically significant in most of the variables tested.

Innovation of packaging materials for distribution. The Covid-19 pandemic has accelerated the process of modernizing packaging materials. Consumers will pay more attention to whether the packaging maintains the required temperature, humidity and shape of the food during transport and delivery. So far, most restaurants have not dealt with packaging much and have chosen the cheapest option so that they do not have too high costs, but that is changing. The customer requires quality and health-friendly packaging. Food safety is starting to dominate. Consumers are beginning to pay more attention to where the food they consume comes from and how operations handle it. This means that they will pay more attention to whether employees use gloves, whether they handle food properly, or how clean the toilets and rubbish bins are. Disinfection and hygiene required. Hygiene habits such as disinfectants, wipes or higher hand washing rates are likely to persist after the crisis. Customers are likely to require the ability to order food using digital devices directly at a store that McDonald's already has, for example, which will reduce staff. Consumers will expect the restaurant to provide them with these funds and to ensure regular disinfection of tables, chairs or other common places. Increasing the share of food delivery in total operating revenues. Customers use the option of importing food and serving windows, they do not want to give up prepared meals. Increased demand for contactless ordering of food and delivery. (Václavínková, 2021) According to Gramza-Michałowska, Kulczyński (2021), there has been a significant deterioration of gastronomy in Poland compared to the Czech Republic. Recent months have been dominated by the Sars-CoV-2 virus pandemic, which has changed gastronomy and mass nutrition for many years to come. Its impact on the food system around the world has been unprecedentedly rapid and dramatic. Gastronomy is one of the key elements of the food industry, where the impact of the pandemic crisis has been and is often a factor causing the impossibility of functioning, and thus the liquidation of many restaurants, bars or hotels, and huge losses for cooperating companies.

Conclusion

Gastronomic business owners have been able to adapt to the changing market situation. Here are the most significant effects of the epidemic. Supply chain transparency. An emphasis is placed on the use of local resources. Reduction of the offer in restaurants. Simplifying the menu will also reduce the risk that resources are available. New forms of disinfection. Food safety and disinfection are now paramount for consumers and, therefore, should also be a top priority for operators. The number of establishments is decreasing. The numbers are not yet authoritative, but it is clear that many restaurants will close. Franchise companies are also closing some of their operations.

As the article shows, the introduction of new trends is a necessity from the customer's point of view. The number of customers has declined dramatically between 2020 and 2021. Where there has been an increase, there has often been a limitation in the form of the need to demonstrate some form of infection-free status, which has continued to deter many customers from visiting catering outlets. The aim of this paper was to analyse the impact of the introduction of new trends into the catering offer. As the article shows, the introduction of new trends is a necessity from the customer's point of view. The number of customers has declined significantly between 2020 and 2021. Where there has been an increase, there has often been a limitation in the form of the need to demonstrate some form of infection-free status, which has continued to deter many customers from visiting catering outlets. The aim of this paper was to analyse the impact of the introduction of new trends into the catering offer. Based on the data presented, it can be seen that customers have become interested in the new trends and have also started to demand them. Digitalisation, contactless payments, online ordering and home delivery of food are on the rise. However, there is a long way to go for food service operators, customers have learned to prefer staying at home and restaurant footfalls are not increasing as expected after the phasing out of restrictions. It is also positive that in the coming years there will certainly be a renewed increase in foreign visitors, who have as their second goal to visit gastronomic establishments. The main trends in gastronomy will also include online preorders and the use of tablets. The advantage of digital orders is that companies not only save on the run for their employees, but can also present more photos of food and menus to the customer. This makes it much easier for the customer to imagine something under exclusive names and dishes. The kitchen can also work faster because the order goes directly to the chef. So restaurants score mainly on speed. There is also a growing demand for the use of modern payment methods - restaurants that allow their customers to quickly pay online using mobile phones or bill through the application will be another trend of Gastro 2021.

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PITTFALLS OF IMPLEMENTING ELEMENTS OF VIRTUAL REALITY INTO PROCESSES IN THE HOTEL INDUSTRY

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Abstract

The aim of the article is to describe the processes associated with the implementation of elements of virtual reality in the processes used in the hotel industry within the project "Application of virtual reality tools to training communication skills of hotel staff to alleviate concerns and risks associated with the spread of COVID-19". The hotel industry is generally perceived as a traditional field, but like most other fields, it is constantly facing new challenges that it has to deal with. Utilizing elements of virtual reality as a rapidly evolving technology can be one way the hotel industry can face these challenges.

Key words

hospitality industry, hotel, virtual reality, management processes, soft skills

JEL Classification:

Introduction

The hotel industry is a dynamically developing branch of the tourism sector. Like most other sectors of the economy, the hotel industry is facing new and emerging challenges. Economic pressure on the bottom line, ever-increasing costs, especially personnel costs, and other influences are forcing hoteliers to continuously increase revenues. Although the hotel industry is generally perceived and considered a conservative field, hoteliers are part of the external environment and must accept the stimuli that arise in this environment. The original meaning of the word hotel industry was associated only with the description of the commercial provision of services related to the provision of food, drink and accommodation in restaurants, bars and hotels [1]. Over time, the meaning of these words has also shifted to a synonym for hospitality and hospitality management. The phenomenon of hospitality is becoming a recognized field of study. As such, it must be approached. This means, among other things, the need to provide hotel management with theoretical background to support the practical development of the industry. Such theoretical support includes, for example, the implementation of new management elements. The implementation of new elements of management, which hoteliers bring to hotel management, necessarily brings with it the need to change many processes that are anchored in the hotel industry. Accepting stimuli from the external environment means, from a strategic point of view, turning risk into opportunity. In the recent past, for example, the implementation of Revenue Management processes or dynamic pricing processes has brought the need for completely different approaches and processes to the hospitality industry. In the same way, however, for the hotels whose management accepted these challenges, these external stimuli were a seized opportunity.

Currently, the use of virtual reality technology is offered as one of the many stimuli from the external environment. The project at the Institute of Hospitality and Economics "Application of virtual reality tools to the training of communication skills of hotel staff in order to alleviate concerns and risks associated with the spread of COVID-19", which was supported by the Technology Agency of the Czech Republic among other things, it aims to design a methodology and processes associated with the use of virtual reality in the processes of training soft skills of employees and to design a methodology for training the communication skills of hotel employees using virtual reality tools.The soft skills are essential competencies within the hospitality industry, and the education providers should shift from intensive training of hard competencies to the soft ones [2]. Effective communication is highly connected to the clarity of the information and building and maintaining two-way communication with clients [3].

Metodology

Virtual Reality is widely regarded as an extremely promising solution for industrial training purposes, as it allows to perform simulated hands-on activities in a controlled and safe environment [4]. Virtual reality systems are often, but not always, immersive: immersion refers to the perception that the virtual environment surrounds the user, in which the stimuli of the physical environment are simulated through a technical device that directs the human senses to images, sounds, and objects created in the virtual environment. [5]. The features mentioned in this definition of virtual reality were used for the purposes of this project. Great emphasis at the beginning of the project was placed on creating the most realistic environment in which the simulations will take place. The ongoing activities aimed at creating a methodology and processes associated with the use of virtual reality in the processes of training soft skills of employees and the design of a methodology for training communication skills of hotel employees using virtual reality tools takes place in several phases. In the first phase, the methodological framework of the whole process was established. The following processes were defined as the main elements:

- Build a creative team
- Determination of outputs
- Simulation preparation
- Simulation testing
- Preparation for the simulation
- Simulation
- Performance reflection

The basic elements of the simulation were also determined in this phase:

- Realistic
- Drama
- Challenge
- Elements of public speaking practice
- Elements of social communication training
- Elements of active listening practice

In the second phase, the process of describing the virtual hotel took place. In this process, the emphasis was mainly on the authenticity of the created environment. The reception area in the virtual hotel was inspired by the existing hotel. Emphasis was placed on the authenticity of the reality of the environment, mainly due to the creation of such an environment in virtual reality, which will contribute to the authenticity of the experience of the people involved.

The third phase of the process was to establish a basic framework of training scenarios. Emphasis was placed on creating a balance between:

- Fixed scenarios (strict narration)
- Free scenarios (interactive storytelling)

In the fourth phase of the project - Implementation of communication skills training in a virtual hotel, which is still ongoing, 3 types of communication skills training were determined:

- Three-phase training with a free scenario
- Three-phase training with a fixed scenario
- Three-phase training with a combination of free and fixed scenarios

Within the virtual training itself, students are introduced to the virtual environment and the situations of the training itself. As an example of a specific situation, we present the situation of guest accommodation at the reception at the time of specific epidemiological measures in connection with the COVID-19 epidemic.

A methodology for training in virtual hotel describes the individual stages of training, and deals with important aspects of the development of communication skills of the target group in an immersive environment.

We are using a three-phase training model, where the first phase always includes practical acquaintance with the virtual environment, wearing virtual reality goggles, specific system control tests, a feedback interview, where the student states his/her feelings, has the opportunity to ask for details, can point out that he/she suffers from cyber sickness, etc. The second phase is ideally separated from the first by several days, and it is already a matter of immersing the student in a specific training situation. The teacher and other students who watch the training take notes to provide feedback to the student, and in the case of a free scenario, the teacher or selected student directly takes on the role of a client, and interacts with the trained student. Student reflection and preparation for the third phase of training is alaso based on video recording of training in virtual hotel, which the student can play repeatedly, and analyse their strengths and weaknesses in the level of communication. The third phase of training is again time-separated - ideally approximately 7 days apart. The student immerses back into the virtual environment, and goes through the same or similar situation as the week before.

Results

The use of elements of virtual reality can be considered an opportunity for hoteliers. Training participants often mentioned surprises with the realities of the virtual situation and the virtual environment. So far, 40 individuals aged 21-56 have participated in the training. It can be assumed that people will be confronted with elements of virtual reality in the near future more and more both in the work environment and in everyday life. The next generation is already approaching the possibilities of using modern technologies much more openly. Thus, the idea is that a hotel that will be able to offer employees internal training using virtual reality will have a competitive advantage in the labor market. The test results show, among other things, completely new evaluation and feedback options. A certain enthusiasm for contact with modern technology and the possibility to try it out also contributes to the positive benefits of the training. As a result, these facts will support the positive effects of training on the trainees.

Due to the fact that many participants were in contact with virtual reality technology for the first time in their lives, it was necessary to acquaint them with the technology both technically and theoretically. The theoretical side means, for example, the need to get used to the scenario.

The students emphasized that people with experience in the hotel industry also took part in the training, thanks to which the subsequent discussion on individual communication situations was a great benefit.The testing process and the feedback from the project participants indicated the importance of avoiding excessive criticism in case of incorrect reactions of the trained persons.

The length of the training itself is also an important aspect of the success of training using virtual reality technology. Responses suggest that the training should not exceed 10 minutes. The reason is the growing stress of the trained person in the case of a longer period of training.

An important condition for training using virtual reality technology is a sufficiently large space in the classroom. It is essential that the space is free of elements that could jeopardize the safety of trainees. Training participants are prevented from physically perceiving the space around them, yet they tend to move. For this reason, it is important to create a large and safe space.

Although testing is still underway in this project, but from the partial outputs it can be confirmed that:

a) Men have faster and smoother adaptability during the first testing (a woman's brain really usually tolerates it a little harder).
b) After a while, the human brain really stops distinguishing between ordinary and virtual reality, so it starts to react as if it were really moving in a given environment.
c) Which leads him to be able to exert similar pressure on performance without harming the real guest.
d) That VR, thanks to avatars, leads to a certain depersonalization of the tutor and the trainee, which in the training helps to forget possible sympathies / antipathies among specific employees and are able to train members without these subliminal perceptions.

Discussion

In contrast to common and hitherto used employee training practices, virtual reality technology offers new possibilities. These are, above all, the possibilities of realistic modeling of various situations, the replay of situations and reactions to them, and last but not least, the possibility of entering the situation from practically anywhere. On the other hand, there is no doubt that the incorporation of training using virtual reality will bring with it the need to revise and modify a number of processes in the hotel. Whether it's processes associated with well-established recruitment, training and performance appraisal practices. It will be necessary for the hotel management to understand the benefits of new technologies, to approach them and, most importantly, to enable the implementation of new elements and processes in practice.

Conclusion

In the services sector, the human element is one of the most important factors [6]. We cannot disagree with this fact. This is despite the rapid and emphatic emergence of new possibilities associated with modern technologies. Knowledge is considered the primary asset or resource that drives a company's growth and thus its performance [7]. The level, maturity and quality of processes in the organization are among the key factors of sustainable economic development. The effectiveness and quality of business management is determined by the ability to address and innovate approaches, principles and methods. Process management describes all activities in the company, which is then integrated into processes that are more sophisticated. Through these processes, the company optimizes its entire organization so that it is effective not only in partial [8]. The ability to incorporate elements associated with the use of virtual reality into hotel management processes contributes to creating and maintaining business competitiveness.

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THE IMPACT OF DIGITIZATION ON THE TRANSFORMATION OF PROCESSES AND SERVICES IN TOURISM

Miroslava Kostková

Abstract

The development of tourism causes a change in the traditional system model with the result of automation and digitization of processes. The article aim is to identify specific aspects, key characteristics and processes of digitization, automation and robotization in some areas of tourism, hospitality, spa and gastronomy based on the analysis of available information. A theoretical exploratory approach was used; systematic and chronological approach; analysis and synthesis; content analysis. The result is the introduction of a new system, digitized components and specific customer interactions.

Key words

Digitalization; gastronomy; hospitality; robotization; tourism

JEL Classification: Z32; Z300

Introduction

The digitization process is part of common processes. Development in tourism in the coming years are largely determined by digitization. Digitization facilitates everyday personal and professional life. Thanks to digitization, it saves employees' wages, speeds up and streamlines their work and is environmentally friendly. Digitization transforms the physical world into the digital world through data communication. Moore's and Metcalf's law explains the rapid rise of the Internet, which, with data processing, forms the background to the whole process of digitization. Digitization brings new technologies as a trend. Businesses that want to keep up with the competition will need to invest in new technologies, innovation and digitization.

Material and methods

Digital economies are changing the modern development of many economic activities (Buhalis & O'Connor, 2005). In the context of the digital economy, information, coordination of information flows in the tourism sector and the creation of a database of tourism facilities are becoming key factors for development (Mustafaeva et al., 2020). According to Marx (2019), tourism with predominantly small and medium-sized enterprises has a strong impact on supply and demand through digitalisation. Advances in digital technology have provided tourists with new mobile services capable of enhancing the tourism experience and accelerating the development of new business models for digital business and application-based digital products. Liberato et. al. (2018) talk about the impact of Generation Y on tourism and its relationship to the supply of hyper-personalized products, using digital applications, networks or leisure platforms. Perez et al. (2021) analyze online consumption and digital leisure. Thomay et al. (2021) confirm that cities are increasingly investing in digital tourism. Digitization projects can enable interactions in a more sustainable, environmentally friendly way. Kazandzhieva & Santana (2019) and Maslova et al. (2020) declare that E-tourism causes a significant change in the traditional model of the classical tourism system. The creation of an e-tourism system is a logical sequence for the digitization of all processes in the tourism value chain. Vaananen et al. (2021) measure business development and digitization towards efficiency, accessibility, sustainability, dissemination and internationalization, as perspectives for long-term cooperation. Kozlowski et al. (2021) identify the impact of the use of IT on the development of tourism, catering and accommodation in EU countries. Malachovský & Spišiaková (2020) and Novacká (2016) said, that in the countries of Central Europe, the ability of digital transformation of tourism is significant. Madiyarova et al. (2018) discuss the benefits of IT in supporting digital tourism, the role of the Internet and mobile applications in the development of a new type of digital tourism organization. The digital transformation of tourism is a very current topic for a modern globalized society.

Results – digitalization in tourism

Based on the study of published data, professional interviews, studies and scientific articles, the results concerning digitization in individual areas of tourism in the Czech Republic, in the field of guide business, hospitality, gastronomy and spa were determined, with illustrative examples. Methods of exploratory approach, systematic and chronological approach, synthesis and content analysis were applied.

The new preference for digital communication affects the whole area of tourism. Digitization brings new fields of the future, futurist Gerd Leonhard presented his vision of tourism development, predicted the disappearance of a number of traditional positions, gradual introduction of appropriate digital tools will create new positions of workers for working with data and analysis, for preparing suitable offers, service packages, workers for " chatting with clients and responding to online comments or the guest wishes.

Significant is the readiness for a new generation of travellers, the so-called Millennials, known as "Generation Me". Their travel habits put pressure on tourism services, but they also open up new opportunities for them. According to Lachová (2017), it is characteristic for them:

- 85 % visit several websites to find the best possible offer before making a reservation,
- 46 % book holidays via smartphone or tablet,
- 69 % regret not using the last-minute offer,
- 97 % share their activities on social networks while travelling, whereas 75 % posting at least once a day,
- limit direct contact with staff and seek solutions via the Internet,
- 68 % remain loyal to programs that offer the best benefits - upgrades, discounts, points.

The development of information and communication technologies leads to changes in the way we communicate with clients and enables the adoption of innovative business models and electronic sales channels for tourism products. Crucial is the information about demand/supply, tourists, tourist destinations, facilities, availability, prices, geographical information and weather, transport, intermediaries and competitors, trends in the tourism market, prices, products and tourism packages. The world of tourism is transformed by technologies that make it easier for customers to meet their needs, materialized in practical solutions. Virtual tourism is a trend, an important marketing and business tool

(Botlikova, 2019). Technology saves time and offers flexibility. In the field of touristic guides, technological platforms for interactive audiovisual guides are being set up, such as the Czech SmartGuide (the first virtual tourist guide SmartGuide was launched in 2018 in Pilsen). Within the MICE segment, we switched to online broadcasts and hybrid meetings. Online travel agencies (OTAs) offer clients an overview of accommodation options in one place sorted by different categories, send orders, cancellation conditions, payment terms, have shopping motivators, photos, packages, etc. OTAs are the preferred choice of many travellers, especially if they are going to a destination they do not know. Today, online bookings are around 40 % more than in 2019. According to a study by the European Tourism Commission (2021), almost 45% of of surveyed clients plan their next trip online, through a review website (18%), a destination website, social media (12.7%) or hotel websites (11.8%).

Digitization and automation in tourism introduce cost-effective workflows, automate the routine, and it is a welcome helper to sustainability. E.g. drones can solve the problem of overtourism. They monitor site traffic and the burden associated with overtourism can be reduced. The process of digitization in the hotel industry began during the 1990s, and hotels began to switch to the first computer hotel programs. After the year 2000, hotels began to use Internet and related services. The right "complete digital transformation" means maximum savings in administrative work. If digital technologies are functional and set up correctly, staff will always have an irreplaceable commodity - emotions. Cloud systems address complete hotel management, including staff, reservation system, sales channel management, dynamic pricing, easy control of individual campaigns and sales from up-selling and cross-selling. It increases profitability and simplify processes, data help make decisions, allow managers unrestricted access to reports and operational matters even remotely. The Internet affects the quality of service, the pressure of social networks on hoteliers to keep up with something new is increasing. Pilný (2016) states that the opportunities for digitization in the hotel sector include: continuous improvement of products and services, environmental protection, the introduction of new technologies, digital data registration and acceleration of processes. He cites as a threat: the possibility of losing privacy, the possibility of false evaluation, theft and misuse of personal data, the need for certifications, increased administrative activity, loss of human contact and financial demands.

The hotel industry is moving towards the individualized experience that guests expect, enhanced by modern technologies. From booking

accommodation to checking out, every interaction between the guest and the hotel is an opportunity for technological innovation. Mobile applications, interactive screens connected to social networks allow you to build a relationship with the guest. Digitization will allow you to get to know the guest better. Pre-arrival information collection allows you to prepare an unexpected personalized stay (sending an automatic message the day before arrival with a description of the way to the hotel, online check-in, after the welcome is sent a digital key to a smartphone wishing you a nice stay, mobile concierge service, seat booking application in the hotel restaurant, wellness procedures or room service, wake-up call, online chat with reception, payment for services via the mobile application, thank you for your stay with a link to the hotel's social network, etc.). Robotization in spas and digitized treatment means making spas more attractive, meeting the international standard of medical operations. Robotic rehabilitation significantly improves and strengthens the effect of classical rehabilitation methods. With the use of robotic devices, clients achieve significantly better performance (eg in Lázně Darkov in Karviná Reoambulátor - antigravity walking simulator with virtual reality module, 3D animation, radiofrequency therapy, high-performance laser or shock wave therapy brings extraordinary results in the fields of physiotherapy and rehabilitation.
Gastronomy 4.0., Digitizes most of the tasks in gastronomy, there is a possibility to use 3D food printing. Today, most of the 35 thousand. Czech restaurants have advanced cash register systems that integrate activities so that entrepreneurs spend as little time as possible on activities that can be automated. Gastronomic systems will connect the cash register with the kitchen, payment terminals and waiters' tablets, accounting, warehousing and a camera system. Facilitates storage and supply. The automatic supply of restaurants is being tested on the basis of linking their online inventories with the supplier's warehouses. This can ensure up to 90% time savings, minimize errors, reduce waste and, as a result, the company can save up to 30% on food and costs. Integration takes place for processes inside and outside the restaurant. Cooperation with delivery companies, providers of loyalty programs or accounting solutions for cryptocurrency payments is being tested. According to Storyous, there is currently a market in the Czech Republic in this area of approximately CZK 350 million.
Communication with the kitchen is speeding up and refining. Waiters are equipped with tablets, payment terminals are also portable. Electronic blackboard in the kitchen, inventory by reading barcodes and smart scales, order from delivery services saves manpower, speeds up the order and reduces errors. Smart thermostats can only heat the place where the customer is sitting. Air conditioning is regulated, as is dynamic lighting -

energy is saved. Guests scan QR codes to select from the offer, the method of payment is accelerated through digital payments, cards, applications, cryptocurrencies. Complicated processes are accelerated and operational efficiency is optimized by covering the capacity of the operator in the current personnel crisis.

Discussion - robots in guest service

While Industry 4.0 was built on the concept of full digitization and automation, Industry 5.0 is expected to increase the demands on robots and humans. For the next twenty years, tourism will be marked by robots and artificial intelligence (the first conferences on the topic of artificial intelligence took place in 1950). The integration of robots with hotel systems is a huge opportunity to turn administrative matters into robots. An example is Aura - the first stand-alone guest service robot, which helps address hotel staff deficiency and increases productivity. The robot not only attracts guests with its personality, but also has friendly behaviour, with human character, delivers bottled water, clean towels, toiletries and food to guest rooms, and responds to telephone requests for room service. Another robotic helper is Pepper - concierge, who will advise guests with orientation in the hotel, acquaint them with hotel services, offer what to visit in the place. The number of robotic restaurants is growing rapidly. The first pioneers were restaurants of the Výtopna type, where the train will bring the order directly to the table. The trains are PC on the tracks, interconnected via WIFI. The robotic arm loads the order on the train. This technological equipment in the restaurant occupies a significant part of the work in serving guests. Its goal is not to replace human service, but to supplement it and stop the work for which there is a real lack of manpower today, or to make it easier for the robot to take away a large volume of orders from guests.

The robot as a restaurant staff looks like an attraction arouses interest and is a marketing attraction, such as the Sylvie restaurant in Orlová, Stejkárna Meat and Smoke in Prague (the first in Europe to employ guest robots), or the Cyberdog robotic wine bar in Prague, in the futuristic designed interior. The pandemic situation has also contributed to the acceleration and expansion of these services; gastro robots can find employment mainly in companies that have lost employees due to the pandemic.

Conclusion

Automation and digitization are transformation processes. They mean shortening processes and eliminating anything that doesn't add value, simplifying, speeding up and increasing value. Repetitive steps to achieve a goal are digitized, boring routines and chaos are replaced, and the hands of leadership are freed (Veber, 2018). "When the digital transformation is done right, it's like a caterpillar becoming a butterfly. When it is done wrong, all you have is a really fast caterpillar. "(Westerman & Bonnet, 2014). Business operators must demonstrate the resilience of the industry, the ability to adapt to market realities and integrate new rules (Pilný, 2016). We cannot stop digitization and its development; on the contrary, we can use its growth rate and accept change, making us more competitive. Nevertheless, there will be people in tourism who take care of guest satisfaction and provide contact services. It is necessary to educate and retrain. The human factor will remain the highest and people and technology will need to work together.

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NEW TREND IN TOURISM - TREEHOUSE HOLIDAYS

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Abstract

In addition to production function, forests also perform cultural function related to their use for aesthetic, healthy and recreational purposes. Their more intensive use has occurred mainly in the recent period due to the Covid-19 pandemic, which has strengthened the development of a new trend in tourism - treehouse holidays. The aim of the article is to assess the economic efficiency of the use of special purpose forests by building treehouse holidays in accordance with nature-friendly management, economic principles and social responsibility. The methods of static and dynamic evaluation were used, as well as Hoogstra-Klein and Hegenveld index of forest recreation function. For the economic analysis of the stand suitable for the construction of treehouses, the stand of forest unit Demänová in Liptovský Mikuláš district was selected. The results of the research showed that the efficiency of special purpose forests can be increased by more intensive use of the recreational function of the forest by constructing treehouses as a new trend in tourism.

Key words

Covid-19 pandemic, economic efficiency, forest recreation function, special purpose forests, treehouse holidays.

JEL Classification: Q23, Q57, Z32

Introduction

In the context of biodiversity forests meet an important role and have a positive impact on a life quality, providing a pleasant environment, recreation opportunities and health care prevention. Meanwhile the natural beauty of the environment and increasing ecological values are preserved (Carazon et al., 2019). Currently, pressure is being exerted mainly by environmentally oriented groups to forest enterprises in order to reduce, in some cases, even suspend a timber harvesting (Paluš et al., 2018). Sedmák et al. (2019) performed a reaserch to deal with impacts of forest management caused by strengthening recreational function in forest unit LESY SR Bratislava. Moreover, the results of the research conducted by Viszlai et al. (2017) proved, that passive forestry management and non-intervention management is not suitable in forests with an intention to strengthen the recreational forests function. Relevantly, demands for finding other forms of forests use and monetization are more required by society (Holécy, 2019). Obviously forests provide an environment for various recreation types, which are classified as ecosystem services and belong to the category of cultural services (Sarvašová et al. 2019). Due to COVID-19 pandemic consequences, such as increased isolation and many other measures, which have negatively affected the physical and mental health of the population, thus the recreational forest function has been strengthened (Caroppo et al., 2021). Likewise treehouse holidays are an interconnecton between forest recreational function and partially productive function at the same time, which generate profits for forest enterprises or forest owners. As a result of direct payments for treehouse holidays by vacationers, therefore logging around the treehouse could be reduced (Sarvašová et al. 2012). Furthermore, forest biodiversity will increase. The aim of the paper is to assess the economic efficiency of the use of special purpose forests by building treehouse holidays in accordance with nature-friendly farming, economic principles and social responsibility.

Materials and Methods

In order to manage the treehouse holidays project, stand no. 1901b forest unit Demänová was selected. Moreover, it is not included in in the category of commercial forests, situated on a parcel C-CN 4/32 with an area of 7,276 m^2 and parcel 4/193 with an area of 703 m^2. In fact, the stand has a character of a protective forest with soil protection function and specification for bank protection Liptovská Mara dam. Also it is important to emphasize that the stand is not located in a small or large protection area. Furthermore it is not included in the system of European protected areas NATURA 2000 and also it is not part of a protected bird area and European importance area. It is located in the first degree nature protection area.

Besides this, selected stand is located in a popular tourist area –Liptovská Mara dam. Additionaly, stand is classified as recreational mixed area with a predominance of sports and recreation facilities. In fact, occupancy is 30 %. Furthermore, the forest stand is 50 years old, stocking level is uneven, the growth stage - the middle trunk of the thickness, in some places shrubs coverd the stand and it is without intervention. It must be remembered planning a minimum logging is necessary for improving the recreational forest function. In fact it is aimed on improving the forest recreational function through forest management program. In order to maintain current various plants composition, economic measures must be consistented with this intention. Also it is desirable to keep old, shapeless trees with a high aesthetic value in the stand. Together with above mentioned it is vital to remove undesirable shrubs. In order to maximize the yields from the stand, 4 treehouse holidays are calculated. In this case the construction will be gradual, first two houses being built in the first year and then, further construction taking place. Treehouses design is made by an architectural company specialized in wooden buildings. For the reason of investment effictiveness, therefore, analysis was performed through static and dynamic methods according to relations 1 to 8 (Hajdúchová et al. 2017). Firstly, the total cost method (C) was used according to equation 1. The monthly operating costs (C_o) are shown in Table 2, annual operating costs are derived after that. Capital costs (C_c) are in the amount of equal annual depreciation from the purchace price.

$$C = C_C + C_O \tag{1}$$

The profit comparison method is calculated according to equation 2, where S is the amount of sales and C are the costs. Based on the following equation, the project with the maximum profit (P) will be selected.

$$P = S - C \tag{2}$$

Return on investment (R) assess an efficiency through invested capital (IC). It is calculated according to equation 3. If a profitability is determined for the entire investment lifetime, the share of profit and invested capital must be divided by the number of a investment lifetime.

$$R = \frac{P}{IC} \times 100 \qquad \textbf{(3)}$$

Maturity (*M*) indicates how many years an investment will be repaid. It is calculated according to equation 4 and the resulting value does not have to be the same as the lifetime.

$$M = \frac{IC}{P} \qquad \textbf{(4)}$$

Net present value (*NPV*) is one of the basic dynamic methods for evaluating an project investment, it is calculated according to relation 5. Present value of cash flow (*PCF*) calculated according to equation 6, is the sum of discounted cash flows (CF_i) investing over the entire economic project lifetime of the rates (*r*) and project lifetimes (*n*).

$$NPV = PCF - IC \qquad \textbf{(5)}$$

$$PCF = \sum_{i=1}^{n} CF_i \times (1 + r)^{-i} \qquad \textbf{(6)}$$

The method of internal rate of return (IRR) calculated according to relation 7, consists of finding a discount rate when *NPV* is equals to *IC*.

$$IRR = d_1 + \frac{NPV_1}{NPV_1 + NPV_2}(d_2 - d_1) \qquad \textbf{(7)}$$

When several investment options have a positive *NPV*, it is possible to apply the profitability index (*PI*) according to the equation 8.

$$PI = \frac{NPV}{IC} \qquad \textbf{(8)}$$

Results

First of all 3 external construction companies specializing in wooden constructions were consulted. The order consisted of design, project documentation, technical report, assessment from statics, construction drawing, softwood lumber, surface treatment with oil impregnating coating, supporting column assembly, systems of gutters, undercoat and ceiling beams, wooden truss construction, connecting materials, transport and assembly in the shape of a place. According to the order, the consruction company will only build a rough construction of treehouses. A price range for work and materials is from €22,000 to €32,500. Costs in the amount €5,500 are not included in the order for the completion of the rough construction: thermal insulating materials, wood covering, roof wooden friezes, furniture, windows and doors installation, etc. The total construction costs calculated by an external company is €33,000. In the case of constructing by forest enterprises themselves, the cost calculation is showen in Table 1, there would be a significant costs reduction.

Table 1: Construction cost of building treehouses

Costs	*Price*
Geodetic reference for the entire territory	€163
Design	€380
Project documentation + technical report + construction drawing + assessment ofperson professionally qualification	€1,628
Impregnated sawn wood	€7,595
Industrial fasteners	€977
Work	€2,916
Wood covering	€1,411
Thermal insulating materials	€543
Roof wooden friezes	€1,411
Windows	€868
Equipment	€543
Total costs	*€18,432*

Source: Own processing according to average prices of services and goods

The total construction costs for treehouse holidays are calculated from average market prices. The carpenters work is calculated from an hourly rate €13 for 8 hours of working time. Four carpenters are needed for constructing. Treehouses can be completed in 7 working days, with total costs of €18,432. An earlier overview of similar accommodations available on websites was made before calculating revenues. Besides this an average annual occupancy in treehouses in Slovakia is 250 days a year on average. Three different companies providing accommodation in treehouses have an average price around €160 per night. At this point it is possible to calculate annual sales from the available information about average occupancy and average accommodation prices of €40,000. In Table 2 a monthly operating cost of treehouses are listed. As well as employee salary providing maintenance, like house care and providing accommodation for guests. Treehouse holidays will not be connected to a permanent supply of drinking water and therefore, accommodation is without possibility of meal offering. In this case an annual operating costs are calculated €24,372.

Table 2: Operating monthly costs of treehouse holidays

Costs	*Quantity*	*Price in*
Employee salary	1	€1,500
Loundry 8 pcs	21	€346
Electricity	1.647 MWh	€22
Drinking water in a tank	100 l	€109
Maintenance costs	1	€54
Total costs		*€2,031*

Source: Own processing according to average prices of services and goods

In our reaserch static methods were used. Thus, the total costs are €26,222 and the profit is €13,778. The project profitability is 41.75%, which means it can be classified as profitable with a fast and high return of invested capital. In addition, the project maturity is 2 years and 4 months. Due to this, the project is also favourable. Furthemore, the project return is shorter than its lifetime. In order to meet the paper objectives, dynamic valuation methods were also applied. So it is based on the assumption that the invested capital is an average cost of building a treehouse of €33,000. Likewise, annual revenues as the difference between revenues and costs associated with the treehouse holidays operation was increased by annual depreciation value of €16,093. As regards the discount rate offered by Slovenská sporiteľňa for start-ups with lifetime project of 20 years an annual interest rate 7.00% p.a . was used. Equally important is that, the CF value will be reduced by €5,000 every five years, which will be used for necessary repairs. The net present value of cash flow is €127,942. For this reason investing in treehouse holidays is acceptable and will increase the company's market value. As a result of quantifying the internal rate of return according to equation 7, its value is equal to 53.15%. Hence, 53.15 cents will be returned from one euro invested. Indeed, the project is profitable as IRR> 7.00%, which is the cost of capital with foreign financing sources. The IR value reached 5.34 which means investing in the project is acceptable and can increase the company market value. In contrast, if forests were used to fulfill the production function, then according to the Report on Forestry in the Slovak Republic from 2020, the average wood supply per hectare is 249 m3, the average wood monetization is 44.68 €/m^3, the average sales of wood per hectare are €11,125. In Table 3 logging and cultivation activities costs are implemented for 1 ha stand are quantified.

Table 3: Logging and cultivation costs per average stand of 1 ha

Activities	*Unit price*	*Labor price per 1 ha*	*Labor price per 249 m^3*
Logging (€.m^{-3})	8.48		2,111.52
Wood approaching (€.m^{-3})	8.69		2,163.81
Wood handling (€.m^{-3})	3.28		816.72
Wood transport(€.m^{-3})	6.09		1,516.41
Cleaning after logging (€.m^{-3})	822.84	822.84	
Forest cultures Care (€.ha^{-1})	199.79	199.79	
Young forest stands protection (€.ha^{-1})	177.05	177.05	
Cutters and stand prunning (€.ha^{-1})	214.98	214.98	
Total costs in €		*6,506.71*	

Source: Own processing according to the Report on Forestry in the Slovak Republic for 2020

The difference between revenues from the wood sale €11,125 and costs associated with logging and cultivation activities in the amount of €6,507 is the profit from the wood production function in the amount of €4,618. The methodological procedures for assessing the investment effectiveness were adapted to one treehouse. Whereas in commercial forest profits are achieved only a few times over a period of about 100 years. From above mentioned, the profit from 1 ha of forest in 2020 was €4,618 which does not even reach the value of the annual profit from treehouse holidays €13,778. In special purpose forests, the state subsidies are the only way to earn, in that case building treehouses is acceptable from an investment point of view.

Discussion

According to our research in treehouse holidays as a new trend in tourism and due to the COVID-19 pandemic, it can be confirmed increasing interest in spending free time in forests. The results of this paper are in line with the study conducted by Doima et al. (2020), confirming that the measures caused by the pandemic had resulted in an increasing forest number visitors. Aditionaly, a positive effect on a mental and physical health of individuals was confirmed by that study. Another study performed by Scarlata et al. (2015) identified forests as the most diverse and widespread ecosystems that must be preserved for future generations, and therefore the efficient use of renewable natural resources and alternative using ways in accordance with sustainable principles are needed. In addition to Brochad (2019) research, treehouses provides their guests a unique experience, which means closer contact with nature as well as a combination of unique experiences and knowledge in a field of ecology and environmental studies. Due to current trend in adventure tourism in nature, a quality of accommodation has a lower priority and it is a signal for the expansion treehouse holidays (Situmorang et al., 2020).

Conclusions

Undoubtedly accommodation in treehouse holidays is a current trend in tourism. Furthermore, it represents an ecologically and especially economically interesting using of forests, without being significantly interfered by it. Not only, treehouse holidays can be considerd as an acceptable and profitable project based on results, but also it is possible to replace it in specific areas by adjusting the forest management plan according to the recreational forest function index. Although, the disadvantage of treehouse holidays is the fact that there is a high correlation between the accommodation price and location attractiveness. Another limiting factor is a project lifetime, which depends on material fatigue and wear, as well as on a demand for a non-standard type of accommodation.

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SOCIO-ECONOMIC DATA AND THEIR USE IN IDENTIFYING FUTURE SPA GUESTS

Věra Marková

Abstract

The paper aims to present the results of a socio-economic survey conducted in September 2021 among current and potential spa guests (3056 respondents), show the possibilities of using the results for spa businesses, and also show the application of one of the machine learning methods, decision trees CHAID (Chi-square Automatic Interaction Detector), for the analysis of the collected data. As part of this detailed analysis, we identified the factors that influence the respondents' answer to the question of whether they plan a spa stay in the next 3 years.

Key words

CHAID, decision trees, spa guests, survey

JEL Classification: C38, I12, Z32

Introduction

The Czech Republic, despite its size, is one of the important spa destinations in Europe and the origin of the first spas dates back to the Middle Ages. With the development of spas, also spa guests gradually developed. While in the beginning of spas until the First World War it was mainly a more affluent population, after the First World War, thanks to the establishment of health insurance companies, spas were opened for less affluent clients. After World War II, spas became part of the Czech health care system and its provision is linked to an indicative list of diseases. At the same time, it is also possible to provide spa care for foreigners. (Jakubíková, 2019) There are currently 38 spas in the Czech Republic (Ministerstvo zdravotnictví, 2020), to which an average of 785 217 guests came annually before the Covid-19 pandemic, of which 46 % were non-residents and 54 % residents (Czech Statistical Office, 2022). During the pandemic, i.e., in 2020 and 2021, the average number of guests decreased to 544 287, with 79 % being residents and only 21 % non-residents (Czech Statistical Office, 2022).

Spa facilities must increasingly focus on domestic guests. With this comes the need to innovate the range of products and services that will suit existing guests, while bringing new guests. Since the pandemic's beginning, the Institute of Spa and Balneology (ILAB) has conducted two socio-economic surveys, which focus on domestic guests to identify their needs. The first of the survey focused mainly on the Czechs' attitude towards spas and whether it changed during the Covid-19 pandemic. An important outcome of this survey was the definition of two socio-demographic groups: the spa guest and the potential spa guest (Matějů, 2021). The follow-up survey, the data of which are analyzed in this paper, focused on both regular and potential spa guests, and its aim was, among other things, to find out their preferences and requirements when choosing a spa facility and spa town, reasons for passing or not to complete a spa stay, their satisfaction with their previous stay or find out their opinion about the spa stay in connection with Covid-19 or diseases of civilization. Similar foreign studies focus on the segmentation of spa guests and define their profile, the identification of factors to motivate a visit to the spa or satisfaction with the spa stay. Dryglas & Salamaga (2018) conducted a segmentation study of spa guests in Poland, the result of which are three segments based on push motives and spa guest characteristics determined based on their socio-demographic, behavioral, and psychographic profiles, Kacukusta & Guillet (2015) segmented the international spa visitors of Hong Kong based on their lifestyles. Szromek & Naramski (2019) carried out as part of their study quantitative research to examine the needs of spa patients and potential spa patients towards the spa facilities and Anaya-Aguilar (2021) analyzed the factors associated with the level of satisfaction with spa stay.

This paper aims to present the results of the socio-economic survey and to analyze the collected data to find out what factors influence the respondent's decision whether to plan a spa stay in the next 3 years. For this analysis was used chi-square automatic detection (CHAID) algorithm which is often used in marketing studies for conducting market segmentation research (Komprdová, 2012). The CHAID algorithm is also used successfully in tourism research (Hsu, 2007; Legohérel, 2015).

Material and methods

Survey methodology

The socio-economic survey took place in September 2021 and consisted of two independent questionnaire surveys. The first was for respondents who had completed a spa stay at least once in the last 10 years (Current Spa Guests), and the second was for respondents who had never completed a spa stay or completed more than 10 years ago (Potential Spa Guests). Data collection was performed using Computer-assisted web interviewing (CAWI). Respondents were selected for the research based on quota requirements, which were derived from the real distribution of required characteristics in the population of the Czech Republic resulting from a previous socio-economic survey of the Institute of Spa and Balneology (Matějů, 2021). The monitored quotas were gender, age, education, region, and size of place of residence. Respondents were assured of the anonymity of the whole survey and the fact that the data will be used as one compact unit and will not be linked to specific persons. Participants had the opportunity to refuse to participate in the research or to terminate it during the research.

All respondents answered 7 socio-demographic questions - gender, age, education, region, size of place of residence, monthly net household income, size of household (number of persons younger and older than 18 years). The current spa guests answered another 30 questions regarding their last spa stay, evaluation of the last stay (infrastructure and services of the spa town), planning a stay in the next three years, motivation to plan a spa stay, and questions about the ideal spa stay, prevention of diseases of civilization and post COVID syndrome. Potential spa guests answered another 27 questions about planning a stay in the next three years, motivation to plan a spa stay, the importance of infrastructure and services in the spa town, and questions about the ideal spa stay, prevention of diseases of civilization, and post COVID syndrome. The final data set contains answers from 3056 respondents - 1000 current spa guests (CSG) and 2056 potential spa guests (PSG). Both groups have similar sociodemographic characteristics, see Table 1. The biggest difference between current and potential spa guests is their age. In the group of current guests, the most numerous respondents are over 65 years (33.8%), in the case of potential guests are respondents aged 35-44 (22.39%).

Table 1: Sociodemographic distribution of respondents (n = 3056)

Variable		Curent spa guests (n = 1000 / 32,72 %)	Potencial spa guests (n = 2056 /67,28 %)
Gender	Female	47,50 %	52,50 %
	Male	52,50 %	47,50 %
Age	18-24	10,90 %	10,18 %
	25-34	11,30 %	19,77 %
	35-44	14,10 %	22,39 %
	45-54	15,10 %	16,79 %
	55-64	14,80 %	14,29 %
	>65	33,80 %	16,59 %
Educational level	Basic school or less	9,90 %	12,00 %
	High school	69,70 %	69,60 %
	College or higher	20,40 %	18,40 %
Region	Prague	10,90 %	12,15 %
	Central Bohemian	13,40 %	12,03 %
	South Bohemian	3,90 %	6,62 %
	Pilsen Region	6,00 %	4,90 %
	Carlsbad Region	2,10 %	3,21 %
	Ústí nad Labem Region	6,30 %	8,22 %
	Liberec Region	5,60 %	3,40 %
	Hradec Králové Region	6,00 %	4,81 %
	Pardubice Region	8,80 %	3,61 %
	Highlands	4,20 %	5,21 %
	South-Moravian	11,60 %	12,01 %
	Olomouc Region	5,60 %	6,01 %
	Zlín Region	4,20 %	6,01 %
	Moravian-Silesian	11,30 %	11,80 %
Size of place of residence (number of inhabitants)	< 4 999	33,50 %	40,24 %
	5 000 -19 999	19,00 %	17,42 %
	20 000-99 999	24,60 %	20,62 %
	> 100 000	22,90 %	21,72 %
Monthly net household income (CZK)	< 14 999	7,80 %	7,34 %
	15 000 - 29 999	32,60 %	31,18 %
	30 000 - 49 999	39,60 %	39,83 %
	> 50 000	20,00 %	21,64 %
Household size (number of persons under 18)	0	72,50 %	64,59 %
	1	13,90 %	18,09 %
	2	10,10 %	13,72 %
	> 2	3,50 %	3,60 %
Household size (number of persons over 18)	1	30,70 %	29,09 %
	2	51,70 %	50,49 %
	3	13,00 %	13,91 %
	>3	4,60 %	6,52 %

Source: own research

Evaluation methodology

For the statistical evaluation, the R software was used. The influence of the observed factors on the answer to the question "Do you plan to stay in the spa in the next 3 years?" was analyzed. Respondents could answer "No", "Yes" or "I don't know, I haven't thought about it yet", the analysis was made only for answers "Yes" and "No" (total 2355 respondents).

Chi-square automatic detection (CHAID) was used for the analysis. CHAID is a decision non-binary tree designed for categorical variables (Kass, 1980). The decision tree consists of a root that represents the entire data set and that branches to other nodes. These nodes can be further divided (terminal nodes/ leaf nodes). The criterion for branching is the chi-square statistic test, which is used to determine independence in the contingency table. The table consists of a combination of a dependent variable (plan to complete a spa stay) and independent variables (see below). It always branches based on the variable with the lowest p-value of the test adjusted by the Bonferonni correction. The categories of some independent variables may merge during branching (Komprdová, 2012). We set the algorithm parameters in the R software as follows: a number of observations in splitted response at which no further split is desired is 200, level of significance used for merging of predictor categories and for the splitting of a node in the most significant predictor is 0.05, the minimum frequency of observations in terminal nodes is 0.1 and maximum height for the tree is 3.

The data were evaluated together for both groups of guests (CSH, PSG) to find out which joint factors (independent variables) most influence the plan to go to the spa in the next 3 years (dependent variable). In addition to socio-economic data: gender, age, education level, region, income, and a number of persons under 18 (children) in the household, the following questions were included in the analysis:

- *How many times have you completed a spa stay in the Czech Republic in the last 10 years?* (Never / More than 10 years ago / 1 time (as an insured person/as a self-payer)/ several time (as an insured person/as a self-payer/ both).) This question also serves to distinguish between a potential and a current guest.
- *Do you consider a spa stay suitable prevention of diseases of civilization?* (Yes/ No/ Without opinion)
- *What length of spa stay would you consider most appropriate for yourself?* (<7 days/ 7 days/ 14 days/ 21 days/ 28 days/ >28 days)

- *How often do you think it would be appropriate for you to complete a spa stay?* (Several times a year/ Each year/ Once every two or three years/ Lower frequency/ Only with health problems)
- *Have you suffered from COVID-19?* (Yes/ No)

Results

In Table 2 we can see the results of the Chi-square test for each factor (dependant variable) before branching (Chi-square value, degree of freedom, p-value of test). Due to the p-values lower than the level of significance 0,05, it can be said that gender, age, education level, region, number of children, previous experience, opinion on prevention, ideal frequency, and length of a spa stay statistically significantly affect whether the respondent plans a spa stay in the next 3 years.

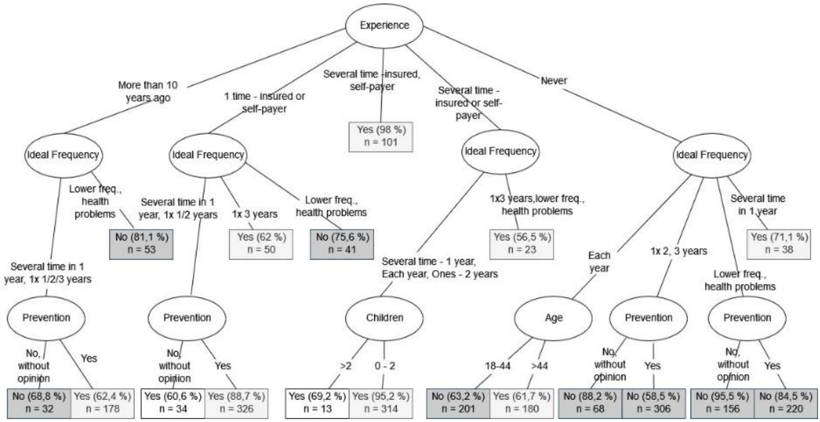
Table 2: Statistical significance of each variable before branching

Factor	$\chi 2$	df	*p*- value
Gender	6,26	1	**0,0124**
Age	93,97	5	**< 0,001**
Education level	6,15	2	**0,0461**
Region	35,89	14	**0,0011**
Income	1,11	3	0,7757
Children	23,60	3	**< 0,001**
Previous experience	596,59	6	**< 0,001**
Prevention	190,28	2	**< 0,001**
Ideal Frequention	484,88	5	**< 0,001**
Ideal Length	111,43	5	**< 0,001**
Covid-19	0,01	1	0,9356

Source: own research

As the Chi-square value for Previous Experience is the highest, the first split for CHAID is based on Previous Experience, as we can see in Figure 1. The CHAID tree shows also the next split until the stop condition wasn't met. Based on CHAID we can say, that the best predictors of planning the spa stay in 3 years are previous experience, opinion on the optimal frequency of spa stay, opinion on prevention in the spa, age of respondents, and a number of children in the household. Previous experience is the most important factor influencing the respondent's plans for a stay at the spa. This factor divided the respondents into 5 groups: potential spa guests who have never been to a spa, potential guests who have been in a spa more than 10 years ago, current spa guests who have been in a spa once in the last 10 years (insured or self-paying), existing spa guests who have been in a spa in the last 10 years several times in the spa (insured or self-payers) and existing spa guests who have been in the spa several times in the last 10 years as insured and self-payers.

Figure 1: CHAID tree model - planning a spa stay in the next 3 years



Source: own research

Respondents from the latter group plan another spa stay in the next 3 years in 98 % (n = 101), there is no other dividing variable. For all other categories, there are other dividing variables. Of the current guests who have been to the spa once, those who think that it is not necessary to go to the spa often or only with health problems plan the next stay the least often (24.4 %, n = 41). Most of those who think that the ideal frequency is one time in 3 years plan the next spa stay (62 %, n = 50). For those who think it is better to complete a spa stay more often, another dividing factor is the view of spa stay as prevention. More of them plan the next spa stay when they believe that a spa stay can be a prevention for diseases of civilization (88,7 %, n = 326). Most current guests who have been to the spa more than once in the last 10 years (as self-payers or insured) plan another spa stay in the next 3 years. Most often, those who consider it appropriate to go to the spa at least once a year and have a maximum of 2 children living in the household.

Potential guests who have been to the spa more than 10 years ago most often plan another spa stay if they think it is appropriate to visit the spa more often and consider the spa stay a suitable form of prevention (62,4 %, n = 178). Potential guests who have never been to a spa most often plan a spa stay if they consider it appropriate to visit the spa more than once a year (71.1%, n = 38) and also if they consider it appropriate to visit the spa every year and are older than 45 years (61.7%, n = 180).

Discussion

This study examined what factors influence respondents' decisions about planning a spa stay in the next three years by using the CHAID technique. Based on the segmentation of respondents (current and potential spa guests), 10 diverse groups were found, in which the interest in completing a spa stay prevails. Based on our analysis, the previous spa experience is the most important for planning a future spa stay. Current spa guests generally plan their spa stay more often than those who have not been in the spa in the last 10 years or have never been. This is confirmed by previous studies that report that repeated visit status is an important factor in tourism segmentation studies (Hsu, 2007). Another study directly from spa tourism also indicates that the demand for spa stays depends on previous experience (Adongo, 2017). Repeated visits are related to the level of satisfaction of the spa guest (Han, Kiatkawsin, Kim, and Lee, 2017; Anaya-Aquilar, 2021).

Other important factors were the opinion on the appropriate frequency of the spa stay and the belief in the preventive role of the spa stay. Respondents who consider it appropriate to repeat the spa stay more often and at the same time consider the spa stay as suitable prevention of diseases of civilization, plan a spa stay more often, even in groups of respondents who have not been in the spa in the last 10 years. According to the World Health Organization, diseases of civilization and their prevention are one of the biggest health challenges and their solution as part of its five-year strategic plan (World Health Organization, 2019), based on the results of our study, we would therefore consider it appropriate for spa facilities to start focusing on shorter-term prevention programs, which could be repeated (from a time and economic point of view) every year. Such programs have the potential to bring a new group of spa clients.

In the following studies, it would be good to focus on the influence of the evaluation of the spa stay and individual elements of the spa city infrastructure and services on the decision on the planned next stay. It would also be interesting to find out what factors are important for returning to the same spa destination and what influences the choice of a particular spa destination and spa facility.

Conclusion

The paper aimed to use CHAID to find the most important factors influencing whether the survey respondent plans a spa stay in the next 3 years. The data obtained within the socio-economic survey of the Institute of Spa and Balneology in September 2021 were analyzed. The final data set contains answers from 3056 respondents - 1000 current spa guests and 2056 potential spa guests. CHAID analyses were made for 2355 of them who answer “Yes” or “No” on the question “Do you plan to stay in the spa in the next 3 years?”.

Based on the CHAID, the following were evaluated as significant factors influencing whether the respondent plans to go to the spa in the next 3 years: previous experience, opinion on the optimal frequency of spa stay, opinion on prevention in the spa, age of respondents and number of children is household. The results can be useful for spa hotel owners in creating a product offering for a potential new group of clients and in retaining a current one.

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ONLINE REVIEWS OF TOURISM DESTINATIONS ON THE SOCIAL NETWORK FACEBOOK

Kristína Medeková, Kristína Pompurová

Abstract

Tourism destinations visitors are increasingly sharing their travel experiences through electronic word of mouth (eWOM), which also includes reviews on social networks. The aim of the article is to examine reviews of tourism destinations visitors in Slovakia on business accounts of destination management organizations on the social network Facebook. Based on the results of observing online reviews and comments from users of the selected social network, as well as the reactions of DMO representatives, recommendations for DMOs are formulated.

Key words

Destination management organizations. Online reviews. Social networks. Tourism destination.

JEL Classification: L83, M31

Introduction

The demand for the digital environment is constantly growing, and people are even more inclined to share their experiences on social networks with the products and services they encountered during their visit of a tourist destination, as confirmed by Hu & Kim (2018), Zhou et al. (2019) and Liu et al. (2021). According to Önder, Gunter & Gindl (2019), the interest in writing reviews about tourism destinations on the social network Facebook may be due to the fact that it is free, most DMOs have a business account based on it, and in particular, the widespread use by visitors to this social network. Pantano & Di Pietro (2013) found that the social network

Facebook is used to express visitor complaints, but these results do not coincide with the results of Božić & Jovanović (2017), Yan, Zhou & Wu (2018), Zhou et al. (2019) and Liu et al. (2021), who confirmed in their studies that visitors mainly share a positive eWOM on social networks. The findings of Önder, Gunter & Gindl (2019) show that the designation "Like" on the business accounts of DMOs in the social network Facebook can be used to explain the demand for tourism in tourism destinations.
The purpose of the paper is to examine reviews of visitors to Slovakian destinations on the business account of destination management organizations (DMO) on the social network Facebook. To achieve the aim, the following main research question was formulated: What are the online reviews on the business accounts of destination management organizations on the social network Facebook? Several aided questions have arisen from the main research question: (1) Do DMOs give visitors the opportunity to express their opinions through online reviews on their business account on the social network Facebook? (2) Does the number of followers of the business account of DMOs have an effect on the number of reviews on those accounts? (3) In what form do visitors share their opinions on the DMO business account on the social network Facebook? (4) Do DMO representatives respond to visitor opinions on the social network Facebook?

Materials and methods

The paper is based on secondary sources, which present online reviews and comments from users of the social network Facebook, as well as the reactions of DMO representatives to these reviews and comments. The observation method is used in the paper.
The research sample consists of all currently operating DMOs in Slovakia, that have the business account on the social network Facebook, specifically seven regional DMOs and 37 local DMOs. One regional and two local DMOs don't have their own business account on Facebook.

Results

Of all Slovak DMOs with the Facebook business account (44), 88.63 % allow social network users to add reviews. Table 1 shows the total number of relevant reviews published on the DMO business account and the total number of followers of the DMO business account as of February 7, 2022.

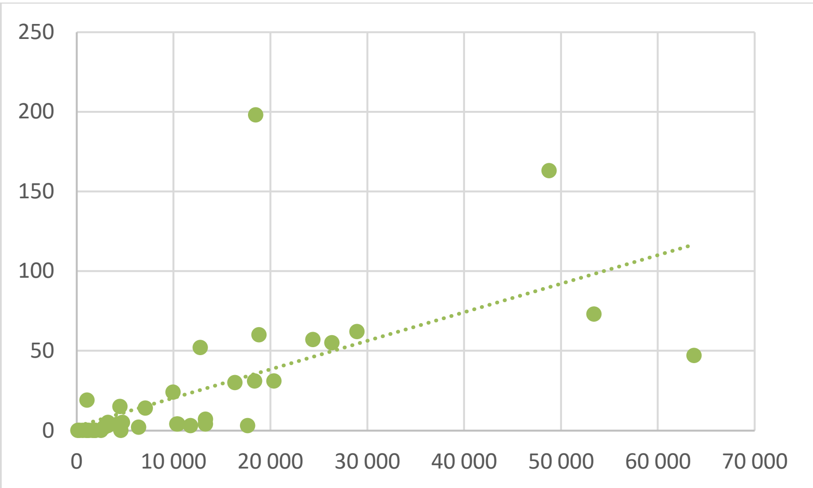
Table 1: The status of relevant reviews and followers on the business accounts of DMOs on the social network Facebook

The name of the business account of DMO	Reviews	Followers
Región Vysoké Tatry – High Tatras Region (local DMO)	198	18 462
Visit Bratislava (local DMO)	156	48 751
Trenčín región (regional DMO)	63	53 383
Liptov (local DMO)	61	28 918
Visit Kosice (local DMO)	56	18 802
TATRY SPIŠ PIENINY (local DMO)	53	26 329
Malá Fatra – Región (local DMO)	52	24 367
Slovenský raj & Spiš (local DMO)	51	12 738
Bratislava region Tourism (regional DMO)	42	63 715
Oblastná organizácia cestovného ruchu Rajecká dolina	30	20 344
Región Trnava (local DMO)	27	18 351
Horehronie – oficiálna stránka regiónu (local DMO)	25	16 316
Central Slovakia (local DMO)	21	9 929
Dolný Zemplín (local DMO)	16	1 047
Región GRON (local DMO)	14	4 447
Visit Nitra (local DMO)	14	7 067
Travel Malé Karpaty (local DMO)	6	13 278
Región Novohrad (local DMO)	5	4 710
Severný Spiš Pieniny (local DMO)	4	4 246
Visit ORAVA – turistické informácie o Orave (local DMO)	4	13 277
Región Záhorie (local DMO)	3	3 211
Región Gemer (local DMO)	3	17 629
Za horami, za dolami (regional DMO – Banská Bystrica)	2	11 730
Rezort Piešťany (local DMO)	2	10 318
Dunamente (local DMO)	2	6 375
Trnavský kraj zážitkov (regional DMO)	1	10 422
Dudince online (local DMO)	1	3 183
Local DMO Žitný ostrov – Csallóköz	1	2 826

Source: Own elaboration, 2022.

Relevant reviews include reviews without comments, where Facebook users have posted only stars, or reviews with comments, where Facebook users describe either their experience with the destination or the business account of chosen DMO. Using Pearson's correlation coefficient, it was found that there is a high correlation between the number of followers of the DMO business account and the number of reviews, the value of which is 0.700706 (graph 1). The correlation was calculated only for DMOs that allow visitors to add reviews on their business accounts on the social network Facebook.

Graph 1: The correlation between the number of followers and the number of reviews on the DMO business accounts on Facebook



Source: Own elaboration, 2022.

However, visitors prefer to write comments under the posts of DMOs than to add reviews. Comments include questions, photos, perceptions, reminders, and ideas, and positive and negative reactions. Electronic word of mouth is from domestic and foreign visitors.

Table 2 shows an overview of the reactions to eWOM by DMOs on the social network Facebook.

Table 2: Reactions to eWOM by DMOs

Type of communication	Reviews	Comments
Reply to eWOM	4	29
Failure to respond to eWOM	24	13
They do not have eWOM in this form	11	2
They do not offer eWOM in this form	5	0

Source: Own elaboration, 2022.

Representatives of DMOs try to communicate with social network users, they also respond more to comments under their posts that to reviews.

Discussion

The results of observing the business accounts of the DMOs on the social network Facebook show that 39 DMOs give visitors to the tourism destinations the opportunity to share their travel experience through reviews. This opportunity was used by visitors on the 28 business accounts, while the DMO High Tatras Region and Bratislava Tourism Organization had the most reviews. Using Pearson’s correlation coefficient, we found out that there is a strong relationship between the number of followers of the business account of DMO and the number of reviews. There is the strong direct dependence, so the more followers, the more reviews.

Tourism destination visitors who are also users of the social network Facebook prefer to write comments under posts rather than adding reviews. The comments and reviews are mainly dominated by positive statements, which confirms the statements of Božić & Jovanović (2017), Yan, Zhou & Wu (2018), Zhou et al. (2019) and Liu et al. (2021), who found out that social network users share the most positive emotions.

DMO representatives respond to comments in their posts, most of them to questions, perceptions, reminders, photos, and positive statements. On negative comments, they try to thank for the feedback, argue, respectively, to provide their perspective on the situation, and finally to wish a nice day to users. On the contrary, some DMOs do not take visitors’ ideas into account and pretend that they cannot do anything about it and react more strongly than they should.

Conclusions

By observing the business accounts of DMOs on the social network Facebook, we were able to answer the main research question: What are the online reviews of the DMO business accounts on the social network Facebook? Online reviews are published not only through the review tab provided by the social network Facebook, but also through comments under the posts of DMOs. Electronic word of mouth is positive as well as negative in nature and includes photos, questions, perceptions, reminders, and ideas. Thirty-nine DMOs allow visitors to add reviews to their business account on the social network Facebook, but only twenty-eight DMOs have reviews on their business accounts. The results of Pearson's correlation coefficient show that there is a strong relationship between the number of followers of the DMO business account and the number of reviews on this account.

Destination management organizations should increase their activity on social networks and encourage tourism destination visitors to follow business accounts on the social network Facebook of DMOs, to write comments under the posts, and to add reviews. Representatives of DMOs should encourage visitors' right at the tourism destination through a small souvenir or promotional material to follow the business account or to add a review, and in the online space through competitions.

Further research focusing on eWOM of tourism destination should emphasis on the content analysis of Facebook users' reviews, but also on comparing reviews on business accounts of DMO on Facebook among several countries and present the DMOs best practices to be followed.

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POSSIBILITY OF RESERVATION IN A MODERN DOMESTIC RESTAURANT

Michal Motyčka

Abstract

Booking seats in a restaurant or other gastronomic establishment is an essential condition for ensuring that breakfast, lunch or dinner can begin without any complications or inconveniences. For many years, the only way to book a table in a restaurant was through a personal visit or by phone. Over time, the possibility of booking via e-mail has logically increased. In the context of modern approaches and in order to meet the simplicity, automaticity and comfort of the client, focus on various online booking systems is placed.

Key words

Reservation, on-line, e-mail, no show, cancelation

JEL Classification: M15, M31, M37

Introduction

Gastronomic facilities primarily serve visitors to satisfy their physiological needs. In addition, to achieve a feeling of satiety. Needs do not evolve historically, but the ways to meet them do. Therefore, over time, these facilities have become places where we not only satisfy the feeling of hunger, but also fulfill a social and societal function. We are already choosing which cuisine we will prefer, whether we will prefer a restaurant with a view or in an interesting part of the city, and with whom we will share a culinary experience. Of course, it is not always guaranteed that it will be a pleasant lunch or dinner. Sometimes the chef may not be able to prepare food according to his ideas or the client's ideas the staff may not have "their day" or other factors, such as noise in the restaurant or unpleasant atmosphere. However, these are all circumstances that we cannot fully influence. However, what is in the client's power is to arrange so that at least the initial phase of the visit can be completely without mistakes. This tool is a timely and proper reservation of space in the restaurant. In general, reservations should always be made and definitely in advance. Even if the given gastronomic operation usually has free tables. However, on the very day we intend to visit it, they may have a private or group booking. The reservation serves not only to guarantee us a vacancy, but also to select our preferred table (if the restaurant offers it). Alternatively, at the same time communicate to the staff the special wishes that may be desirable for visiting the restaurant. It can be a wish for a hand, wedding anniversary, birthday, etc. In this case, we can order staff to provide a bouquet, special dessert, welcome drink on the roof terrace or other services that special and pleasantly complete the overall positive impression of the visit. From the above, it is clear that reservation is really an essential condition to ensure a smooth visit to restaurants, bars, or other catering establishments. The necessity of the reservation is therefore given. All that remains is to decide how we will create the required reservation.

Material and Methods

As mentioned in the introduction, in order to obtain a guarantee that at least the beginning of the visit to the gastronomic establishment will take place without unnecessary complications; the best way is to make a timely and proper reservation of the required seats. As the possibilities and ways of eating have evolved over the course of history, so have the ways of booking have undergone their development. Today, we can make reservations through several channels. These are traditional personal bookings, by phone, email, and direct bookings through your own website. Finally yet importantly, these are bookings made using online booking systems or applications. Each of these options offers certain advantages and disadvantages.

Personal reservation

This is the traditional and oldest possible way to make a reservation. Until other means of communication, such as the telephone or later the fax, were born, this was the only possible tool. Of course, this is not the perfect tool. This method of booking has many advantages, but it also has certain disadvantages.

Advantages: During a personal visit, we have the opportunity to handle anything related to the reservation of a table at the given establishment. We will establish personal contact with a competent person. We will inform them of all and special requirements (flowers for a partner, attention to the anniversary, order a birthday cake, etc.). We can tell the staff that exact restaurant location we would prefer. We can review the entire booking process on the spot and check that they have entered all the details and contacts correctly. Finally yet importantly, for a firm booking confirmation, if the company requires it, we can immediately make a guarantee deposit.
Disadvantages: The disadvantage is definitely time consuming. This method requires a personal presence. There may be complications with transport, parking, etc. There may also be a situation where we visit a restaurant when it is busy and may not be able to attend to us immediately and fully.

Telephone reservation

The invention of the telephone was not only a milestone in the development of humankind, but its mass introduction into companies, represented a huge shift in internal communication as well as communication with clients, partners and other entities. Logically, it also had a positive impact on the booking process. Suddenly, it was no longer necessary to spend time transporting and visiting your favorite business just to reserve seats. Communication with gastronomic facilities has become more economical, efficient and faster. With the advent of mobile phones, efficiency has increased even more.
Advantages: The most important advantage is undoubtedly timesaving's. I can make a reservation from work, from the comfort of home, or during a bus ride to work. The advantage today is sending an SMS message to specify the reservation.
Disadvantages: In the past, the disadvantage was relatively expensive phone charges. At present, they are already marginal, but they do exist. We also may not understand us. As a result, they may not enter the date or time of the reservation or our name correctly, which may lead to certain inconveniences later. The possibility is that they will also not have time to answer the call or due to the occupancy of the restaurant to pay full attention to us. This disadvantage has been largely eliminated by the advent of mobile phones, which allow you to record a missed call. When the staff member responsible for the reservation has time, he can get back to the client and take care of everything in peace.

Booking by email

In connection with the advent of digitization and the subsequent provision of access to the Internet, the possibilities of communication have also expanded. Electronic mail or email has become a very strong means of communication. In the context of the possibility to book a place in a gastronomic establishment, email is currently one of the most widely used methods for making reservations in advance.

Advantages: The advantages are similar to those of a telephone. We can make a reservation from home, on the way to work, or later at work, thanks to the possibility to write emails from our phone. Unlike the telephone, we are sure that it will understand what we require, and we will usually receive in response a summary of our requirements for a retrospective check.

Disadvantages: The main disadvantage is the availability of email. Not every restaurant uses it, and if it does, it is definitely not customary for staff to sit at a computer or other media to read e-mails at all times, waiting for them to receive a reservation. Therefore, the response time compared to the phone is lower. There is a partial possibility that the e-mail with the reservation will be lost in the flood of other work e-mails, business offers or I will send it to the spam mailbox.

Direct booking via the web

The e-mail is followed by the possibility of direct bookings through the company's website. This option was created by taking advantage of the advantages and partially eliminating the disadvantages of email. Few people remember their company's e-mail and usually search for it directly on the company's website. Moreover, in the contacts section. Therefore, the idea emerged that the booking form would be placed right here. (The link is often already on the home page or is placed on all by default) With one click we get to the environment where we fill in the required information, we can find out the cancellation conditions and possibly fill in special requirements. In higher category restaurants, credit card verification is also performed as a guarantee of a firm confirmation of the reservation. We will receive a booking confirmation immediately or after verification by a competent person. *Advantages:* There are identical benefits that email offers. In addition to e-mail, it requires only the necessary information. Moreover, they do not have to sign in to their inboxes unnecessarily. At the same time, they do not have to describe everything, but only the mandatory fields are filled in. This increases the client's comfort, when he does not have to describe in his own words what he requires, etc.

Disadvantages: Creating and managing a booking environment involves considerable financial resources. If the payment card verification tool is implemented in the form or the payment gateway is already directly, this again brings additional costs. As with e-mail, we have to wait for someone from the establishment to confirm whether they accept the reservation or not and offer a different date.

Online booking systems and applications

Online booking systems are very similar to the booking forms that are part of corporate websites. However, they do not create reservations automatically, but there is a need to confirm the reservation by a competent staff. It was the absence of automaticity in the case of booking through forms on the company's website that made it necessary to come up with a tool that eliminates the human factor to a minimum. The aim was for the client not only to be able to make a reservation anytime and anywhere, but also to be able to check whether or not there is still free capacity for the required date and time. That worked.

Advantages: The advantages of these applications and online booking systems are obvious. As described above, I can check via the application or within the web interface, whether there is still free capacity for the required number of people, time and date. It is very similar to PMS systems with a booking engine and channel manager within accommodation services. *Disadvantages:* Disadvantages, although apparent, are higher entry fees for installing a reservation system or application and other possible fees associated with individual bookings. Apparent in the context that I save not only the client's time but also the staff, who can also engage in other activities that lead to increased sales or other types of monetization of work activities. Last but not least, it can be a loss of personal contact and personalized service.

Currently, email is still a very important tool in the field of seat reservations. For short-term bookings, the telephone remains a priority tool. The peculiarity is that the way to make a reservation via SMS messages has never really developed. However, over time, the possibility of booking directly through the company's website or various online systems and applications will play a key role.

Results

The above facts represent a fact that in the future almost no establishment that will want to actively communicate with the client, use targeted marketing and effectively keep records of reservations and related traffic planning. Using one of the electronic booking options will be an essential part of a business success. You will have the option of choosing your own booking form, which is implemented within your own website or using one of the available booking systems or applications.

Direct bookings through your own website

The main advantage of direct bookings is obtaining only the necessary information in connection with the booking. Comprehensibility and storability of this information. The big advantage is full customization compared to existing reservation systems, which are discussed below. And cost minimization. A booking form will be completed on your own website for a fee. No additional costs are usually generated. The reservation form for the Terasa U Zlaté studně restaurant, which has been used for more than 7 years, was chosen for a practical example of functionality. The ideal location is through a widget or link on the home page and at the same time allocation to the contacts where people go most often. The booking form (see figure 1) should include the following information: name, surname, number of persons, date and time of booking, telephone contact, e-mail and space for expressing special requests. (flower, window by the window, quiet table, etc.). Terasa U Zlaté studně requires a credit card as a guarantee to confirm the reservation. It includes cancellation conditions, the reading of which must be verified. Although it may seem like a nuisance or "harassment" of the client, they significantly eliminate „no show“ with a very effective tool. That is, unrealized reservations. This tool must be securely encrypted to prevent card misuse. At the same time, the system verifies whether it is an existing and valid card. Finally, it is a good idea to verify that it is not a robot to prevent spam and abuse. Additional conditions should be included. Whether we accept children, dogs, dress code, and other restrictions or recommendations. Subsequently, the form is sent to the administrative interface. Here, the staff must manually confirm, reject or modify the reservation according to the current availability of the restaurant. Answers should be automated so that they can perform the above actions with a single click. The system also offers detailed information for booking. All reservations should be clearly arranged in the administrative interface (see figure 2). Chronologically, according to the date for which the reservation is required.

Figure 1: Reservation form Terasa U Zlaté studně

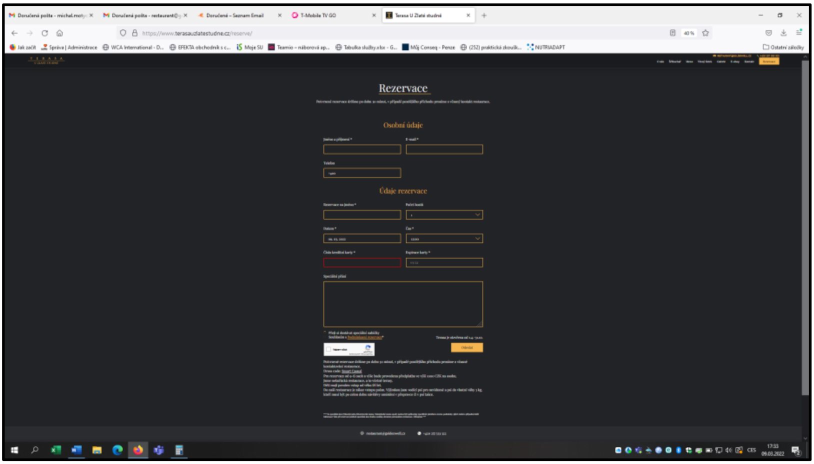
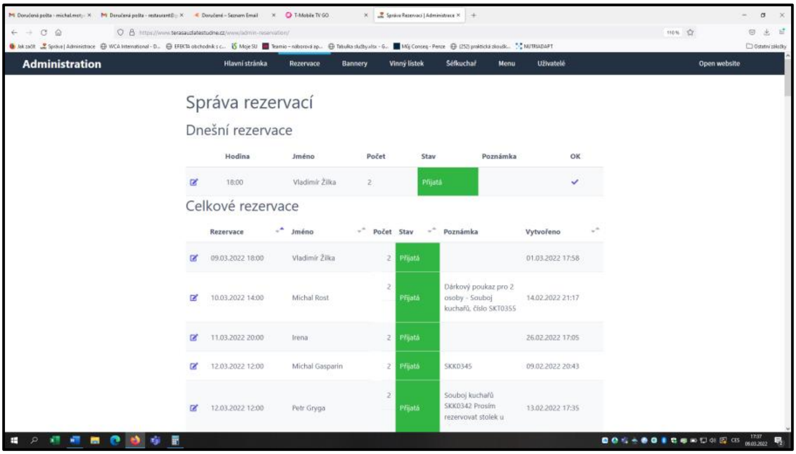


Figure 2: Administration system for seat reservations



The need for confirmation through the operator or a competent person may appear to be a disadvantage. However, it depends on the type of restaurant. For smaller businesses and higher levels, it is desirable that reservations be completely under the control of responsible staff. In the future, I would be inclined to enrich these booking methods with a prepayment or pre-authorization request. This option will guarantee even more that the client will arrive at the restaurant or that he will cancel it in time for various reasons, so that other guests can fill the capacity. Café Louvre in Prague already uses this supplement, for example. The reservation fee of CZK 200 per person is then used as part of the payment for consumption.

Reservation systems and applications

The advantages or disadvantages of these systems have already been discussed here. If you are not interested in creating your own booking forms, you can choose from a range of booking systems and applications that work today to reserve a table. The first versions of these systems were too unified and relatively inflexible. However, it currently offers identical options to direct bookings. They are often placed in the form of a widget on the company's own website. When clicking on the reservation, the client is redirected to the reservation system. Here, they make a reservation for the specified day, time, and for the required number of people. The advantage is that the systems can show whether or not there is free capacity and allow you to set fully automatic capacity confirmation (without operator intervention) or partial. For example, 60% of capacity is automatically filled and confirmed to clients. The remaining capacity already requires confirmation by the operator. Clients are immediately informed of everything. However, the systems do not offer a card guarantee or prepayment as standard. However, this add-on can be implemented at an additional cost. In general, it is now possible to design almost anything according to your preferences. The systems are flexible, but they come at an additional cost. The advantage is also automatic notification for clients according to the defined time about the upcoming reservation. For those who often forget, it is possible to move or cancel the reservation. A big advantage over direct bookings on the Web is the possibility of multi-page reporting and control. Thus, the owner or manager has the ability to check the status of reservations through the application remotely or directly create reservations. As a result, there is no need to contact your subordinates, check availability and then confirm or reject booking requests. It often happens that their acquaintances, friends, regular and VIP guests, who are used to care directly from the owner or managers, contact these people. In addition to reservations, the systems now offer the option to purchase gift vouchers or food delivery, if the company offers it. Last but not least, the possibility of restaurant evaluation is a part of these systems. It is a way to get valuable feedback on the quality of services provided. The first of these systems, and still the most widespread today, is the American Open Table.

Open Table

The first worldwide reservation system was the Open Table. It has been available since 1998. Their services are used by restaurants of all sizes. Today it is more than 60 thousand. Companies around the world. It is constantly growing globally and, within technology, it comes up with products that anticipate the constantly evolving needs of restaurants and diners. Today, the system is compatible via mobile applications with iOS and Android. It arranges reservations for more than 1 trillion diners every year. Since 2008, it has allowed clients to write reviews for individual companies. It has had more than 100 million reviews since then. Every month there are currently a million verified reviews.

Dish

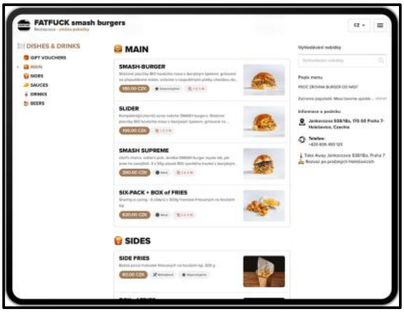
Founded in 2015, it is now used in the online world by more than 200,000 hospitality businesses in 16 countries, from bars to bistros, mobile snacks to fine dining restaurants. Dish is part of Hospitality Digital (HD), a wholly owned subsidiary of Metro AG. Its international team of experts is aware of the pressure and constant demands that restaurant owners and their employees are exposed to - not only to meet the demands of their guests, but also to save money and improve their overall performance. Through the Dish system, hospitality businesses have the following digital solutions available to stay competitive:

- Fast and efficient ordering of meals online without commission
- Possibility to accept reservations online, 24 hours a day, 7 days a week
- Automatic calculation of menu profitability
- Move to the top of the Google search rankings
- Increasing visibility on the Internet on more than 20 social networks

Choice QR

A relatively widespread system is Choice QR. It offers a range of features from digital menus to table orders, take-away, food delivery, hotel room orders, and feedback collection. It offers a solution that helps the HoReCa segment with the digitization of individual companies. He comprehensively assists with marketing, service, and communication with the customer. The aim of this system is to provide companies with an adequate tool to increase sales. Today, Choice QR is used by more than 6,000 restaurants in 25 countries around the world. Client turnover is greater than USD 10 million. Statistically, this system reduces costs by up to 17% and provides more than 20 million menu views per year.

Figure 4: Choice QR reservation system

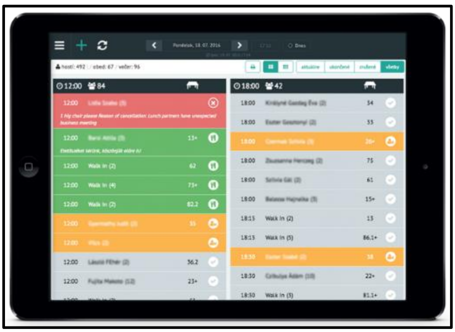


BookioPro

It is the youngest reservation system created in Slovakia in 2016. Today, it is used by more than 130 restaurants. Its progress has been hampered by the Covid19 pandemic, which has had a negative impact on the entire tourism industry. However, BookioPro offers the possibility of online reservations created via the web or Facebook within unlimited access. The system can be used in off-line or online mode. There is a table clear booking book with a map and a waiting list. In addition, it also offers other services:

- SMS confirmation (each SMS is charged)
- Guest list
- Customer reviews
- Statistical reports

Figure 3: BookioPro reservation system



There are other systems on the market today than those mentioned. And new ones are emerging within various start-up companies. However, the most used ones with the best references and ratings were intentionally listed here.

Discussion

Technological progress and development cannot be stopped. And eventually we are forced to submit or adapt. However, the implementation of new systems usually carries with it negatives or externalities. A simpler and faster recruitment process can be expected in brand new businesses. It is easier for new staff to accept that these systems are part of the work process. For companies with permanent staff, the opposite will be the case. A stable team is a big positive for both the employer and the client. However, when it comes to applying new trends, it is exactly the opposite. It is necessary to count on rejection, finding mistakes, and perhaps some sabotage on the part of the staff. Older colleagues in particular are less accustomed to new technologies. Why change something that works reliably for many years? This will be a frequent answer to the question regarding the change in the possibility of booking seats in their company. It is also possible to argue the cost side. It is certain that the introduction will bring with it rising costs in the initial phase and possibly additional costs for each reservation. I also need to emphasize security when I store clients' credit card information. It also generates additional costs. However, statistics from most systems confirm that each crown invested brings with it increasing sales and multiples of profits. An increase in labor productivity and, in some cases a reduction in labor costs for the reservation department, is also significant. There is also an undeniable increase in client comfort. Some parties will see greater benefits in online bookings and others in online systems. Therefore, we will certainly not avoid the question of not using the good of both options and developing your own reservation system. It is not that simple. The development of your own application is possible; however, it is a very time-consuming and especially financially demanding process. Therefore, at present, it pays to use existing systems by license and for a small fee from each reservation. The advantage is compared to the situation a few years ago that systems based on historical criticism already today offer a wide range of customizations of their system to meet the needs of the gastronomic facility.

Conclusion

In conclusion, it can be stated that booking a table through your own websites or introducing new reservation systems into practice brings with it minor complications. However, the benefits are undeniable. To compete in the gastronomic market in the future, it will be necessary to accept this reality. Despite the minor disadvantages that come with the implementation and subsequent use of online reservations through open systems or the corporate website, it offers significant benefits and convenience for the client. It was said in the introduction that booking a table is a necessary condition that the expected gastronomic experience does not begin with inconvenience or other complications. Therefore, bookings through these systems should ensure that we, as clients, are remembered with a probability bordering on certainty. Therefore, the last question for the owner or operator of the gastronomic operation is not whether but what system will better suit their needs.

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Characteristics of the author

The author has been working in the field of gastronomy and hospitality in leading positions for over 22 years. For the last 15 years, he has been working as the operations director of the U Zlaté studně hotel, which together with the Terasa U Zlaté studně restaurant is often ranked among the best in the world. He has also been involved in human resource management for a long time. Finally yet importantly, he also works as an assistant professor at the Institute of Spa, Gastronomy and Tourism at the Silesian University in Opava.

DIGITIZATION AS A KEY SOLUTION FOR TOURISM AND AIR TRANSPORT RECOVERY

Monika Palatková, Jindřich Ploch

Abstract

The main goal of the article is *to compare the approach to crisis management and strategic planning in tourism and air transport in two selected European tourism destinations – Austria and the Czech Republic.* The article focuses on the tools and recommendations for solving the crisis on the international market from the position of the relevant international organizations pointing *at the digitization.* Methods of *content analysis, case study and comparison are used.*

Key words

digitization, international air transport, international tourism, transport policy, tourism policy, strategic planning

JEL Classification: H12, H50, L83, L9, R4.

Introduction

The outbreak of the covid-19 pandemic affected all sectors of the national and world economy. For tourism and air transport, a pandemic has been a crucial factor in the destruction and upcoming restoration of the industry. *The strategic role of public sector and tourism and transport policy* is crucial to ensure the future resilience of the tourism industry. *Acceleration of digitization* has been a significant and ever-present feature of the crises, although the human factor the human element is still irreplaceable in tourism and air transport. The main goal of the article is *to compare the approach to crisis management and strategic planning in tourism and air transport in two selected European tourism destinations – Austria and the Czech Republic based on the digitization concept.*

Literature review

Digitization can be identified as one of the crucial trends influencing all sectors of economy, society and everyday life. *Digitization* means finding new opportunities and business models for companies as well as public sector entities in terms of policy development and implementation. Thanks to digitization, servitization of manufacturing processes *companies try to find competitive advantages and innovative digital business models* (Pena et al, 2018) Despite the undeniable advantages, digitization, resp. digital transformation and investments and costs (Ahmad et Murray, 2019) The use of mobile devices and other serves as supplementary technologies facilitating the digital transformation, consumer and organisational behaviours not only in tourism or air transport. (Hagberg et al, 2016, Fuentes et al, 2017) According to Reis the digitalization is *"the phenomenon of transforming analogue data into digital language (i.e. digitization), which, in turn, can improve business relationships between customer and companies, bringing added value to the whole economy and society."* (Reis et al., 2019)

Data and Methodology

The article deals with *two research questions.* Firstly, *what proposals and measures do the relevant international organizations recommend to revitalize tourism and air transport*, especially in the field of digitization? Secondly, *are there some differences in the approach to the strategic management and planning of digitization in tourism and air transport in the Czech Republic and Austria?*

Data sources

The set of strategic documents, expert estimates, research studies and quantitative reports of relevant international organizations and national governments were analysed.

UNWTO (The United Nations World Tourism Organisation)

- Supporting Jobs and Economies through Travel & Tourism (April 2020).
- Global Guidelines to Restart Tourism. (May 2020).
- Covid-19: Measures to Support Travel and Tourism (continuously updated).

WTTC (The World Travel and Tourism Council)

- To Recovery & Beyond: The Future of Travel & Tourism in the Wake of COVID-19 (September 2020).
- Government Covid-19 Strong Policies (February 2021).
- Global Economics Impact and Trends (May 2021)
- Lessons learnt during covid-19 (August 2021).
- Trending in Tourism (November 2021).
- Digital Solutions for Reviving International Travel (November 2021).

IATA (The International Air Transport Association)

- IATA Annual Review 2021 (January 2022).
- Future of the airline industry 2035 (2018 Edition).

ICAO (The International Civil Aviation Organisation)

- Effects of Novel Coronavirus (COVID-19) on Civil Aviation: Economic Impact Analysis (January 2022).

Austria

- The Federal Government's Digital Strategy 2025 (2016), The Federal Government's Digital Roadmap (2016).
- Digitalisierungsstrategie für den österreichischen Tourismus (2017).
- Now from tomorrow - Digitalisierung für Wachstum und Zukunftssicherung (2021).
- Plan T – Master Plan for Tourism (2019).

Czech Republic

- Digital Czechia (2018)
- Innovation Strategy of the Czech Republic 2019–2030 (2019)
- National Artificial Intelligence Strategy of the Czech Republic (2019)
- Tourism Development Strategy of the Czech Republic 2021–2030 (2021)

Methodology

Content analysis

The following procedure was chosen for the application of the thematic analysis. Inductive approach used to identify key themes, i.e. digitization, innovation, including recommendations of the mentioned organisations for tourism and air transport.

Method of case study is used to capture the complexity, details, relationships and processes taking place in a given environment. Two countries, the Czech Republic and Austria will be investigated and *compared.*

Results

The content analysis of relevant documents of *international organizations UNWTO and WTTC* identified the following tools as essential for the rapid recovery of the tourism industry and related fields incl. international air transport.

- *Strategic and systematic approach by public and private sector.* Public-private cooperation to support tourism renewal. Ensuring liquidity for companies and protection of jobs.
- Quantitative and qualitative development of demand. *Restoring demand confidence* through safety and hygiene measures.
- *Digitization in the public and private sector.* Use of new technologies for maintaining and creating qualitatively new jobs.
- *Innovation and sustainability* as a new normal state. Sustainability and technology support, involvement of local communities and more.
- *Innovation and education* incl. technological and soft skills.
- *Private sector – new business models.* Harmonization and coordination of protocols and procedures.

Strategic planning and management of digitization agenda in Austria and the Czech Republic can be compared with the above-mentioned principles recommended by the UNWTO and WTTC for tourism policy with impacts on air transport.

Austria

The Strategic Action Plan 2050 and The Federal Government's Digital Strategy 2025 (2016) are considered to be a challenge for all sectors (public – government departments, regional authorities, private, households, unions and employers´associations) and a cross-cutting political issue (Bundesministerium Digitalisierung nd Wirtschaftsstandort, 2016, Ministry of Science, research and economy, 2016). The setting of *The Federal Government's Digital Roadmap* in 2016 used the high technological and innovation level of Austria (WEF 2019, WEF 2020, European Commimssion 2019, European Commission 2021) and followed on the progress made in implementing e-government since the 1990s (Ministry of Science, research and economy, 2016). The technological principles of the *Industry 4.0 concept* represent the basis for the creation and implementation of The Digital Scenario 2025 for Austria, primarily internet of things (IoT), big data, artificial intelligence (AI), open knowledge, augmented and virtual reality, 3D printing, smart materials (4D), intelligent energy networks (smart grids) or blockchain. From the basic national digitization strategy guaranteed by the Federal ministry for Digital and Economic Affairs, *partial strategies for individual sectors* are derived, such as the digitization of education, creative industry strategy, tourism digitization strategy and others. (Ministry of Science, research and economy, 2016) *Digital transformation of tourism and related fields is fully fledged covered by the national strategy and action plans.* The connection with the *national digitization strategy* and its action plans is essential for the successful implementation of the digitization strategy in tourism. The digital action plans Austria in 2021 and 2022 is supported by a Digitization Fund of EUR 80 million. (Bundesministerium Digitalisierung nd Wirtschaftsstandort, 2020)

The Austrian government and other stakeholders (e.g. Austrian economic chamber, Austrian national tourist office, Bundesländern, regions) managed to capture the trend of digitization and sustainability early enough. The aim of digital transformation of tourism in Austria is focused on *the complex value-added chain in tourism across the demand and supply side* of the market incl. labour market, education and training and operational procedures.

Already in 2017, *a digital tourism strategy* was formulated in Austria by the Federal ministry of science, research and economy, Austrian economic chamber (WKO) and Österreich Werbung (WKO, ÖW, BWFW, 2017). The ten-year strategy aims to meet *three goals,* namely the implementation of digital change, strengthening the innovative capacity of companies and developing the competence and process background for digital transformation. (WKO, ÖW, BWFW, 2017)

A new national tourism policy was launched in 2019 under the name **"Plan T – Master plan for tourism"** by the Federal ministry for Agriculture, Regions and Tourism (BMLRT). (Bundesministerium Landschaft, Regionen und Tourismus, 2019) The new policy whose preparation started in March 2018 was designed to promote the principles of sustainability and respect for the interests of guests, the industry, the environment and host communities. The vision is Austria as *the most sustainable destination in the world.*

The policy covers **three guiding objectives** with subordinated fields of actions: (Bundesministerium Landschaft, Regionen und Tourismus, 2019) Emphasis on the digitization aspects is included in majority of them, esp. in the *"Using digital potential".* The crucial activities planned for "Using digital potential" consist of supporting the digitalisation of tourist enterprises, creating data alliances and further developing e-government services following to the implementation of a broad digitization policy in Austria (Bundesministerium Digitalisierung nd Wirtschaftsstandort, 2021).

Czech Republic

The Digital Czechia / Strategy of coordinated and comprehensive digitization of the Czech Republic 2018+ (2018) program is a crucial set of concepts that should ensure digital transformation in the Czech Republic. The program covers three topics, namely The Czechia in Digital Europe (the Office of the Government), Information Concept of the Czech Republic 2020 (Ministry of the Interior) and Digital Economy and Society Concept (Ministry of Industry and Trade). (Office of the Government, 2019) *Tourism and related sectors do not have a clearly defined position* in the strategy. The strategy *does not set quantifiable targets* and it is difficult to estimate from the annual evaluation reports (e. g. Ministry of Interior 2022) whether the digitization strategy, regardless of the position of tourism, is being implemented according to the planned schedule.

Table 1: Comparison of basic characteristics of digitization in tourism - Austria, Czech Republic

General characteristics	*Austria*	*Czech Republic*
Total arrivals (mil.) annual change	22,14 (2021) -11,5 % (21/20)	11,38 (2021) +5,1 % (21/20)
Intnl tourism receipts (billion USD)	15,362 (2020)	3,890 (2020)
Direct impact on GDP	5,5 % (2019) 4,0 % (2020)	2,9 % (2019) 2,5 % (2020)
Direct impact on employment	5,3 % (2019)	4,47 % (2019) 4,2 % (2020)
Digital Economy and Society Index (DESI) 2021	*Rank 10* Score 56,9 Score EU 50,7	*Rank 18* Score 47,4 Score EU 50,7
Overall e-government maturity (EU e-government benchmark)	*Rank 6* 84 % (2021)	*Rank 23* 63 % (2021)
WEF - TTCI	*Rank 11/140* 5,0 (2019)	*Rank 38/140* 4,3 (2019)
TTCI - Prioritization of Travel & Tourism	*Rank 22/140* 5,3 (2019)	*Rank 90/140* 4,3 (2019)

Source: own processing based on the performed content analysis and analysis of the case study

Another document in a series of innovation and digitization documents is called *Innovation Strategy of the Czech Republic 2019–2030* (Office of the Government of the Czech Republic, 2019) focused on funding and evaluation of R&D, developing of start-ups environment, polytechnic education, digitization of state, manufacturing and services and other "innovative" topics. (Office of the Government, 2019) The ambitions of this document are difficult to assess due to *the complete absence of the SMART goals,* when the document acts more like a wish-list than a strategic paper. Neither tourism nor related industries are addressed. Despite its undeniable economic importance, tourism is not included in the strategic document *National Artificial Intelligence Strategy of the Czech Republic* (Ministry of Industry and Trade, 2019).

Table 2: Comparison of basic characteristics of digitization in tourism - Austria, Czech Republic

Digitization	*Austria*	*Czech Republic*
National digitization strategy (documents)	yes	yes
National system of digitization strategies for sectors incl. tourism	yes	no
National digitization strategy for tourism	yes	no
National digitization strategy for air transport	no	no
Subject of digitization in tourism (projects)	complex (NETA) incl. education, ...	partial (e-Tourist, GDS)
Budgeting digitization	fully	partially
Regional context of digitization in tourism	very low	existing
Role of intnl organisation - tourism	recommendation	recommendation
Role of intnl organisation – air transport	intnl rules and standards	intnl rules and standards

Source: own processing based on the performed content analysis and analysis of the case study

The Tourism Development Strategy of the Czech Republic 2021-2030 was submitted in June 2021, i.e. at the time of the peak of the pandemic by the Ministry of Regional Development. The previous ministerial strategy (tourism policy) did not address the issue of digitization. Surprisingly, *the 2030 Tourism Development Strategy addresses the issue of digitization rather marginally* and does not give it the separate special priority it deserves. Digitization is constantly mentioned in the document, but as a supplement and response to the pandemic, *not as an extra priority.*
Using *comparative analysis,* the basic differences in basic tourism characteristics can be summarized in table 1. The differences in digitization progress are summarized in table 2.

Discussion

Based on the previous analysis, it is evident that *the area of air transport is addressed differently from tourism in terms of digitization.* Civil aviation is an interconnected system of aviation law, so the civil aviation of the Czech Republic and Austria aviation is strongly bound *by international law and standards* set by international organizations such as IATA, ICAO, ECAC (European Civil Aviation Conference) or EASA (European Union Aviation Safety Agency). These organizations do not issue special digitization strategies, but have been promoting digitization in their strategies and internal procedures for a long time.
Visible *differences in the progress of digitization between Austria and the Czech Republic* can be seen especially in the field of tourism digitization. Unlike Austria, which entered a period of pandemic with a high level of digitization and advanced strategies, *the Czech Republic in 2020 was completely unprepared in terms of digitization not only in tourism* (especially in the public sector). In both countries, the pandemic has accelerated the promotion, planning and management of digital transformation in tourism.
The comparison of the principles of Austria's strategic documents is closer to the recommended principles of the tourism renewal strategy recommended by international organizations. In its audit report, the Czech Republic Supreme Audit Office (SAO) states that *"the problems that accompany the implementation of ICT projects in public administration continue to be resolved in the long term."* (Supreme Audit Office, 2019) The progress in development of the real use of digitalization of public administration by the inhabitants (or visitors) of the Czech Republic is insufficient.

Conclusion

The recommendations of the international organizations for the renewal of tourism and air transport focus on strategic and systematic approach in public and private sector, quantitative and qualitative development of demand, digitization in the public and private sector and use of new technologies for maintaining and creating qualitatively new jobs, innovation and sustainability programmes, education programmes, support of new business models in the private sector.

These recommendations and principles can be identified especially in the strategic documents of Austria, which promote systematic approach, conceptuality, continuity, education or sustainability. Tourism as an important economic sector is thoughtfully included in the system of national digitization strategy. *The air transport sector* is not explicitly addressed in the digitization strategy either in the *Czech Republic or in Austria* and is mainly the subject of international legislation and standards.

The basic differences in the approach and the current situation of *tourism digitization in Austria and the Czech Republic* (Table 1) can be projected in *the recommendation for the Czech Republic* as follows:

- long-term and systematic focus on national digitalization based on data monitoring and evaluation,
- integration of tourism into national digitization strategies,
- broad collaboration platform and clear definition of roles for the federal and regional level
- identification of digitization target groups with relevant products and programs and specific programs supported by the budget
- wide range of areas and sectors for digitization in tourism (e. g. management, data processing, communication, safety and security, health)

The Czech Republic is losing ground in the field of digitization, which is also reflected in tourism. Fortunately, in air transport, digitization continues more evenly with international standards.

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ATTITUDES OF CUSTOMERS TO SELECTED GASTRONOMIC TRENDS

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Abstract

The objective of the contribution is to characterize specific trends in the sphere of Czech and world gastronomy as well as to identify customers´ opinions about the interpretation of the concept of "trend". The aim is to specify customers´ attitudes to selected trends with reference to significant differences between their experience and willingness to try the given trend. The research, realized by using the method of questioning, including the technique of questionnaire survey, reflects customers´ experience and satisfaction with selected gastronomic trends. Based on the analysis of Czech customers´ behaviour, we can see not only conservative behaviour but also a restrained attitude to new trends used within the offer of gastronomic services and a willingness to consume both food and drinks that include new trends in gastronomy.

Key words

Restaurant offer, customer satisfaction, gastronomy trends

JEL Classification: *M29, Z39*

Introduction

The gastronomy industry is characterized by the diversity of the offer, not only due to the constantly emerging gastronomic trends but also the constant change in consumer behavior of customers. Companies operating in this sector must respond flexibly to the situation that arises in the creation and subsequent changes on the supply side. The offered products and services should be set so that they are locally and temporally synchronized with sufficient demand (Beránek et al., 2013). Compiling the offers and menu of a restaurant is an important task, which has implications for the success and reputation of the entire company, is an important sales tool, and inevitably affects the strategic direction of the restaurant. Křížek and Neufus (2011) state that when compiling an offer for a gastronomic operation, it is necessary to identify the type of facility in which it operates, determine the production and sales capacities, technological equipment and, finally, the professional competencies of staff. Metz, Grüner, and Kessler (2008) add that most products associated with gastronomy services cannot be manufactured, stored, or delivered in advance.

The article deals with the issue of customer attitudes to selected trends in gastronomy. The aim of the article is to identify current gastronomic trends from the perspective of customers. The authors asked the research question: What is the experience of customers with gastronomic trends?

Materials and Methods

The paper is based on primary data obtained from a primary survey of 500 respondents. The method of questioning with the technique of questionnaire survey was used. The data collection period was autumn 2021. The subject of the research was 22 selected gastronomic trends in the form of evaluation criteria.
We researched: Which of the world's gastronomy trends have you tried and which one would you like to try? The respondents' experience with the relative expression of satisfaction with the given trend was evaluated on a modified Likert scale on a scale of 1 - 5, where 1 = very satisfied, 2 = satisfied, 3 = neutral, 4 = dissatisfied, 5 = very dissatisfied. Complementary were the findings as to whether the respondent wants to test the trend or has not yet tested the trend.

According to the formula for calculating the minimum number of respondents from Kozel et al. (2006, pp. 159 - 160) is the number of 500 respondents (x), with the reliability coefficient 99.7% (z), at the impossibility to determine the knowledge of the respondents in the issue, 50% x 50% (p, q), and set a maximum permissible error of probability of accuracy of the assertion (Δ) of 7.1%.

$$n \geq \frac{(\mathrm{z}^2 \times \mathrm{p} \times \mathrm{q})}{\Delta^2} \geq \mathrm{x\ respondents}$$

Gastronomy Trends

In the Czech Republic, home, traditional Czech cuisine significantly dominates. It can include dishes such as beef broth with homemade pasta, garlic soup, sirloin with cream, tomato and dill sauce, sourdough or Karlovy Vary dumplings, toasted bacon, liver or drowned, ducat buns, dumplings or rice pudding. Regional specialties include Valašské frgále, Olomoucké tvarůžky, and Krkonošské kyselo. However, due to the change in consumption habits in the consumption of food and beverages and the influence of gastronomic tourism, dishes from foreign, international, and exotic cuisines are increasingly appearing on the menus.
Simion et al. (2019) listed the following most commonly consumed beetles: Coleoptera (cockroaches, beetles), Hemiptera (true beetles) and Isoptera (termites). The preparation of domestic seasonal dishes and drinks consists in accepting the principle of locality, resp. Today, hyperlocalities in the processing of local raw materials, original varieties, and common raw materials in the preparation of traditional and regional specialties, thus reviving the Czech culinary heritage (Datinská, 2022).

Nowadays, edible flowers have become a very popular trend, which must not be missing in the preparation of meals in every modern restaurant, to enhance the culinary experience. It should be noted that not all flowers are edible. Pink flakes, violets, marigolds, orphans, daisies, dandelions, and lavender have found employment in the kitchen.

Williams et al. (2015) state that the philosophy of the Slow Food trend is to focus on the enjoyment of food and beverage consumption. Slow Food and the menu compiled according to the principles of this trend reflects the processing of original ingredients, the use of craft techniques in the preparation of meals with an emphasis on sustainable agriculture. Gaytán (2004) warns that food consumption should not result in indulgence, which is constantly criticized as one of the reasons for building elitist values, social status, or prestige. Hayes-Conroy (2010) points to the broad scope of this trend, which is not just about meeting basic physiological needs, but food consumption should be associated with the perception of taste and smells, seek the pleasure of cooking and eating, pay attention when buying honest, local raw materials, or discovering new approaches and trends in gastronomy.

Klimešová and Stelzer (2012) state that rational eating is incompatible with trends such as vegetarianism, veganism, etc. Kotíková (2013) describes that for the right harmony of food and wine, the active cooperation of the chef and the sommelier is needed. The coordination of food and beer involves the cooperation of a chef and a beer sommelier. However, to create a unique gourmet experience, in the spirit of experiential gastronomy, it is necessary to look for a suitable pairing of different types of food, different types of wine and different types of beers.

Štérová (2019) aptly points to the fact that currently fermented products are experiencing a renaissance. Zannou et al. (2022) state that, in general, the preparation and consumption of fermented products are linked to the geographical, cultural, and socio-cultural as well as ethnic background of the population, as well as to the availability of raw materials and the time of year.

The trend, also called Food Pairing, is possible according to Coucquyt et al. (2020) should be considered as a pairing of flavors, while there is no one right combination of raw materials and ingredients to meet the ideal expectations of the customer. Pairing foods and flavors presupposes not only a high level of skill and habits of the chef but also the intuitive creation of suitable combinations in such a way that a visit to the restaurant is a gastronomic experience for the guest. It is possible to pair traditional cheeses with wine, chocolate with strawberries, but also unusual pairings such as ice cream with balsamic vinegar or kiwi with oysters.

Pellešová and Vacha (2018) state that the popularity of vegetables, their versatility, and forgotten types of raw materials and superfoods come to the fore. Of the superfoods, for their nutritional value and antioxidant effect, it is necessary to mention especially purple species such as blueberries, currants, blackberries, eggplant, but also purple species thanks to the natural dye anthocyanin, namely purple potatoes, cauliflower or asparagus. Seaweed is also coming to the fore, thanks to sophisticated processing technologies and logistics processes.

The beverage industry is evolving like any industry, and with technological advances, the cocktail scene is changing in response to new trends and requirements. Cocktails focused on gastronomic mixology dominate the trend after nonalcoholic beverages, so-called mocktail (derived from the word mock cocktail), which are popular due to the increasingly preferred healthy lifestyle of consumers. However, there is also a growing interest in cocktails made of rum, gin, and whiskey. Tequila and mezcal drinks come to the fore. Although the boundaries are constantly shifting in the preparation of cocktails, ordinary classic drinks always remain classics (Advanced Mixology, 2021).

Régnier (2006) states that the consumption of new foods and beverages is based on the introduction of new technological procedures or the substitution of traditional, local raw materials for new foreign raw materials. Establishment of new products on the domestic market also depends on changes in the consumer, resp. eating habits of customers. The fundamental influence of internationalization tendencies in gastronomy, such as the migration flow of raw materials or culinary tourism, cannot be overlooked either. The product is new as long as the consumer does not overcome the fear of the unknown and the product is not sufficiently assimilated among ordinary, mass-consumed products. New products in gastronomy include forgotten foods such as millet, spelled, chickpeas, alternative flour, pasta, pumpkin butter, sweet potato syrup, or sparkling drinks containing hops.

Results

The expressed satisfaction and experience of customers with selected gastronomic trends are reflected in Table 1. It is an expression of their attitude at the level of very satisfied (1), neutral (3), to very dissatisfied (5). You can also see the attitude at the level of the plan or the intention to try the trends or the attitudes of respondents who do not intend to try any of the trends.

Table 1: Customer satisfaction and experience with selected gastronomic trends in %

Trend	*Already Tried*					*Wants to try*	*Did not try*
	1	*2*	*3*	*4*	*5*		
Days of foreign cuisine	29	16	20	6	1	13	15
Exotic dishes	22	28	13	6	1	12	18
Czech traditional cuisine	51	23	16	5	1	2	2
Regional cuisine	33	29	19	6	5	5	3
Beetles on a plate	3	5	4	7	7	11	63
Edible flowers	7	6	14	8	5	18	42
Menu of Slow Food	6	9	6	3	3	17	56

Rational menu	8	13	19	4	3	16	37
Pairing food with wine	35	17	14	7	4	11	12
Menu of Raw Food	12	12	13	6	5	15	37
Unknown and fermented foods	7	6	12	6	6	17	46
Fusion cuisine	1	7	10	6	4	9	63
Unusual food pairing	17	19	14	8	9	11	22
Forgotten and superfoods	23	22	17	8	6	8	16
Game feast	29	21	13	8	14	4	11
Slaughterhouse feast	32	18	12	8	18	1	11
Mixed drinks	57	21	7	4	6	3	2
Homemade seasonal dishes	55	24	7	3	3	4	4
Wine or beer tasting	50	17	9	4	4	8	8
New types of drinks	32	20	17	4	4	12	11
Tea and coffee tasting	39	23	11	3	4	11	9
Tasting of new products	37	17	16	5	5	14	6

Source: own processing

A significant cumulative share of respondents' satisfaction (very satisfied and satisfied) can be observed in trends such as Domestic seasonal dishes (79%), Mixed drinks (78%), Czech traditional cuisine (74%) and Regional cuisine (62%). This statement is confirmed by the very low, on average only 3% dissatisfaction and inexperience of respondents. Similarly, high satisfaction is demonstrated in the trends of Wine or Beer tasting (67%), and Tea and Coffee tasting (62%), with approximately 9% inexperience on average. The high popularity of the examined trends also includes the Pairing of food with wine, at the level of 52%. The game and slaughter feasts have already been tested and satisfied by 50% of the respondents, while these two trends show the highest cumulative dissatisfaction (very dissatisfied and dissatisfied) of all observed trends at the level of 26% of the Slaughterhouse feast and 22% of the Game feast. Aggregate cumulative dissatisfaction within all examined trends is only at the level of 6%. Trends that respondents did not try and achieve high values are Beetles on a plate and Fusion cuisine (63%), Slow Food (56%), Unknown and Fermented Foods (46%), Edible Flowers (42%) and a relatively high value of 37% for Raw Food. The highest willingness to try some of these trends reflects the trend of Edible flowers (18%), Slow Food and Unknown and Fermented Foods (17%), and Rational Menus (16%).

Discussion

The research showed that highly popular trends among customers are traditional Czech regional cuisine and homemade seasonal dishes. These results are in line with the deep traditions of the Czech nation and conventional consumer behavior. It can be stated that a Czech customer prefers domestic Czech cuisine to the consumption of unknown dishes and a willingness to try new, specific trends in gastronomy. Significant inexperience with atypical trends, such as the consumption of beetles, edible flowers, or fusion of kitchens, was also reflected in the reluctance to try these trends. This form of nonacceptance of new trends is in line with the conservative consumer behavior of the Czech customer. However, it is possible to observe a certain shift in overcoming the comfort zone of the Czech customer, and if the given trend brings him an experience, as in the case of edible flowers, still very popular today. How not only the consumer behavior of the Czech customer will develop, and his attitudes, satisfaction, and experience with specific trends, is influenced by a number of factors. Including the most significant factor recently affecting the gastronomy industry and this is a slowly receding epidemic situation.

Conclusion

Trends in gastronomy rightly have a place in Czech cuisine. They shape the supply of restaurant facilities and stimulate customer demand for food and beverages. The traditional Czech consumer shows signs of conservatism in trying new, unusual trends, unless he overcomes his concerns about consumption and the trend becomes part of it. However, there are customers who are open to new challenges in consuming foreign, exotic, and Czech gastronomy atypical food and drinks. The trend with which the Czech customer has experience repeatedly proves the end of the purchase, it expresses satisfaction. On the contrary, dissatisfaction is the result of failure to meet his expectations, failure to obtain the desired benefit, or emotional manifestations in the form of disappointment, anger, or even frustration, when there is a negative perception of the trend.

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USE OF ALGORITHM IN THE PREDICTION OF QUANTITY DEMANDED IN THE ACCOMMODATION SERVICES

Martin Petříček, Štěpán Chalupa

Abstract

Accurate prediction is a key basis for making the proper decisions within the management of any accommodation facility. The prediction of the quantity demanded thus represents one of the basic knowledge of a solid management system. The paper focuses on discussing and presenting the possibilities of using individual prediction techniques based on time series analysis. The SARIMA models, which in their modified form provide an appropriate basis for the application, seem to be a suitable element for the needs of accommodation services. The correct setting of the input values (p, d, q) (P, D, Q) can then be solved by using the presented algorithm based on the Akaike information criterion.

Keywords

Hotel, Optimization, Prediction, SARIMA model

JEL Classification: C53, L83

Introduction and methods

Hospitality is a specific segment primarily because it faces stochastic demand. Therefore it is also hard to make a good prediction of the quantity demanded for a certain period. The main application of this problem is linked with the revenue management of the hotel. In general, it is possible to use two main approaches for the prediction of quantity demanded. The first approach is based on the pick-up models. Another approach respects the time series of the quantity demanded. Pick-up models can be divided into two other types in accordance to use an additive or multiplicative approach. It is hard to say what approach makes better predictions. Fiori and Foroni (2020) say that pick-up models can make better predictions. Weatherford and Kimes (2003) talk about the same or pretty similar results of both types of approaches in general. Papayiannis et al. (2016) recommend using the combination of both approaches. This paper is focusing on the time series based prediction only, but represent the algorithmic approach that can help to set the specific criteria of the selected method.

Prediction in the hospitality industry is focusing on different parts. We can find approaches that predict cancellations (Antonio et al., 2017), complex behaving using neural networks (Claveria et al., 2015), occupancy (Ampountolas and Legg, 2021) or simple quantity demanded (Pan et al., 2012) that can be used as an important input into the revenue management models. An alternative approach can use big data (Ramos et al., 2021) or can focus on prices (Gricar and Bojnec, 2019).

We can find different methods that can be used for prediction based on time series. In the hospitality industry, it is possible to use methods based on regression or neural networks. Ampountolas (2021) compared those approaches with the conclusion, that regression models make better predictions than advanced techniques using neural networks. On the other hand, it is important to say, that neural networks can be used for deeper and multiple predictions if a firm has a suitable dataset. This paper represents an approach based on the SARIMA model that uses the autoregression method for the prediction. The aim of this paper is to represent a simple and general algorithmic solution for SARIMA models that can be used for the prediction of quantity demanded in a firm in the hospitality industry.

The concept described above is based on the approach of Hyndman and Khandakar (2008), who use autoregressive approaches in prediction. In addition, they combine this approach with the optimization of the input parameters of individual models (see below). The paper presents the model which must meet the following assumptions. The analysis is based on the time series of the quantity demanded a specific service (accommodation). This time series is non-stationary. The last assumption is the appropriate seasonality of the time series, which is so typical for the hotel and services in general. The core of the approach is to find such components p, d, q and

P, D, Q of the SARIMA model that is most suitable for the analyzed time series. The core of the approach is to find such components p, d, q and P, D, Q of the SARIMA model that is most suitable for the analyzed time series. This setting is based on unit-root tests. The first computing is based on an extended Canova-Hansen test which is used to determine component D. The algorithm tests individual inputs from 1 to 365. The aim of this is to find seasonality and its implications for the whole prediction. If the value of component D is obtained in the SARIMA model based on the extended Canova-Hansen test, it is then possible to proceed to determine the optimal value of component d. Another unit root test is used to that, i.e. the Kwiatkowski-Phillips-Schmidt-Shin test. If the value of components D and d are determined in the algorithmic solution, then the remaining optimal values of components p, q, P, Q are determined based on the commonly used model selection criterion, which is the Akaike information criterion (AIC), which tries to minimize the following function.

$$AIC = - 2 \log(L) + 2 (p + q + P + Q + k)$$

where *k* is the number of parameters and *log(L)* denotes the so-called logarithm of likelihood. The algorithm itself thus works with more than five hundred cases of individual variants of parameters, among which it chooses one optimal based on the tests and criteria described above. In more detail we can describe the algorithm as a two-phase way that starts with the following four models with different parameters:

- SARIMA (2, d, 2) (1, D, 1),
- SARIMA (0, d, 0) (0, D, 0),
- SARIMA (1, d, 0) (1, D, 0),
- SARIMA (0, d, 1) (0, D, 1).

After selecting parameters D and d based on the extended Canova-Hansen test and Kwiatkowski-Phillips-Schmidt-Shin test, the values of the components p, q, P, Q are changed by one in every step. If the new level is lower, the model is selected as the best so far. The whole iteration is performed more than five hundred times with the result of the SARIMA model that has the lowest AIC value on the selected parameters. (Petříček, 2021)

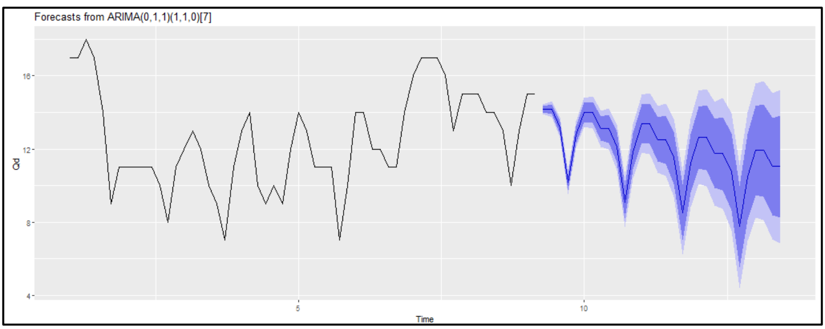
In addition, the model can be extended with individual dummy variables that indicate events or other elements that are not included in the time series history.

Results and application

For the application part of this paper, the data from the real hotel was obtained to make the prediction for 30 days per one segment and to show how the model can work in three different scenarios.

The first scenario shows the situation at the beginning of the year. This is a kind of specific situation due to the usually high demand for New Year's eve. Even with the extreme situation, the result can show prediction respect the long-term trend in the time series. The result is shown in the following picture.

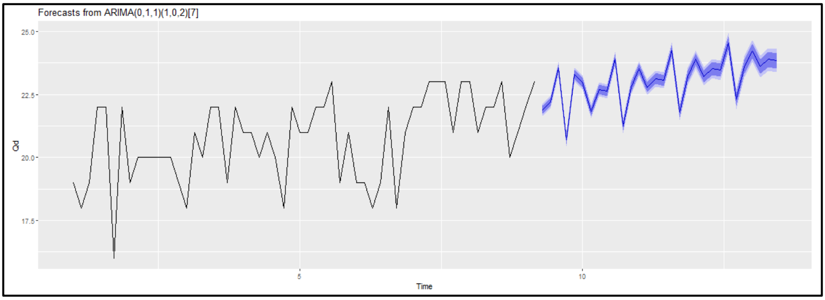
Picture 1: SARIMA prediction (scenario 1)



Source: own processing (using RStudio)

The second scenario shows the situation in the middle of the year, during the summer holiday where the seasonality is much lower in this segment and hotel than in another part of the year. The result of the prediction is shown below.

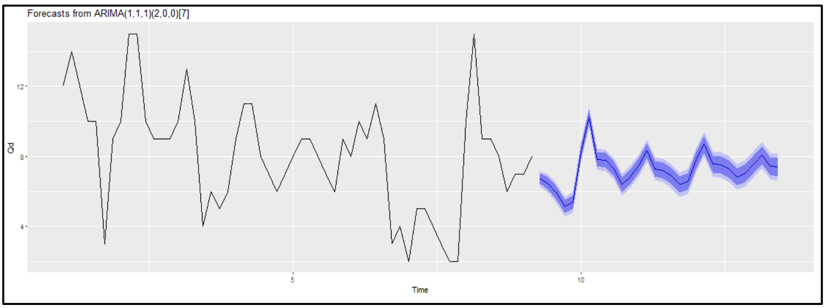
Picture 2: SARIMA prediction (scenario 2)



Source: own processing (using RStudio)

The third and the last scenario shows the situation with the low demand which was during September and November. The result of the forecast done is shown below.

Picture 3: SARIMA prediction (scenario 3)



Source: own processing (using RStudio)

To conclude the presented predictions we can say, that the algorithm selects different elements of the SARIMA model. These differences were based on the different situations on the market and different consumers behaving. The first situation corresponds with the high seasonality, which is also shown in the prediction. The second situation corresponds with the defined upward trend. The last situation describes the result of no specific trend and no specific seasonality in the time series. The prediction is therefore not so precise and moreover works with the average data.

To make the result more informative, we can compare the prediction with the real data. To show the result the paper presents the average difference between predicted and real data per week. In the case of prediction for 30 days we have four differences for each prediction. The result shows the table below.

Table 1: Prediction vs. real data

<table>
<tr><td colspan="2" rowspan="2"></td><td colspan="3">scenario</td></tr>
<tr><td>1</td><td>2</td><td>3</td></tr>
<tr><td rowspan="4">average difference (Qd)</td><td>week 1</td><td>1,3</td><td>0,8</td><td>2,1</td></tr>
<tr><td>week 2</td><td>2,5</td><td>-1,1</td><td>1,9</td></tr>
<tr><td>week 3</td><td>-0,9</td><td>-0,9</td><td>3,5</td></tr>
<tr><td>week 4</td><td>1,9</td><td>-1,6</td><td>4,9</td></tr>
</table>

Source: own processing

Based on the table above we can say that the first scenario has a good prediction without a high level of differences. Even better results can be seen in the second scenario, but the data predicted were over the real data which means, that trend was not estimated well. The worst results correspond with the last scenario. In that case, we cannot recommend this approach for the long term prediction because differences are rising for further weeks. It would be necessary to recommend doing a new prediction for every week.

Conclusion and future research

Based on the results that are shown in the previous chapter, we can say that the approach can be used for different situations in the company providing accommodation facilities. It seems that works pretty well in the case of high seasonality in the time series. On the other hand, we cannot recommend using this approach for long-term prediction in the situation of unstable demand without trends or seasons. Similar and good results were done in predicting traffic (Chikkakrishna et al., 2019; Milenkovic et al., 2016). The advantage of the SARIMA model in the case of missing data is mentioned in the paper focusing on financial data analysis (Adineh et al., 2021). A similar algorithm used in traffic prediction and optimization is used by Luo et al. (2018). The new approach that could be used in the future also in the hospitality industry works with the neural network (Soares et al., 2020). The presented paper also limits the simple application based on only one facility and for more robust verification of the presented algorithm, it would be necessary to make other specific research.

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ANALYSIS OF THE RANGE OF SERVICES AVAILABLE ON THE WEBSITES OF ACCOMMODATION FACILITIES

Sylva Skupinová, Jan Máče, Eliška Smotlachová

Abstract

This paper deals with the analysis of the offer on the websites of hospitality companies in the period 2015-2021. The analysis focuses on the possibilities that websites offer to customers of accommodation establishments. It focuses on the development of the range of services provided through websites during the peak tourism period from 2015 to 2019, and on changes in the following period of 2020 and 2021. For the preparation of the article, the source data from the Czech Statistical Office database were used, and processed with appropriate statistical methods, especially the regression and correlation analysis,

Key words

websites, hospitality, regression, correlation, analysis

JEL Classification: *C10, E01, L83*

Introduction

Websites are one of the main communication channels of the present across the supply and demand subjects on the market. For the demand (buyer) they represent an easily accessible source of information on the products being offered; for the supply (seller) they represent rather an opportunity to address their prospective customers directly – without dealer's mediation. Further advantage is a strong flexibility of information on the websites, which can be quickly and operationally changed, according to the suppliers' needs.

It is therefore understandable that websites are actively used by majority of the mass-accommodation facilities. The question is how the hotels and boarding-houses use them. Logical way to use websites is a self-presentation (info on accommodation details, location, services, prices, client references etc.). It is quite usual today the websites serve to direct sales of accommodation and additional customers' services (boarding, wellness, parking etc.).

At the same time, the market of accommodation services went through very dramatic development. In 2019 a period of a long and very intensive growth was culminating in the whole spere of tourism. In the first third of 2020 there came an unexpected, all the steeper break in the form of Covid-19 pandemic and the anti-pandemic measures. It practically disabled any accommodation services and heavily restricted additional services (esp. boarding) for many months between 2020 and 2021. It begs the question: what are the consequences of these exceptional situations for the accommodation facilities and their customers in terms of usage of websites?

Material and Methods

The paper deals with the analysis of the range of websites of hospitality companies in the period 2015 – 2021. It is based on the Czech Statistical Office data: „Companies using websites – Elementary data on possibilities that websites offer to the customers". (ČSÚ 2021-1). It focuses on the development of the services offered through websites in the period of culminating tourism in 2015 – 2019, and following changes in 2020 – 2021, when the accommodation services were restricted or even disabled by long-term anti-pandemic measures. In this period websites became the only functional way for the businesses to ensure contact with their prospective customers.

Primarily, there was examined a relative number of accommodation businesses in the time series 2015- 2021 having websites available, containing basic info for their visitors on the websites' options.

Furthermore, there were analysed options of browsing in product and service offer, booking, or customizing products and services according to the requirements.

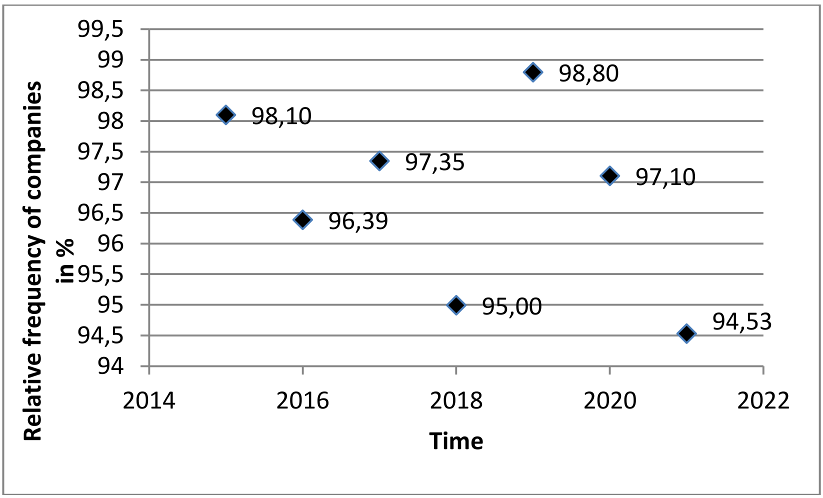
The time series were processed according to the standard methods, as mentioned for example by Arlt & Arltová (2009). There was also applied the time series processing, as mentioned for instance by Hindls et al. (2000) or Novák (2015).

The data were processed by the linear regression and correlation analyses according to the processing methods, introduced e.g. by Hebák (2007). Graphical illustration to accentuate the outputs has been recommended e. g. by Marek et al. (2007).

Results

In the examined seven-year time series the relative numbers of companies using websites with three optional services do not display any essential trend. The correlation field is broad and the index of determination within elementary types of regression makes only 15% (Graph #1). Average value of the given features is 96.8%, while diffusion is 2.44 %.

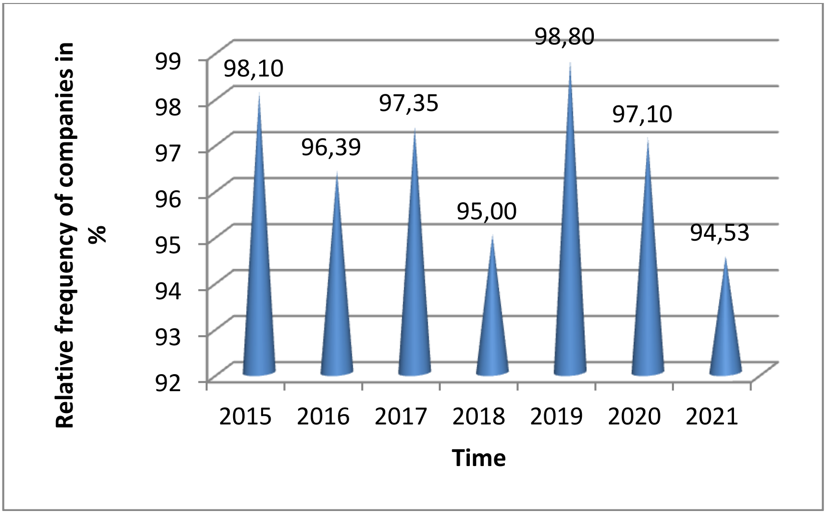
Graph #1: Correlation field as per relative frequency of companies with websites in the time series 2015 – 2021



Source: self-processed calculation

The relative frequency of companies using websites with possibility of three additional services, makes 96.8% with 2.44% diffusion in the seven-year period (2015 – 2021). Interesting finding was a very low variability of the variables examined in the time series – the mediate oscillation around the average was small; neither during the pandemic situation in 2020 and 2021, was there found any crucial oscillation in the relative number of companies of the respective features (Graph #2).

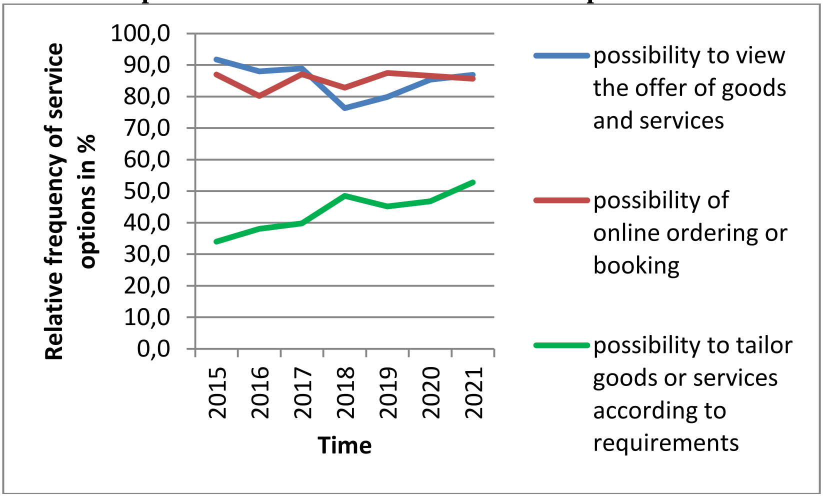
Graph #2: Relative numbers c of companies with websites in the time series with distinct low oscillation of the values around arithmetic average (s^2= 2.44)



Source: self-processed calculation

Individual possibilities and trends of services offered in websites are captured in the Graph #3.

Graph #3: Trend of the examined websites possibilities



Source: self-processed calculation

In cases of all three service options the linear trend was found in the time series 2015 – 2021. For the option of browsing the goods and services offer the correlation coefficient was -0.41, which shows a medium or low dependence on the decreasing trend. For the option of online ordering or booking the correlation coefficient was 0.26 with low dependence and increasing trend. For the option of customizing the goods or services according to the needs there was found very strong dependence and increasing trend; correlation coefficient was 0.93.

The result shows a stagnation with the possibility of browsing the offer of goods and services and with the possibility of online ordering or booking, and an increasing trend and a strong time dependence for the possibility of customizing the goods or services according to the needs, where we can see a positive trend in the offer of such a service.

Discussion

The analysis of the statistical data proved there was no significant change in frequency of the companies, using websites in the Czech Republic in the monitored period from 2015 to 2021. It can be explained by the simple fact that the absolute majority of the accommodation facilities have already had their websites before the start of the monitored period. Very low portion of companies without websites is probably created by those accommodation facilities which don't need any websites (for instance lodgings). Slight oscillation of the portion of companies with and without websites might be caused by partial changes in the total number of accommodation facilities. In 2019, during culmination of market with accommodation services, the number of accommodation facilities was in fact the same as in previous years (9383 facilities, 210 496 rooms and 539 685 beds). Partial increase in number of accommodation facilities came paradoxically in 2020 (10 699 facilities, 228 431 rooms, 592 314 beds) in the period of drastic decrease of the number of the accommodated people (ČSU 2021-2). Consequently, many facilities reduced their operation to minimum, which manifested itself in reduced usage of websites.

As for individual services offered at the websites, we can see two trends. The possibilities of browsing the offer of goods and services, and of ordering or booking online, are stable with slightly oscillating trend. It can be again explained by the fact, these services are long time understood as standard, and are commonly used by the demand. On the contrary, the possibility of customizing the goods or services (i.e. accommodation and additional services) shows a strongly increasing trend. It indicates of the interest of accommodation facilities to enable their prospective customers to individualise their stay according to their needs. They react on the real changes in a demand. This trend, significant in 2015 – 2018, continued strongly in 2020 and 2021.

Conclusion

Websites currently represent a standard tool of communication between accommodation facilities and their prospective customers. Analysis of the statistical data proved that websites were used by the vast majority of the facilities in the monitored period; changes in frequency of companies with websites are irrelevant.

The option of browsing the range of goods and services, and the option of online ordering and booking, show stable trends. It reflects the fact these tools are being standardly used.

The possibility of customizing accommodation and additional services according to requirements shows stably increasing trend. It is a reaction on changing requirements of the customers, and an effort of the accommodation facilities to enable the greatest possible individualisation of their customers' stays.

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REDUCING ADMINISTRATIVE BURDEN IN TOURISM IN CZECHIA USING PROCESS DIGITALIZATION

Petr Studnička

Abstract

The process digitalization in tourism is intended to streamline the activities of business entities and public administration authorities. The CzechTourism Agency has prepared a digitalization project e-Turista, which is to contribute to improving the quality of statistical data on tourism participants in real time and to reducing the administrative burden related to statistical reporting, reporting obligations to the foreign police and collection of local fee for a stay. The project approximately CZK 30 million will be financed from the National Recovery Plan.

Key words

Tourism, digitalization, businessman, process, public administration

JEL Classification: H72, K34, L83

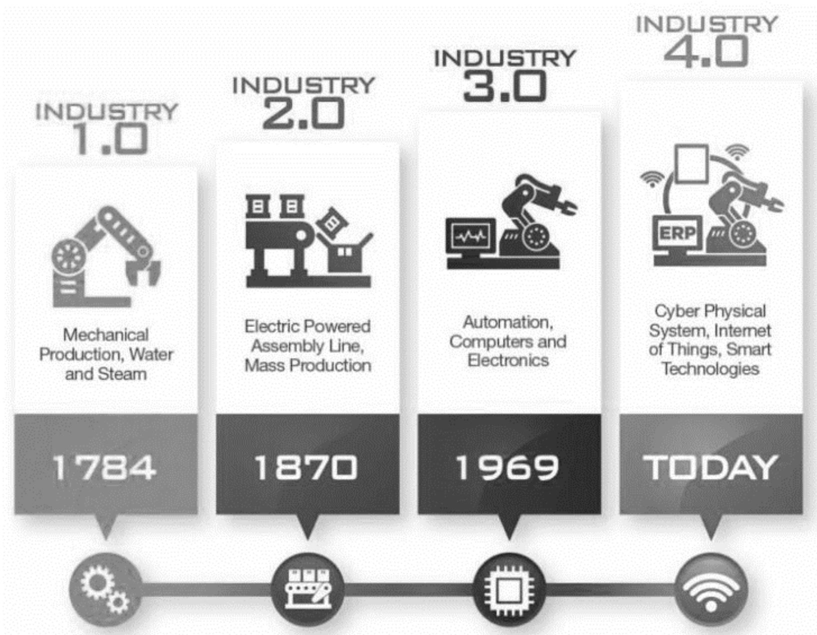
Introduction

Industry 4.0 (known also as the fourth industrial revolution) is a label for the current trend of digitalization, related automation and the changes it will bring. The point is that the simple activities performed by people nowadays will be taken over by cyber-physical systems (Scheme 1). Robotic systems will thus partially replace human labor. Thanks to a high degree of connectivity, systems based on online work and data sharing in cloud storage will be developed. The product of the Industry 4.0 agenda is the digital economy, which allows some activities from everyday life to be transferred to the Internet while reducing costs and increasing convenience.

The Ministry of Industry and Trade of the Czech Republic (2015) issued the national Industry 4.0 Initiative.

The National Recovery Plan (2021) is designed, including financial allocations, to *"help bring the Czech economy out of the crisis caused by the covid-19 pandemic and contribute to meeting reform and investment requirements. The plan reflects the requirement of European legislation that at least 37% of resources go to the green and 20% to the digital transformation."* Funds for the Czechia in the total amount of € 7.1 billion (CZK 180 billion), which can be drawn in 2021–2026, will go to digitalization, sustainable energy and safe transport, decarbonisation, clean mobility, water, education, social services, science or health prevention.

Scheme 1: Technological progress from the second half of the 18th century to the 21st century.



Source: Ministry of Industry and Trade, 2015.

Material and methods

In the National Recovery Plan (2021), CZK 28 billion is set aside for digital transformation. The digital economy is a huge opportunity for the development of the Czech economy. Rapid digitalization is a source of global competitive advantage. The e-Turista project, inspired by the Croatian e-Visitor platform, should be a unified system for registering tourism participants in the Czech Republic. The Government of the Czech Republic regularly evaluates the reduction of the administrative burden on entrepreneurs, and it is just this system that should simplify administrative processes for entrepreneurs.

Results

The e-Turista project aims to simplify and speed up the three basic agendas carried out by tourism entrepreneurs, mainly accommodation operators, in relation to public authorities at national and local level. These are the activities performed by the operators:

a) statistical reporting in relation to the Czech Statistical Office (online, so-called Dante web, fileable PDF, paper questionnaire),

b) notification obligation of foreigners in relation to the Alien Police Service of the Police of the Czech Republic (on-line – Ubyport, paper registration forms),

c) collection of the local fee for a stay in relation to the locally competent municipal office (application for registration of the local fee for a stay).

While entrepreneurs now have to send this data to each institution separately via different platforms, the new system would require them to enter it only once. In addition, statistics could be used on a daily basis, not with a delay of several months.

One of the impacts of the introduction of the e-Turista project should be an increase in the volume of collection of local fee for a stay, which so far in the Czech Republic is collected by only about quarter of municipalities (approx. 1,600) and most of them have a rate of around 20 CZK / person / day. The development of the collection of local fees in direct relation to tourism, hospitality and spas in the Czech Republic in 2015–2021 is shown in Table 1. While in 2015–2019 two different local fees for spa or recreational stays and accommodation capacity were introduced, since 2020, municipalities can introduce a single local fee for a stay (Plzáková, Studnička, 2021). One of the impacts of the introduction of the e-Turista project should be an increase in the volume of collection of local fee for a stay. Since January 1, 2021, the maximum rate can reach up to CZK 50 / person / day, which is applied, for example, by Prague, Lipno nad Vltavou or Františkovy Lázně (Attl, Pátek, Studnička, 2022).

Table 1: Annual volume of local fees collected in direct relation to tourism, hospitality and spas in the Czech Republic in 2015–2021 in CZK millions

Year	Local fee for spa or recreational stay	Local fee for accommodation capacity	Local fee for stay	Total Σ
2015	326.6	239.5	-	566.1
2016	351.4	252.0	-	603.4
2017	386.9	278.5	-	665.4
2018	406.9	288.2	-	695.1
2019	434.8	297.4	-	732.2
2020	-	-	322.2	322.2
2021	-	-	396.5	396.5

Source: Monitor – State Treasury, 2022.

Discussion

The launch of the new unified e-Turista system will require the implementation of legislative changes, which will be the most difficult part. In the conditions of the Czech Republic, these are mainly Act No. 89/1995 Coll., On the State Statistical Service, Act No. 326/1999 Coll., On the stay of foreigners in the territory of the Czech Republic, Act No. 565/1990 Coll., On local fees and other related legislation. In the Action Plan for the Tourism Development Strategy of the Czech Republic 2021–2030 for the years 2022–2023 (2021, pp. 5, 13–14), the Ministry for Regional Development states: *"Analysis and adjustment of legislative conditions in the field of tourism – legislative reforms need analysis in connection with the e-Turista project and the start of the implementation of legislative reform in connection with the e-Turista project and the Pilot operation of the e-Turista system."*

From the competence point of view, the Ministry of Regional Development, establishing the CzechTourism Agency, the Ministry of the Interior, the Ministry of Finance and the Czech Statistical Office, must find agreement on the introduction of a unified registration system in tourism. The Program Statement of the Government of the Czech Republic (2022, p. 39) states in the Regional and Local Development section in the Tourism chapter: *"By digitizing the administration in the field of tourism by e-Turista system (from 2024), we will reduce the administrative burden on businesses and municipalities and make the collection of accommodation fees more efficient."*

The e-Turista project has been in preparation since 2020. In 2021, testing of the project plan took place in the destinations of the Eastern Giant Mountains and Český Krumlov (not implemented). Based on the test results, the tender documentation for the implementation of the pilot phase of the project will be prepared. During this phase, a central register (technical solution) will be created, including ensuring connectivity and compatibility with other central registers and information systems. Subsequently, the pilot operation will start on a voluntary basis until all necessary legislative changes will have been completed in order to ensure full implementation of this system in the Czech Republic and at the same time comply with related obligations to the European Commission.

The e-Turista system will be provided by the CzechTourism Agency, for which digitalization is one of the three main principles of development until

2025. In their CzechTourism Agency’s Strategy (2020), the agency aims to digital marketing, development of Kudy z nudy and VisitCzechRepublic.com portals and the creation of a technical solution for the central register of domestic and foreign guests staying in collective and individual accommodation facilities in the Czech Republic (e-Turista project).

Conclusion

The e-Turista system will help reduce the administrative burden on entrepreneurs and enable share information on accommodated guests between state and local government bodies. The advantage will be the fact that the project will provide data on tourism participants in real time.

The National Recovery Plan, which is the basis for drawing money from the European Union's Recovery and Resilience Instrument, allocates CZK 30 million to the e-Turista project, with the first funds to be spent this year and the overall launch of the registration system planned in 2024.

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DIGITALIZATION AND EMERGING TRENDS IN THE HOSPITALITY, GASTRONOMY AND TOURISM

Literature review

Darina Svobodová

Abstract

While the importance and prevalence of digitalization are constantly growing in many sectors, the hospitality, gastronomy and tourism industries have been severely tested worldwide in the last two years. This review aims to identify the most frequently discussed topics linked to Hospitality, Gastronomy, Tourism and digitalization. It also highlights other emerging trends in these sectors over a specific period.

The paper is based on fifty high-quality, up-to-date academic publications' content analysis from Web of Science and Scopus databases.

Among the most discussed topics in the field are virtual and augmented reality (VR and AR), contactless guest experience, chatbots and artificial intelligence (AI), location-based services, and the Internet of Things (IoT), which uses internet connectivity for most activities. Given the industry's highly competitive nature, digitalization can lower the costs of running a hotel, gastronomy or tourism business. By digitalization of chosen time-consuming processes, if implemented correctly, the number of workers needed can be reduced. These processes can also help with quality and highly effective staff training. However, the research also shows that the human aspect of work will likely be irreplaceable in these fields and always needed.

This paper contributes to understanding digitalization and emerging trends in the hospitality, gastronomy and tourism context. This study also provides valuable resources for current researchers in the field and those entering this area of research. Further, it helps the practitioners to track the current opportunities in the field.

Key words
Digitalization, Gastronomy, Hospitality, Literature review, Tourism, Trends

JEL Classification: L66, L83, Z32

Introduction and Methodology

The tourism, hospitality and gastronomy industries are significant elements of the global economy. They contributed to more than 10 % of the global domestic product (GDP) and employment opportunities in 2020 (World Economic Forum, 2020). Digitalization has become a norm in several economic sectors, and these industries are not an exception. Hospitality, gastronomy and tourism companies assimilate digital technologies into their routine operations to guarantee high-profit margins and consumer satisfaction (Opute, Irene and Iwu, 2020, p. 3). Therefore, this paper objectified to expound on popularly discussed topics and the emerging trends in these sectors. This paper will review and report on the relevant and contemporary published materials on the subject matter within the past ten years. The review will critically analyze virtual reality (VR), augmented reality (AR), contactless guests experience, chatbots, artificial intelligence (AI), location-based services and internet of things (IoT), their impacts on the industries and emerging trends that these businesses can exploit for high performances. The online databases consulted are Web of Science and Scopus. Digitalization has become a paramount pillar in the rapidly evolving global business ecosystem. Digital innovations and inventions have become the propelling force in several economic industries, especially the service sectors. Since the tourism, hospitality and gastronomy sectors involve several products and services, digitalization poses significant opportunities and advantages that these industries can exploit. Various digitalization aspects that influence these industries include:

Virtual Reality and Augmented Reality

The rapid developments in virtual reality (VR) have made it a crucial component of tourism and hospitality. VR is the formulation of three-dimensional (3D) where an individual can surf and intermingle, leading to a simultaneous replication of one or more of the basic human senses (McLean and Barhorst, 2021, p. 2). Griffin et al. (2017) argued that VR is paramount in the tourism sector since it facilitates enjoyment and learning through equipping travellers and tourists with significant information about their travel destinations. VR increases the travellers' involvement in the encounters by making the destinations more appealing, thus encouraging the tourists to visit the destinations for real encounters (Tussyadiah et al., 2018, p. 144). VR lets the tourists have a clear visual representation of the places they will visit, reducing the potential anxiety that they would suffer towards booking their destinations because they have become familiar with them

(McLean and Barhorst, 2021, p. 4). Therefore, VR is a crucial element in the tourism and hospitality industries since it enables businesses to interact with their potential customers by offering them rich visual depictions of their destinations (including hotels), facilitating their immersion into the facilities (Chang, 2021).

VR use in tourism and hospitality industries has received significant attention in the recent past as scholars argue on what constitutes it: 360° and synthetic materials (Beck et al., 2018, p. 4). The scholars have focused on the level of invasiveness when differentiating different VR types where non-wearables are seen as less invasive than wearables (McLean and Barhorst, 2021, p. 4). VR systems provide virtual but real-life visual representations that stimulate visual and other basic human senses facilitating tourist immersions in the facilities (Beck et al., 2018). Flavian, Ibanez-Sanchez, and Orus (2019) argue that VR headsets facilitate complete immersion by isolating an individual from the physical world. Semi-immersive VR allows an individual to view 360° of the virtual settings while nonimmersive VR simulates a 3D space that an individual can interact with using peripheral devices, such as a mouse or keyboard (Liu et al. 2016, p. 153). Therefore, VR is a significant topic and trend in the tourism, hospitality and gastronomy industries as it gives consumers real-time virtual experiences of the places they want to visit, prompting them to visit them.

Like VR, augmented reality (AR) is another technological innovation simulates reality observation. It focuses on enhancing physically-based reality perception by information technologies (Gavish et al., 2015). Individuals create AR by superimposing images using computer-generated outputs (Ozkul and Kumlu, 2019, p. 108). AR has become a crucial element of the tourism and hospitality industries as it provides consumers with an indirect point of view by implementing visuals acquired by cameras and processed by high-power computers. Yagol et al. (2018) assert that AR has redefined the conventional tourism industry by overlaying data on consumers' devices, increased tourism experiences and increased access to information and knowledge, leading to enhanced destination appeal. AR further facilitates the development of visitor experiences in tourism destinations through their usage and interactions (Dieck and Jung, 2015).

Various scholars have researched to establish the significance and challenges of AR in the tourism, hospitality and gastronomy industries. Ding (2017) established that Cleveland Art Museum uses ArtLens 2.0, an

AR application that visualizes the visitors' interests and preferences. The application also creates a vibe by recording and relating conversations between customers, providing a map to visitors' desired places and warning them whenever they approach risky areas (Ding, 2017). In the hospitality industry, businesses have utilized AR to create visions that enable visitors to see the truth about the places they visit (Nayyar et al., 2018). After the consumers familiarize themselves with the destinations, they can book rooms or tour the tourist locations, thus increasing the profitability margins.

Visual simulation technologies are one of the most significant technological innovations in the tourism and hospitality industries. Rodgers (2020) has asserted that various hospitality companies such as Emirates, Virgin and Disney are employing VR and AR in their premises to enable the customers to "experience before making a purchase", generating these businesses significant profits. The COVID-19 pandemic poses significant financial challenges to the tourism industry as tourists cannot travel from one region to another (Jones and Comfort, 2020). However, VR played a significant role in mitigating the losses as the businesses could allow the consumers to experience their facilities in an alternative world (Bogicevic et al., 2019, p. 58).

Contactless Guest ***Experiences***

The COVID-19 pandemic has created massive changes in the tourism and hospitality industry (Hao, Xiao and Chon, 2020). It has increased the travellers' concerns for safety and hygiene as they are paramount in transmitting the complication. The development has changed tourism industry operations from utilizing high-level technologies and touching to utilizing high technology levels with little or no touch. The emerging trend is contactless service and has become popular during the COVID-19 pandemic. Hao (2021) defines contactless services as contactless and hygienic service measures and ecosystems created by an augmentation of self-service, IoT technology and robotic services (p. 1389). However, contactless services are not a COVID-19 creation because they existed in the industry but received minimal usage and attention until the pandemic hit the global economy (Hao, 2021). Contactless services have reduced direct human-to-human contact minimizing their ability to contact the COVID-19 disease while boosting tourism and hospitality operations (and Irani, 2020). Therefore, contactless services have led to revolutionary shifts in the tourism Rahimizhian and hospitality industry, creating a new era during and after the COVID-19 era.

Scholars have investigated contactless services in the tourism and hospitality industry, including types, usage and factors leading to their increased usage. Hao (2021) established that contactless services include voice control where tourists can control hotel rooms or outdoor services using smart speakers, for instance, air conditioning. It also includes motion sensing (for instance, automatic doors), mobile phone integration (where the consumers can use their phones to check-in into their services and make digital payments), robotic services, facial recognition, thermal sensing, camera, and IoT (Gursoy and Chi, 2020). The contactless services existed before the pandemic, but most tourism and hospitality businesses rearranged the technological modules based on their contactless features. Therefore, contactless services have helped eliminate the risks of the COVID-19 pandemic.

However, there are several factors that the tourism industry has failed to address concerning contactless guest experiences. Hao (2021) established that other consumers remain rigid to pay for contactless services as they prefer personal warmth and care when staying at hospitality destinations. Other consumers believe that the technology complicates their hotel experiences prompting them to settle for tourism and hospitality facilities with human services (Hao, 2021). These consumers argue that contactless technologies are an attempt by the tourism and hospitality industries to cut staffing expenses. Therefore, contactless services have become an emerging trend in the tourism and hospitality industry during the COVID-19 pandemic as a safety procedure to control the spread of the disease.

Chatbots and Artificial Intelligence (AI)

AI has revolutionized several sectors of the economy in these technology-driven times. It is the development of computer systems to perform tasks and activities requiring human intelligence (Russell and Norvig, 2016, p. 4). AI first emerged in 1956, but, over the years, AI has become a significant success in the technological world with significant innovations and inventions, including character recognition, facial recognition, mobile robotics and language processing (Samala et al., 2020). Several industries are now utilizing AI in their applications, and the tourism and hospitality industry is not an exception.

Significant research findings have made AI a significant application in the tourism, hospitality, and gastronomy industries. Vinod (2021) established that more than 85 % of tourism and hospitality businesses utilized AI in their premises. The factors that have prompted the organizations to utilize AI include increased use of rapid digital sales and smartphone usage to plan tourism activities (Samala et al., 2020). Alternatively, consumers choose AI over conventional tourism technologies because of their interactive booking procedures, self-service technologies and availability of adequate data about travel destinations mandating tourism businesses to incorporate AI into their operations (Peranzo, 2019). AI also facilitates timeliness, an aspect that most consumers consider before embarking on any hospitality and tourism activity (Samala et al., 2020). Therefore, tourism and hospitality businesses could incorporate AI applications in their operations to enhance customer experiences.

Several AI technologies are used in the tourism and hospitality industries to equip customers with novel experiences. These technologies include facial recognition, VR, chatbots, robots, Google maps and optimization services. Samala et el. (2020) defined chatbots as software that facilitates dialogue by auditory or textual techniques. There are two types of chatbots: text-message based and voice-based (Kumar et al., 2016). As their name suggests, text-message-based chatbots provide services in text messages answering customers' questions whereas voice-based chatbots provide services in the form of voice messages (Kumar, Li and Wong, 2018). Chatbots have become a paramount piece of technology in the tourism and hospitality spheres as their key features have enabled them to replace human employees. For instance, customers can access chatbots 24 hours and immediately send multiple choices to a single question. Alternatively, chatbots have the Audio tour technology feature, which describes every place that a vehicle travels at enables the tourists to uphold their privacy as they travel alone without a tour guide (Boiano et al., 2019).

Researchers have investigated the impact of utilizing chatbots in tourism, hospitality and gastronomy premises. Samala et al. (2020) established that chatbots played a critical part in regulating destination tourism and facilities' infrastructure. The researchers argued that when travellers reach their destinations and walk to their rooms, they meet chatbots that ask about the destination facilities, services, timing, and meals served. Therefore, the chatbots are responsible for providing the destination infrastructure information to the consumers. Other tourism facilities have Facebook chatbots that help customers navigate through a given page and facilitate booking through a two-way conversation (Popesku, 2019). Ivanov, Webster, and Berezi (2017) also asserted that the hospitality and tourism industry utilize customer service travel bots to help consumers navigate websites.

Therefore, chatbots have become a significant feature in the tourism and hospitality industry as they respond to customer questions and provide valuable information, an act that human employees used to do in the past.

Location-Based Services

Location-based services (LBS) are information and communication technologies that consumers can utilize in their current locations using mobile devices (Huang et al., 2018). LBS customizes the goods and services that an individual can utilize to a given location using the spatial dimension of their movements (Yim, 2015). Huang et al. (2018) termed LBS a "killer application" because of its impact on the human employees working in various economic sectors. However, research in the recent past has depicted that LBS is a paramount aspect for the success of tourism and hospitality businesses, especially during and after the COVID-19 pandemic.

The world has undergone rapid development in mobile technology, making the technology readily available to all people. New mobile terminals have emerged with high multimedia prowess, effective and fast data transfer, camera and wireless links (Li et al., 2017). As more people utilize these mobile technologies, they have facilitated the development of relevant business models. Palos Sanchez et al. (2018) asserted that the tourism industry is one of the first industries to utilize LBS because the businesses incorporated mobile technology enabling the businesses to offer their customers services while on the move. Alternatively, mobile technologies are well-developed in relevance to the consumers, thus making the service acquisition easy and fast. The primary functions of LBS in the tourism and hospitality sector include localization of individuals, objects and items, routes, searching for items and acquisition of relevant travelling information (Wang and Lin, 2017).

In their research, Mak, Nickerson and Sim (2015) sought to establish those different areas that the tourism and hospitality industry utilizes LBS. The tourism and hospitality business has utilized mobile technologies for planning and booking services (Mak et al., 2015). Initially, the industries used conventional channels such as travel agents and mainstream media platforms. However, the world experienced the COVID-19 pandemic that moved difficult, paving the way for consumers to plan and make appointments using their mobile phones. LBS also facilitates mobile marketing. Mobile marketing is the practice of organizations or individuals interacting with their audience through a mobile network (İlhan and Çeltek, 2016). The practices allow the businesses to reach their potential customers persuading them to visit their premises or utilize their services.

Geo-location, also known as geo-marketing, is possible in the tourism industry because of LBS. Geo-location entails having adequate knowledge that an individual or organization holds about a given place using devices such as mobile phones and the internet (Taşçıoğlu and Yener, 2018). Businesses can reach the people or their customers through advertising, coupons and relevant offers. Therefore, geo-marketing helps tourism and hospitality businesses to generate profits as they disclose their locations, enabling them to get new customers because of their closeness and increasing current customers' loyalty.

Internet of Things (IoT)

IoT is one technological element that the tourism and hospitality industry has utilized to ensure rapid development in the recent past. IoT facilitates the automation of new and available processes to suit new and available customers (Lu, Papagiannidis, and Alamanos, 2018). IoT also enables tourism and hospitality companies to understand their customers enabling store and recover data to use in their value chains (Car, Stifanich, and Šimunić, 2019). IoT also improves decision-making in the hospitality and tourism industry as it facilitates data collection from different sources concerning the consumers, general public and competitors in the tourism and hospitality industry (Wang et al., 2020).

Researchers have evaluated different IoT technologies used in the tourism industry. Pencarelli (2020) argued that IoT facilitates the personalization of customer experiences by utilizing the available data in their systems. The data enables the systems to conduct simulations for possible future situations. Babu and Sabramoniam (2016) further argued that IoT increases the competitiveness of the tourism industry as it enables organizations to use their available resources effectively while identifying and creating new resources. It will also facilitate marketing efficiency and utilization of renewable energy sources as most consumers have become environmental-sensitive to the items they utilize, ensuring that they leave little or no carbon footprint (Liberato et al., 2018). Going green will ensure that the tourism and hospitality industry remains sustainable environmentally, economically and socio-culturally thus improving the wellbeing of their organizations and stakeholders (Peng and Chen, 2019).

The technologies further facilitate seamless hospitality and tourism experiences through streamlining customer experiences during their encounters (Kabadayi et al., 2019). For instance, there are sensors that hospitality organizations can use to detect traveller locations and their luggage in airports, ensuring that they will access them easily. IoT has made the check-in processes seamless where the hospitality businesses send their customers' electronic key cards that they use to check in their rooms, ensuring they do not have to check on the front desk (Torres, 2018). Sensors can also help alert hotel personnel about visitors sitting at a given table, ensuring customer service without delay (Mercan et al., 2020).

Tourism and hospitality corporations can also utilize IoT's location-specific information to inform their customers about their locations and collect valuable data (Verma, Shukla and Sharma, 2021). IoT technologies in collaboration with smartphone and beacon technologies will enable the consumers to receive messages from the businesses based on their relevant location. For instance, businesses can alert them about local tourist attraction sites when they are not busy to ensure they can visit the destinations.

Discussion, Results and Conclusion

Digitalization in the tourism, hospitality and gastronomy industries has remained a major disruptive force. Dominant digitalization topics in the industry include AR and VR, where several tourism and hospitality organizations utilize visual simulation technologies to provide visual representations of their premises to customers, thus persuading them to visit (McLean and Barhorst, 2021). AR and VR also minimize the anxiety that individuals could face when they visit a place they are not familiar with by providing adequate information about the places. Contactless guest experiences have also increased during COVID-19 since human-to-human contact has reduced (Hao, 2021). AI is another disruptive technological force in the industry as it has facilitated the formulation of chatbots, character recognition, facial recognition, mobile robotics and language processing (Samala et al., 2020). These aspects have made tourism a success as chatbots facilitate self-service, booking and planning of events, adequate information about locations and navigation of websites (Ivanov et al., 2017). LBS are also paramount in the industry as they facilitate geo-marketing, mobile marketing and advertising, ensuring a firm can reach new customers while increasing the loyalty of the available customers (Wang and Lin, 2017). Hospitality, gastronomy and tourism businesses can reduce costs by embracing the new technologies. For instance, there were human employees responsible for driving and guiding tourists. However, chatbots can perform the duties as tourists drive themselves around the premises thus increasing their profitability margins. Therefore, digitalization the tourism, hospitality and gastronomy contexts has reduced the number of human employees and costs. Alternatively, the review of the past studies in the subject matter revealed opportunities that tourism, hospitality and gastronomy business can exploit to ensure that the compete favourably. These include AR, VR, chatbots, LBS and IoT and their respective applications as they could focus on reducing the necessity of human labour in some areas while increasing its need and efficiency somewhere else.

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BALANCED SCORECARD AS A MODERN APPROACH TO CORPORATE GOVERNANCE FOR HOTELS

Ľubica Šebová, Adrián Švec

Abstract

The management systems that were effective in the case of many hotels in principle even until recently, may not suit the current situation and the period of the upcoming years in many perspectives. Therefore, there is currently even more pressure on the tourism companies to look for new approaches to corporate governance. These should be approaches that explicitly allow the company to respond more flexibly to such extreme changes in the external environment. Balanced Scorecard is a strategic system for performance measurement that can enable the development of all important assets in the company.

Key words

Balanced Scorecard (BSC), tourism, hospitality, hotel

JEL Classification: L83, Z30

Introduction

Running a successful and stable business in the current period is challenging. It is even more challenging in this pandemic period and in the immediate post-pandemic period. Changing, until recently stable, general conditions and consequently consumer needs, combined with rapidly developing information technology and globalisation, are creating a very active and rapidly changing environment for business. In tourism as an industry, this has become even more challenging in recent times. If hotels want to maintain their basic operational viability, retain, or regain their hotel guests, they must also be able to adapt to these extraordinary changes.

We perceive the fundamental fact that the management systems that were effective in the last century, in the case of many hotels, not only in Slovakia, until recently, may in many respects no longer be suitable for the current situation and the period of the next few years. Therefore, there is now even more pressure on the tourism enterprises concerned to find new approaches to corporate management. These should be approaches that explicitly allow the company to respond more flexibly to such extreme changes in the external environment. Such styles of business management include process management (Fu et al., 2020).

Material and methods

In this paper, we want to specify in more detail the actual methods of performance measurement in a hotel through individual financial and non-financial indicators.

An enterprise that wants to operate in the long term in the conditions of the market economy should be characterized, in addition to the legal personality, by financial balance, the principle of profitability and the combination of production factors taking into account the principle of economy (Gutenberg in Sedlák, 2010; Kučerová, Šmardová, 2016).

Tourism enterprises focus primarily on the provision or intermediation of services. Gúčik (2010, p. 188) defines tourism enterprises as "organizational units that hire labour and purchase other factors of production to produce goods and services to meet the needs of visitors. They offer them as individual services or bundles (packages) of services".

The most structured and complex tourism enterprise can be considered to be a hotel. According to Gúčik (2020), a hotel is an accommodation establishment for the temporary accommodation of guests ´, which has more than 10 rooms and provides accommodation and catering, social and entertainment services, complementary services for business travellers and sports and recreational services for the active use of leisure time.

Processes have existed, do exist, and will continue to exist in every enterprise, whether the enterprise is engaged in manufacturing or in the provision of services. This is because processes are nothing more than an expression of the working practices of an enterprise in which resources (workers, information systems, etc.) transform inputs into outputs.

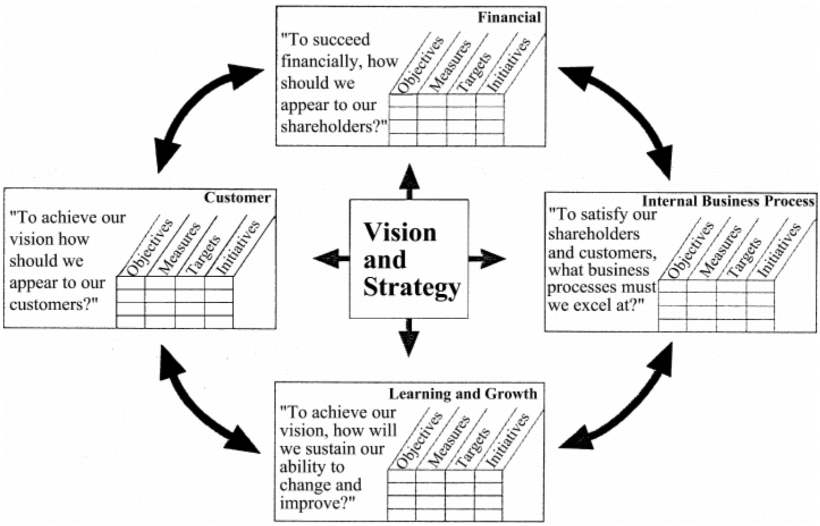
By process management, Ďurechová (2010, p. 95) means "the use of knowledge, expertise, experience, techniques and systems for defining, visualizing, measuring, controlling, informing and improving processes in order to meet customer requirements while optimizing the profitability of its activities". According to Šmíd (2007), process management is a composition of systems, procedures, methods and tools to continuously ensure maximum performance and continuous improvement of business as well as inter-company processes, which are based on a clearly defined strategy of the organization and aim to fulfill the stated strategic objectives.

The transition from functional management to process management is carried out in several steps: conception of process management implementation as a strategic decision, assembling a project team and developing an implementation project, description of the current state of business processes including their hierarchization, identification of process activities and creation of process maps, definition of process indicators, definition of target values, process benchmarking, process simulation and optimization, process self-management, process measurement and improvement (Papulová et al., 2014; Sujová, Marcineková, 2016).

The implementation of process management brings many benefits not only to businesses within the tourism industry in general, but also to the hotels themselves. It is primarily about optimising quality, time and costs. Based on the optimisation of quality, the reliability of the products and, in the case of hotels, the reliability of the products and, in particular, the service and the focus on the customer's interests are consequently increased. Due to the minimisation or elimination of unnecessary activities that do not add any value to the business, costs are reduced. Finally, time is saved by reducing process times. According to Papulova et al. (2014), other benefits associated with the introduction of process management can be observed in the following areas: improving relationships with external and internal customers; creating a functioning measurement and evaluation system that supports continuous improvement; slimming down the organizational structure; increasing employee motivation and satisfaction; clarifying responsibilities; creating a new corporate culture with a team spirit; reducing administration and bureaucracy; increasing the level of awareness of managers; increasing adaptation to change, etc.

The Balanced Scorecard is a method based on a process approach. It is a comprehensive approach to measuring performance using balanced scorecard performance indicators, aiming to reduce the information burden on managers and emphasising key financial and non-financial indicators that are critical to the delivery of corporate strategy. It incorporates four basic perspectives to measure business performance: financial, customer, internal business process and learning and growth perspectives, using their causal relationships (Scheme 1). All perspectives need to be balanced against each other.

Scheme 1: The BSC provides a framework for interpreting strategy into operational terms



Source: KAPLAN, R. S., NORTON, D. P. (1996).
"Using the Balanced Scorecard as a Strategic Management System."
Harvard Business Review, 74: p. 75–85.

The quality of the Balanced Scorecard and its usefulness does not depend on the number of indicators used, but on the balanced identification of the key success factors that drive business performance. It consists of about 15 to 25 financial and non-financial indicators, which are divided into four perspectives. The Balanced Scorecard should express the strategy of the business, and this can be achieved by properly linking the indicators into a chain of cause and effect.

Among the main benefits of Balanced Scorecard (Detta, 2010) we can include strategically oriented management of the enterprise focused on corporate goals, balancing of financial and non-financial indicators of the enterprise, involvement of all employees of the enterprise, universality for different types of enterprises, possibility of combination with other modern management tools. The Balanced Scorecard is an effective method applicable in the management system and performance measurement of hotels in Slovakia.

The Balanced Scorecard has been developed to fulfil two controlling roles within organisations at the strategic and operational level. At the strategic level, the focus is on determining what the organization is trying to achieve, while at the operational level, the focus is on determining the most important processes to be monitored (Phillips and Louvieris, 2005). An additional by-product of the Balanced Scorecard is the role it can play in change management, which goes well beyond the original idea of simply extending performance indicators (Kaplan and Norton 1996).

The Balanced Scorecard links each issue that represents a corporate objective with an outcome measurement. It is linked to the measurement of the supporting process - the "driving force" that enables the achievement of the corporate goal. The outcome measurement - the "lag indicator" - measures what has happened, while the driver measurement - the "leading indicator" - tracks the potential for performance improvement (Oliveria 2001). Indicators can be used to measure progress toward achieving the organization's vision. Others are used to measure long-term success factors and performance. Each step should be part of a chain of cause-effect relationships that represents a strategy, and there should be a combination of leading and lagging indicators. Strategic objectives must be measured in a way that links them to financial indicators in a Balanced Scorecard framework (Amaratunga et al., 2001).

Since the late 1990s, a large number of cases have appeared in the literature with the aim of developing a Balanced Scorecard model that is most effective in improving performance, and in doing so, the Balanced Scorecard model has undergone an evolution from a simple performance management tool to a performance management system (Perkins et al., 2014).

Results

Although the Balanced Scorecard (BSC) process method has been widely used in various industries, there is less evidence to date on the design and implementation of its overall framework in the tourism industry (Phillips and Mountinho, 2014).

In this industry, some US hotel chains, such as Hilton and Marriott White Lodging Services, have reported using the Balanced Scorecard (Denton and White, 2000; Huckestein and Duboff, 1999). The results generally suggest that the implementation of this system has encouraged managers to focus on both short- and long-term measures, reward teamwork, and share best practices with other hotels (Huckestein and Duboff, 1999).

In addition, Harris and Mongiello (2001) claimed that although hotels are generally classified as service companies, they actually contain at least three different types of activities (namely rooms, beverages, and food) that exhibit different cost structures and business orientations. This diversity of activities and their associated cost structures required a diverse set of performance measures that performance measurement systems such as the Balanced Scorecard can cover. They add that although the hotel from a consumer perspective represents one overall 'seamless' product, the distinct nature and underlying diversity of activities associated with the provision of hotel services should be recognised and addressed in determining compatible performance measures.

Interestingly, the specificity of the tourism industry, namely its intangible nature, its focus on human resources, and the heterogeneity in service delivery and types of activities require the use of the Balanced Scorecard (Ribeiro et al., 2019). Academics examining the most common and prevalent performance measurement indicators used in the tourism industry (Atkinson and Brown, 2001; Huang et al., 2007; McPhail et al., 2008; Phillips and Louvieris, 2005) have identified the existence of performance measurement indicators related to all four traditional Balanced Scorecard perspectives and point to the spreading of this model in the tourism industry. Several authors have focused on these indicators and have successfully identified this research gap and proposed Balanced Scorecard models that meet the needs of the tourism sector (Brown and McDonnell, 1995; Elbanna et al., 2015; Huang et al., 2007; Huckestein and Duboff, 1999)

Evans (2005) and Kang et al. (2015) identified that a specific examination of the Balanced Scorecard in the tourism sector is necessary due to the labour-intensive nature of the industry. This labour intensity requires the use of a comprehensive performance measurement system that caters not only for the achievement of profits, but also for the measurement of performance on the part of both employees and customers.

In their publication Key Performance Indicators for Sustainable Management, the authors Krause and Arora (2020) selected 180 ratios and consider them as a representative set of key performance indicators that support all four perspectives of the Balanced Scorecard.

As a result, they identified 212 potential indicators to measure performance in the enterprise.

The Brewer a Speh model

Among the first comprehensive models for performance measurement based on the Balanced Scorecard method is the model of Brewer and Speh (2000). The authors already provide a model primarily designed for supply chain management and includes the development of indicators from four perspectives (Table 1).

Table 1: The Brewer and Speh model

Perspectives	Development of indicators
Financial perspective	The most important factor that acts as a system of checks and balances
Customer view	What do customers think makes a business successful? Measures should capture the customer's opinion. They can be generic (e.g., customer value and customer retention) or more specific (e.g., product/service quality, flexibility, cost and response time).
Internal Business Processes	What needs to be done internally to meet and exceed customer needs? These are mostly non-financial measures (e.g., quality measures that are time-based and flexibility-oriented).
Innovation and learning	What needs to be done on an ongoing basis to delight and retain customers? The focus should be on the future rather than on current capabilities. Measures should address issues such as new product development, percentage of new product sales and process improvement rates. This may also apply to human resources measures.

Source: BREWER, P., SPEH, T. (2000).
"Using the Balanced Scorecard to Measure Supply Chain Performance."
Journal of Business Logistics, 21 (1): p. 75–93.

The Phillips a Louvieris model

Another advancement in models for the development of performance indicators is the model by Phillips and Louvieris (2005), who have already included a case study focused on the tourism industry, specifically the hotel industry, in their case study, which is interested in exploring the power of the Balanced Scorecard to sustain and improve performance measurement. These authors also included non-financial measures in their performance management system. The following section provides their overview of the critical success factors that have been adopted as standardized in performance measurement through the Balanced Scorecard since 2005:

Financial Critical Success Factors

1. Gathering relevant information to support financial decision making
2. Digitization - assisting in the collection, analysis and dissemination of financial information
3. Forecasting - linking digitised financial reporting and management information systems

Customer-related critical success factors

1. Creating customer profiles
2. Communicating with customers to build relationships and foster loyalty
3. Quality of service offered by SMEs is key to customer satisfaction and retention

Critical success factors of the internal business process

1. Investment in employees is an integral part of their
2. Measuring productivity is key

Critical factors for learning and growth perspectives

1. Employees must drive innovation
2. Whether it is knowledge sharing or benchmarking, SMEs should be encouraged to make cross-sector comparisons when setting indicators and targets for innovation and learning

Their model is illustrated by the Hotel Balanced Scorecard based on the aggregation of metrics used by two hotel case organisations (Table 2).

Table 2: The Phillips and Louvieris model

HOTEL SECTOR BALANCED SCORECARD

Category	Critical Success Factor	Key Performance Indicators
Financial	Profitability	Gross operating profit Net operating profit Sales achieved
	Budgetary control	Adhering to budget Meeting financial targets Achieving predicted room and occupancy rates Revenue per available room Cash flow
Customer related	Quality of Service	Guest surveys Mystery guest Participation in grading schemes
	Customer relationship management	Anecdotal feedback via staff Customer satisfaction levels Average spend
	Customer profiling	Customer satisfaction levels Customer retention rate
Internal business	Having clear objectives Tracking objectives	Meeting financial targets Internal auditing Completion of capital projects
	Investing in staff	Staff satisfaction surveys Staff development reviews Staff retention rate percentage
	Productivity	Wages (%) to achieve turnover Staff incentive schemes (e.g., performance-related pay)
Innovation/learning	Staff as drivers of innovation	Number of new products/services Process improvement initiatives
	Cross-sector comparison	Networking relationships Membership of trade/professional bodies Participation in grading schemes
	Encouraging teamwork	Courses completed by staff Level of multiskilling Productivity

Source: PHILLIPS, P., LOUVIERIS, P. 2005.
Performance Measurement Systems in Tourism, Hospitality, and Leisure Small Medium-Sized Enterprises: A Balanced Scorecard Perspective, p. 209
In Journal of Travel Research, vol. 44 (2005).

The Elbanna model

In order to update and generalise the performance indicators, we have added a more modern view of the performance indicator structure from the author Elbanna to the template, which is from 2015 and slightly corrects the Phillips and Louvieris (2005) template to make it more suitable for hotels in general.

The Balanced Scorecard template proposed by Phillips and Louvieris (2005) was subsequently used as a starting point for the development of the Balanced Scorecard scale in a much more broadly conceived study by Elbanna (2015) for two reasons. Firstly, this original template was developed based on two real hotel sources - case study organisations - which fitted well with the purpose of the original study. Secondly, it incorporates the four default Balanced Scorecard perspectives as developed by Kaplan and Norton (1992). Elbanna (2015) made several updates or more significant changes to the original Balanced Scorecard template based on the 2014 data collection.

We captured all of Elbanna's (2015) updates or more significant changes to the original Balanced Scorecard template designed by Phillips and Louvieris (2005) through Table 2, which specifies the substitution of indicators (bold font), the deletion of indicators (-), the addition of indicators (+), and the transfer of items between groups (/) in Table 3.

Table 3: Updated template with comparison of key indicators - comparison of the Elbanna model to the Phillips and Louvieris model

HOTEL SECTOR BALANCED SCORECARD		**Phillips and Louvieris**		**Elbanna**
Category	**Critical Success Factor**	**Key Performance Indicators**		**Key Performance Indicators**
Financial	Profitability	F1. Gross operating profit		F1. Gross operating profit
		F2. Net operating profit		**F2. Return on sale**
		F3. Sales achieved		**F3. Growth rate of sales or revenues**
	Budgetary control	F4. Adhering to budget		F4. Adhering to budget
		F5. Meeting financial targets		**F5. Meeting financial targets**
		F6. Achieving predicted room and occupancy rates		F6. Achieving predicted room and occupancy rates
		F7. Revenue per available room		F7. F7. Revenue per available room
		F8. Cash flow		**F8. Liquidity**
				F9. (+) Financial stability/soundness
Customer related	Quality of Service	**C1. (/) Guest surveys**		**C2. (/) Feedback from mystery guest programme**
		C2. (/) Mystery guest		
		C3. (-) Participation in grading schemes		
	Customer relationship management	**C4. Anecdotal feedback via staff**		**C3. Verbal/anecdotal feedback via staff**
		C5. Customer satisfaction levels		C4. Customer satisfaction levels
		C6. Average spend		**C5. Average spend of customer**
	Customer profiling	C8. Customer retention rate		C6. Customer retention rate
				C7. (+) Market share
				C8. (+) Market share growth
				C9. (+) Social responsibilities
Internal business	Having clear objectives	**IB1. (-) Meeting financial targets**		**IB1. (/) Productivity levels, e.g., labour productivity**
	Tracking objectives	**IB2. (-) Internal auditing**		**IB2. (+) Efficiency of operations, e.g., booking, room service**
		IB3. Completion of capital projects		**IB3. Proper completion of planned projects/initiatives**
	Investing in staff	**IB4. (/) Staff satisfaction surveys**		**IB4. (+) Quality of services provided, e.g.,check in**
		IB5. (/) Staff development reviews		**IB5. (+) Serving customers on time**
		IB6. (/) Staff retention rate percentage		**IB6. (+) Consistency with standards and compliance with laws and regulations**
	Productivity	**IB7. (-) Wages (%) to achieve turnover**		
		IB8. (-) Staff incentive schemes (e.g., performance-related pay)		
Innovation/learning	Staff as drivers of innovation	IL1. Number of new products/services		IL1. Number of new services/products
		IL2. Process improvement initiatives		IL2. Process improvement initiatives
	Cross-sector comparison	**IL3. Networking relationships**		**IL3. Building network of relationships with stakeholders**
		IL4. Membership of trade/professional bodies		IL4. Membership of trade/professional bodies
		IL5. (-) Participation in grading schemes		
		IL6. Level of multiskilling		**IL6. Staff capabilities**
	Encouraging teamwork	**IL7. (/) Productivity**		**IL7. (/) Staff satisfaction**
		IL8. (-) Courses completed by staff		**IL8. (/+) Staff development**
				IL9. (/) Staff retention rate

Source: own processing based on sources
Phillips, P., Louvieris, P. 2005. Journal of Travel Research, p. 209.
Elbanna, S. et al. International Journal of Hospitality Management, p. 109.

Based on this table, we have summarised the most important changes in the development of the indicators in each of the four perspectives:

Financial perspective

"Meeting financial targets" was included in two perspectives according to the Phillips and Louvieris Balanced Scorecard template, in both the financial and internal business perspectives, which violates discriminant validity. For this reason, it was removed from the internal business perspective by Elbanna (2015) because it is more closely related to the financial perspective. The term cash flow has been substituted for liquidity. "Financial stability/healthiness" was added as suggested by Elbanna (2012) as it is a particularly important heading after the 2008 financial crisis. Finally, based on the feedback received, this research replaced "net operating profit" with " revenue profitability" and "sales achieved" with "sales or revenue growth rate" (Dibrell et al., 2014).

Customer perspective

This perspective has been subjected to further changes. For example, 'participation in evaluation systems' was mentioned in two perspectives, namely the customer perspective and the innovation/learning perspective. As it is more closely related to the innovation/learning perspective, it has been removed from the customer perspective. Finally, considering the feedback from the exploratory phase in addition to the argument of related research on organisational performance and the Balanced Scorecard (e.g., Dibrell et al., 2014; Elbanna, 2012; Niven, 2006: p. 120-127), this research added three indicators from the customer perspective, namely market share, market share growth and social responsibility.

Internal business perspective.

The third indicator "completion of investment projects" has been replaced by "proper completion of planned projects/initiatives" for the following two reasons. First, not all hotels had capital projects in place at the time of this study and therefore this was not a common indicator to be used in a quantitative study such as this or in future research. "Wages (%) to achieve turnover" was removed from the scale because it was confusing to respondents. "Employee incentive schemes (e.g., performance-related pay)" was removed from this section because this employee indicator is addressed in terms of innovation/learning by other indicators that implicitly include this indicator, e.g., employee satisfaction and retention rates. Productivity has been moved to this perspective from the innovation/learning perspective and subsequently adjusted to 'productivity levels, e.g., labour productivity'. Similarly, a new indicator 'efficiency of operations, e.g., bookings and room service" has been added. Its importance was highlighted by Sainaghi et al (2013) specifically in the hotel sector.

After the first stage of the survey was conducted and based on relevant previous research, three more indicators were added to this perspective, namely "quality of service, e.g., check-in", "customer service in a timely manner" (Niven, 2006: 128-134), and "compliance with standards and compliance with laws and regulations". These three indicators are particularly important in the hotel sector. Finally, this research has shifted the three indicators, employee satisfaction, development and retention, to an innovation/learning perspective, as explained below.

The innovation/learning perspective.

The first stages of the research showed that "network relationships" were perceived in different ways; therefore, it was changed to "building network relationships with stakeholders". The term 'multiskilling' was replaced by 'staff capability', which is easier to understand. Similarly, 'courses taken by staff' has been replaced by 'staff development', which is a broader and more meaningful term than the former. The first one has been moved from an internal business perspective to an innovation/learning perspective, along with 'employee satisfaction' and 'employee retention rates'. These three indicators clearly belong to the innovation/learning perspective, which was confirmed at the survey stage and supported by related research.

Application of the Balanced Scorecard model through the use of software

According to Kaplan and Norton (2001), the application of the model itself is not any kind of automation, as one might assume. Immediately after the development and implementation of the scorecard, performance management software could be used to obtain the right information about the actual performance of the right people involved in operations at the right time. This would be done by linking the hotel, accounting and other information systems that are used in the hotels or by creating a higher layer that would aggregate the individual information from the information systems and create correlations from the key indicators obtained and evaluate them. Therefore, automation adds the required structure and discipline towards the implementation of a Balanced Scorecard system. In this way, all disparate enterprise data can be transformed into some key sources of information and knowledge.

The metrics that are set must also be S.M.A.R.T. (Specific, Measurable, Achievable, Realistic solutions, Timely solutions), i.e. not generic, but specific, measurable and easily and quickly achievable, as well as realistic solutions and timely solutions. Niven (2006) points out that it is impossible to improve something that is not measurable. Therefore, naturally, all Balanced Scorecard metrics must be aligned with the operational and business operations process.

Discussion

The measurement of hotel performance has attracted more attention from scholars in the hotel industry in the last two decades, and despite the overall upward trajectory, the overall research in this area can be considered to be at a relatively low level to date. Sainaghi's (2013) findings show that the keywords hotel, BSC and performance generate only 2.3% of the total 5,918 published articles. This observation is similar to Li (2008) who found that only 2% of the total 4,917 published articles were related to business. Both authors used the same scholarly journals as a source, which are among the leading scholarly journals on hotel and tourism management as a whole.

In Slovakia, however, it can be said that within Central Europe in general, the BSC system is little known and demanded, its principles penetrate into practice very slowly. The introduction of the BSC system presumes the implementation of a functioning strategic management system, and this is what our enterprises lack, not only in the tourism sector. Managers in the enterprise have to deal not only with the technical side of strategic management, but also with the management of changes in the corporate culture, evaluation systems, employee reward systems, etc. According to Gavurova (2011), enterprises are also insufficiently aware of the fact that the appropriate link between strategic and operational management through the decomposition of objectives is the introduction of an effective performance measurement system.

An unfavourable situation arises where the tendency to persist with traditional performance measurement systems, insufficiently effective and not supporting continuous improvement, prevails. Most of these performance measurement systems in enterprises contain a large number of measurement areas as well as indicators, only a small part of which is actually usable. Managers prefer to monitor costs and profits and do not want to get "entangled" in more extensive analyses of financial and even less of non-financial indicators.

The second fundamental reason for not implementing the BSC system very widely is also the fact that this system is primarily a management tool that forces the company's management to organize their strategy into a logical and coherent whole. Since it is a tool for managing strategic change in a company, the results are not visible in the short term (Gavurova, 2012).

A third potential reason may be the actual implementation of the BSC through software solutions. According to Gavurova (2012), in companies where they plan to implement the Balanced Scorecard system, there is often a debate among experts whether the development and use of the Balanced Scorecard requires the support of powerful software. Currently, almost every major software vendor boasts a Balanced Scorecard-enabled solution. Many doubts about the deployment of Balanced Scorecard software result from distrust of the Balanced Scorecard concept itself. Unless top management is interested in the Balanced Scorecard concept, even the most modern and powerful software may not help. The positive acceptance of the concept is not helped by the presentation of erroneous views that see the Balanced Scorecard system as a solution to an information technology problem. However, software solutions as supporting tools in the development and use of the Balanced Scorecard cannot be underestimated, as they can play an important role at each stage of BSC implementation, depending on the requirements of top management. Due to the high market dynamics, we are witnessing a rapid development of information technologies, systems, software solutions, their supporting tools.

The above mentioned several potential reasons for the adversity may at the same time create room for new solution possibilities in theoretical as well as practical terms. Effective linking of theory and practice, quality interaction of experts and possibilities of implementation of the acquired knowledge in professional and scientific journals may help the development of the introduction of this system into the practice of hotels or this system may remain at best underestimated or almost not used at all in the hotel industry.

According to Niven (2006), the continuous improvement of software solutions enables further development of the system. Companies around the world continue to rely on the Balanced Scorecard, as evidenced by Bain & Company's stated research, but especially in synergy with the use of software tools. IT experts agree that the lack of effective software tools could jeopardise the further development of the system. With each successive generation of these tools, their functionality increases significantly. Software tools no longer fulfil the role of 'reporting results', but also provide a mechanism for mapping strategies, showing complex cause and effect relationships, as well as implementing planning and scenario building in the previous position of a multifaceted solution in both theoretical and practical terms.

Conclusion

A tourism enterprise that wants to continuously prosper or successfully overcome a period of crisis should have a well-functioning strategic management process in place. The management of such an enterprise should be able to identify those factors that determine the survival and success of the enterprise and to operate an analytical tool that identifies the steps that will lead to the preservation and consequent growth of the enterprise's value. However, a planned strategy should not remain a mere consideration, because one of the key factors that distinguishes a successful enterprise from an unsuccessful one is the ability to implement the strategy in the life of the enterprise.

The Balanced Scorecard is a strategic system for measuring the performance of an enterprise. It is a modern method of strategic management, enabling the development of all the important assets in an enterprise in order to achieve their synergy in the pursuit of strategic objectives.

For the effective use of the Balanced Scorecard in hotel performance management practice, it is necessary not only to define the indicators themselves, but also to create a link between the different perspectives by defining the relationships between the indicators, which is a difficult task. The introduction of the Balanced Scorecard system into the management of a tourism enterprise will achieve its objective if the management of the enterprise has clearly defined objectives and seeks ways to achieve them in order to ensure the long-term effective existence of the enterprise.

By continuous improvement of the BSC system, confrontation of the acquired knowledge in the theoretical and practical field, gradual elimination of problematic areas, this system can be much more familiar and used in our conditions and our managers can thus benefit from this potentially powerful management tool.

Continuous improvement of the Balanced Scorecard system through its extensive use in foreign practice as well as by improving knowledge in the scientific community in general and in the tourism sector in particular, this system can become more established in our conditions and become a significant and used tool of corporate management.

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THE IMPORTANCE OF AUTHENTICITY IN THE PARTICIPATION OF „GENERATION Z“ IN TOURISM

Anna Ulrichová

Abstract

This article explores the phenomenon of the digital Generation Z and the way they perceive and enact authenticity when participating in tourism. Members of Generation Z have already been born into the digital world and are said to be unable to imagine life without mobile phones, internet and wireless connectivity. Much of their lives are lived on social media, they have been learning English since childhood and are said to have little appreciation for concepts such as tradition, nation, customs. The aim of this paper is to assess the perception of authenticity and the influence of social groups on the participation of members of Generation Z in tourism.

Key words

Authenticity, Tourism, Generation Z

JEL Classification: Z1, Z3

Introduction

Generation is a traditional category of sociology that helps in the process of reflection on society and its dynamics. The civilizational developments of recent years, modernization, westernization, computerization of societies, and the transition of civilization from literate culture to cyber-culture are transforming traditional societies. This, of course, is reflected in the formation of generations and changes their character (Sak, 2018). Around the topic of generations, we encounter the terms silent generation, baby boomers, generation x, y, z, and generation alpha. Generation, however, is connected by a "social umbilical cord" to the "mother" society (Sak, 2020), and therefore some sociologists (Sak, 2020) consider this designation of generations, which we adopted from American scholarship several decades ago, to be irrelevant. Table 1 shows a comparison of the "socially naturalized" American generations in the Czech Republic and the typology of the five post-war generations of youth, their names based on the main macro-social processes through which the generation was formed (Sak, 2020). Thanks to increasing age, there are now six distinctly different generations living side by side on the planet. The differences between the generations are becoming ever greater, and this issue needs to be addressed so that we can all live happily and contentedly here on the most beautiful planet in our solar system, planet Earth, in mutual intergenerational understanding, respect and tolerance. This paper aims to contribute to this noble goal and focuses on exploring the way Generation Z perceives and displays authenticity when participating in tourism.

Table 1: The Generations

Socially naturalized American generations in Czech society		Post-war Generations of Youth in Czech Society	
Silent Generation	1925-1945	Building Generation	1925-1935
Baby Boomers	1946-1964	Reform Generation	1936-1949
Generation X	1965-1980	Normalization Generation	1950-1966
Generation Y	1981-1999	Transformational Generation	1967-1980
Generation Z	2000-2013	Cyber Generation	1981-2000
Generation Alpha	2014-	Blurred Generation	2001-

Source: own elaboration according to Sak (2020)

Members of Generation Z are the so-called "Plurals", the most fragmented and diverse generation yet. Defined by the Internet and multiculturalism, wars and financial crisis, family breakdown (the emergence of the so-called nuclear family, Petrusek, 2009) and the essentially complete loss of security, “Zettes” are turning to self and individual specialization. Their priority is education and the development of their skills, and supposedly “Zettes” are obsessed with direct experience, so they have to touch and experience everything firsthand, but at the same time they live separate and "on the Net". They are intellectually mature, growing up too fast, don't understand terms like status quo or tradition, and somehow subconsciously feel that they will have to build their world on their own (Chum, 2013).

Materials and methods

The source of data for the article was primary and secondary sociological research conducted in the period February-March 2022. Primary data was obtained through qualitative research which enables to find out the motives of people's behaviour and explain the causes. For this, two basic qualitative research techniques were used, namely individual in-depth interviews and group interviews. Qualitative research is suitable for first acquaintance with the issue, but due to the small set of respondents, it is not possible to generalize its results to the whole population and the basic set represents only approximately (Foret, Stávková, 2003).The basic set consisted of all members of Generation Z, the sample consisted of ten students of university studies at the bachelor's level with a focus on marketing. The research process was as usually divided into five steps: 1) defining the research problem and objectives, 2) developing a research plan, 3) gathering information, 4) analyzing the information, and 5) presenting the results (Foret, Stávková, 2003). The aim of the research was to assess the perception of authenticity and the influence of social groups on the participation of members of Generation Z in tourism. In order to meet the aim of the paper, we defined and then tested a combination of descriptive and explanatory hypotheses, six in number, see Table 2.

Table 2: Hypotheses

Hypotheses	
H1	Generation Z prefers to participate in sightseeing trips rather than holiday trips.
H2	The most popular mean of travel for Generation Z is air travel.
H3	Social networks play a big role in Generation Z's holiday choices.
H4	Generation Z prefers "backpacking" and low-cost travel.
H5	Generation Z uses travel agencies less often than Generations X and Y.
H6	Generation Z does not use the services of tour guides in tourism.

Source: own elaboration, 2022

In order to test the hypotheses, in the following step we defined a total of twelve indicators, i.e. areas whose answers/definitions will allow us to test the hypotheses and meet the stated objective, see Table 3.

Table 3: Indicators characterising the participation of Generation Z in tourism

Ranking	Indicators
1	Most popular destination?
2	Use of information resources and which ones?
3	Company when travelling?
4	Way of stay arrangement?
5	Motivation?
6	Length of stay?
7	Most popular mode of transport?
8	Preferred length of stay?
9	Luxury or low-cost?
10	Way of accommodation arrangement?
11	Way of catering services arrangement?
12	Way of getting to know the destination?

Source: own elaboration, 2022

The research found that Generation Z's favourite destination is one that is busier rather than quieter and has sufficient infrastructure to provide the necessary amenities. Generation Z travellers require and expect a significantly higher level of luxury when travelling than previous generations. When travelling in the company of friends, they most often choose urban destinations, especially in Europe. The factors that most influence their choice of destination include attractiveness on social media, price and the cultural offer of the destination. Most respondents search and find travel tips via social networks (mainly Instagram, Facebook). The most common source of information before and during the trip is clearly the internet. Mobile apps are commonly used by Generation Z members to arrange transport, accommodation, online guides and payments by phone. The predominant forms of tourism sought by Generation Z are sightseeing and leisure tourism. It depends on the company when travelling. If they travel with their parents, Generation Z is more likely to participate in recreational tourism; if they travel with friends and loved ones, they are keen to explore and discover. Most often they travel in a group with their parents, parent or friends. They rarely use the services of travel agencies, most often when travelling with their parents. When travelling with friends, they clearly prefer to travel spontaneously on their own. The most popular mode of transport, with 100% agreement among all respondents, is air transport, mainly because of the speed and convenience of transport. The preferred length of stay is up to 7 days. Respondents agree that the frequency of their travel is more frequent than that of their older siblings. If they arrange their own travel and stay, they most often choose and book their accommodation online. Most often they stay in hotels, occasionally in apartments. Convenience is above all for them and this is reflected in the way they arrange meals during their stay. When staying in a hotel, they prefer all-inclusive meals first and half-board second. If they are staying in an apartment, in most cases they do not want to cook for themselves but resort to visiting restaurants. This is why the supra-structure of a destination is so important to them. Although they consider the services of tourist guides to be beneficial, in the absolute majority of cases they do not use them and explore destinations 'on their own'. They like to be independent, wish to do what they want to do and not have to follow someone else's instructions.

Results and discussion

Based on the interviews conducted in accordance with the indicators characterizing the participation of today's Generation Z in tourism, we tested the defined six hypotheses. The results of the testing are presented in Table 4.

Table 4: Hypothesis verification

Hypotheses with verification	
H1	Generation Z prefers to participate in sightseeing trips rather than holiday trips. NEITHER CONFIRMED NOR DISPROVED Explanation: it depends on the company when travelling. If they travel with their parents, Generation Z is more likely to participate in recreational tourism; if they travel with friends and relatives, they are eager to explore and discover.
H2	The most popular mean of travel for Generation Z is air travel. CONFIRMED Explanation: with 100% agreement among all respondents, air transport is the most popular mean of transport, mainly because of its speed and convenience.
H3	Social networks play a big role in Generation Z's holiday choices. CONFIRMED Explanation: the most important factor influencing the choice of a destination is attractiveness on social media. The majority of respondents search and find travel tips via social networks (mainly Instagram, Facebook).
H4	Generation Z prefers "backpacking" and low-cost travel. DISPROVED Explanation: Generation Z travellers demand and expect a significantly higher level of luxury when travelling than previous generations, want convenience and use low-cost to the maximum when purchasing airline tickets.
H5	Generation Z uses travel agencies less often than Generations X and Y. CONFIRMED Explanation: they rarely use the services of travel agencies, only when travelling with their parents. When travelling with friends, they clearly prefer to travel spontaneously on their own.

H6	Generation Z does not use the services of tour guides in tourism. CONFIRMED Explanation: although they consider the services of tour guides to be beneficial in tourism, in most cases they do not use them and explore destinations "on their own". They like to be independent, wish to do what they want to do and not have to follow someone else's instructions.

Source: own elaboration, 2022

Of the six hypotheses, three were confirmed, one was disproved, and one was neither confirmed nor disproved. In the latter case, it depends on the specific situation and other determining factors, especially the company with which members of Generation Z travel. To conclude this chapter, it should be stressed that it would be more than foolish to 'lump everyone together'. More research would be needed to generalise the findings of this research to the whole of Generation Z.

Conclusion

The search for authenticity in Generation Z's expressions of participation in tourism is difficult. This generation, which Sak (2020) calls the "blurred" generation, is a borderless generation compared to the first three generations (building, reform, normalization). It has no boundaries in its natural space-time and movement outside the republic, including studying at foreign schools, is a matter of course for it. It has no boundaries, neither cultural nor in the virtual reality of cyberspace (Sak, 2020). This borderlessness and unrootedness is reflected in the authenticity of Generation Z, its perceptions and expressions in everyday life and in participation in tourism. Generation Z's views and the decisions they make based on them are largely shaped by digital and social media. While the 'cyber generation' has sometimes been offline, the fuzzy generation is online permanently, even in their sleep. The main generational trend of "Zettes" is materialist-based and mainly linked to consumerist lifestyles and their digitalization. Yet, it would be inappropriate to consider them as a consumer-crazed generation of hyperactive sociopaths (Chum, 2013). In this information age, armed with a lot of information, they are quick to judge and in many cases dislike what they see and disagree with it. In their travels, members of Generation Z are more demanding of comfort than the previous generation, not only in the travel itself, i.e., the choice of mean of transport, but also in the choice of accommodation, the way of arranging meals, and in obtaining information before and on the journey. Today, these young consumers have access to more information about brands and companies than ever before, and their perceptions of the quality and trustworthiness of companies are shaped by real-time online opinions (Yeomans, 2018). They have a style that is a combination of a desire for a 'real experience' and living in a digital world.

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THE COVID PANDEMIC - 19 IN THE CZECH REPUBLIC AND THE HOSPITALITY INDUSTRY

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Abstract

The basis of the article is the state's response to the C-19 pandemic, the goal of which was to stabilize society. The main purpose of the article is the synthesis of the identified changes and the description of the consequences of the investigated social process. The authors apply a systemic approach and proceed from description of reality to generalization. As a result of the pandemic, there was a decrease in sales, but at the same time, the number of businesses with catering activities increased. The rate of creation of new economic entities in the investigated industry decreased by only about 25% compared to the pre-crisis period. This means that business projects were not created thanks to market calculations, but rather because there was probably a speculative use of the evaluation criteria of subsidy titles.

Key words

Digitalisation inflation, pandemic C-19, platform economy, state budget deficit, subsidies

JEL Classification: E58, E62

Introduction

A covid-19 pandemic (hereinafter C-19) broke out in the Czech Republic in March 2020. The government responded to the significant and uncontrollable increase in the number of intercepted cases by declaring a state of emergency. The state thus restricted freedom of movement and residence, the right to run a business and decided to impose work obligations for a strictly necessary period of time. The Covid's shock belongs to the category of "black swans" because it was unexpected, unpredictable and extreme in its course. Anti-epidemic measures aimed at overcoming the five waves of the C-19 had a negative economic impact. The government was forced to provide immediate assistance to households and businesses that were most affected by the restrictions aimed at limiting the spread of the epidemic. To ensure the stability of further developments (after the end of the fight against the C-19 virus), the government realized that fiscal policy must act to stimulate aggregate demand in the most affected segments of the economy. The monetary policy of the CBN initially played a supportive role by keeping interest rates low and sufficient liquidity in the economy.

The unexpected economic collapse in heavily indebted countries, accompanied by rising government spending, has raised concerns among many economists about inflation as well as deflation (due to the collapse in demand). After the economic downturn in 2020 (GDP fell by 5.8% in the Czech Republic), there was a surprisingly solid economic recovery in advanced economies in 2021 (GDP increased by 3.3% in the Czech Republic). It included a significant inflationary impulse generated not only by unprecedented fiscal stimulus (subsidy programmes), but also by the energy crisis and problems in supply and production chains. The consequences of the failure to cope with the "covid shock" (repeated restrictive measures and subsequent loosening) and of the resulting socio-economic riddle have manifested in concentrated form in the service segment. Hospitality enterprises responded to the decline in demand by reducing job opportunities, introducing technological leaps (processes 4.0) and "using" public support.

Materials and Methods

The current state of personal services in the hospitality industry[1] is analysed by linking empirical and theoretical levels of knowledge. The authors apply a systemic approach, as they seek to clarify the behaviour of a multilateral unit of which dynamics is determined by its self-movement influenced by the context of social development. From a methodological point of view,

[1] Hospitality is an umbrella term for the provision of catering and accommodation services. This delimitation is consistent with the definition of hospitality activities under the Trade Licensing Act. It allows the authors to use partial and inconsistent sources of information on these areas.

the authors proceed from the description of reality to generalization. The starting point is the state's response to the C-19 pandemic, which aimed to stabilize society. The system approach and the social concept of services make it possible to identify the basic elements of change and examine them in mutual relations. The synergy of these elements not only reproduces the hospitality business, but also creates a process in which new relationships and goals are created. Our intention is to synthesize the identified changes and describe the implications of the social process under investigation.

Theoretical Background

The C-19 pandemic endangered the health and lives of the Czech population. The government therefore took restrictive measures that affected all areas of Czech society. The huge commitment of health professionals was presented as a "war against the virus" and included the reduction of people-to-people contacts. The unfortunate framework for this struggle was the vague information that arose as a result of the mixing of expert and political approaches. The unfortunate framework for this struggle was the vague information that arose as a result of the mixing of expert and political approaches. The pandemic affected the entire population and not just the sick (infected). Its catastrophic consequences were felt in the hospitality sector, which provides a clear illustration of the effects of restrictive measures and the consequences of state aid.

The negative effects of government crisis measures were felt by 45% of economically active people in the Czech Republic, and more than 90% of the hospitality industry was reduced in business activity. The government has sought to mitigate these effects and has helped the self-employed and entrepreneurs through a number of programs. These included interest-free loans COVID I, II and specialized support COVID Gastro, Rent, Spa, Accommodation. Self-employed workers were provided with a nursing allowance and advances on health and social insurance were waived. The Ministry of Labour and Social Affairs prepared the Antivirus employment support programme, which helped companies to protect jobs. The stabilization of economic life thus took place through the redistribution of funds and, in its fiscal consequences, led to an increase in state and public debt. The state budget ended in 2020 with a deficit of CZK 367.4 billion (i.e. by CZK 338.9 billion higher than in 2019) and in 2021 the deficit reached CZK 419.7 billion. The sharp loosening of fiscal policy during the two "covid" years led to an increase in government debt by CZK 826 billion to CZK 2,426 billion (ZAMRAZILOVÁ, MORDA, 2022, p. 14). Strongly expansionary fiscal policy has strengthened demand-side inflationary pressures.

The C-19 measures were the cause of the decline in industrial production, which fell by 8% in 2020 compared to the previous year (the shock fall occurred in March-May 2020) (DOLEŽALOVÁ, ORTOVÁ, 2021, p. 10). The synergy between extreme monetary expansion and reduced output is considered to be a major cause of price inflation. A significant component of domestic inflation is the tense situation on the labour market, which has caused wage growth to outpace labour productivity growth. The Czech inflationary specificity is the rising cost of owner-occupied housing. In terms of the subject of our investigation, it should be noted that the hospitality industry is engaged in the processing of animal or vegetable raw materials for the production and sale of food. The low degrees of coverage of the needs of the domestic market by own agricultural production is another cause of the rise in food prices. The coronavirus crisis has highlighted the weaknesses of the Czech economy and strengthened the negative effects of its openness. The positive development of the Czech economy in 2021 was complicated by labour shortages (see entrepreneurs' requirements for the import of foreign workers), supply and production chain problems (including maritime transport capacity problems) and a sharp rise in gas and electricity prices.

If we really want to do something about inflation in the Czech Republic, then it is necessary to know its causes. When identifying inflationary factors, we must take into account the fact that inflation is never homogeneous (inflation always gives an averaged result). Experience shows that the higher the inflation, the more differentiated the price increases of individual types of economic goods. The bargaining power of large companies is the driving force behind inflation, because they profit from it at the expense of other entities. Current economic theory (with some simplification) offers a Keynesian and monetarist version of the explanation of inflation. In clarifying inflation in the Czech Republic, government economists emphasize the monetary approach and point to the wasting state (state budget deficits). The second part of economists uses the Keynesian concept and considers inflation to be imported because it is the result of disruption of production chains (there was a shortage of chips in car manufacturers) and rising commodity prices.

The Czech labour market does not only have a (long-term) labour shortage, but there is also a structural problem. The large demand for service occupations with relatively low qualifications is not met by an adequate supply. The causes of this situation are twofold - low wages and insufficient mobility of domestic workers (mismatch between place of residence and place of work). Newly created jobs are mostly filled by foreign workers.

The decline in demand in the hospitality industry was addressed in the short term by a reduction in employment and, in the long term, strengthened the incentives to seek capital replacement. Entrepreneurs in the hospitality industry who have understood the content of the fourth industrial revolution have started to develop digitalisation[2] as a way (not a goal) to ensure a continuous flow of services produced towards consumers. Digitization is causing conflicting trends in catering and hospitality services. For practical reasons, most companies are involved in the integration of people and machines because they want to save employees, reduce costs or get more information for business management. The result is a boom in the unification of food in fast food and restaurants with service. The limit of this unification is the disruptive technology used, because the basis of its structure is machines that can handle only partial algorithms. Some entrepreneurs take advantage of the effects of uneven development and offer expensive exclusive services (experiential gastronomy) that are labour-intensive. Another problem of this segment of services is the orientation of entrepreneurs to projects with a fast return on investment and with the shortest possible implementation time.

Results

The hospitality pandemic has created contradictory tendencies. The provision of subsidies has been one of the causes of the instability of public finances, but the possibility of receiving this support has encouraged some hospitality entrepreneurs to engage in speculative behaviour. As a result of the pandemic, there was a decline in sales (Table 1), but at the same time the number of trades with hospitality activities increased (Table 2). In the sector (according to CZ - NACE) "Accommodation, catering and food service activities", the rate of new business formation fell by only about 25% compared to the pre-crisis period (Table 3). This means that business projects arose not so much as a result of market calculations, but rather

[2] It is a general term that includes information and communication technology, automation, robotics, artificial intelligence, etc.

because there was probably a speculative use of the evaluation criteria of subsidy titles.[3] It is unlikely that the existential problems and uncertainties associated with the pandemic would have made the hospitality business significantly more attractive. The drive for public support may also have been motivated by the interest of entrepreneurs to ensure cost competitiveness on the basis of a technological leap. However, this ambition of companies cannot be verified, because it is part of private business plans. The emergence of new trades may also be related to the revival of the so-called Švarc system. Although people become economically independent under this system, they are not actually running a business, as they are merely replacing the employment relationship with another type of employee-employer relationship.

Table 1: Indices of sales excluding VAT in the catering and hospitality industry (Basic index, average of 2015, constant prices)

Month	12/2019	1/2020	2/2020	3/2020	4/2020	5/2020	6/2020	7/2020
Index	122,1	109,4	110,8	67,5	36,0	59,9	98,4	108,7
Month	8/2020	9/2020	10/2020	11/2020	12/2020	1/2021	2/2021	3/2021
Index	109,5	97,7	59,3	39,7	58,2	38,8	41,5	48,5
Month	4/2021	5/2021	6/2021	7/2021	8/2021	9/2021	10/2021	11/2021
Index	57,0	90,4	112,2	112,2	116,9	107,3	105,9	87,7

Source: https://vdb.czso.cz/vdbvo2/faces/cs/index.jsf?page=vystup-objekt-parametry&pvo=OBU02-AOC&sp=A&skupId=1876&pvokc=&katalog=31029&z=T [cited by 25.01.2022]

[3] In 2022, the governing parties see the situation differently. "We must not artificially sustain zombie jobs or zombie businesses with the Antivirus program, which would have naturally disappeared even without the epidemic." said ODS expert Jan Skopeček (OTTO, 2022, p. 7).

Table 2: Number of trades with hospitality activities (as of the last day of the quarter)

2019	Trades	2020	Trades	2021	Trades
I. Q	211 927	1. Q	214 302	1. Q	215 572
2. Q	212 869	2. Q	215 153	2. Q	216 161
3. Q	213 460	3. Q	215 652	3. Q	216 473
4. Q	213 856	4. Q	215 381	4. Q	216 533

Source: https://vdb.czso.cz/vdbvo2/faces/cs/index.jsf?page=vystup-objekt-parametry&pvo=OBU02-AOC&sp=A&skupId=1876&pvokc=&katalog=31029&z=T [cited by 25. 01. 2020]

Table 3: Newly registered economic entities in "Accommodation, food and beverage service activities" in a given quarter

Year	Period	Number	Year	Period	Number
2018	Total	4 431	2019	Total	4 470
2020	Q1	1 035	2021	Q1	790
	Q2	1 010		Q2	988
	Q3	898		Q3	774
	Q4	655		Q4	687
	Total	3 598		Total	3 239

Sources: https://www.czso.cz/csu/czso/resq_cr

The government's fiscal support can be divided into direct, used in health care against the C-19 pandemic, and indirect spent on subsidies, interest-free loans and guarantees. In the period from January 2020 to 17 March 2021, 5.4% of GDP was spent on direct support in the Czech Republic (11.7% in Austria; 11% in Germany; 9.2% in Hungary; 7.8% in Poland; Slovakia 4.4%). 15.4% of GDP was spent on indirect support in the Czech Republic (2.4% in Austria; 27.8% in Germany; 4.3% in Hungary; 5.4% in Poland; 4.4% in Slovakia). (KALA, 2021, p. 7)

The loosening of fiscal policy due to the C-19 pandemic (indirect support) was conceived not only as subsistence aid, but also as the creation of an internal incentive to help restart the economy. The "demanding" method of redistribution of public funds (companies were offered the opportunity to suck up the state budget in the form of subsidies) was intended to boost aggregate demand, but at the same time became a significant factor in domestic inflationary effects. The indebtedness of the state (people, firms) over a long period causes inflation because it is associated with excessive growth of money in circulation. In 2021, during the global renewal of economic life, cost-push inflationary pressures were imported into the Czech Republic, as the price of inputs increased (chip shortages led to more expensive cars, raw material prices increased). Functioning markets (supply and demand law) are gradually making their impact likely to be short-lived.

The average annual inflation rate in 2021 was 3.8%. The rate of inflation, expressed as the increase in the consumer price index over the same month of the previous year, began to accelerate in June 2021, from 2.8% to 6.6% in December 2021 and reached 9.9% in January 2022 (ČSU, 2022). This price development is used by companies to pass on their costs to customers. The Association of Small and Medium-sized Enterprises estimates that after pandemic, pubs and restaurants will become more expensive by up to 20%. Most often, price increases in the hospitality industry are explained by rising input prices and staff shortages. The average expenditure in restaurants at lunchtime based on eStravenka card transactions (calculated without fast food, bistros, deliveries and other specific establishments) was CZK 159 in 2019, in 2020 it was CZK 173 and in 2021 it reached CZK 186 (HOREKA, 2022). The price hikes (9% in 2020 and 7.5% in 2021) are not directly linked to the inflation rate, but are rather a manifestation of entrepreneurs' efforts to make up for lost sales. The willingness of consumers to accept higher prices (i.e. to spend more) is limited as their budget constraints are reduced and they change the structure of their consumption basket. "Currently, only 25% of the entire volume of the previously popular drink is sold in pubs. As a result, three-quarters of beers are bought in shops. In 2003, pubs sold 55% of all beer produced." (NEJEDLÝ, 2022, p. 15)

The decline in demand, coupled with the C-19, has boosted digitization and the growth of platform forms of business in the hospitality industry.[4] The

[4] In the 20th century, the efficiency of the hospitality business was ensured by the growth of technical equipment of labour, unification of production and marketing activities. The development of the individual division of labour resulted in technological and product specialisation. The introduction of mechanical robots and simple automatic machines led to savings in live labour and the displacement of workers from direct production.

development of digital technologies has now increased the useful effect of personal services in terms of their quality and availability. There is a further increase in the technical equipment of the work process, but its course has not changed. Personal services are still dominated by non-routine manual work, which "takes place in a poorly predictable environment and includes activities requiring situational adaptation, visual and linguistic recognition and contact with people" (MAREK, D. NĚMEC, P., FRANČE, V. 2018, p. 10). The use of information and communication technologies optimizes the relationship between the company and its customers, reduces costs and has a positive effect on the quality of production. Digitalization is being promoted in the hospitality industry asymmetrically and it happens depending on the market structure of this segment. The professional readiness of employees for digitization is low and its implementation usually requires the application of various forms of employee participation (such as profit sharing). At the same time, companies must adhere to the rule that the volume of wages directly spent on the digitization process and the required capital be lower than the volume of wages lost through digitization.

Limited customer mobility during the lockdown period forced hospitality companies to use various forms of platform business. This model of economic sharing mediates local services and hospitality companies mainly use food delivery. Delivery companies work with a number of restaurant partners, for example Wolt has more than 2,500 of them. The concept of so-called dark kitchens, which are large-capacity shared kitchens, "has appeared exclusively on the Czech market," focusing exclusively on food delivery, and therefore do not have a restaurant or additional space for consumption on site." (SVOBODA, 2022, p. 14)

Discussion

Government restrictions during the pandemic were not targeted but widespread and led to a deepening of the national debt. Their operation in the low-cost and open economy of the Czech Republic (the cheap labour model) created domestic inflationary pressures, the impact of which is reinforced by long-standing unresolved problems (labour market, low share of domestic food in consumption, etc.), and imported inflationary stimuli were added in 2021. In the Czech economy, the state's economic policy has thus generated two macroeconomic problems - debt and inflation. There are different opinions on their elimination and variants of their application will affect the Czech economy (and thus the hospitality industry) in the long run.

The CNB, which relies on demand-driven inflation stimulation and uses the classic method of suppressing inflation - raising repo rates - has been criticised for "hastiness" in raising rates. The starting point of the opponents' views is the current level of GDP, which has not yet reached its (pre-crisis) volume in 2019. In this situation, the central bank should support economic development by reducing interest rates. Attention is also drawn to the rise in energy prices (a political problem) and to the situation on the labour market, where the number of people looking for a job is lower than the number of jobs on offer. The CNB therefore considers the inertia component of inflation to be ahead of real wage growth over labor productivity growth (beware of problems in measuring labor productivity), which strengthens cost price pressures[5] (KRÁL, 2021). The rule that in a functioning market the price balances supply and demand probably does not apply on the labor market in the Czech Republic. In this context, economist Jan Švejnar states, "when companies say we do not have enough employees, they mean employees at the wages they are currently offering. But when you ask an employer whether he could hire more people if he offered ten or twenty percent higher wages, the answer is usually yes." (ŠVEJNAR, 2022 p. 9). If labour markets do not work, then economic calculations cannot be made and resources are inefficient.

A sharp rise in interest rates, which is based on the CNB's forecasts, may turn inflation perpetual motion, depending on the causes of inflation.[6] If inflation is primarily demand-driven, then higher interest rates will cool demand and thus put pressure on prices. When cost inflation prevails, rising interest rates make loans more expensive and increased production costs are reflected in prices. Increased interest rates may reduce the pace of economic growth and worsen the competitive position of Czech companies. Reducing public debt requires that GDP growth exceeds the cost of debt. The average interest rate paid on debt (bonds issued) is currently 2%.

[5] The CNB is also blamed for "overheating" the labour market, as it spent CZK 2 trillion on interventions in the period 2013-2017 due to the threat of deflation. Interventions caused the Czech economy to be very cheap for foreign companies (mainly German), which significantly increased the demand for labour in the Czech Republic.

[6] The CNB estimates that each one percentage point increase in interest rates will reduce inflation by 0.4% with a lag of two years.

Conclusion

It was found by the authors that there was a decrease in sales result of the pandemic, but at the same time, the number of businesses with catering activities increased. The rate of creation of new economic entities in the investigated industry decreased by only about 25% compared to the pre-crisis period. This means that business projects were not created thanks to market calculations, but rather because there was probably a speculative use of the evaluation criteria of subsidy titles.

The C-19 pandemic was the external cause of the economic crisis in the Czech Republic and at the same time became a challenge for the whole society. The purpose of the crisis is to establish new relationships in society so that the same crisis does not recur. Empirical experience shows that the economy has never returned to pre-crisis levels. Inflation changes the consumption behaviour of households (the structure of their consumption basket) and the hospitality industry must respond to these changes. Digitization of the final product of the provided services is a way to increase its added value. Hospitality companies that want to stay on the market must look for new forms of sales.

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