Innovative Activity of SPA Companies in the Slovak and Czech Republic in the Context of the COVID-19 Pandemic

Anna Senkova [1], Stela Kolesarova [1], Martina Kosikova [1]

[1] University of Presov in Presov, Slovakia
[*] Corresponding author: stela.kolesarova@unipo.sk

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Abstract: In many health systems in European countries, SPA services are currently part of or a supplement to health care. Owing to their natural healing resources and long-standing traditions, the Czech Republic and Slovak Republic are important European SPA countries. In both countries, SPA tourism is also one of the most important types of tourism, and with regard to its evaluation according to the number of overnight stays and income, it constitutes a significant share of the structure of the tourism industry. One of the greatest challenges for SPA businesses was the COVID-19 pandemic, which caused travel restrictions, business closures, and a decrease in demand and revenue. The impact of the pandemic on SPA businesses in the studied countries has not yet been examined in detail. Accordingly, the aim of the present study is to evaluate the innovative activities of SPA companies in Slovakia and the Czech Republic in the context of the COVID-19 pandemic. The research sample consists of 122 SPA enterprises from both republics. Based on the results of previous research, innovation is generally perceived as an important element in the development of society, crisis management, increasing competitiveness and commercial success. The main research method for identifying and classifying the types of innovations and innovation capabilities implemented in SPA enterprises was a questionnaire survey. The results of the conducted research revealed that the origin of SPA businesses does not affect the country or how people perceive trends. The connections between the types of introduced innovations and some benefits from the introduction of innovations as well as the barriers affecting the introduction of innovations were confirmed. It follows, for example, that companies that invest in innovation processes can improve their performance and the competitiveness of their team and reduce their costs for production or service provision. From the analysis of factors related to the introduction of innovations, it emerged that the most important factors are those that have a direct impact on economic results and the competitive advantage of businesses. On the other hand, those factors related to cultural, environmental or technical aspects of innovation are less important. Despite repeated calls, not all SPA companies operating in the SPA industry in the Czech Republic and Slovak Republic participated.

Keywords: COVID-19 pandemic; innovations; medical SPA; SPA tourism; development.

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1. Introduction. Innovations are an important aspect of maintaining the competitiveness of companies in the market. They represent improvements in production processes, changes in products, the introduction of new marketing methods or changes in the organizational area. The task of innovation is to transform the results of research into new and better services and products with the aim of maintaining competitiveness in the global market, creating better jobs, building a greener society and improving the quality of life of the inhabitants. In the European Union, innovation policy is a link between research and technical development policy and aims to create a framework that enables ideas to be brought to market (European parliament, 2023).

Due to the dynamics of development, the induced multiplier effect, the high number of jobs and other economic effects, tourism is considered to be the industry of the future. Its sustainable development is mainly connected with innovations as a source of increasing the competitiveness of states. Tourism is not only a passive receiver of innovations arising elsewhere in the economy but also a strong accelerator of innovations through the behavior of businesses (Vargova et al., 2018). SPA tourism has an important position within individual tourism sectors. Currently, the SPA tourism or SPA industry is considered an important part of the economy in Europe, especially in countries that are considered SPA superpowers, such as France, Germany, Austria, Italy and Switzerland. The regional divisions that can be created within contemporary Europe are neither definitive nor unambiguous. Currently, it is possible to identify some significant regional development trends, which are mainly based on attitudes, traditions, resources, or activities in the field of SPA and SPA tourism (Smith & Puczko, 2014). In many health systems of European countries, medical SPAs are currently a part or supplement of health care. Abroad, there has been a noticeable shift away from traditional medical SPAs to modern wellness stays with more relaxed programs for several years (Dryglas, 2020). Owing to their natural healing resources and long-term tradition, the Slovak and Czech Republic are important European SPA countries. In both countries, SPA tourism is also one of the most important types of tourism, and with regard to its evaluation according to the number of overnight stays and income, it constitutes a significant share of the structure of tourism (Eliasova 2009). At the international balneological congress of the European SPA Association (ESPA), which took place in the important Slovak SPA of Piesťany in September 2022, Slovak and Czech SPA workers commemorated 100 years after the founding of the Czechoslovak Balneological Society. The Congress was dominated by topics such as the COVID-19 pandemic, its effects and its solutions (TASR, 2022). The COVID-19 pandemic significantly affected the development of tourism, which also affected local and regional development (Vrablikova et al., 2023). The SPA sector was not ready for it either. The pandemic crisis fundamentally transformed established processes in business practice in medical SPAs, which was perhaps the most affected by the pandemic during its entire existence. In response to this situation, businesses had to implement many measures, in particular, reducing the number of employees, reducing marketing expenses, and introducing strict safety measures in the areas of cleaning, disinfection, etc. (Janecek & Jakubikova, 2021). At the same time, this situation created room for changes in approach and innovation in various areas. Since the beginning of the pandemic, information about the course of COVID-19, long convalescence, and severe damage to many organs has started to appear in professional scientific databases. In professional circles, the term post-COVID syndrome started to appear. According to Zalesakova (2023) in Slovakia, as of September 2020, the Slovak SPA Association began to prepare a significant innovation, namely, a treatment program for patients who have overcome the disease of COVID-19 with persistent health consequences. In November 2020, the Slovak post-COVID SPA treatment program was presented at the European SPAs Association conference, and as a "best practice Slovakia", it was an inspiration for several European medical SPAs. From April 2021, the conditions after overcoming the COVID-19 infection were included in the indicative list of SPA care, which forms an annex of the so-called SPA Act no. 577/2004 Z. z. In April at ITB Berlin, Slovakia was awarded the prestigious ITB MEDICAL TOURISM AWARD for this program. Its awarding testifies to the quality of SPA care in Slovakia and emphasizes the number of foreign clients, who before the pandemic made up almost a quarter of all patients in Slovak medical SPAs.

In connection with the above, we concluded that in recent years, no study has focused on comparing the activities of Czech and Slovak SPA companies. We searched scientific databases where scientific studies focused on the bathroom industry were published in individual countries within the V4 countries, but comparisons within the Czech Republic and Slovak Republic, which were common in the years 1918-1992, were absent. Additionally, the focus of the research on the issue of innovations implemented by SPA companies in the context of the COVID-19 pandemic has resulted from a gap in this area. Although our research focused only on these two countries, in our opinion, the results can be generalized to other countries, especially European countries. The results of this study enrich the current theory of the management of SPA

companies and provide new knowledge for the application of innovation processes in the Czech Republic and Slovak Republic. The results may also be interesting from a practical point of view for other SPA enterprises in different countries.

2. Literature Review. SPA tourism is the subject of study in various scientific disciplines. The subject of interest of economic disciplines is mainly the question of the valorization of natural medicinal resources with adequate economic benefits for the locality, region and state. In recent years, an increasing number of authors have addressed the SPA industry and SPA tourism from different points of view (Kasagranda & Gurnak, 2017; Gucik et al. 2016; Kosikova et al., 2017). Derco & Pavlisinova (2017) focused on analysing the financial situation of medical SPAs in Slovakia with an emphasis on the relationship between medical and nonmedical forms of tourism. Derco (2017) also focused on the impact of healthcare financing on the financial situation of Slovak medical SPAs. Litavcova et al. (2018) and Stefko et al. (2020) focused on the evaluation of the financial position of all medical SPA facilities in Slovakia using multidimensional methods. In the Czech Republic, Vavreckova & Vanicek (2014) and Attl (2014) analysed the economic benefits of medical SPAs and SPA tourism. Vavreckova et al. (2017) addressed the development of medical SPA care in connection with changes in legislation and relations between medical SPAs, SPA tourism traffic and wellness tourism (Vystoupil et al. (2017)). Botlikova (2020) addressed the impact of the COVID-19 pandemic on medical SPAs in the Czech Republic, with an emphasis on development in selected regions. He states that the development of medical SPAs in the Czech Republic until the beginning of 2020 showed a gradual increase caused primarily by the increase in foreign clientele. This positive trend was interrupted by the beginning of the pandemic period. The greatest decrease in the number of visitors was recorded in the Karlovy Valley and Central Bohemia regions. In the European context, many authors also address the issue of medical SPAs and SPA companies. Vazquer-Illa (2014) created a theory focused on how innovations in the SPA industry are carried out and how they affect its development. He focused on evaluating product, process, organizational and marketing innovations. This division was the basis for our study as well.

Szromek & Polok (2022) evaluated the changes that took place in the business models of companies that offer and provide SPA services, focusing on crisis situations that were caused by organizational changes and the COVID-19 pandemic. According to their findings, business models are often not used as management tools in SPA businesses. By changing the product portfolio to treat post-COVID symptoms and other problems associated with the pandemic (vaccination, organized isolation, treatment of the disease), these companies were able to create a sustainable business concept even in times of crisis. Based on the findings, they created a sustainable business model for SPA companies based on the collaboration of SPA companies with the local community. Aluculesei et al. (2021) identified current trends in the field of medical SPAs from a touristic and medical point of view and outlined the future focus of research in this field. According to their findings, a high interest in medical SPAs has occurred since 2015. In 2015, the funding authorities became interested in the monitored area and began to support publishing and research that was specifically related to medical SPAs. The results of the analysed studies further show that researchers have focused on investigating the possibility of using SPAs, which are aimed at helping patients recover from COVID-19 and are considered a cost-effective option for ending traditional treatment. As the authors conclude, this new focus in research proves that the field of medical SPAs can reassert itself as a supporting role in national health care systems in countries with a long tradition of balneotherapy and provides new development impulses to SPA companies. Oliveira et al. (2022) addressed SPA tourism issues in Portugal in the context of the COVID-19 pandemic. They found that customers highly valued the safety, aesthetic and medical procedures they were provided with. They found no differences in behaviour between public and private entities providing SPA services. Training and measures in the area of human resources were necessary for SPA companies to ensure compliance with strict safety and hygiene regulations. They noted the importance of influencer marketing, in which well-known personalities promote the health effects of staying in medical SPAs, completing wellness programs, and promoting a healthy lifestyle. In their socioeconomic research, Janecek & Jakubikova (2021) focused on determining the opinions of the residents of the Czech Republic about medical SPAs, their interest in visiting them and the impact of the COVID-19 pandemic on interest in visiting medical SPAs. Czech Republicans see medical SPAs as places to recover from illnesses and places for older people, and they seem to be relatively expensive products. SPA companies need to work to improve their image as a product for everyone, for sick people and for healthy people. In their research, Dryglas & Smith (2023) examined the ways in which Central European medical SPAs in V4 countries—the Czech Republic, Hungary, Poland, and the Slovak Republic—created capes for health tourism experiences. The results showed the need to focus primarily on improving the infrastructure and quality of services for new, self-paying or foreign guests;

creating programs to improve health and wellness procedures, which are increasingly popular, especially among young people; and constantly monitoring customer satisfaction and needs.

3. Methodology and research methods. The aim of the present study is to evaluate the innovative activity of SPA companies in Slovakia and the Czech Republic in the context of the COVID-19 pandemic. In the present article, the authors identified and classified the types of innovations that were implemented in SPA companies, measured their benefits for SPA companies and identified the main obstacles and incentives for innovation. Considering the aim of the paper, the following research hypotheses were established:

- H1: We assume that there are statistically significant differences in the perception of innovations between Czech and Slovak SPA companies.
- H2: We assume that there are statistically significant relationships between the type of innovation and the main benefits of the introduced innovation.
- H3: We assume that there is a statistically significant correlation between the type of innovation and the barriers that influence the introduction of innovations.
- H4: We assume that there are statistically significant differences in the order of factors influencing the introduction of innovations in a SPA facility (i.e., we assume that there is a statistically significant relationship between respondents' assessments of the extent to which selected factors influence the introduction of innovations in a SPA facility).

The surveyed population in the Slovak Republic consists of natural medical SPAs and medical SPAs (balneological and climatic), which are licenced to operate by the Inspectorate of Medical SPAs and Springs of the Ministry of Health of the Slovak Republic. There are currently 21 SPA towns in the Slovak Republic in which 30 SPA companies are conducting their business. The source for the selection of SPA companies in the Czech Republic was the official website of the Ministry of Health of the Czech Republic. Out of the total number of 93 SPA companies, one facility was eliminated due to termination of operation. The total size of the population thus consisted of 122 respondents (or businesses). The respondents were approached through e-mail communication with a link to a questionnaire created using the online Google Forms tool. For each SPA company, we identified one email contact (preferably responsible for marketing, sales or reception) to whom we sent the questionnaire. These data allowed us to move to the next phase of the research, which focused on the analysis of the innovative ability and sustainability of SPA companies. A questionnaire survey, which was carried out from February 15, 2023, to April 15, 2023, was the main method of data collection. The questionnaire was sent in electronic form by email to all SPA businesses in the Slovak and Czech Republic. The questionnaire was mainly intended for the managers of SPA companies who could best describe the situation during and after the pandemic. If contacts for managers in SPA companies were not found, lower positions such as operators or receptions were approached. From the total available population of 122 SPA businesses in the Slovak Republic and Czech Republic, we received 42 completed questionnaires, which represents a response rate of 36.07%. Individual variables were tested for data normality (Shapiro–Wilk test). The tests showed that none of the variables had a normal distribution. To verify our individual hypotheses, we used proven methods, such as the Kendall correlation coefficient, which was used to determine statistically significant connections between the type of innovation and the main advantages introduced by the innovation or barriers that influenced the introduction of the innovation (Hypotheses 2 and 3). To assess the significance of the differences (Hypotheses 1 and 4), we used the Mann–Whitney U test (for comparing two independent samples) and the Friedman ANOVA test (for comparing more than two dependent samples), which are suitable for analysing the available data and do not require a normal distribution.

4. Results. Table 1 presents descriptive statistics on respondents' attitudes towards innovations, in which "Min" is the minimum value obtained in the questionnaire survey, "Max" is the maximum value, std. dev. represents the standard deviation, Q1 is the lower quartile, and Q3 is the upper quartile. It is clear from the individual values that, in general, innovations are perceived as an important element in the development of society, crisis management, increasing competitiveness, etc.

Table 1. Descriptive statistics on respondents' attitudes towards innovations

Attitude to innovations	Average	Median	Min	Max	Q1	Q3	Std.dev
Q1	4.2857	4.5000	3.0000	5.0000	4.0000	5.0000	0.8050
Q2	4.0238	4.0000	2.0000	5.0000	3.0000	5.0000	0.9750
Q3	4.6667	5.0000	3.0000	5.0000	4.0000	5.0000	0.5703
Q4	4.4048	4.0000	2.0000	5.0000	4.0000	5.0000	0.6648
Q5	4.4762	5.0000	3.0000	5.0000	4.0000	5.0000	0.6713

Attitude to innovations	Average	Median	Min	Max	Q1	Q3	Std.dev
Q6	4.2381	4.0000	2.0000	5.0000	4.0000	5.0000	0.7262
Q7	4.2143	4.0000	2.0000	5.0000	4.0000	5.0000	0.7501

Note: Q1 - It is important to have a crisis plan in the SPA to make it easier to avoid crises. Q2 - Innovation can reduce the negative effects of a crisis (e.g., the COVID-19 pandemic) in a SPA facility. Q3 - A business that wants to constantly progress, manage crises, and attract new customers must constantly innovate its products or services. Q4 - You follow trends, new ideas and emerging new technologies that you could apply and thus innovate the offered products or services. Q5 - Innovation is a tool that can increase the competitiveness of a SPA facility. Q6 - Innovating products or services leads to an increase in sales of SPA equipment. Q7 - Innovation of the provided services has a positive effect on the number of visitors to the SPA facility. Q – Average Q1-Q7.
Sources: developed by the authors.

To verify hypothesis 1, which assumes the existence of statistically significant differences in the perception of innovations between Czech and Slovak SPA companies, we used the Mann–Whitney U test, the results of which are shown in Table 2.

Table 2. Mann–Whitney U test (results of Hypothesis 1)

Dependent variable		Independent variable: *Country*. Market tests are significant at p <0.050						
Attitude to innovations		ValidN	Rank Sum Group	U	Z	p value	Z Adj.	p value
Q1	**CZ**	22	459.5000	206.5000	0.3274	0.7433	0.3567	0.7212
	SK	20	443.5000					
Q2	**CZ**	22	451.5000	198.5000	0.5288	0.5968	0.5584	0.5765
	SK	20	451.5000					
Q3	**CZ**	22	525.0000	168.0000	-1.2969	0.1946	-1.6441	0.1001
	SK	20	378.0000					
Q4	**CZ**	22	495.0000	198.0000	-0.5414	0.5881	-0.6113	0.5409
	SK	20	408.0000					
Q5	**CZ**	22	463.0000	210.0000	0.2392	0.8109	0.2716	0.7859
	SK	20	440.0000					
Q6	**CZ**	22	481.0000	212.0000	-0.1888	0.8501	-0.2086	0.8347
	SK	20	422.0000					
Q7	**CZ**	22	500.0000	193.0000	-0.6673	0.5045	-0.7301	0.4653
	SK	20	403.0000					
Q	**CZ**	22	472.5000	219.5000	0.0000	1.0000	0.0000	1.0000
	SK	20	430.5000					

Sources: developed by the authors.

The results of the Mann–Whitney U test show that there are no statistically significant differences in the perception of innovations between Czech and Slovak SPA companies (not even in a single item). Hypothesis 1 is thus rejected. It follows that the country of origin of SPA facilities has no influence on how their management perceives the need for innovation. SPA care is an integral part of health care both in the Czech Republic and in the Slovak Republic, but at the same time, it generates performances that, as part of SPA tourism, significantly increase its performance. In both countries, even in the period before the COVID-19 pandemic, health SPAs focused primarily on SPA care as part of health care, but due to the decrease in funding for SPA treatment by health insurance companies, they increasingly began to focus on creating diverse and increasingly specialized offers for self-payers. As part of hypothesis 2, we assumed that there are statistically significant connections between the type of innovation and the main benefits introduced by the innovation. Considering the nature of the data, the Kendall-tau correlation coefficient was used, and the results are shown in Table 3.

The results show that there are statistically significant relationships between a specific type of innovation and the benefits of its introduction. In the case of product type, relationships with increased quality (positive correlation), sales and efficiency (negative correlation) were confirmed. Innovation brings benefits mainly through similarly reduced costs, but its relationship with increased quality has also been confirmed. The organizational type of innovation was related to almost all the examined benefits, such as reduced costs and increased sales and quality. In the case of the marketing type of innovation, the connection with reduced costs and increased quality was confirmed. Hypothesis H2 was confirmed. In addition to the connection between the type of innovation and the benefits of introduced innovations, we were interested in which barriers influenced the introduction of individual innovations.

Table 3. Relationships between the type of innovation and the main benefits of the introduced innovation

Variable	Product type	Process type	Organizational type	Marketing type
Increased interest	0.0520	0.1118	-0.2360	0.0677
Increased quality	0.3505	0.2412	0.3318	0.3877
Increased sales	-0.4245	0.1978	0.3303	-0.0829
Increased employee satisfaction	-0.1664	-0.0734	0.1992	-0.1083
Increased efficiency	-0.2383	0.0302	0.1409	0.1961
Reduced costs	0.1040	0.4472	0.3371	0.6427
Other benefits/I do not know yet	0.1020	0.0292	-0.0793	0.2521

Note: Product type of innovation (modified goods or services with improved features, etc.), process type (change in technique or procedures, use of software, optimization of relations, etc.), marketing type (new marketing concept, plan, change in design/packaging, etc.), organizational type (change in organizational methods in the company, change in labour relations, etc.); Market tests are significant at $p < 0.050$.

Sources: developed by the authors.

The results of testing hypothesis 3 using the Kendall-tau association coefficient are presented in Table 4.

Table 4. Relationships between the type of innovation and the barriers that influenced the introduction of innovations

Variable	Product type	Process type	Organizational type	Marketing type
Lack of financial resources for innovation	0.0144	0.2791	0.1589	-0.2205
Insufficient qualification of employees	0.2461	-0.3094	-0.3290	0.1946
Technical difficulty	-0.1397	0.2652	0.1386	0.2835
Lack of information	-0.1312	-0.0256	-0.3093	0.1319
Reluctance to accept changes	0.0822	-0.1414	-0.2132	-0.2460
High cost of innovation	0.0561	0.0302	0.2364	0.0046
Excessive bureaucracy	-0.2310	0.1466	0.1866	-0.0123

Note: Market tests are significant at $p < 0.050$.

Sources: developed by the authors.

Based on the obtained results, there are statistically significant relationships between a specific type of innovation and the barriers that influence the introduction of innovations. Therefore, hypothesis H3 was confirmed. In the case of product-type innovations, dependence on the insufficient qualifications of employees was confirmed. The process type of innovation was correlated with the lack of financial resources for innovation and technical complexity. This negative correlation was also confirmed for employees with insufficient qualifications. The organizational type of innovation was related to insufficient qualifications of employees, lack of information, reluctance to accept changes and high costs of innovation. The marketing type was related to a lack of financial resources for innovation, technical complexity and reluctance to accept changes. To verify hypothesis 4, i.e., the existence of statistically significant correlations between the respondents' assessments of the extent to which the selected factors influence the introduction of innovations in the SPA facility and the decision on the existence of statistically significant differences in the order of factors influencing the introduction of innovations in the SPA facility, Friedman's ANOVA and Kendall's coefficient of concordance were used.

The specific testing results are presented in Table 5, from which it is clearly seen that, based on the Friedman ANOVA, there are statistically significant differences between the individual factors, so the null hypothesis that the individual variables (factors) come from the same population or that they have identical medians was rejected. The value of the Kendall coefficient of concordance, in turn, indicates moderately high agreement between the assessments of individual respondents.

Table 5. Friedman ANOVA and the Kendall concordance coefficient

ANOVA X^2	p value	Concordance coefficient	Average rank r
82.9525	0.0000	0.4609	0.4291

Sources: developed by the authors.

At the same time, we added descriptive statistics for the individual tested factors (Table 6) along with the resulting order to the mentioned test results.

Table 6. Descriptive statistics of the order of factors influencing the introduction of innovations in the company

Variables	Min	Max	Median	Average	Mean rank F. ANOVA	Std. Dev.	Rank
Suitable premises	0.0	1.0	0	0.0476	1.0000	0.2155	11
Funds	2.0	5.0	5	4.2927	8.4722	0.9551	1
sustainability	1.0	5.0	3	3.1463	5.5278	0.9634	9
Energy demand	1.0	5.0	4	3.8000	7.4167	1.0908	3
Material demand	1.0	5.0	4	3.6585	7.4444	1.0632	2
Time demand	1.0	5.0	3	3.4390	6.5833	1.0500	6
Use of human resources	2.0	5.0	4	3.8000	6.6389	0.8829	5
Technological demand	3.0	5.0	3	3.4634	5.6667	0.6363	8
Use of regional resources	1.0	5.0	3	3.2927	6.0833	1.3275	7
History (region)	1.0	5.0	3	2.8537	3.9444	1.3521	10
Use of modern trends/Digitalization	2.0	5.0	4	4.0714	7.2222	0.8942	4

Sources: developed by the authors.

The data show that the most significant factors affecting the introduction of innovations are financial resources, followed by material and energy requirements and the use of modern trends, or digitization. These factors are related to the need to reduce costs and increase the efficiency and competitiveness of SPA enterprises in the current market environment. In contrast, the least important factors are suitable premises and the history of the region. This is followed by sustainability and technological sophistication. These factors may be seen as less relevant for the introduction of innovations, as they relate more to tradition, environmental responsibility, or the technical complexity of solutions. Interestingly, the use of regional resources is relatively low, which could indicate a lack of cooperation between SPA businesses and local suppliers or partners. The time requirement is also low, which could indicate that the respondents do not perceive innovations as long-term processes but rather as one-time projects. In general, the respondents considered the most important factors that have a direct impact on the economic results and competitive advantage of SPA enterprises. On the other hand, less important are those factors related to the cultural, environmental or technical aspects of innovation. This could indicate that the respondents have a pragmatic rather than a holistic view of innovation.

5. Discussion. The crisis associated with the COVID-19 pandemic has also significantly affected medical SPAs in both the Czech Republic and Slovak Republic. Due to government measures to prevent the spread of the disease, there was a large decrease in the performance of SPA companies in both countries, not only due to reduced demand for medical SPA stays due to clients' concerns about their health but also mainly due to travel restrictions. The pandemic also meant a very sharp decline in foreign clientele. Its failure means large economic losses for SPA towns and the regions in which they are located and the necessity of a change of approach. SPA businesses are particularly troubled by the lack of financial resources for innovation and the financially demanding management of natural healing resources and SPA infrastructure, as well as the lack of systematic support for the tourism and SPA industry. Despite these limitations, the pandemic crisis has also created new opportunities for SPA companies due to the demand for SPA stays as part of prevention or recovery from illness.

The analysis of the factors affecting the introduction of innovation revealed that the most important factors are those that have a direct impact on the economic results and competitive advantage of SPA companies. On the other hand, those factors related to cultural, environmental or technical aspects of innovation are less important. SPA businesses should carefully evaluate the situation regarding immediate economic, existential, legislative and other impacts and look for ways to minimize their negative consequences. These results are consistent with the results of several studies (Pinos Navarrete & Shaw, 2021; Ceperkovic & Cerovic, 2023; Dryglas & Smith, 2023). This research has several limitations, among which we can mainly include the aspect of representativeness of the sample. Despite repeated calls, not all SPA companies operating in the SPA industry in the Czech Republic and Slovak Republic participated in the research. From the point of view of the impact on socioeconomic practice, this study aims to expand the knowledge of the SPA industry and SPA tourism, the future development of which is a desirable determinant in the area of the planned strategy of this industry, and knowing the expected level of innovation can help in determining the needs and preferences of visitors, as well as in evaluation and decision-making at various levels, from determining state policy in the field of health care and tourism to individual decisions of individuals.

6. Conclusions. From the results of the conducted research, we found that the country of origin of SPA facilities has no influence on how their management perceives the need for innovation. In general, innovations are perceived as an important element in the development of society, managing crises, increasing competitiveness, etc. The connections between the types of introduced innovations and some benefits from the introduction of the innovation as well as the barriers that influenced the introduction of the innovation were confirmed. The results show, for example, that companies that invest in process innovations can increase their efficiency and competitiveness by reducing their costs for production or service provision. This result is consistent with the theory of innovation, which claims that innovation is an important factor in increasing the productivity and growth of businesses (Vazquer-Illa, 2014; WTO, 2017; Kollar & Matusova, 2021).

Innovation processes implemented by SPA enterprises can have significant economic impacts. New technologies in the provision of services can contribute to creating better experiences for visitors, which can lead to increased competitiveness and the acquisition of new customers. SPA businesses that are able to innovate and offer something new and unique can strengthen their position in the market and build a reputation as leaders in the field of both therapeutic SPAs and wellness and relaxation. Additionally, the political consequences of innovations can be diverse and influenced by many factors, including legislative conditions, political priorities in individual states and public perception. Political authorities can actively support innovation in SPA businesses through a variety of policies, such as grants, tax credits, research and development programs and PPPs. New technologies and innovations may require changes or adaptations to existing legislation and regulations in the fields of health care, hygiene, the environment and other areas. Innovations in SPA treatments can impact health policies and public health systems. Political decisions regarding funding and access to SPA treatment services can affect the availability of these services for different population groups. In general, the political consequences of innovations in SPA enterprises are complex and depend on many factors, including political priorities, legislative conditions, regional specificities and social trends.

In this context, the potential for future research is mainly in the expansion of the number of respondents by SPA companies in the Czech and Slovak Republics that were not involved in this research, as well as its expansion in the international SPAce. The implementation of other international studies focused on innovation processes in the SPA industry can be beneficial, especially for recognizing innovation trends in this industry, which can be key in planning future investments and strategies. Analyses can show how efficiently resources are used to support innovation activities, which can help businesses optimize their investments in research and development. Comparing innovation approaches can lead to the identification of opportunities for mutual cooperation between SPA companies in Slovakia and the Czech Republic in the area of know-how through the creation of policies and initiatives to support innovation and economic competitiveness in both countries.

Further research building on this and clarifying approaches within innovation processes in response to the COVID-19 pandemic would be valuable to both academics and practitioners. The research framework could also include the identification of factors affecting the management of SPA enterprises during the current crisis (the energy crisis and military conflict in Ukraine and the Middle East).

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Анна Сенкова, Пряшівський університет в Пряшові, Словаччина
Стела Колесарова, Пряшівський університету в Пряшові, Словаччина
Мартіна Косікова, Пряшівський університету в Пряшові, Словаччина

Інноваційна діяльність SPA-компаній Словаччини та Чехії в умовах пандемії Covid-19

У багатьох системах охорони здоров'я європейських країн санаторно-курортні послуги в даний час є частиною або доповненням до медичної допомоги. Чехія та Словаччина завдяки своїм природним лікувальним ресурсам і давнім традиціям належать до значущих європейських курортних країн. В обох країнах санаторно-курортний туризм також є одним із найважливіших видів туризму, а з огляду на його оцінку за кількістю ночівель і доходом займає значну частку в структурі туристичної галузі. Однією з найбільших проблем для SPA-бізнесу стала пандемія COVID-19, яка спричинила обмеження на подорожі, закриття підприємств і падіння попиту та доходів. Питання впливу пандемії на санаторно-курортний бізнес у досліджуваних країнах досі детально не розглядалося. Відповідно до вищесказаного, метою представленого внеску є оцінка інноваційної діяльності курортних компаній у Словаччині та Чехії в контексті пандемії COVID-19. Вибірку дослідження склали 122 санаторно-курортних підприємства обох республік. За результатами попередніх досліджень встановлено, що інновації загалом сприймаються як важливий елемент розвитку суспільства, антикризового управління, підвищення конкурентоспроможності та комерційного успіху. Основним методом дослідження виявлення та класифікації типів інновацій та інноваційних можливостей, що впроваджуються на санаторно-курортних підприємствах, було анкетне опитування. За результатами проведеного дослідження виявилося, що походження SPA-бізнесу не впливає на країну, на те, як люди сприймають тенденції. Підтверджено зв’язки між типами впроваджуваних інновацій та деякими вигодами від впровадження інновацій, а також бар’єрами, що перешкоджають впровадженню інновацій. Звідси випливає, наприклад, що компанії, які інвестують в інноваційні процеси, можуть покращити свою ефективність і конкурентоспроможність своєї команди, зменшити свої витрати на виробництво або надання послуг. З аналізу факторів, пов’язаних із впровадженням інновацій, виявилося, що найважливішими є ті фактори, які безпосередньо впливають на економічні результати та конкурентні переваги підприємств. З іншого боку, фактори, пов’язані з культурними, екологічними чи технічними аспектами інновацій, менш важливі. Певними обмеженнями проведеного дослідження був той факт, що, незважаючи на неодноразові дзвінки, не всі SPA-компанії, які працюють у SPA-індустрії Чеської та Словацької Республік, взяли участь.

Ключові слова: пандемія COVID-19, інновації, санаторно-курортне лікування, курортний туризм, розвиток.