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## RESILIENCE OF TOURISM EMPLOYEES TO CHANGES CAUSED BY COVID-19 PANDEMIC

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**Abstract:** Although tourism is an industry that has become resistant to various problems over time, the consequences left by COVID-19 pandemic have taken on global proportions. Serbia, like many other countries, has suffered a great damage in tourism industry since the beginning of the pandemic. However, research on the connection between COVID-19 and tourism in Serbia is in its infancy. As no research has been conducted in Serbia on the resilience of employees in different sectors of tourism, the main goal of this study is to determine the extent to which employees in tourism sectors in Serbia are resilient to changes caused by COVID-19 pandemic. Also, the study aimed to determine the intentions in the behavior of employees after the pandemic. Respondents who participated in the research are employed in various sectors of tourism (travel agencies, travel organizations, tourist guides, employees in the hospitality industry, and academic sector). To achieve goals, the survey was conducted among 264 participants in November and December 2020. A scale of 50 statements was applied, and by applying the Exploratory Factor Analysis (EFA), three resilience factors (competence, communication, and self-efficiency) were singled out. The results of the research show that employees in tourism are largely resilient to the changes, and the strongest factor that stands out among the respondents is competence. In addition, study proved that all the factors of the resilience are expected to have a positive effect on the behavior of employees in the post-crisis period.

**Keywords:** employee resilience; tourism employees; COVID-19; Serbia

### Introduction

The World Health Organization (WHO, 2020) declared the pandemic of COVID-19 on March 12, 2020. Since then, this disease has significantly affected tourism, global travel, and people's leisure time. According to Sigala (2020), tourism is most affected by the coronavirus in terms of adopting health care strategies and measures, such as social distancing, self-isolation, recommendations to stay at home, travel bans, and restricting gatherings.

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pandemic and tourism in Serbia is in its infancy. Therefore, the research conducted by Demirović Bajrami et al. (2021) represents a significant starting point in the research of this topic in the field of hospitality industry in Serbia. The research was conducted with the aim of discovering how the different effects of COVID-19 pandemic can impact employees' attitudes regarding motivation and job satisfaction. The authors cite the effects of COVID-19 through job insecurity, employees' complaints about health, risky behavior, and changes in the organization. In addition, one more research was conducted to find out the possible consequences of the pandemic on employees in travel agencies (Vučković & Tsitsivas, 2020). This paper aims to examine the psychological aspect of the pandemic and the possible consequences it will leave on the mental health of employees in travel agencies. So far, no research has been conducted in Serbia related to the resilience of employees in tourism in general, and this research will make a significant contribution.

Therefore, the main goal of this study is to find out to what extent employees in the tourism sectors in Serbia are resistant to the changes caused by COVID-19 pandemic. Respondents who participated in the research are employed in various sectors of tourism, and they are: employees and superiors in travel agencies, employees and superiors in travel organizations, travel guides, employees in the hospitality industry, and respondents from the academy sector. By participating in different occupational profiles, the survey sought to cover the widest possible range of employees in order to get a clearer picture of the resilience of employees in tourism in general, and not just in one sector as is the case with the aforementioned research. Employee resilience was examined through a set of factors related to employee competencies, self-efficacy, and communication. The second goal of the study was to find out the intentions and behaviors of employees after COVID-19 pandemic, by determining their desire to respond to the change through proficiency, adaptability, and proactivity. This segment of research should show the willingness of tourism employees to help their organization in the post-pandemic period and thus mitigate the negative consequences. In addition, the purpose of this study is to point to the positive aspects of an organization's resilience and show how employees who are more resilient can contribute to the organization. Furthermore, this study highlights an understanding of an organization's resilience through showing employee resilience. This study demonstrates the resilience of an organization through a multidimensional concept consisting of competence, self-efficacy, and communicative behavior (e.g., Kim, 2020; Van der Vegt, Essens, Wahlström, & George, 2015).

## Literature review

Tourism, as an industry that is very vulnerable to many risks, has become resistant to various problems over time (Novelli, Burgees, Jones, & Ritchie, 2018). However, the consequences of COVID-19 show that this crisis is specific and different from the others, and that it will have major and long-term consequences for tourism industry (Chang, McAleer, & Ramos, 2020; Sigala, 2020). The extent of the damage caused to tourism industry was stated in the World Tourism Organization (UNWTO, 2021) reports, in which 2020 was listed as the worst year in international tourism, with a drop of 73% in the number of international tourists. This trend continued in 2021 when the recorded decline in the arrival of international tourists reached 83% in the period January–March.

It is very important, in addition to determining the consequences of the pandemic caused by COVID-19, to investigate the resilience of employees in tourism sector to the changes that have taken place and are yet to be made. Over the years, the concept of resilience has attracted the attention of tourism researchers, who view it as a framework for understanding the ability of society

and tourism employees to cope with emerging crises (Smith & Henderson, 2008; Strickland-Munro, Allison, & Moore, 2010). Thus, Prayag (2018) argues that it is imperative that researchers in tourism begin to address the topic of resilience. In addition to this observation, there are numerous studies on the topic of resilience in the literature to date. The most common research topic of resilience in tourism shows the connection between employees and the organization (Mao, He, Morrison, & Andres Coca-Stefaniak, 2020; Prayag, Spector, Orchiston, & Chowdhury, 2020). In the literature, there are also several studies based on the relationship and correlation between employee skills and work performance, organizational skills, and organizational resilience (Kim, 2020; Nyaupane, Prayag, Godwyll, & White, 2020).

In order to find out to what extent an organization is resilient, it is necessary to determine which factors influence it the most. Many studies have confirmed the importance of employee skills to contribute to building the resilience of an organization (Lee, Vargo, & Seville, 2013; Orchiston, Prayag, & Brown 2016). Also, previous research (Kim, 2020; Masten, Cutuli, Herbers, & Reed, 2012; Sutcliffe & Vogus, 2003) has established that the resilience of the organization is greater when employees have experience, as well as competencies and self-efficacy that motivate them to successfully perform their tasks. Based on previous research (Avery & Park, 2016; Kim & Rhee, 2012; Leoni, 2012; Spreitzer, 1995), Kim (2020) formed a united scale for measuring resilience in which he emphasizes the competence, self-efficacy, and communication of employees as factors that are most important for building employee resilience. For that reason, this scale can be a good example for further research on the resilience of employees and organizations. Therefore, this study posed the following research questions (RQ):

- RQ1: To what extent are the employees in tourism surveyed resilient?
- RQ2: Does the resilience of employees differ depending on their socio-demographic characteristics (gender, age, education, years of work experience in tourism)?

Faced with crisis, organizations expect employees to contribute to the organization through their effective behavior. In order to examine the behavior of employees in the post-crisis period, a work-role performance has been developed and tested, and this model makes up the whole spectrum of behaviors that contribute to organizational efficiency (Ghitulescu, 2012; Griffin, Neal, & Parker, 2007; Griffin, Parker, & Mason, 2010; Marques-Quinteiro & Curral, 2012; Strauss, Griffin, & Rafferty, 2009). Kim (2020) presents the mentioned model in his work and states that work behavior is divided into three dimensions: proficiency, adaptability, and proactivity. In the work role model, expertise refers to behaviors that reflect the level at which the employee adjusts to the expectations and requirements set in advance by the organization (Griffin et al., 2007; Strauss et al., 2009). Proficiency refers to the level at which the employee knows how to deal with the requirements of the company that are formed and planned in advance (Griffin et al., 2007; Strauss et al., 2009). Adaptability of the organization member means the degree to which the individual is ready to conform to changes in the system of the organization (Griffin et al., 2007). Proactivity implies the degree to which an employee enlists in self-initiation and direction toward behavior in the future in the order to initiate the changes in the professional role (Grant & Ashford, 2008; Griffin et al., 2010). As previous studies (Meneghel, Martínez, & Salanova, 2016; Strauss, Niven, McClelland, & Cheung, 2015) have shown that there is a positive relationship between organizational resilience and employee behavior after a period of crisis, this study raises the next research question:

- RQ3: Which factor of employee resilience most influences which intentions in employee behavior after the crisis period (proficiency, adaptivity, or proactivity)?

## Methodology

### Study sample

The study was conducted on a sample of 264 respondents. All the persons included in the research are residents of Serbia who are employed in various sectors of tourism. Their socio-demographic and socio-economic characteristics are shown in Table 1.

The majority of respondents are women, who are mainly in the age categories 21–30 (37.5%) and 31–40 (36%). The respondents are mostly highly educated people, and most of them belong to

Table 1  
*Socio-demographic characteristics of respondents*

Demographics	Percent (%)
Gender	
Male	26.9
Female	73.1
Education	
Elementary school	0.8
High school	10.6
Bachelor's degree	55.3
Master's or Ph.D. degree	33.3
Age	
Less than 20	1.1
21–30	37.5
31–40	36
41–50	18.2
51–60	6.4
Over 61	0.8
Years of work experience in tourism	
1–5	38.3
6–10	26.9
11–15	18.2
16–20	9.8
21–25	3.4
26–30	2.3
Over 31	1.1

the category of college and university (55.3%), while the respondents with primary and secondary school have a negligible share in the survey. For the research, it was very important to examine the number of years of work experience that respondents have in tourism. In the survey, the majority of the respondents (93.2%) have less than 20 years of work experience, while the largest share of those respondents belong to the group of up to five years of work experience (38.3%).

As mentioned above, respondents who participated in the research belong to different sectors of tourism. Respondents were free to state the job position they were employed in, and according to the answers, they were grouped into seven categories. A certain part of the respondents (13.6%) did not want to state their job position, while the largest part of the respondents were employed as tourist guides (25%). In the second and third place in terms of

participation in the study were the employees in travel agencies (18.9%), and superiors in travel agencies or travel organizations (18.2%). Employees in tourism organizations (11.4%) and employees in hospitality (10.2%) had a slightly lower share, while the respondents from the academy sector (tourism students and professors) had the lowest participation in the research with only 2.7% of the respondents.

### Procedure

The research was conducted during November and December 2020. An online questionnaire (Google Docs) distributed via e-mail (to the addresses of travel agencies and travel organizations) and social networks (Facebook and LinkedIn) was used as the main tool. Respondents were

informed that participation in the research was voluntary and anonymous and that the results would be used exclusively for scientific research purposes.

### *Instrument*

The questionnaire used in the research consists of nine questions which are systematically divided into three parts. The first part refers to the socio-demographic characteristics of the respondents, such as gender, age, level of education, job position in tourism, and the number of years of work experience in this field. The second part relates to the resilience of the organization. In this segment, issues relate to employee competencies, employee self-efficacy, and employee communication. The third part refers to the behavior of employees in the post-crisis period, more precisely to their proficiency, adaptability, and proactivity. The second and third segments are designed so that respondents assess the degree of their agreement/disagreement with the survey statements. Therefore, a seven-point Likert scale was used, ranging from *complete disagreement* (1) to *complete agreement* (7). For research purposes, a list of 50 factors was taken from research conducted by Kim (2020). Due to the lack of information on measuring the resilience of organizations and the factors that affect it, Kim (2020) formed a scale based on previous research. The newly formed scale, tested and proved as reliable, was used for the purposes of this research. The data collected by the research were processed through the IBM SPSS 23 program (descriptive statistical analysis, exploratory factor analysis, regression analysis, *t*-test, and ANOVA test).

## **Results and discussion**

The questions that make up the second part of the questionnaire include a crucial part of the research. Questions are related to the competence, self-efficacy, and communication of employees during the pandemic period (Table 2).

### *Exploratory factor analysis*

The scale for measuring employee resilience during COVID-19 pandemic showed a satisfactory level of reliability ( $\alpha = .988$ ). To single out the main dimensions of resilience, exploratory factor analysis was performed, with Promax rotation and Kaiser normalization. The Kaiser-Meyer-Olkin (KMO) sampling adequacy measure was 0.969, while the Bartlett sphericity test was significant ( $\chi^2 = 77259.849$ ,  $df = 820$ ,  $p < .00$ ). Such results indicate that factor analysis is appropriate for these data (Tabachnick & Fidell, 2007). Three significant factors were isolated, also confirmed in the Scree plot chart, with 78.23% of the model explanation. All the three factors are shown in the Table 2.

Factor 1 (competence) includes 13 statements that represent the competencies of employees in the organization during the pandemic and crises. Factor 2 (communication, 15 statements) implies the importance of communication in crises, while Factor 3 (13 statements) represents the self-efficacy of employees. These three factors represent the strength of the organization's resilience during the crisis period, in this case, during COVID-19 pandemic.

Table 2  
 Rotated component matrix (resilience factors)

Items	Factor loadings	$\alpha$
<i>Competence</i>		
I would always help other colleagues.	.969	.981
I would make an effort in the group in solving the problem.	.965	
I would listen carefully to my colleagues.	.87	
I would try to spot a problem or mistake.	.865	
I would try to find a solution to the problems.	.852	
I would gather as much information as possible before embarking on any action.	.748	
I would concern myself with problems or mistakes.	.737	
I would analyze complex difficulty in detail.	.865	
If necessary, I would teach colleagues individually or in a group.	.71	
If necessary, I would advise colleagues.	.703	
I would estimate information from different sources before deciding how to react to crises.	.654	
I would respect the measures prescribed by my company.	.609	
I would recommend my company and its services to friends.	.544	
<i>Communication</i>		
After working hours, I would ask clients/partners to find out their possible complaints and new information related to the crisis.	.89	.971
I would subscribe to various newsletters and publications.	.866	
I would try to exchange opinions with people from the industry to find out the news about changes in business.	.778	
I would argue with those who criticize my company.	.757	
I would voluntarily check customer feedback.	.754	
I would volunteer to talk to people who have complaints about the company.	.733	
I would tell my friends about the positive aspects of my company's business.	.707	
I would be upset if I came across ignorant and biased opinions about my company.	.692	
I would talk to colleagues and exchange information about new trends and changes in the business.	.675	
I would make extra exertion to nurture good relationships with others.	.667	
I would try to convince people who have a bad opinion of my company to change their mind.	.61	
If necessary, I would persuade colleagues or influence them about some things.	.593	
I would try to dispel prejudices and stereotypes about my organization.	.589	
I would volunteer to gather new useful information.	.492	
I deal more with colleagues and communicate with them during the crisis.	.397	
<i>Self-efficacy</i>		
I am convinced that I can do all my activities at work despite the crisis.	.88	.979
I would have the resources to respond to crisis in the best possible way.	.867	
I have obtained the skills needed to do my occupation.	.856	
Whatever problem this crisis brings me, I am sure I can deal with it.	.844	
I believe that I will perform well in my job.	.792	
I am sure of my capability to do my job.	.752	
I would have possibilities to respond to the crisis in the recommended way.	.748	
I believe that I will be able to do everything that is required of me at work.	.72	
Although I will need training, I would not doubt that I could do a good job during a crisis.	.702	
I am convinced that I would know how to take the right steps to protect myself during a crisis.	.686	
I know that I could find the necessary information.	.586	
I am convinced that I can react in the best way and thus defend everyone.	.544	
I would respect the measures prescribed by the authorized persons.	.399	

### Descriptive statistics

A part of the research involved the use of descriptive statistical analysis with the main goal of determining the factors that represent the most important item in assessing the resilience of the organization. The first observed factor is competence and the results of descriptive statistical analysis for this factor are shown in Table 3. At first glance, the table shows that the mean values are high, more precisely, all the mean values for this factor are above average (3.5). Observing the statements, it can be noticed that the respondents agree with the fact that they are highly competent to work in a crisis environment. Studies that have investigated resilience have shown that if employee competence is increased, individuals can respond more effectively to difficult situations; more precisely, resilience can increase in a difficult situation or crisis (Kim, 2020; Sutcliffe & Vogus, 2003; Wruck & Jensen, 1994), and the results of this study are encouraging.

Table 3  
*Descriptive statistics of resilience factor (competence)*

Items	<i>M</i>	<i>SD</i>
<i>Competence</i>	6.13	1.225
I would always help other colleagues.	6.45	1.185
I would make an effort in the group in solving the problem.	6.24	1.282
I would listen carefully to my colleagues.	6.39	1.243
I would try to spot a problem or mistake.	6.09	1.437
I would try to find a solution to the problems.	6.18	1.386
I would gather as much information as possible before embarking on any action.	6.36	1.243
I would concern myself with problems or mistakes.	5.86	1.514
I would analyze complex difficulty in detail.	6.07	1.397
If necessary, I would teach colleagues individually or in a group.	5.89	1.563
If necessary, I would advise colleagues.	5.97	1.383
I would estimate information from different sources before deciding how to react to crises.	6.18	1.277
I would respect the measures prescribed by my company.	5.8	1.511
I would recommend my company and its services to friends.	6.16	1.377

Note. *M* = Mean; *SD* = Standard deviation.

The Table 4 shows another factor that measures the resilience of the organization and that is communication, both internal and external. As stated in previous research (Albu & Vehmeier, 2014; Kim, 2020; Lundberg, Törnqvist, & Nadjm–Tehrani, 2012; Weick, 1995), the voluntary communication behavior of employees is closely related to the organization and reflects its resilience in the context of the crisis. Therefore, it is very important to notice the positive picture shown in Table 4, in which all the mean values are also very high and exceed average values. Based on Table, it is noticed that the best-rated statements are those in which employees state that they would talk to colleagues and exchange information on new trends and changes in business during the crisis (5.98) and make additional efforts to nurture good relationships with partners and clients (5.89). It could be concluded that employees are highly willing to adopt new knowledge through various forms of communication during the crisis, both inside and outside the organization. Previous research has found that employees and the information they convey are crucial for solving organizational problems in difficult situations (Kim, 2018; Kim, 2020; Kim & Rhee, 2011; Mazzei, Kim, & Dell'Oro, 2012). With their active contribution, they create and sustain the organization's reputation, both internally and externally (Men & Stacks, 2013).

Table 4  
*Descriptive statistics of resilience factor (communication)*

Items	<i>M</i>	<i>SD</i>
<i>Communication</i>	5.33	1.14
After working hours, I would ask clients/partners to find out their possible complaints and new information related to the crisis.	4.87	2.079
I would subscribe to various newsletters and publications.	4.15	2.081
I would try to exchange opinions with people from the industry to find out the news about changes in business.	5.74	1.585
I would argue with those who criticize my company.	4.65	2.104
I would voluntarily check customer feedback.	5.58	1.623
I would volunteer to talk to people who have complaints about the company.	5.42	1.712
I would tell my friends about the positive aspects of my company's business.	5.74	1.644
I would be upset if I came across ignorant and biased opinions about my company.	4.72	2.034
I would talk to colleagues and exchange information about new trends and changes in business.	5.98	1.519
I would make extra exertion to nurture good relationships with others.	5.89	1.459
I would try to convince people who have a bad opinion of my company to change their mind.	5.75	1.677
If necessary, I would persuade colleagues or influence them about some things.	4.71	1.817
I would try to dispel prejudices and stereotypes about my organization.	5.93	1.509
I would volunteer to gather new useful information.	5.78	1.567
I deal more with colleagues and communicate with them.	5.17	1.662

Note. *M* = Mean; *SD* = Standard deviation.

Another requirement that allows employees to show their resilience in the organization is self-efficacy (Table 5) because increasing self-efficacy helps employees adapt to all situations and challenges (Kim, 2020; Masten et al., 2012; Powley, 2009). Within this factor, as with the previous two, all the mean values exceed the mean value (3.5), which indicates that the self-efficacy of employees is at a high level and this can significantly contribute to the resilience of the organization in times of crisis. The surveyed employees showed a high degree of responsibility through their willingness to follow all the protocols that the organization states during the crisis period (6.18). In addition, a large number of respondents showed a high level of confidence that, despite the crisis, they can perform all their activities at work (5.73), believing that they will perform well in their position despite the situation (5.81), which can have a very positive effect on the organization. As stated in previous research, employees who are more self-effective will respond to negative feedback with increased effort and greater motivation (Bandura & Cervone, 1986; Kim, 2020).

Table 5  
*Descriptive statistics of resilience factor (self-efficacy)*

Items	<i>M</i>	<i>SD</i>
<i>Self-efficacy</i>	5.54	1.474
I am convinced that I can do all my activities at work despite the crisis.	5.73	1.624
I would have the resources to respond to crisis in the best possible way.	4.92	1.844
I have obtained the skills needed to do my occupation.	5.49	1.707
Whatever problem this crisis brings me, I am sure I can deal with it.	5.08	1.811
I believe that I will perform well in my job.	5.81	1.575
I am sure of my capability to do my job.	5.73	1.624
I would have possibilities to respond to the crisis in the recommended way.	5.11	1.725
I believe that I will be able to do everything that is required of me.	5.77	1.588
Although I will need training, I would not doubt that I could do a good job during a crisis.	5.79	1.462



Table 5  
 Continued

Items	<i>M</i>	<i>SD</i>
I am convinced that I would know how to take the right steps to protect myself during a crisis.	5.58	1.618
I know that I could find the necessary information.	5.67	1.548
I am convinced that I can react in the best way and thus defend everyone.	5.75	1.491
I would respect the measures prescribed by the authorized persons.	6.18	1.33

Note. *M* = Mean; *SD* = Standard deviation.

The intentions of employees to deal with the organization in the post-crisis period are grouped into three categories, and consist of proficiency, adaptability, and proactivity (Table 6). In this case, proficiency is a way of presenting the organization after the crisis, adaptability is the willingness of employees to accept and adapt to the new situation, while proactivity shows how employees would contribute to the changes after the crisis.

Table 6  
 Descriptive statistics of employee behavior factors in the post-crisis period

Items	<i>M</i>	<i>SD</i>
<i>Proficiency</i>	6.01	1.344
After the pandemic, I would try to show a positive image of my company to other people.	6.2	1.371
I would advocate the company in case others criticized it.	5.96	1.459
After the crisis, I would only reflect on the company in an affirmative context.	5.87	1.433
<i>Adaptability</i>	5.99	1.302
I would be flexible to react to all changes in the company after the crisis (e.g., change in management)	5.83	1.381
I would conform to the way the company works after the crisis.	5.92	1.414
I would develop new skills that would help me adapt to changes in the company.	6.22	1.281
<i>Proactivity</i>	6.14	1.274
I would give suggestions for improving the overall efficiency of the organization after the crisis (e.g., proposing changes in administrative procedures).	6.09	1.311
I would participate in changes that contribute to the efficiency of the company.	6.25	1.301
I would think of additional ways to increase efficiency in the company after the crisis.	6.08	1.376

Note. *M* = Mean; *SD* = Standard deviation.

There is a positive attitude of how employees will treat their organizations, which can be an indicator of their resilience to a given situation, as well as their satisfaction with behavior within the organization during the crisis. Namely, the respondents mostly stated that after the whole situation, they will be very proactive (6.14) and they have shown their readiness to get involved in thinking and proposing possible changes that could help the efficiency of the organization after the crisis. After that, with a slightly lower grade, the respondents showed that after the crisis they will behave professionally (6.01) and that they will talk about their organization only positively. They would defend their organization after the crisis, which is a clear indicator of their satisfaction. The last factor showing the adaptability of the surveyed employees is almost in the same place as the expertise factor (5.99), which in the context of the organization is described as the degree to which the employee is ready to adapt to pre-established rules of the organization (Griffin et al., 2007).

### Correlation analysis—age of respondents

Correlation analysis was conducted to determine statistically significant differences in the responses of respondents concerning their age (Table 7). All correlations of the factors of resilience and age of the respondents are negative. That leads to the conclusion that the increase of the employees' age causes the lower level of expressed competence, as well as the weakened self-assurance regarding the ability to contribute to the success of the organization by using their communication skills and self-efficacy.

Table 7  
 Correlation analysis—age of respondents and constraining factors

	Age Pearson correlation coefficient ( <i>r</i> )
Competence	-0.243**
Communication	-0.283**
Self-efficacy	-0.289**

Note. \*\*The correlation is significant at the level of  $p = .01$ .

### ANOVA test—years of work experience of respondents in tourism

The application of the ANOVA test was based on determining statistically significant differences in the answers of the respondents about their work status. Therefore, the subjects were classified into seven groups shown in Table 8. The statistical significance of the differences was shown among almost all the groups. Namely, with all the three factors of employee resilience, it can be noticed that for the respondents with lower work experience in tourism, competence, communication, and self-efficiency are more important as items of employee resilience. Thus, the results of the ANOVA test indicate that the respondents with lower work experience are more up-to-date, full of enthusiasm and willingness to change the environment toward contributing to the organization through these factors.

Table 8  
 ANOVA test—years of work experience of respondents in tourism

Factors	F-value	LSD post-hoc test
Competence	10.050*	1, 2, 3 > 5, 6, 7 2 > 1, 3, 4 4 > 5, 6
Communication	7.342*	1, 2 > 3, 4, 5, 6 3, 4 > 6
Self-efficacy	6.923*	1, 2 > 4, 5, 6, 7 2 > 3 3, 4 > 6 3 > 5

Note. \* $p < .05$ ; F-value = Levene's Test for Homogeneity of Variances.

### ANOVA test—education of respondents

The respondents were divided into four categories according to their level of education (primary school, secondary school, faculty, and master/doctoral studies). As shown in Table 9, there are clear differences in the attitudes of the respondents, according to their education. Namely, on the LSD post hoc test, there are clear differences indicating that respondents with higher level of education consider resilience factors more important than in the case of the categories with lower education.

Table 9  
 ANOVA test—education of respondents

Factors	F-values	LSD post-hoc test
Competence	20.089*	1, 2 < 3, 4 1 < 2 3 > 1, 2, 4
Communication	25.995*	1 < 2, 3, 4 3 > 1, 2, 4
Self-efficacy	620.834*	1 < 2, 3, 4 3 > 1, 2, 4

Note. \* $p < .05$ ; F-value = Levene's Test for Homogeneity of Variances

In addition, a *t*-test was performed to compare the responses of the respondents of different gender.

Statistically significant differences were not shown in any of these three resilience factors, which proves that there is no difference in the opinion of men and women regarding competence, communication, and self-efficacy as resilience factors in the pandemic period.

### Regression

Regression analysis was conducted to determine the most significant interrelation among the factors of employee behavior after the crisis period (Tables 10, 11, 12). The assumption that these three factors of employee resilience can significantly affect the expertise of employees after the crisis period is supported by all three-dimensional assessments and significant predictors that make 73.3% of the variance ( $R^2 = 0.737$ ) (Table 10). The strongest predictor is communication ( $\beta = 0.436$ ,  $p = .00$ ), which means that this factor will have the greatest impact on how the surveyed employees will present their organization after the crisis.

Based on Table 11, it is clear that the adaptability of employees after the crisis can be mostly influenced by the factor of self-efficiency of employees ( $\beta = 0.451$ ,  $p = .00$ ), while the model is explained with 74% variance ( $R^2 = 0.740$ ).

According to Table (12), it can be noticed that the proactivity of employees in the post-crisis period can be mostly influenced by the strength of employee competence ( $\beta = 0.557$ ,  $p = .00$ ), while the model is explained with 81.3% variance ( $R^2 = 0.813$ ).

### Conclusion

The results of this research showed that employees in tourism in Serbia are largely resistant to the ongoing changes caused by COVID-19 pandemic. Factors that stood out by factor analysis and represent the resilience of employees are competence, communication, and self-efficacy. Based on previous research (Frandsen & Johansen, 2016; Kim, 2020; Masten et al., 2012; Sutcliffe & Vogus, 2003), it has been established that the resilience of any organization is greater when employees possess competencies, self-efficacy that motivates them and the emphasized desire to communicate. It is important to point out that the results of this study showed that employees in Serbia have a high level of all these resilience factors (RQ1). Based on the obtained results, it can be concluded that this research is in line with the previous researches on this topic. Also, previous researches have shown that demographic data and job position characteristics (e.g., length of

Table 10  
*Regression analysis—predictive contribution of resilience factor to the proficiency*

Factors	$\beta$	$p$ -value
Competence	.256	.00
Communicative	<b>.436</b>	.00
Self-efficacy	.212	.00

Note. Bold text denotes the highest values; Standardised  $\beta$  value used;  $R^2 = 0.737$ .

Table 11  
*Regression analysis—predictive contribution of resilience factor to the adaptivity*

Factors	$\beta$	$p$ -value
Competence	.254	.00
Communication	.198	.00
Self-efficacy	<b>.451</b>	.00

Note. Bold text denotes the highest values; Standardised  $\beta$  value used;  $R^2 = 0.740$ .

Table 12  
*Regression analysis—predictive contribution of resilience factor to the proactivity*

Factors	$\beta$	$p$ -value
Competence	<b>.557</b>	.00
Communication	.370	.00
Self-efficacy	.007	.90

Note. Bold text denotes the highest values; Standardised  $\beta$  value used;  $R^2 = 0.813$ .

service) can affect employee resilience (e.g., Rodríguez-Sánchez, Guinot, Chiva, López-Cabrales, 2019; Strauss et al., 2009). On the other hand, this study revealed certain new findings while examining whether the degree of resilience of employees differs depending on the mentioned variables. The research showed that there is no significant difference in the degree of resilience depending on the gender of the respondents, while higher resilience was shown by younger respondents, with a higher level of education and lower years of service (RQ2). The obtained data can represent important starting points for designing strategies for motivating tourism companies, as well as targeting certain segments of tourism employees in the period after the pandemic. As in previous research (Kim, 2020), this study also confirmed that all the factors of employee resilience have a positive effect on the expertise, adaptability and proactivity of employees after a pandemic. Compared to previous research, this study aimed to discover which factor of employee resilience most influences which type of employee behavior after the pandemic. Thus, it was found that communication skills have the greatest impact on the contribution to the organization through expertise, and self-efficacy has the greatest impact on adaptability to change, while competencies have the greatest impact on proactive behavior after the crisis (RQ3).

In light of all the above, it is concluded that this study confirmed the segments of previous studies related to the topic of resilience of employees and organizations, but it also brought some new results that were not previously the subject of research. This study showed that research on resilience in the tourism sector in Serbia is in its infancy, and this study will make a significant contribution to research on the topic in the literature and in practice, examining employees in different tourism sectors. Since this study was conducted during the pandemic, the results may contribute to tourism and hospitality managers to better understand employees, and thus devise strategies for their further management and motivation during and after COVID-19 pandemic. Future research should examine the relationship between tourism employees and their organizations, as has been done in previous studies (e.g., Nyaupane et al., 2020). In addition, future research should focus on employers in tourism industry and their willingness and ability to cope with the changes that will inevitably occur after COVID-19 pandemic. The limitations in this study can be seen in the fact that the emphasis in the research is placed mainly on employees in tourism, whereby in future research more attention should be paid to organizations and management in tourism. This would show the overall picture and could provide clearer guidelines on further business in the tourism sector in Serbia after COVID-19 pandemic.

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