

2023, Vol. 11, No. 3



10.15678/EBER.2023.110307

# Beyond the existing economic uncertainty: Spa enterprises' resilience capacity in the Polish tourism sector

Diana Dryglas, Marcin Salamaga

## ABSTRACT

**Objective:** The study aimed to identify and assess factors that build the resilience capacity of spa enterprises within the tourism sector in Poland in the wake of the economic crisis from managers' perspective.

**Research Design & Methods:** Research method characteristic for quantitative research was used. Survey data were collected from 500 tourism enterprise managers (including 80 from the spa sector) in Poland, using a self-administered questionnaire. A two-proportion Z-test was used to verify whether there were any significant differences in the percentage of selected response variants between the tourism sector and spa enterprises.

**Findings:** The methods used made it possible to assess financial, social, and human capital in spa enterprises as compared to the tourism sector. The results revealed that (1) the coronavirus pandemic had a more devastating impact on the financial standing of spa enterprises than on the financial situation in the tourism sector, (2) spa enterprises are more willing to use resilience actions on the regional and governmental levels than the tourism sector, and (3) spa enterprises and the tourism sector have a demand for digital competencies under their short-term and long-term recovery strategies.

**Implications & Recommendations:** The findings help to provide recommendations for spa and tourism enterprises for adapting their financial, social, and human policy to foster their resilience capacity and help them recover.

**Contribution & Value Added:** Regarding the empirical part, the results of this study contribute to the scholarly understanding of the resilience capacity of spa and tourism enterprises and the way spa and tourism enterprises assess resilience factors in response to the economic crisis. The present study will help managers of spa and tourism enterprises recognise resilience as a crisis management tool or strategy for business stability and adaptability to economically uncertain environment and new circumstances.

**Article type:** research article

**Keywords:** resilience; spa enterprise; tourism sector; economic crisis; quantitative research; Poland

JEL codes: M20, M21

Received: 29 March 2023 Revised: 27 May 2023 Accepted: 30 May 2023

#### Suggested citation:

Dryglas, D., & Salamaga, M. (2023). Beyond the existing economic uncertainty: Spa enterprises' resilience capacity in the Polish tourism sector. *Entrepreneurial Business and Economics Review*, 11(3), 107-121. https://doi.org/10.15678/EBER.2023.110307

# **INTRODUCTION**

The uncertain economic environment has posed critical challenges across all industries and sectors worldwide, especially the tourism sector (Kaczmarek *et al.*, 2021; Kryeziu *et al.*, 2022). Polish spa enterprises are no exception (Szromek, 2021a,b). Spa enterprises (*e.g.*, sanatoriums, spa hospitals) have been facing increasingly more difficulties related to the costs of the downturn in their business activity, including labour costs of the painstakingly acquired specialist personnel (doctors, nurses, physiotherapists, dieticians, kitchen staff) and the costs of facility maintenance. The conclusions drawn from the observation of the way Polish spa enterprises functioned after the Covid-19 pandemic justify the need to explore their resilience capacity. As one of the tourism subsectors that depend not only on the mobility of spa tourists but more importantly on public funding, spa enterprises are highly vulnerable (Sharma *et al.*, 2021; Hall

et al., 2023) to economic change and face extra pressure and instability. The concept of vulnerability is associated with the resilience concept (Miller et al., 2010; Soylu, 2019). The latter has rapidly been adopted in the tourism system as a way to recognize the capacity of different elements, such as industries, subsectors, destinations, communities, organisations, businesses, or individuals to respond to change (Hall et al., 2023). Enterprises' resilience is an important subject of study not only because of the need to improve understanding of their capacity to survive, but also because they are a core component of resilience on a sectoral level (Hall et al., 2023). Therefore, this article focuses on resilience at the level of spa enterprises as compared to the tourism sector. Resilient spa enterprises are a key component towards achieving a more resilient tourism sector, because spa enterprises provide essential health services for communities, including tourism staff and tourists. According to Pinos-Navarrete and Shaw (2020) and the European Spas Association (ESPA, 2020a), the coronavirus pandemic is the historical time for revival and recognition of the importance of spa enterprises and public health (Castañeda-García et al., 2022). The ESPA is convinced that in a post-Covid-19 world, people will be more sensitive to disease prevention and will use spa enterprises for that purpose. The spa enterprise model based on natural healing resources is available in German-speaking countries, the Baltic States (Estonia, Latvia, and Lithuania), Central and Eastern Europe, Russia and partly in France (Dryglas & Salamaga, 2018). According to the ESPA's definition, spa enterprises are facilities which carry therapeutic connotations. They are respected health centres and form a powerful economic unit generating significant proportions of the gross domestic product of the European Community Member States (ESPA, 2020a). During the Covid-19 pandemic (Bagh et al., 2023; Halmai, 2022), in some countries such as Serbia or Slovenia and rehabilitation centres in Germany, spa enterprises have operated as the second-line facilities included in the healthcare system to relieve hospitals (ESPA, 2020b). The 'new normal' reality necessitates the introduction of new treatment profiles in spa enterprises, e.g., post-Covid rehabilitation, post-Covid psychotherapy, prevention, diagnostics, redefined need for spa medicine and unification of medical procedures (Šenková et al., 2021). At the same time, there will be a growing need for establishing psychotherapy and psychiatric therapy centres, which is associated with the negative effects of isolation during the Covid-19 pandemic (Androniceanu & Marton, 2021). The phenomenon of resilience in tourism studies has already been examined in different frames, taking into account the ecological/environmental resilience of tourism systems (e.g., Loehr & Becken, 2021), organisation resilience of the tourism sector (Orchiston et al., 2016), the resilience of tourism enterprises to disasters (Bhaskara & Filimonau, 2021; Wieczorek-Kosmala, 2022) and resilience of tourism destinations after external shocks (Bethune et al., 2022). To date, the subject literature has focused on the role of spa enterprises in preventing diseases during the Covid-19 pandemic and offering a sustainable business model for spa enterprises in times of crisis (Szromek, 2021a,b). Several studies in the tourism and health tourism literature emphasise the importance of managing the crisis caused by the Covid-19 pandemic in spa and tourism enterprises (e.g., Kaczmarek et al., 2021; Plzáková & Smeral, 2022; Szromek & Polok, 2022). Furthermore, the literature on resilience in tourism includes mostly conceptual and qualitative studies (Sharma et al., 2021). To our knowledge, there are no studies that quantitatively evaluate the resilience of spa enterprises within the tourism sector. Therefore, the study aimed to identify and assess factors that build the resilience capacity of spa enterprises within the tourism sector in Poland in the wake of the economic crisis from managers' perspective.

As our study was exploratory rather than conclusive, its direction and structure were dictated by the aim of the study which was going to be accomplished by answering the following research questions:

- **RQ1:** Which of the capital factors associated with resilience can help in an enterprise's response to a crisis scenario?
- **RQ2:** What are the differences in the capital factors associated with resilience between spa enterprises and the tourism sector?

The article is structured as follows. Firstly, we will present the theoretical background of the concept of resilience in tourism and the economic situation in Polish spa enterprises during and after the pandemic. Thereafter, we will provide a description of the research methodology followed by the empirical findings. Finally, we will discuss theoretical and managerial implications and propose future research agenda.

#### LITERATURE REVIEW

### The Concept of Resilience in Tourism

Resilience has emerged as an important concept in the tourism sector in response to the unpredictable economic environment created by the pandemic (Sharma *et al.*, 2021). The economic influence of Covid-19 and other economic crises on tourism businesses have attracted more attention to the concept of resilience than ever before (Szymanik, 2020; Bhaskara & Filimonau, 2021; Gössling *et al.*, 2021). The experience gained from the pandemic shows the importance of understanding the role of resilience in building and improving the capacity of the tourism system (Prayag, 2023), tourism sector (Okafor *et al.*, 2022), tourism organisation (Kaczmarek *et al.*, 2021), tourism destinations (Bethune *et al.*, 2022), community (Jang & Kim, 2022), and tourists (Gottschalk *et al.*, 2022) as a way to respond effectively and adapt positively to increasing economic change and disturbances. Therefore, tourism resilience can be perceived as a multi-level construct (Hall *et al.*, 2023; Prayag, 2023), which can be adapted to the spa sector as a sub-sector of tourism (Figure 1).



Figure 1. The structure of the resilience concept in tourism Source: own elaboration based on Hall *et al.* (2023) and Prayag (2023).

Furthermore, the resilience concept is multi-stage (proactive, adaptive, reactive, and dynamic; Supardi & Hadi, 2020). Our study treated resilience as an adaptive attribute during an event, which relates to a process rather than an outcome (Karman, 2020). Resilience as an ongoing process requires constant learning, flexibility, adaptation, and evaluation and as an outcome includes not only recovery but also transformation and/or development (Sharma et al., 2021). Scholars who focus on the adaptive aspect of resilience refer to resilience as the capacity of the tourism firm to remain in a stable state during a disturbance and identify 'operational agility' as a necessary component to develop resilience (Karman, 2020). The capacity to cope with turbulent changes requires capital which combines resources contributing to adaptive capacity with the ability of an organisation to recover from a crisis (Brown et al., 2018). The literature on tourism resilience identifies different forms of capital e.g., economic, social, cultural, political, and natural capital for community resilience (Stotten et al., 2021); psychological capital for organisational resilience (Fang et al., 2020), economic, social, human, physical, natural, and cultural capital for hotel sector resilience (Brown et al., 2018), and financial, social, and human capital for tourism enterprises resilience (Biggs et al., 2012). In light of the difficult economic situation in spa and tourism enterprises during the pandemic and in post-pandemic times, financial, social, and human capital are of key importance for finding a solution to the crisis. Resilience capacity measures have been undertaken to adapt their financial, social, and human policy to new requirements of the spa and tourism

market. In times of a growing demand for spa medicine services (ESPA, 2020, May 21), this will allow spa enterprises to boost their resilience and break the economic deadlock. Access to finance and a healthy financial condition is integral to enterprise survival and success (Dahles & Susilowati, 2015; Hornowski et al., 2020). Financial capital is characterised by such resilience predictors as the availability of financial resources, income diversity, financial strength, and personal economic resilience of staff members (Brown et al., 2018). This study used an enterprise owner's or manager's assessment of the financial condition and access to financial resources in a crisis scenario as a measure of financial capital. The acceleration of change due to ongoing economic crises confronted the tourism and spa sector with cash flow problems or revenue losses. Components which are integral to social capital are 1) social resources, connectedness, and cohesion, 2) the capacity to work as a group, and 3) trust (Brown et al., 2018). In our study, social capital was associated with social networks and associations as well as government support. We believe that social capital that exists between the different levels of the government and tourism sector can provide support to enterprises in the face of crises and enable them to survive during difficult times. Recent studies have shown that both economic stimulus packages and governmental response to Covid-19, including financial instruments, help to enhance the tourism sector's recovery from the Covid-19 pandemic (Okafor et al., 2022). Furthermore, non-price policies can be effective for post-pandemic recovery in the case of inexpensive tourism destinations (Esquivias et al., 2021). According to Biggs et al. (2012), human capital is defined as the skill sets and capacity of individuals to respond and adapt to change. Brown et al. (2018) distinguished the following predictors of resilience within the context of human capital 1) health, 2) skills, 3) capacity to adapt, 4) knowledge, and 5) business continuity. Human capacity is in liaison with the success of an enterprise (Bosma et al., 2004). Understanding this dependency leads to an increase in entrepreneurial expenses linked with employees' training and skills development. The relevant efforts are often greater at profitable enterprises (Samoliuk et al., 2021). The important feature of human capital in this regard is also entrepreneur's education (Devkota et al., 2022; Çera et al., 2022; Ključnikov et al., 2021; Roman et al., 2022). In this study, human capital was associated with the capacity of the management and staff to adapt to new short-term and longterm strategic solutions. The previous findings led us to the following research question:

**RQ1:** Which of the capital factors associated with resilience can help in an enterprise's response to a crisis scenario?

# **Economic Situation in Polish Spa Enterprises During And After The Pandemic**

The analysis of data from the Central Statistical Office (2022a) indicated that in 2022, 47 Polish spa resorts comprised 240 sanatoriums and spa hospitals, with nearly 45 000 beds, which constitutes 4.9% of beds in the entire tourist accommodation sector. Apart from their key health-promoting role, spa resorts are one of the fundamental drivers of the Polish tourism economy generating about 1.5-2% of the Polish GDP. The 271 spa enterprises (49 spa hospitals, 191 sanatoriums, 14 spa outpatient clinics, 17 independent natural medicine centres) in Poland employ about 17.5 thousand people, and further 80 thousand people work in the spa environment (tourism, trade, services etc.), which altogether comprises about 10% of jobs in the country. The most important achievement confirming the significant role of spa enterprises in the Polish tourism sector is the high occupancy rate of almost 80%, which is nearly two times higher than the mean for the tourist accommodation establishments in Poland (40.6%; GUS, 2022b). The spa sector comprises nearly 800 thousand spa tourists referred for inpatient and outpatient spa treatment every year.

The pandemic started in an already difficult economic situation for spa enterprises caused by the falling budget expenditure earmarked for spa medicine. In the years 2000-2022, government expenditure on spa medicine was reduced from 4.5% (1998-1999) to about 1% of the annual National Health Fund (NFZ) budget. The decreasing level of expenditure on spa medicine in the annual budget of NFZ has led to a reduction in the daily rates of stay and the number of days contracted and, in consequence, to a reduction in the number of beds in spa enterprises as well as the loss of jobs (Dryglas & Lubowiecki-Vikuk, 2019). Moreover, the absorption capacity of the EU structural funds (Androniceanu, 2020) is limited (on the one hand, state-owned spa enterprises do not have the status of a small-sized enterprise and, on the other hand, they cannot afford to provide the financial contribution that is required when applying for

EU funding), and the state will not recapitalise spa enterprises. This means that spa enterprises have to co-finance the stay of patients together with the public health insurer (NFZ) or public social insurer (Social Insurance Institution; ZUS), which leads to a reduction in their profits (Dryglas & Salamaga, 2018). Furthermore, the economic problems faced by spa enterprises have been exacerbated by the volatile situation in Ukraine. Ukrainian refugees have been received by spa enterprises in entire Poland, so the previously booked stays had to be cancelled and postponed to a later date. While the economic effects of the Covid-19 pandemic on the tourism sector have been extensively examined in the tourism literature (e.g., Han et al., 2022; Uglis et al., 2022), there have been little studies that would attempt to assess the economic effects of the Covid-19 pandemic on spa enterprises.

Currently, spa enterprises in Poland focus on surviving and not losing the painstakingly acquired specialist personnel (doctors, nurses, physiotherapists, dieticians, kitchen staff), as many of them are facing a difficult situation of no income. It will be very difficult to recover from the loss of qualified personnel. Moreover, almost all of them are self-employed. Even doctors and nurses in sanatoriums are self-employed, not to mention the staff who service tourists. The problem is aggravating also because, in large cities, there is 'diversification' within families: even if one of the spouses is self-employed, the other works in some enterprise, a large company. And in spa resorts, entire families work as sanatorium and tourism staff.

Furthermore, spa enterprises that have contracts with NFZ are completely secure in terms of funding and can even obtain additional aid for development in the form of liquidity and preferential loans, bonds or shares, and stakes. On the other hand, the economic situation in spa enterprises that do not have contracts with NFZ is worse than in those that do have such contracts. This is because they do not have any financial support or revenues. These entities had not been included in the Regulation of the Minister of Health of 14 March 2020 (on the general terms and conditions for health care service provision contracts). These considerations led to the following research question:

**RQ2:** What are the differences in the capital factors associated with resilience between spa enterprises and the tourism sector?

#### **RESEARCH METHODOLOGY**

#### **Data Collection**

Because the cognitive value of the study stems from the possibility of statistical generalisation, the research goal was to be achieved based on a quantitative approach.

Data were collected using an online survey on the LimeSurvey platform between June and November 2021. One thousand surveys were addressed to the tourism sector (tourist accommodation facilities, transportation services, travel agencies, tour guides and leaders, catering services, and spa enterprises) operating in Poland. Five hundred valid questionnaires (including 80 questionnaires from spa enterprises) were obtained, yielding a response rate of 50%. Concerning the remaining 168 questionnaires, some were not filled at all and in some, the variables were found to be missing in over 50%, hence, they were excluded from the analysis. When establishing the minimal sample size, the aim was to guarantee that the margin of error does not exceed the established threshold with the confidence coefficient  $1-\alpha = 0.95$ . The maximum margin of error for the tourism sector was established at 4.4%. The sample size allowed for a reliable generalisation of the findings and their application to the general population.

## Measurement

In this survey study, spa enterprise managers and managers of other enterprises from the tourism sector were to assess selected financial, social and human capital factors contributing to adaptive resilience during the pandemic and in post-pandemic times. Data were collected by means of a two-page self-administered questionnaire, which comprised eight questions with a set of answers to choose from. Based on the selected predictors of resilience within the context of financial capital (availability of resources and financial strength), social capital (social resources /connectedness/cohesion), and human capital (capacity to adapt, knowledge, and business continuity) (Brown *et al.*, 2018), the authors

developed a set of 55. response items to obtain information about the resilience capacity and adaptability of the spa enterprises within the tourism sector during and post the pandemic crisis. The structured questionnaire consisted of four parts. Part one covered questions related to financial capital (questions 1-3). Part two included questions on social capital (governmental financial support instruments) (questions 4-6). Part three measured human capital (questions 7-8). Finally, part four included a question on the type of tourism activity conducted.

## **Data Analysis**

Answers to the research questions were obtained based on the results of the survey which had been carried out among respondents from the tourism sector, including those from spa enterprises. Respondents answered the questions using a nominal scale. We used a nominal scale, because it is easier for the respondent to answer a question instead of wondering what numerical level from the Likert scale to choose or what value to enter. Consequently, we managed to obtain more completed questionnaires. Furthermore, we achieved the assumed research goals by analysing the answers on a nominal scale, because they did not require the use of stronger scales. Most of them were multiple-choice questions. The percentage structure of replies given to individual questions was analysed. Thus, in the case of multiple-choice questions, the sum of relative frequency counts did not necessarily amount to 100%. A two-proportion Z-test was used to verify whether there were any significant differences in the percentage of selected response variants between the tourism sector and spa enterprises. The probability value (p-value) below 0.05 indicated a statistically significant result. The results of the test have been presented in the last two columns of the result tables, which show the structure of answers to individual questions. Calculations were performed in Statistica ver. 13.3, Minitab 17, and Excel.

#### **RESULTS AND DISCUSSION**

# **Financial Capital**

Data presented in Table 1 show that the largest number of respondents in the tourism sector indicated that cash reserves allowed them to pay their liabilities only until 30 September 2021 (48.56% of answers), whereas in spa enterprises this was 31 December 2021 (42.86% of answers). Thus, in light of the answers obtained, spa enterprises have higher financial liquidity. However, differences in the percentage of selected response variants between the tourism sector and spa enterprises were generally not statistically significant. The two proportion Z-test results show that only in the case of response variant '2-3 years' was there a statistically significant difference between the tourism sector and spa enterprises (Z = 2.64075, P < 0.05).

Table 1. Percentage of responses to the question 'How long will you be able to rely on your cash reserves based on the economic and social information you currently have?' among representatives of the tourism sector and spa enterprises (multiple choice question)

Response item	Tourism sector	Spa enterprises	Z	p-value
Until 30 September 2021	48.56%	28.57%	1.149598	0.250310
Until 31 December 2021	35.85%	42.86%	0.415335	0.677897
30 May 2022	8.65%	14.29%	0.549286	0.582809
For 2-3 years	0.15%	14.29%	2.640750	0.008272
I have no such possibility	4.41%	0.00%	0.668577	0.503765

Source: own elaboration.

Data presented in Table 2 show that the largest number of respondents both in the tourism sector and spa enterprises indicated that their turnover would return to pre-pandemic levels within two to three years (85.84% and 100% of answers, respectively). Thus, in light of the answers obtained, the tourism sector and spa enterprises will need a similar amount of time to regain their prepandemic financial condition. Differences in the percentage of selected response variants between the tourism sector and spa enterprises were not statistically significant.

Table 2. Percentage of responses to the question 'When will your turnover return to pre-pandemic levels?'

among representatives of the tourism sector and spa enterprises

Response item	Tourism sector	Spa enterprises	z	p-value
By 30 September 2021	0.00%	0.00%	_	_
By 31 December 2021	0.24%	0.00%	0.155	0.877
30 May 2022	4.13%	0.00%	0.646	0.518
In 2-3 years	85.84%	100.00%	1.252	0.210
Never	7.40%	0.00%	0.878	0.380

Source: own elaboration.

Data presented in Table 3 indicate that respondents from the tourism sector were highly convinced that the recovery from the financial losses would take them several years (77.76% of answers), the demand for their services would decrease (75.85% of answers), and the situation was creating commercial conflicts within the industry (54.06% of answers). Likewise, all respondents from spa enterprises indicated that the recovery from the financial losses would take several years. Furthermore, they declared that the 500+ voucher was a good instrument and the industry demonstrated a strong sense of integration (75% of answers each). With most of the response variants, there were significant differences between the tourism sector and spa enterprises. Only in the case of three items were there no significant differences between the sectors analysed: recovery from the financial losses will take several years (Z = 1.634, p>0.05), I will permanently introduce partially remote work (Z = 1.782, p > 0.05), the industry demonstrated a strong sense of integration (Z = 1.730, p > 0.05).

Table 3. Percentage of responses to the question 'What are your predictions, plans and strategies to manage financial vulnerabilities?' among representatives of tourism sector and spa enterprises (multiple choice question)

Response item	Tourism sector	Spa enter- prises	z	p-value
Recovery from the financial losses will take several years	77.76%	100.00%	1.634	0.102
Demand for my services will decrease	75.85%	0.00%	4.517	0.000
The situation creates commercial conflicts within the industry	54.06%	0.00%	3.109	0.002
The industry demonstrated a strong sense of integration	44.79%	75.00%	1.730	0.084
It is likely that I will partially or entirely convert to some other type of business	35.75%	0.00%	2.233	0.026
I will permanently introduce partially remote work	25.55%	0.00%	1.782	0.075
The 500+ voucher is a good instrument	24.78%	75.00%	3.062	0.002
Lobbing the self-regulatory organisation has been effective	16.85%	50.00%	2.286	0.022

Source: own elaboration.

Financial capital which comprises financial standing and liquidity is similar in the tourism sector and spa enterprises. Even though the declared cash reserve depletion time was shorter in the tourism sector, the differences were not statistically significant. Compared to the tourism sector, spa enterprises have been substantially affected by the Covid-19 pandemic. The empirical research has yielded a conclusion that the decline in revenues of spa enterprises may reach an extent unprecedented since 1989, which would severely threaten the functioning of those enterprises. A similar situation has been observed in other European spa enterprises. For instance, the managing director of the Slovenian Spas Association Iztok Altbauer estimated 'an alarming 30-35% loss of revenue' (STA, 2020).

### **Social Capital**

Data in Table 4 show that for respondents from the tourism sector, the most important sources of information about the support instruments available were personal contacts (69.5% of answers), social media/forums/groups (60.17% of answers), and official government announcements at www.gov.pl (47.73% of answers). In turn, information sources selected equally often by spa enterprises were the Ministry of Economic Development, official government announcements at www.gov.pl, voivodship office, marshal's office, voivodship/poviat labour office, social media/forums/groups, and personal

contacts (100% of answers each). With most of the response variants, there were significant differences between the tourism sector and spa enterprises (in these cases a higher percentage of answers was observed for spa enterprises). Only in the case of three items were there no significant differences between the sectors analysed. These were city/municipality office (Z= 1.912, p>0.05), self-regulatory organisation/chambers/associations (Z= 0.970, p>0.05), media, TV, and Radio (Z= 1.164, p>0.05).

Table 4. Percentage of responses to the question 'What sources of information about the support instruments available did you find most useful?' among representatives of the tourism sector and spa enter-

prises (multiple choice question)

Decrease item	Tourism	Spa	_		
Response item	sector	enterprises	]2	p-value	
Personal contacts	69.50%	100.00%	2.000	0.045	
Social media/forums/groups	60.17%	100.00%	2.417	0.016	
Official government announcements at www.gov.pl	47.73%	100.00%	3.016	0.003	
Voivodship/poviat labour office	45.36%	100.00%	3.139	0.002	
Marshal's office	34.09%	100.00%	3.796	0.000	
Self-regulatory organisations/chambers/associations	33.71%	50.00%	0.970	0.332	
Webinars	31.75%	0.00%	2.056	0.040	
Media, TV, radio	30.77%	50.00%	1.164	0.245	
City/municipality office	20.87%	50.00%	1.912	0.056	
Ministry of Economic Development	20.01%	100.00%	4.878	0.000	
Voivodship office	17.41%	100.00%	5.130	0.000	
Information from the municipality office	13.22%	50.00%	2.679	0.007	

Source: own elaboration.

Data in Table 5 show that respondents from the tourism sector would mostly expect the following types of support: support for the promotion of tourism abroad and domestic tourism in the regions (83.89% of answers) followed by extensive access to information about the possible financing earmarked for tourism enterprises from the national and EU funds (82.28% of answers). As for spa enterprises, the most important type of expected support was systemic domestic demand financing, e.g., through personal income tax (PIT) relief (PLN 1000 per person on income for five years) (100% of answers) followed by access to information about the possibility of receiving financing earmarked for tourism enterprises from the national and EU funds (83.33% of answers). A statistically significant difference between the tourism sector and spa enterprises was observed only in the case of one item: systemic domestic demand financing, e.g., through PIT relief (PLN 1000 per person on income for five years) (Z = 2.419, p < 0.05).

Table 5. Percentage of responses to the question 'What kind of support would you expect for the domestic tourism market?' among representatives of the tourism sector and spa enterprises (multiple choice question)

Response item	Tourism sector	Spa enter- prises	z	p-value
Support for the promotion of tourism abroad and domestic tourism in the regions	83.89%	66.67%	1.260	0.208
Extensive information about the possibility of receiving financing earmarked for tourism enterprises from the national and EU funds	82.28%	83.33%	0.080	0.937
Systemic domestic demand financing, <i>e.g.</i> , through PIT relief (PLN 1000 per person on income for five years)	60.13%	100.00%	2.419	0.016

Source: own elaboration.

Data in Table 6 show that respondents from the tourism sector expected changes mainly in the strategic approach of the state and local authorities to the fields of the economy associated with tourism (understanding the essence of tourism) (85.43% of answers) followed by changes in tourism education changed/adjusted to the needs of companies and the new tourism market. As for respondents from spa enterprises, the most expected changes also pertained to the strategic ap-

proach of the state and local authorities to the fields of the economy associated with tourism (understanding the essence of tourism) (66.67% of answers), as well as extensive information about the international tourism market, including that about Covid-19 restrictions (50.00% of answers). A statistically significant difference between the tourism sector and spa enterprises was observed only in the case of one item: extensive information about the international tourism market, including that about Covid-19 restrictions (Z = 2.182, P < 0.05).

Table 6. Percentage of responses to the question 'What should be changed within social resources?' among representatives of the tourism sector and spa enterprises (multiple choice question)

Response item	Tourism sector	Spa enterprises	Z	p-value
Strategic approach of the state and local authorities to the fields of economy supporting tourism (understanding the essence of tourism)	85.43%	66.67%	1.412	0.158
Tourism education changed/adjusted to the needs of companies and the new tourism market	61.90%	33.33%	1.654	0.098
Extended financing for the use of IT (digitisation, automation) in tourism sectors	53.94%	33.33%	1.180	0.238
Marketing communication channels in tourism	43.54%	33.33%	0.593	0.554
Extensive information about the international tourism market, including that about Covid-19 restrictions	34.60%	0.00%	2.182	0.029
Extensive information about the domestic tourism market, including that about Covid-19 restrictions	31.99%	50.00%	1.082	0.279

Source: own elaboration.

As per social capital, the tourism sector and spa enterprises have generally differed in terms of the support instruments used and the level of importance assigned to them. This may stem from the different nature and activity profile, and the legal form applying to entities within the broadly understood tourism sector as compared to spa enterprises. For the tourism sector, the most important sources of information about the support instruments are personal contacts and social media/forums/groups, whereas spa enterprises perceive value added in information published on governmental websites at the national and regional levels. Okafor *et al.* (2022) stressed that personal, regional and governmental levels of resilience actions are important.

## **Human Capital**

Data in Table 7 show that respondents from the tourism sector in order to adapt to new circumstances focused mainly on developing e-commerce channels (67.84% of answers), using flexible forms of work (61.66% of answers), and lowering the pre-Covid-19 price (54.97% of answers). In turn, answers selected equally often by respondents from spa enterprises were: the use of flexible forms of work, greater flexibility in organising work (e.g., remote work, shifts), introduction of crisis management procedures, digitisation of in-house services, digitisation of outsourced services, development of e-commerce channels, renegotiation of the current supply contracts and lowering of the pre-Covid-19 price (66.67% of answers). With most of the response variants, there were no significant differences between the tourism sector and spa enterprises, except for the digitisation of in-house services (Z=2.487, p<0.05) and the renegotiation of the current supply contracts (Z=2.285, p<0.05). In these two cases, the differences were significant (the percentage of respondents from spa enterprises who selected these answers was significantly higher compared to the percentage of respondents from the tourism sector).

Data in Table 8 show that the action within human capital planned for the next few years both in the tourism sector and spa enterprises is the development of new applications to reach the customer (64.08% and 50.00% of answers, respectively). This was followed by the development of new strategies for company growth, including investment contribution (for innovations) (60.74% of answers) and the development of new information, web, and sales platforms (49.88% of answers) in the tourism sector. As for spa enterprises, their long-term planning also included the development of new information,

web, and sales platforms (50.00% of answers). There were no significant differences between the tourism sector and spa enterprises for any of the response variants.

Table 7. Percentage of responses to the question 'What changes may the current situation cause in business continuity, what new procedures and solutions are you implementing or planning to implement for its adaptation to new circumstances?' among representatives of tourism sector and spa enterprises (multiple choice question)

Response item	Tourism sector	Spa enterprises	z	p-value
Development of e-commerce channels	67.84%	66.67%	0.072	0.943
Use of flexible forms of work	61.66%	66.67%	0.296	0.767
Lowering the pre-Covid-19 price	54.97%	66.67%	0.676	0.499
Greater flexibility in organising work (e.g., remote work, shifts)	52.11%	66.67%	0.837	0.403
Introduction of crisis management procedures	49.04%	66.67%	1.010	0.312
Digitisation of outsourced services	40.75%	66.67%	1.492	0.136
Diversification of supply sources	34.07%	33.33%	0.044	0.965
Renegotiation of the current supply contracts	28.66%	66.67%	2.285	0.022
Digitisation of in-house services	25.99%	66.67%	2.487	0.013
Outsourcing of in-house processes	12.14%	33.33%	1.676	0.094
Capital, network merger	10.13%	0.00%	1.040	0.299

Source: own elaboration.

The results related to human capital indicate that despite the differing specifics of their business, managers from the tourism sector and spa enterprises have a demand for similar adaptation skills under short-term and long-term recovery strategies. They believe that a special focus needs to be placed on digital competencies, which will allow them to recover from the crisis caused by the pandemic, e.g., the development of new applications and online platforms to reach the customer. According to Dryglas and Klimkiewicz (2022) spa enterprises will face the challenge of adjusting to the IT requirements in terms of creating central data and fast information transfer (digitisation and development of new technologies, automation and robotisation, and replacement of some services provided by people with dedicated technologies). Spa enterprises would like to focus primarily on introducing changes in the ways of new knowledge acquisition (e.g., IT, medical knowledge in the field of rehabilitation and prevention, specialist knowledge in the field of healthy eating, advancements in treatment methods, and knowledge about e.g., phytotherapy, alternative treatment methods) (Buxton & Michopoulou, 2021). To support their staff, spa enterprise managers will focus on improving their skills in taking care of patients suffering from mental illnesses, handling new IT solutions, and creating friendly conditions for patients with lifestyle diseases or those who underwent Covid treatment. Other important aspects include the support in using new technologies, the development of e-marketing competencies, and access to knowledge (a platform presenting reliable data from other countries regarding restrictions and new opportunities). Spa enterprises believe that a special focus should be

Table 8. Percentage of responses to the question 'What skills and knowledge should be the main focus in your firm for the next few years?' among representatives of tourism sector and spa enterprises (multiple choice question)

Response item	Tourism sector	Spa enterprises	Z	p-value
Development of new applications to reach the customer	64.08%	50.00%	0.830	0.407
Development of new strategies for company growth, including investment contribution (for innovations)	60.74%	33.33%	1.582	0.114
Use of the Blockchain platform	6.34%	0.00%	0.808	0.419
Development of new information, web, and sales platforms	49.88%	50.00%	0.007	0.994
Development of national, international company networks	21.67%	0.00%	1.608	0.108
Use of the 5G technology	13.06%	0.00%	1.197	0.231

Source: own elaboration.

placed on the social competencies of staff working in the spa sector (*e.g.*, stress resistance, interpersonal communication, ability to make a fast diagnosis of the socioeconomic situation, ability to devote time to other people, listening to their problems; Smith *et al.*, 2021).

# **CONCLUSIONS**

This study demonstrated that factors building the resilience capacity in spa enterprises and the tourism sector at a time of existing economic uncertainty can be divided into financial capital, social capital, and human capital. The response options and the ability of vulnerable spa enterprises and the tourism sector to cope with the shocks and changes associated with economic change revealed some differences and similarities between them. Furthermore, it turned out that resilient spa enterprises play an increasingly important role in the process of strengthening the tourism sector.

Regarding the empirical part, the results of this study contribute to the scholarly understanding of the resilience capacity of spa and tourism enterprises, and the way spa and tourism enterprises assess resilience factors in response to the economic crisis. The present study will help managers of spa and tourism enterprises recognise resilience as a tool or strategy for business stability and adaptability to economically uncertain environment and new circumstances. The study provides actionable insights to help spa and tourism enterprises recover economically and help them build lasting capabilities through the improvement of their financial standing, governmental support, and the development of digital competencies. The economic crisis can be seen as an opportunity for managers to rethink the old strategies and implement improvements, which will foster the resilience capacity of spa and tourism enterprises and help them not only recover but also transform into a much more sustainable form.

### **Limitations and Further Research Directions**

The research framework could be supplemented with, firstly, an assessment of the resilience capacity of spa enterprises and the tourism sector from the perspective of employees and customers, which would allow for identifying correlations between the reactions of the entities mentioned and the already researched entities. Secondly, the research framework should include the identification and assessment of resilience factors other than the financial, social, and human ones, such as physical, natural, cultural, and psychological, which would allow for a holistic approach to crisis management strategies for spa enterprises and the tourism sector. Thirdly, it seems that research allowing for a comparative analysis of the perception of the resilience capacity of spa enterprises and the tourism sector both in time (taking into account the process of economic crisis spread) and space (considering other spa enterprises located in the territory of German-speaking countries, in parts of France, the Baltic States – Estonia, Latvia and Lithuania, Central and Eastern Europe, and Russia) could help create universal solutions for spa enterprise crisis management in Europe. Finally, since there is a potential for creating new theories based on spa enterprise crisis management, the research strategy employed should be based on longitudinal research.

In the face of the devastating effects of the coronavirus pandemic on spa enterprises in Europe on the one hand and insufficient research on the resilience capacity of spa enterprises on the other hand, the case study presented is the missing link in the cognitively valuable direction of investigations. The research on the resilience capacity of spa enterprises in Poland could be used by other scientists researching the field of spa enterprise management, thus increasing the chances for conducting more replication and comparative research in the future. Further research that would build upon and clarify the resilience factors of spa enterprises in response to the coronavirus pandemic would be valuable for both academics and practitioners.

# **REFERENCES**

Androniceanu, A., & Marton, D.- M. (2021). The psychosocial impact of the Romanian government measures on the population during the COVID-19 pandemic. *Central European Public Administration Review*, 19(1), 7-32. https://doi.org/10.17573/cepar.2021.1.05

- Androniceanu, A. (2020). Major structural changes in the EU policies due to the problems and risks caused by COVID-19. *Administratie si Management Public*, *34*, 137-149. https://doi.org/ 10.24818/amp/2020.34-08
- Bagh T, Khan, M.A., Fenyves, V., & Olah, J. (2023). Asymmetric Effect of Investors Sentiments on Herding Behavior and Stock Returns: Pre and Post Covid-19 Analysis. *Montenegrin Journal of Economics*, 19(1), 43-55. https://doi.org/10.14254/1800-5845/2023.19-1.4
- Bethune, E., Buhalis, D., & Miles, L. (2022). Real time response (RTR): Conceptualizing a smart systems approach to destination resilience. *Journal of Destination Marketing & Management*, 23, 100687. https://doi.org/10.1016/j.jdmm.2021.100687
- Biggs, D., Hall, C.M., & Stoeckl, N. (2012). The resilience of formal and informal tourism enterprises to disasters: reef tourism in Phuket, Thailand. *Journal of Sustainable Tourism*, 20(5), 645-665. https://doi.org/10.1080/09669582.2011.630080
- Bhaskara, G.I., & Filimonau, V. (2021). The COVID-19 pandemic and organisational learning for disaster planning and management: a perspective of tourism businesses from a destination prone to consecutive disasters. Journal of Hospitality and Tourism Management, 46, 364-375. https://doi.org/10.1016/j.jhtm.2021.01.011
- Bosma, N., van Praag, M., Thurik, R., & de Wit, G. (2004). The Value of Human and Social Capital Investments for the Business Performance of Startups. *Small Business Economics*, 23, 227-236. https://doi.org/10.1023/B:SBEJ.0000032032.21192.72
- Brown, N.A., Orchiston, C., Rovins, J.E., Feldmann-Jensen, S., & Johnston, D. (2018). An integrative framework for investigating disaster resilience within the hotel sector. *Journal of Hospitality and Tourism Management*, *36*, 67-75. https://doi.org/10.1016/j.jhtm.2018.07.004
- Buxton, L., & Michopoulou E. (2021). Value Co-Creation and Co-Destruction: Considerations of Spa Servicescapes. *Tourism Planning & Development*, *18*(2), 210-225. https://doi.org/ 10.1080/21568316.2021.1873837
- Castañeda-García, J.A., Sabiote-Ortiz, C.M., Vena-Oya, J., & Epstein, D.M. (2022). Meeting public health objectives and supporting the resumption of tourist activity through COVID-19: a triangular perspective. *Current Issues in Tourism*, *26*, 1617-1634. https://doi.org/10.1080/13683500.2022.2062306
- Çera, G., Khan, K.A., Bláhová, A., & Belas, Jr., J. (2022). Do owner-manager demographics in SMEs matter for corporate social responsibility?. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 17(2), 511-531. https://doi.org/10.24136/eq.2022.018
- Dahles, H., & Susilowati, T.P. (2015). Business resilience in times of growth and crisis. *Annals of Tourism Research*, *51*, 34-50. https://doi.org/10.1016/j.annals.2015.01.002
- Devkota, N., Shreebastab, D.K., Korpysa, J., Bhattarai, K., & Paudel, U.R. (2022). Determinants of successful entrepreneurship in a developing nation: Empirical evaluation using an ordered logit model. *Journal of International Studies*, *15*(1), 181-196. https://doi.org/10.14254/2071-8330.2022/15-1/12
- Dryglas, D., & Klimkiewicz, K. (2022). Emerging trends in employee competences in Polish therapeutic tourism enterprises. *International Journal of Spa and Wellness*, *6*(1), 157-175. https://doi.org/10.1080/24721735.2022.2152849
- Dryglas, D., & Lubowiecki-Vikuk, A. (2019). The attractiveness of Poland as a medical tourism destination from the perspective of German and British consumers. *Entrepreneurial Business and Economics Review*, 7(2), 45-62. https://doi.org/10.15678/EBER.2019.070203
- Dryglas, D., & Salamaga, M. (2018). Segmentation by push motives in health tourism destinations: a case study of Polish spa resorts. *Journal of Destination Marketing & Management*, 9, 234-246. https://doi.org/10.1016/j.jdmm.2018.01.008
- Dryglas, D., & Salamaga, M. (2017). Applying destination attribute segmentation to health tourists: A case study of Polish spa resorts. *Journal of Travel and Tourism Marketing*, 34(4), 503-514. https://doi.org/10.1080/10548408.2016.1193102
- ESPA (2020a). Medical spas are welcoming again guests and patients. Retrieved from https://www.europe-anspas.eu/content/news/MediaKitWeb2015/reopening on May 15, 2020.
- ESPA. (2020b). The coronavirus pandemic is the historical time for revival and recognition of the Balneology. Retrieved from https://mailchi.mp/0208bb7b42f4/espa-press-release-coronavirus-pandemic-is-the-historical-time-for-revival-and-recognition-of-the-balneology on May 21, 2020.
- Esquivias, M.A., Sugiharti, L., Rohmawati, H., & Sethi, N. (2021). Impacts and implications of a pandemic on tourism demand in Indonesia. *Economics and Sociology, 14*(4), 133-150. https://doi.org/10.14254/2071-789X.2021/14-4/8

- Fang, S.E., Prayag, G., Ozanne, L.K., & de Vries, H. (2020). Psychological capital, coping mechanisms and organizational resilience: insights from the 2016 Kaikoura earthquake, New Zealand. *Tourism Management Perspectives*, *34*, 100637. https://doi.org/10.1016/j.tmp.2020.100637
- Gottschalk, M., Kuntz, J.C., & Prayag, G. (2022). TouRes: Scale development and validation of a tourist resilience scale. *Tourism Management Perspectives*, *44*, 101025. https://doi.org/10.1016/j.tmp.2022.101025
- Gössling, S., Scott, D., & Hall, M.C. (2021). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, *29*(1), 1-20. https://doi.org/10.1080/09669582.2020.1758708
- GUS (2022a). Central Statistical Office. Retrieved from www.stat.gov.pl on March 10, 2022.
- GUS (2022b). Central Statistical Office. Tourist traffic in Poland in 2021. Retrieved from https://stat.gov.pl/obszary-tematyczne/kultura-turystyka-sport/turystyka/wykorzystanie-turystycznych-obiektow-noclegowych-w-2021-roku,6,15.html on March 15, 2022.
- Hadzik, A., Ujma, D., & Gammon, S. (2014). Wellness and spa provision in the Silesian health resorts of Poland. In M. Smith and L. Puczkó (Eds.), *Health, Tourism and Hospitality. Spas, wellness and medical travel* (pp. 321-328). Routledge.
- Hall, C.M., Safonov, A., & Naderi Koupaei, S. (2023). Resilience in hospitality and tourism: issues, synthesis and agenda, *International Journal of Contemporary Hospitality Management*, 35(1), 347-368. https://doi.org/10.1108/IJCHM-11-2021-1428
- Halmai, P. (2022). COVID-19 Crisis and Supply Side Bottlenecks in the EU. Shorter and Longer Term Prospects. *Montenegrin Journal of Economics*, *18*(4), 19-30. https://doi.org/10.14254/1800-5845/2022.18-4.2
- Han, S., Yoon, A., Kim, M.J., & Yoon, J-H. (2022). What influences tourist behaviors during and after the COVID-19 pandemic? Focusing on theories of risk, coping, and resilience. *Journal of Hospitality and Tourism Management*, 50, 355-365. https://doi.org/10.1016/j.jhtm.2022.02.024
- Hornowski, A., Parzonko, A., Kotyza, P., Kondraszuk, T., Bórawski, P., & Smutka, L. (2020). Factors determining the development of small farms in central and eastern Poland. *Sustainability (Switzerland), 12*(12). https://doi.org/10.3390/su12125095
- Jang, S., & Kim, J. (2022). Remedying Airbnb COVID-19 disruption through tourism clusters and community resilience. *Journal of Business Research*, *139*, 529-542. https://doi.org/10.1016/j.jbusres.2021.10.015
- Kaczmarek, T., Perez, K., Demir, E., & Zaremba, A. (2021). How to survive a pandemic: The corporate resiliency of travel and leisure companies to the COVID-19 outbreak. *Tourism Management*, *84*(1), 104281. https://doi.org/10.1016/j.tourman.2020.104281
- Karman, A. (2020). Flexibility, coping capacity and resilience of organizations: between synergy and support. *Journal of Organizational Change Management*, *33*(5), 883-907(25). https://doi.org/10.1108/JOCM-10-2019-0305
- Ključnikov, A., Civelek, M., Fialova, V., & Folvarčná, A. (2021). Organizational, local, and global innovativeness of family-owned SMEs depending on firm-individual level characteristics: evidence from the Czech Republic. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 16(1), 169-184. https://doi.org/10.24136/eq.2021.006
- Kryeziu, L., Bağış, M., Kurutkan, M.N., Krasniqi, B.A., & Haziri, A. (2022). COVID-19 impact and firm reactions towards crisis: Evidence from a transition economy. *Journal of Entrepreneurship, Management, and Innovation*, 18(1), 169-196. https://doi.org/10.7341/20221816
- Kurek, K.A., Heijman, W., van Ophem, J., Gędek, S., & Strojny, J. (2002). Geothermal spas as a local development factor, the case of Poland. *Geothermics*, 85. https://doi.org/10.1016/j.geothermics.2019.101777
- Loehr, J., & Becken, S. (2021). The Tourism Climate Change Knowledge System. *Annals of Tourism Research, 86,* 103073. https://doi.org/10.1016/j.annals.2020.103073
- Miller, F., Osbahr, H., Boyd, E., Thomalla, F., Bharwani, S., Ziervogel, G., Walker, B., Birkmann, J., Van der Leeuw, S., Rockström, J., Hinkel, J., Downing, T., Folke, C., & Nelson, D. (2010). Resilience and vulnerability: complementary or conflicting concepts?. *Ecology and Society*, *15*(3), 11. Retrieved from http://www.ecologyandsociety.org/vol15/iss3/art11/ on March 1, 2023.
- Okafor, L., Khalid, U., & Gopalan, S. (2022). COVID-19 economic policy response, resilience and tourism recovery. *Annals of Tourism Research Empirical Insights*, *3*(2), 100073. https://doi.org/10.1016/j.annale.2022.100073
- Orchiston, C., Prayag, G., & Brown, C. (2016). Organisational resilience in the tourism sector. *Annales of Tourism Research*, *56*, 128-163. https://doi.org/10.1016/j.annals.2015.11.002

- Pforr, C., & Locher, C. (2012) The German spa and health resort industry in the light of health care system reforms. Journal of Travel & Tourism Marketing, 29(3), 298-312. https://doi.org/10.1080/10548408.2012.666175
- Pinos-Navarrete, A., & Shaw, G. (2020). Spa tourism opportunities as strategic sector in aiding recovery from Covid-19: The Spanish model. *Tourism and Hospitality Research*, 21(2), 245-250. https://doi.org/10.1177/1467358420970626
- Plzáková, L., & Smeral, E. (2022). Impact of the COVID-19 crisis on European tourism. *Tourism Economics*, *28*(1), 91-109. https://doi.org/10.1177/13548166211031113
- Prayag, G. (2023). Tourism resilience in the 'new normal': Beyond jingle and jangle fallacies?. *Journal of Hospitality and Tourism Management*, *54*, 513-520. https://doi.org/10.1016/j.jhtm.2023.02.006
- Regulation of the Minister of Health of 14 March 2020 on the general terms and conditions for health care service provision contracts (*Journal of Laws*, item 437).
- Regulation of the Council of Ministers of 29 May 2020 concerning the establishment of specific restrictions, rules and prohibitions in relation to the epidemic situation (*Journal of Laws* of 2020, item 964).
- Roman, M., Abrham, J., Niedziółka, A., Szczucka, E., Smutka, L., & Prus, P. (2022). Tourist attractiveness of rural areas as a determinant of the implementation of social tourism of disadvantaged groups: Evidence from poland and the Czech Republic. *Agriculture (Switzerland)*, 12(5), https://doi.org/10.3390/agriculture12050731
- Samoliuk, N., Bilan, Y., & Mishchuk, H. (2021). Vocational training costs and economic benefits: exploring the interactions. *Journal of Business Economics and Management*, 22(6), 1476-1491. https://doi.org/10.3846/jbem.2021.15571
- Šenková, A., Košíková, M., Matušíková, D., Šambronská, K., Kravčáková Vozárová, I., & Kotulič, R. (2021). Time Series Modeling Analysis of the Development and Impact of the COVID-19 Pandemic on Spa Tourism in Slovakia. *Sustainability*, *13*, 11476. https://doi.org/10.3390/su132011476
- Sharma, G.D., Thomas, A., & Paul, J. (2021). Reviving tourism industry post-COVID-19: A resilience-based framework. *Tourism Management Perspectives*, *37*,100786, https://doi.org/10.1016/j.tmp.2020.100786
- Smith, M. K., Jancsik, A., & Puczkó, L. (2021). Customer satisfaction in post-socialist spas. *International Journal of Spa and Wellness*, *3*, 1-22, https://doi.org/10.1080/24721735.2020.1866330
- Smith, M., & Puczkó, L. (2010). Taking your Life into your own Hands? New Trends in European Health Tourism. *Tourism Recreation Research*, *35*(2), 161-172. https://doi.org/10.1080/02508281.2010.11081631
- Smith, M. (2015). Baltic health tourism: Uniqueness and commonalities. *Scandinavian Journal of Hospitality and Tourism*, 15(4), 357-379. https://doi.org/10.1080/15022250.2015.1024819
- Soylu, O.B. (2019). Do foreign direct investment and savings promote economic growth in Poland?. *Economics and Business Review EBR, 19*(4), 3-22. https://doi.org/10.18559/ebr.2019.4.1
- STA. (2020). https://english.sta.si/2745550/spas-revenue-could-drop-by-a-third-due-to-coronavirus
- Stotten, R., Schermer, M., & Wilson, G.A. (2021). Lock-ins and community resilience: two contrasting development pathways in the Austrian Alps. *Journal of Rural Studies*, *84*, 124-133. https://doi.org/10.1016/j.jrurstud.2021.04.001
- Supardi, S., & Hadi, S. (2020). New Perspective on the Resilience of SMEs Proactive, Adaptive, Reactive from Business Turbulence: A Systematic Review. *Journal of Xi'an University of Architecture & Technology*, 12(5), 1265-75.
- Szromek, A.R., & Polok, G.A. (2022). Business Model for Spa Tourism Enterprises: Transformation in a Period of Sustainable Change and Humanitarian Crisis. *Journal of Open Innovation: Technology, Market and Complexity*, 8, 72. https://doi.org/10.3390/joitmc8020072
- Szromek, A.R. (2021a). The Role of Health Resort Enterprises in Health Prevention during the Epidemic Crisis Caused by COVID-19. *Journal of Open Innovation: Technology, Market and Complexity, 7,* 133. https://doi.org/10.3390/joitmc7020133
- Szromek, A.R. (2021b). Transformation of Business Models in Spa Enterprises for Medical Purposes in Situations of Epidemic Threats. *Journal of Open Innovation: Technology, Market and Complexity, 7,* 143. https://doi.org/10.3390/joitmc7020143
- Szromek, A.R, Romaniuk, P., & Hadzik, A. (2016). The privatization of spa companies in Poland An evaluation of policy assumptions and implementation. *Health Policy*, *120*(4), 362-368. https://doi.org/10.1016/j.health-pol.2016.02.011

Szymanik, E. (2020). Greece's economy during the crisis 2007-2008 and its development prospects. *International Entrepreneurship Review, 6*(4), 7-19. https://doi.org/10.15678/IER.2020.0604.01

Uglis, J., Jęczmyk, A., Zawadka, J., Wojcieszak-Zbierska, M.M., & Pszczoła, M. (2022). Impact of the COVID-19 pandemic on tourist plans: a case study from Poland. *Current Issues in Tourism*, *25*(3), 405-420. https://doi.org/10.1080/13683500.2021.1960803

Wieczorek-Kosmala, M. (2022). A study of the tourism industry's cash-driven resilience capabilities for responding to the COVID-19 shock. *Tourism Management*, *88*, 104396. https://doi.org/10.1016/j.tourman.2021.104396

## Authors

The contribution share of authors is equal and amounted to 50% for each of them. DD – conceptualisation, literature writing, discussion, conclusions, MS – methodology, calculations.

#### **Diana Dryglas**

#### Marcin Salamaga

Associate Professor at the Department of Statistics at the Krakow University of Economics, Poland and a member of the Section of Classification and Data Analysis of the Polish Statistical Society. He holds a PhD in economics and a degree in statistics. He has published articles related to the application of statistical methods in economic research.

**Correspondence to:** dr hab. Marcin Salamaga, prof. UEK, Krakow University of Economics, Department of Statistics. ul. Rakowicka 27, 31-510 Krakow, Poland, e-mail: salamaga@uek.krakow.pl

ORCID http://orcid.org/0000-0003-0225-6651

## **Acknowledgements and Financial Disclosure**

This research was financially supported by AGH University of Krakow grant No. 16/16.200.396. The authors would like to thank the anonymous referees for their useful comments, which allowed to increase the value of this article.

# **Conflict of Interest**

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

# **Copyright and License**



This article is published under the terms of the Creative Commons Attribution (CC BY 4.0) License http://creativecommons.org/licenses/by/4.0/

## Published by Krakow University of Economics – Krakow, Poland



The journal is co-financed in the years 2022-2024 by the Ministry of Education and Science of the Republic of Poland in the framework of the ministerial programme "Development of Scientific Journals" (RCN) on the basis of contract no. RCN/SP/0583/2021/1 concluded on 13 October 2022 and being in force until 13 October 2024.