

## Research Article

Ajša Gicić, Miroljub Milinčić, Marko Ivanović, Danijela Vukoičić\*

# Impact of COVID-19 on Tourism in Serbia

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**Abstract:** At a time when tourism in Serbia represents a major segment of its economic development, COVID-19 has hit the tourism industry hard both locally and globally, and thus has affected the country's economic condition and its development prospects. The government of the Republic of Serbia has taken a number of measures to combat the epidemic and to recover tourism. In order to assess whether these measures have been effective and to what extent they have contributed to the sustainability of tourism as an important economic contributor, field research was conducted on 110 owners of catering and tourist facilities in attractive tourist destinations in Serbia. Statistical analysis provided precise data on the decline in the number of tourists during the epidemic, as well as whether and to what extent these consequences were mitigated by a set of measures adopted by the government of the Republic of Serbia. It was concluded that, in the first five months of 2020, the influx of tourists decreased by almost 50% compared to the same period of the previous year (2019). According to the survey, the recovery of the tourism sector will take at least twelve months, so the measures that are being implemented must have long-term effects.

**Keywords:** COVID-19; Tourism, Consequences; Recovery measures; Serbia

## 1 Introduction

At the end of December 2019, a new infectious disease of the coronavirus family (SARS-CoV2) was identified in

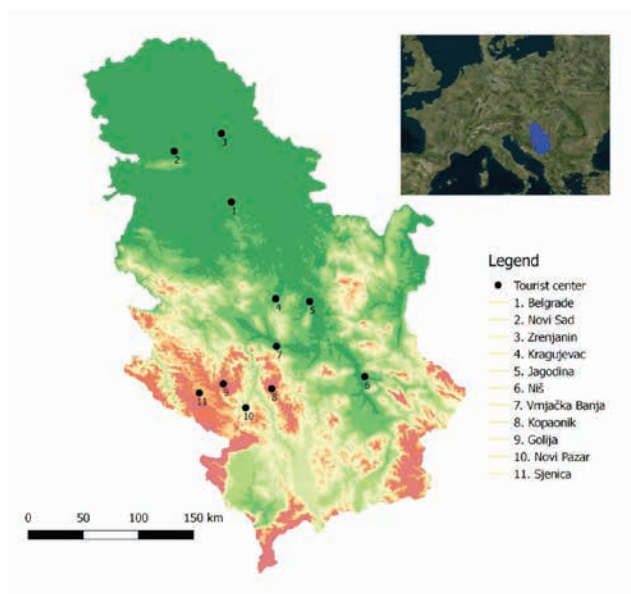
Wuhan, China and designated as COVID-19 (Chen et al., 2020; Ashour et al., 2020; Jin et al., 2020). By the beginning of 2020, COVID-19 was a global phenomenon present in almost all countries of the world (Centers for Disease Control and Prevention [CDC], 2020; U.S. Food and Drug Administration, 2020; World Health Organization [WHO], 2020a). In addition to causing fear and risk to public health (Berhan, 2020; Zaigham & Andersson, 2020), it has also caused a major global crisis, negatively affecting nearly all sectors of the economy and threatening the existence of society. As a direct result, the World Health Organization has declared an international state of emergency in the field of public health (WHO, 2020b). One recognized method for slowing the spread of coronavirus is quarantine, that is, to separate and restrict the movement of people to contain the virus locally (CDC, 2020). People have reduced or stopped social participation in their free time, a very important predictor of quality of life (Lloyd and Auld, 2002). These activities play a vital role in well-being (Zhuo & Zacharias, 2020).

The speed of the spread of the virus and a lack of knowledge about the origin and modes of transmission led to the WHO issuing warnings to tourists traveling to infected areas for only the second time in its history, contributing to a drastic decline in tourism worldwide. This new disease, which became a pandemic, has caused enormous damage to global tourism (Faus, 2020). Tourism is recognized as one of the key economic development sectors in many countries and represents a principal source of income, jobs, and wealth creation (Kovačević et al., 2018). Worldwide, 9% of all jobs are related to tourism (WTTC, 2015). Because tourism, by its nature, involves crossing borders and traveling long distances, it is a major contributor to introducing new diseases into the world population (Rittichainuwat & Chakraborty, 2009). In order to better understand the implications of knowledge circulation, legitimization, and action for sustainable tourism, more reflexive understanding of knowledge and management is required (Hall, 2019). Tourism is about movement, and transport does act as a vector for the distribution of pathogens on both regional and global scales (Gössling, 2002; Hall, 2020; Gössling et al., 2021). Tourism also supports pandemics indirectly (Gössling et al., 2020; Gössling et al., 2021). Certain health issues that may arise

\*Corresponding author: **Danijela Vukoičić**, University in Priština-Kosovska Mitrovica, Faculty of Sciences, Lole Ribara 29, 38220 Kosovska Mitrovica, Serbia, Email: danijela.vukoicic@pr.ac.rs  
**Ajša Gicić**, **Marko Ivanović**, University in Priština-Kosovska Mitrovica, Faculty of Sciences, Lole Ribara 29, 38220 Kosovska Mitrovica, Serbia  
**Miroljub Milinčić**, University of Belgrade, Faculty of Geography, Studentski trg 3/3, 11000 Belgrade, Serbia

among tourists as a result of travel can lead to crises in tourism. Several factors affect the health of tourists: an increasing number of international trips, visits to distant destinations, and the ages of the travelers. The risks to the tourist destination are very clear, bearing in mind that tourists tend to avoid environments that may pose a health risk to themselves (Henderson, 2007). Research into the development of the relationship between tourism and crisis management can be attributed to Flaukner (2001), who defines a crisis as an event that disrupts the functioning of an organization (or destination) the effects of which can be prevented or reduced by human effort.

The subject of research in this study is the impact of the COVID-19 pandemic on the tourism sector in Serbia. In order to have an objective view, it was necessary to analyse tourist traffic before and after the coronavirus pandemic, then conduct an analysis of the impact of the pandemic on the population and economy in the Republic of Serbia. We also analysed field research based on surveys of owners of tourist and catering facilities about their efforts to mitigate the consequences of the appearance of coronavirus. The results of the assessment of the effectiveness of the measures undertaken have broad significance and provide guidelines for further actions toward mitigating these consequences. The methodology used to assess the effectiveness of measures taken by the government can provide examples for application in other vulnerable areas.



**Figure 1:** Geographic Position of Serbia and Its Tourist Centers

## 2 Theoretical Framework

Most of the Republic of Serbia is located in southeastern Europe on the Balkan Peninsula, whereas the smaller, northern part is located in central Europe on the Pannonian Plain (Figure 1). Its important geographical, geostrategic and macro-regional position provides it with a transit and intermediary role in relation to its immediate and distant environment. With a favorable geographical position, rich natural and anthropogenic tourist values, it has comparative advantages as a tourist destination. However, these resources need to develop their competitive advantage for Serbia as a tourist destination, which implies that the country must use its resources efficiently and with a long-term view in order to attract tourists and increase its own prosperity and general well-being

Thanks to numerous positive development trends in the Republic of Serbia, tourism has become one of the most dynamic and most propulsive industries, with multiple effects. Its importance and economic potential allows it to be recognized as the basis for the economic development of many countries and some regions that benefit from Serbia's tourism industry. The Tourism Development Strategy in Serbia has established a selective approach, whereby rural tourism is treated as a priority within those types of tourism that are related to special interests. For example, the development of eco-tourist villages in mountainous and hilly terrains offering a healthy environment, ecological food, pleasant ambience, active vacation in nature, ethnographic, and other cultural and historical values are especially emphasized. The following forms of tourism dominate in Serbia: mountain, spa, urban, rural, and event tourism. Considering the content and the continuous enrichment of tourism offerings, all indications are that speleo-tourism will continue to grow in Serbia (Antić et al., 2020).

According to the data of the United Nations World Tourism Organization (UNWTO), in 2018 a record 1.4 billion international tourist arrivals was recorded, which is an increase of 6% compared to 2017 (UNWTO Tourism Highlights, 2018). Tourism plays a significant role in the overall economic development of Serbia; thus in 2019, a record number of arrivals and overnight stays was achieved. In February 2020, compared to February 2019, the number of tourist arrivals in Serbia increased by 18.9%, while the number of overnight stays increased by 20.1%. This shows that tourism in Serbia has the potential to be one of the most profitable industries in the country, but as a tourist destination it is very fragmented (Popesku, 2011).

Experts estimate that the global impact of the coronavirus pandemic (COVID-19) in Serbia mostly affects

the tourism sector, and the first consequences and losses were largely felt by travel agencies, hoteliers, and caterers. Various forms of restrictions on the population are still in force in many countries around the world. Some have closed their borders and require a large number of people to remain in quarantine. Many air traffic lines have been suspended; for example, in the United States, where a ban on all flights to the EU was in force at the time of this writing. Certain flights are cancelled as a preventive measure. As a result of fear of contagion, many companies minimize business trips, and individual citizens voluntarily cancel preplanned trips. The United Nations World Tourism Organization (UNWTO) has made initial assessments of the consequences of this crisis on the tourism sector and is working on measures to help vulnerable economies. The organization issued a statement emphasizing that the tourism sector is currently the most affected by the spread of the coronavirus infection, with consequences for both supply and demand for travel.

The goal of the Tourist Organization of Serbia is for Serbia to remain present as a tourist destination on the world map. In mid-March 2020, the Serbian government took measures to amortize losses in the tourism sector due to a drop in foreign tourist visits. Thus, an additional 60,000 vouchers were distributed to the citizens of Serbia, which increased the number from 100,000 last year to 160,000 vouchers this year. In mid-April, the relevant ministry implemented a decision to distribute another 400,000 vouchers worth a total of RSD 2 billion. Also, in previous years, only mountain and spa tourist centers were included in this form of tourism development support, while in 2020 the offer was extended to city tourist centers—Belgrade and Novi Sad. In this way, the government attempted to alleviate the deficit, which in the first 5 months of 2020 is projected at around 300 million euros, due to lower foreign exchange inflows from tourists (<https://mtt.gov.rs/>). Also, the Ministry of Tourism of the Republic of Serbia passed a decree offering a replacement trip to all citizens of Republic of Serbia who could not travel abroad or whose trips were canceled due to the Covid-19 pandemic. This has led to an additional inflow of funds into domestic tourist destinations. In the second half of 2020, the Ministry introduced measures for the payment of wages or a portion of wages to employees in the tourism sector (Official Gazette 146/2020), as well as a subsidy for projects which encourage the inflow of foreign tourists (Official Gazette 21/2020) in order to recover the sector from the “wasted tourist season (2020)” (<https://mtt.gov.rs/>). Vouchers of this type have been awarded by the government for the sixth year in a row, in order to simultaneously support domestic tourism and provide

pensioners, the unemployed, and lower-income groups with a discount for holidays in domestic accommodation facilities.

According to the data obtained from the Tourist Organization of Serbia, during the first two months of 2020, 453,728 tourists stayed in Serbia, with 1,419,313 overnight stays, with the largest number of arrivals and overnight stays made by domestic tourists. The largest number of overnight stays by foreign tourists were those of guests from Romania, followed by those from Montenegro, Russia, Bosnia and Herzegovina, and Northern Macedonia. In the first two months of 2020, regarding foreign tourists, there was a large increase in overnight stays of tourists from Russia (65.3%), Turkey (58.5%), China (41.3%), and Greece (40.7%) (<https://www.srbija.travel/>, July, 2020). All these indicators show that in terms of tourist traffic, 2020 would have been more successful than 2019 if the crisis caused by COVID-19 had not occurred.

### 3 Methods

In 2020, several studies addressed the effects of the coronavirus pandemic on the tourism sector and also analysed proposed recovery measures (Assaf & Scuderi, 2020; Benjamin, Dillettem & Alderman, 2020; Carr, 2020; Chen, Huang, & Li, 2020; Ioannides & Gyimóthy, 2020). The results showed that the pandemic had serious consequences for the tourism sector. Most countries saw a chance for recovery through domestic tourism incentives, especially ecotourism (Crossley, 2020; Lew *et al.*, 2020). The focus of all research was the concern for the future of the tourism sector, so the governments have become significant players in the tourism economy in most countries. This study represents a part of the analyses performed for the Serbian territory.

The research methodology is aligned with the research goals and objectives and consists of two parts: The first refers to the statistical trend analysis related to the forms of tourism with the highest tourist turnover in the Republic of Serbia; and the second refers to the field research based on government performance measures to control the corona virus pandemic and measures to help tourism recover from the consequences of the pandemic.

The first part of the research is the analysis of the trend of increase or decrease of the number of tourists for mountain and spa centers, for the period before the presence of the corona virus, and the period during its presence. Official data taken from the Statistical Office of the

Republic of Serbia were processed, and they refer to the number of guests (in thousands).

The research refers to a reference period of five and six years, respectively (from 2014 to 2019 and from 2014 to 2020), for the first five months of the year. The first period of analysis refers to the growth trend without the presence of coronavirus, and the analysis of the second period shows the impact coronavirus had on the number of tourists in mountain and spa centers (RZS, July, 2020).

Several approaches were used in the data analysis. First, the obtained data were graphically displayed using MS Excel. The linear trend equation for mountain and spa centers is calculated. In the obtained linear regression equations (in the form  $y = bx + a$ ), the coefficient (b) was monitored. It denotes the average value of the analyzed parameters in the observed period. If the obtained coefficient is greater than zero (0), the trend is evaluated as positive; if it is less than zero, it is negative, and if it is equal to zero, there is no trend (no change).

The magnitude of the trend was calculated using the equation:

$$\Delta y = y(2020) - y(2014)$$

where  $\Delta y$  is the trend magnitude, expressed in units of the analyzed parameter, and  $y(2020)$  and  $y(2014)$  units from the trend equation in the initial year (2014), and from the end of the observed period (2020). When the value of  $\Delta y$  is less than zero, the trend is negative (decreasing), if it is higher than zero, it is positive (increasing); and if it is equal to zero, there is no trend. The magnitude of the trend is interpreted as the total movement of values (increase/decrease) in the observed period.

The second part refers to the analysis of field research data, collected by a survey method among adult citizens of the Republic of Serbia engaged in catering and tourism activities. Data processing was created on the IBM SPSS Statistics software no. 21, a program that loads data, performs analyses, and provides printouts of results. The questionnaires were collected in the period from March to July 2, 2020, during the initial phase of the pandemic and after the lifting of the state of emergency in the Republic of Serbia. The questionnaires were distributed on site and managed by the authors. Field survey contributed to the collection of data based on questions formulated using the methods of Lau, Griffiths, Au, and Choi (2011) and applied by Fong et al., 2020 in the case of coronavirus, and were related to government performance measures, self-efficacy, and negative emotions of respondents. The number of respondents was 110, they were used in order to calculate the importance of subindicators. Out of 110

survey questionnaires, 90 were collected through direct interviews, while 20 were collected online. The questionnaire consisted of 18 closed-ended questions, with answers ranging from 1 to 7 (1 - very low; 7 - very high). Emphasizing the importance of these items for the further course of Serbian tourism was a significant incentive for each respondent.

## 4 Results

The research results in this study follow the methods described above. In order to objectively see the consequences of the coronavirus pandemic on the tourism sector, an analysis of the trend of increase/decrease in the number of tourists for the first five months of the year, for the period from 2014 to 2019 (before COVID-19) and for the period 2014 to 2020 (with COVID-19). The analysis was performed for the two busiest forms of tourism (mountain and spa tourism) in Serbia.

An overview of the analysis of the trend of increase/decrease of the number of tourists for mountain places is given in Figure 2.

January and February 2020 are the months when corona virus was not officially present in the Republic of Serbia. In that period, compared to the same period from 2014 to 2019, a significant growth in the number of tourists in mountainous places was achieved (Figure 2)(RZS, 2019). With a growth trend of 19,180 tourists in January during the first analyzed period (2014–2019), an increase of 27,330 tourists in the second period (2014-2020) was achieved, that is, from 7.73% to 8.68% growth in the number of tourists. In February, the growth trend from 30,260 in the first period reached 39,160 in the second observed period, that is, from 12.26% to 12.31% growth (Table 1).

In March 2020, the first case of coronavirus was registered in the Republic of Serbia (March 6). In the second week of this month, the virus had already begun to spread rapidly, so a state of emergency was declared for the entire territory of the Republic of Serbia, and the Crisis Staff, which monitored the pandemic, took measures to combat it. One of the measures included a strict ban on population movements and the closure of borders, which directly affected the tourism sector. Based on Figure 2, it can be concluded that since March, there has been a significant decline in the influx of tourists in mountainous places in Serbia due to the impact of the COVID-19 virus. Thus, the trend of growth in the number of tourists from 18.11 thousand, decreased to 7.22 thousand in the second period, that is, with an

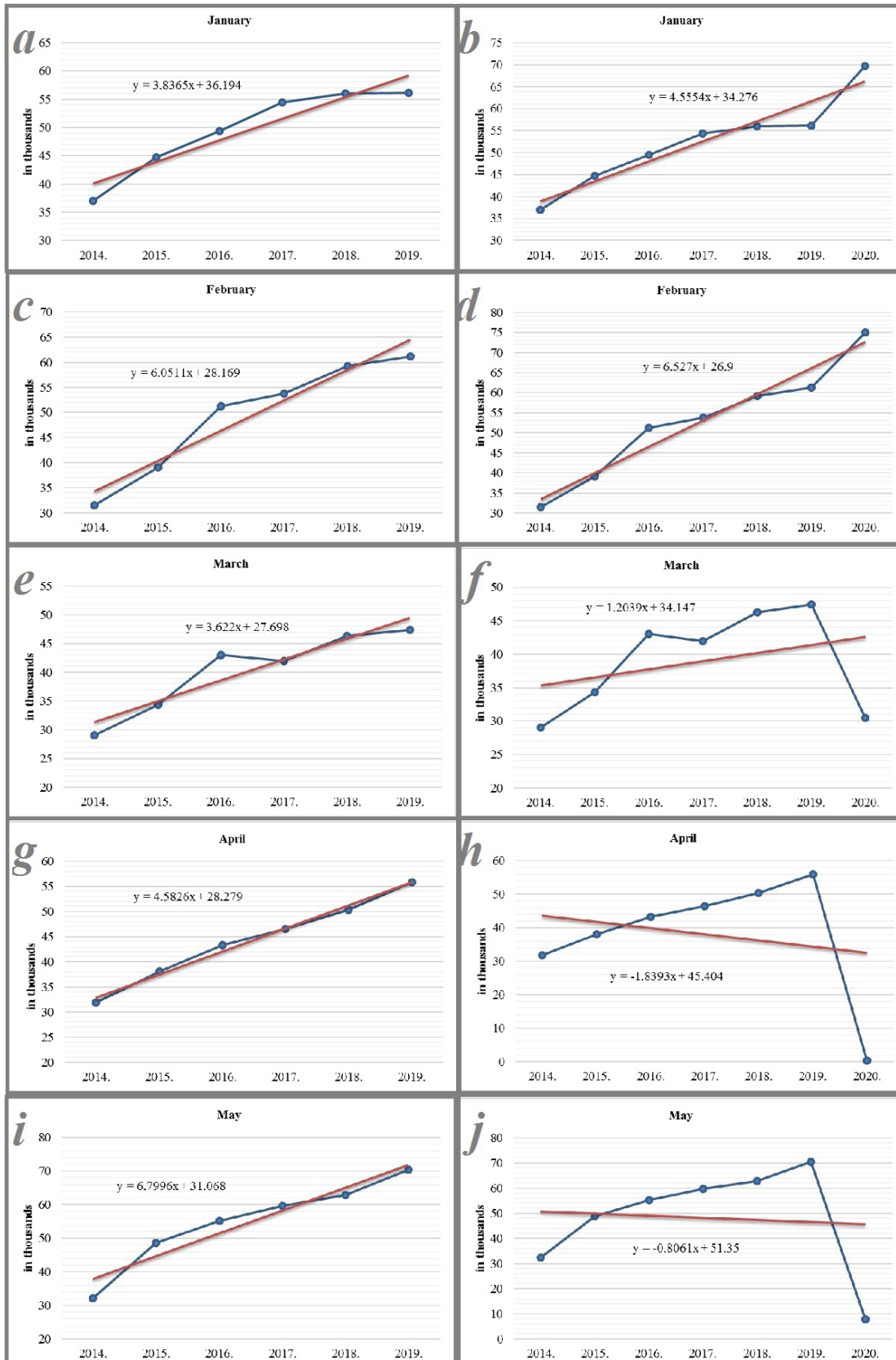


Figure 2: Trend of Increase/Decrease of the Number of Tourists in the Mountain Centers of Serbia for the Period between January and May 2014–2019 and the same period from 2014–2020.

increase of 8.97% in the first observed period, to 3.09% in the second one (Table 1).

Measures that included a strict ban on the movement of the population also referred to April, so the largest decrease in the number of tourists was recorded then. With a growth trend of 22,910 tourists in the first observed period (2014–2019), the turnover in this month was almost nonexistent, so the second period recorded a negative growth trend of -11,040, that is, from an increase of 10.34%, to a decrease of -4.84% (Table 1).

Restrictive measures aimed at alleviating the coronavirus were milder in May, which gave a chance for the economy to recover, particularly the tourism sector. In the first period, a growth trend of 34,000 tourists was recorded, but an almost insignificant number of tourists in May 2020 influenced the second period to record a negative trend of -4,840 tourists, that is, from an increase of 12.39% to a decrease of -1.67% (Table 1).

The number of tourists in the observed period followed different trends for mountain and spa tourism. As the analysis in the number of tourists referred to the first five months of the year, the number of tourists differs. Mountain tourism is the most popular in the winter, while spa tourism is popular in the summer.

The trend of growth/decline in the number of tourists in spa resorts in Serbia for the first five months of the year, for the period 2014–2019 and 2014–2020. is shown in Figure 3.

The number of tourists in spa centers in January and February is significantly lower than the number of tourists in the mountains. The growth trend for January in the first observed period increased from 4,200, to 9,110 in the second period (from 3.96% to 6.65%). A significant growth trend was also achieved in February, from 11,900 to 18,980 in the second period (Figure 3), that is, from 12.32% to 14.68% (Table 2).

**Table 1:** Comparative Overview of the Trend of Increase/Decrease in the Number of Tourists in the Serbian Mountain Tourist Centers for the Period without Coronavirus and with Coronavirus

Month	Period	Equation	Δy	Trend
January	2014-2019	$y=3.8365x+36.194$	19.18	Positive
	2014-2020	$y=4.5554x+34.276$	27.33	Positive
February	2014-2019	$y=6.0511x+28.169$	30.26	Positive
	2014-2020	$y=6.527x+26.9$	39.16	Positive
March	2014-2019	$y=3.622x+27.698$	18.11	Positive
	2014-2020	$y=1.2039x+34.147$	7.22	Positive
April	2014-2019	$y=4.5826x+28.279$	22.91	Positive
	2014-2020	$y=-1.8393x+45.404$	-11.04	Negative
May	2014-2019	$y=6.7996x+31.068$	34.0	Positive
	2014-2020	$y=-0.8061x+51.35$	-4.84	Negative

**Table 2:** Comparative Overview of the Trend of Increase/Decrease in the Number of Tourists in Serbian Spa Centers for the Period without Coronavirus and with Coronavirus

Month	Period	Equation	Δy	Trend
January	2014-2019	$y=0.8408x+18.573$	4.20	Positive
	2014-2020	$y=1.5188x+16.765$	9.11	Positive
February	2014-2019	$y=2.3793x+10.992$	11.90	Positive
	2014-2020	$y=3.1641x+8.8986$	18.98	Positive
March	2014-2019	$y=2.635x+18.627$	13.18	Positive
	2014-2020	$y=0.5776x+24.114$	3.47	Positive
April	2014-2019	$y=4.0649x+23.827$	20.32	Positive
	2014-2020	$y=-1.4384x+38.503$	-8.63	Negative
May	2014-2019	$y=6.2234x+27.328$	31.12	Positive
	2014-2020	$y=0.6737x+42.127$	4.04	Positive

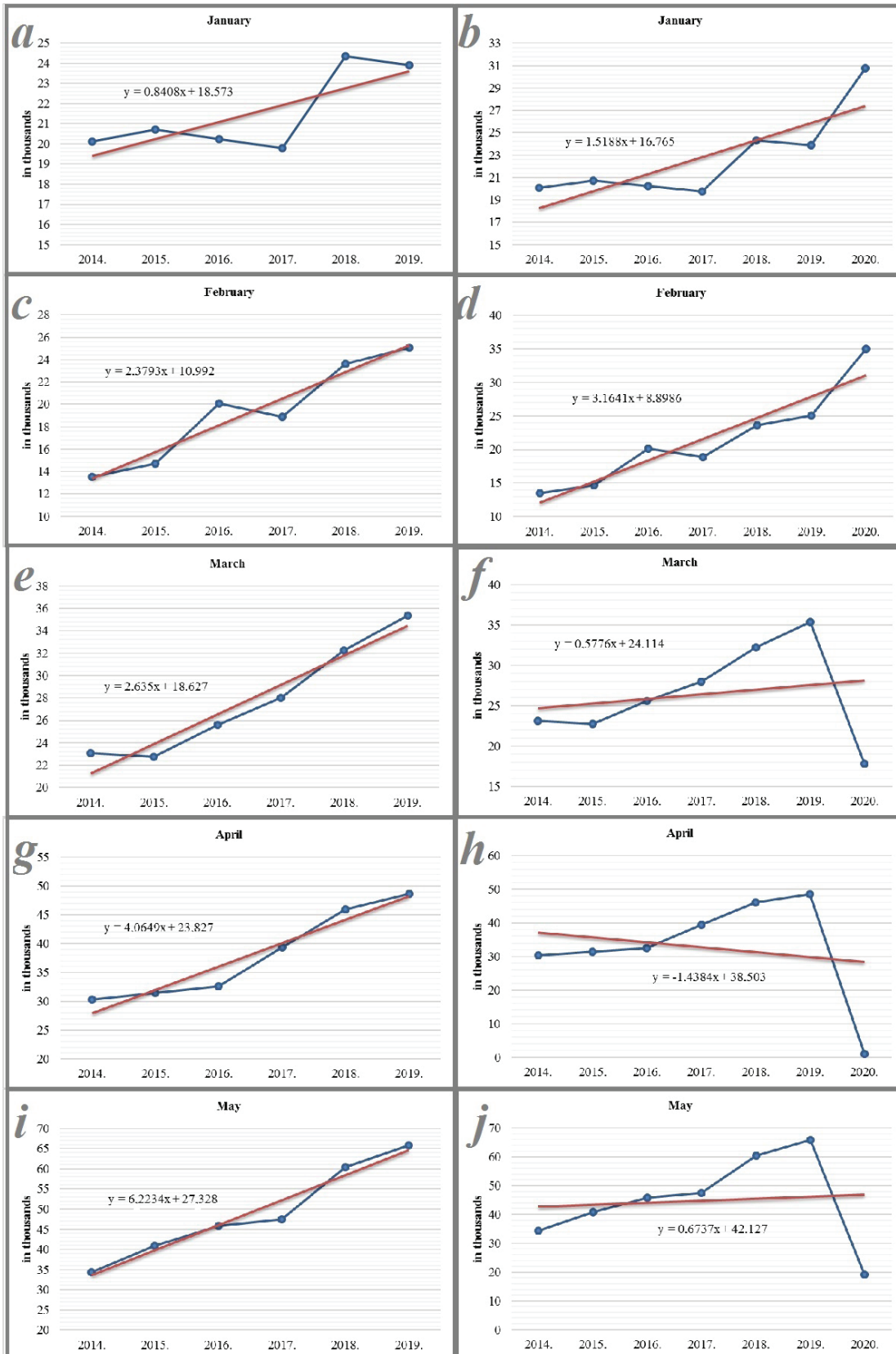


Figure 3: The Trend of Increase/Decrease in the Number of Tourists in Serbian Spas for the Periods Between January and May 2014–2019 and 2014–2020

With the appearance of the coronavirus in March 2020, there was a downward trend in the number of tourists, so the number decreased from 13,180 to 3,470 (Figure 3), that is, from 9.46%, to 2.19%. In April, with a growth trend of 20,320 tourists in the first period, a negative trend of -8.63 thousand was recorded in the second period, ; that is, from 10.68%, to -4.39%. In May, in the first observed period, the growth trend was 31,120, and in the second the trend was 4,040; that is, from 12.67%, the growth fell to 1.50% (Table 2).

Based on the analysis of statistical data, it can be concluded that the corona virus stopped the tourism sector for a period of time. With the maximum trend of growth in the number of tourists in January and February 2020, the trend is negative in April. The recovery time for the tourism sector is slow and will have lasting consequences for Serbia’s overall economic development.

In the part of the research that refers to the survey of entrepreneurs, that is, owners of tourist and catering facilities, all 110 questionnaires were filled in correctly. After statistical processing of the data, we divided the results into three parts: presentation of all respondents by geographic location, demographic characteristics, and results related to measures of government performance in order to mitigate the effects of coronavirus on tourism.

The target group in this part of the research is the respondents (owners of hotels, motels and restaurants) from all regions of Serbia. Respondents come from the largest city in Serbia and the largest tourist destination, Belgrade; the largest mountain tourist center, Kopaonik; the busiest spa resort, Vrnjačka Banja; a nature park with the recognizable ecotourism, Golija; as well as other urban and rural settlements (Novi Sad, Niš, Kragujevac, Zrenjanin, Novi Pazar and Sjenica) (Table 3).

Table 4 shows the demographic statistics of the respondents, which are based on data on gender, age, and level of education.

Of the total number of respondents, men accounted for 52.7%, while there were slightly fewer female respondents at 47.3%. The largest number of respondents was 18 to 39 years old and accounted for a total of 55.5%, followed by respondents aged 40 to 59 who accounted for 40.9%, while the lowest percentage of respondents was aged over 60 years, accounting for 3.6%. The largest number of respondents had finished 4 years of high school (29.1%),

**Table 4:** Demographic Characteristics of Respondents

Respondents	Total (N=110)	
	N	Percentage (%)
Gender		
Male	58	52.7
Female	52	47.3
Age		
18-39	61	55.5
40-59	45	40.9
over 60	4	3.6
Education		
Primary school (8 years)	2	1.8
Secondary (3 years)	5	4.5
Secondary (4 years)	32	29.1
College (2 years)	17	15.5
College (3 years)	15	13.6
University (4 years)	10	9.1
Master’s degree (5 years)	29	26.4
Doctorate degree	0	0

**Table 3:** Locations (Places and Centers) Where the Survey Was Conducted

Location	Hotels	Motels	Restaurants	Total
Beograd	10	5	5	20
Novi Sad	6	4	2	12
Zrenjanin	2	1	2	5
Jagodina	1	1	0	2
Kragujevac	3	3	1	7
Niš	2	3	3	8
Vrnjačka Banja	4	3	2	9
Kopaonik	7	8	4	19
Golija	0	2	0	2
Novi Pazar	4	8	10	22
Sjenica	1	0	3	4
<b>Total</b>	<b>40</b>	<b>38</b>	<b>32</b>	<b>110</b>



followed by 26.4% of respondents with a master's degree. There were 15.5% of respondents who graduated from two-year colleges, 13.6% graduated from three-year colleges, and respondents with higher education lasting four years accounted for 9.1%. Respondents who finished three years of high school accounted for 4.5%. Respondents with primary education represented the lowest percentage with a total of 1.8%, whereas there were no respondents with a doctorate degree (Table 4).

Table 5 shows the parameters based on government performance measures, self-assessment and negative items from the emotional aspect of the respondents, which were adjusted according to the methods of Lau, Griffiths, Au, and Choi (2011) by changing the epidemic focus from H1N1 to COVID-19. The projected recovery period is represented by a single item.

Based on Table 4 for stating the efficiency of the government's performance, among the best rated is a clear explanation to the general public about the existence of COVID-19 virus in the territory of the Republic of Serbia, with an average score of 5.67. Respondents were satisfied with the adequacy of the quarantine procedure, with a score of 5.42. The timeliness of preventive measures and the effectiveness of preventive measures can also be said to be among the most highly rated in the questionnaire. The lowest average value in the questionnaire was given to cooperation between government ministries, with a score of 4.66. The coefficient of reliability (Cronbach's Alpha) is 0.848, from which it can be concluded that the coefficient is satisfactory. Based on the responses for the government performance, the respondents gave very good marks.

As for respondents' self-assessment, they were more concerned that their family members would be infected,

**Table 5:** Statistics of Survey Questionnaires

Constructive measures	Items and ratings	Mean value	Cronbach alpha ( $\varphi$ )
Government performance	Assess the performance of the government of Serbia in combating the epidemic from the following aspects (1- very low; 7 - very high):		0.848
	Timeliness of preventive measures	5.15	
	Effectiveness of prevention measures	5.06	
	A clear explanation to the general public	5.67	
	Adequacy of the quarantine procedure	5.42	
Self-evaluation	Cooperation between Government Ministries	4.66	
	State the level of reliability in the following stances (1: very unreliable -7: very reliable):		0.983
	I will not be infected with COVID 19	3.15	
Negative assessments	My family members will not be infected with COVID 19	3.24	
	To what extent do you agree with the following statements (1 - strongly disagree; 7 - strongly agree):		0.885
	I am very worried that I will get infected with COVID 19	4.08	
	I am very concerned that my family members will become infected with COVID 19	4.12	
	I feel panic	2.25	
Observed efficiency of the government	I feel depressed	2.02	
	I am upset	1.77	
Predicted recovery period	How confident are you that the Government of Serbia has the ability to effectively recover the local tourism economy? (1: very unconfident - 7: very confident)	4.73	
	What is the projected recovery period for local tourism?		0.784
	June – July 2020	1.65	
	August – September 2020	2.24	
	October – December 2020	3.06	
	January – March 2021	4.52	
	Period after that	5.56	

for which the average value was 3.24, while they were slightly less concerned about getting infected with the Covid-19 virus themselves, with an average of 3.15. Based on these items, the reliability coefficient (Cronbach's Alpha) is 0.983, which is also very satisfactory. Based on the data processing in the self-assessment of these two items, we observe that the respondents are insecure when it comes to this virus infection.

When it comes to negative assessments, the item about concern for the possible infection of the respondents' families has the highest average score, which is 4.12, immediately followed by the concern about the respondents' own infection possibility with an average score of 4.08. Based on these two data reports, it can be concluded that the respondents are mildly concerned about COVID-19 infection. The next three items related to panic, depression, and anxious mental state of the respondents were rated low, where it was observed that the respondents did not agree with this situation during the COVID-19 pandemic. The reliability coefficient in these items is 0.885, with satisfactory criteria.

The item related to the projected time period for the recovery of local tourism has an average value of 4.73, where it can be noted that it is not highly rated. Thus, it can be concluded that respondents are not sure how efficient the government will be when it comes to recovery of local tourism in the Republic of Serbia.

The last item presents the period for the recovery of tourism in several time series, in 2020 and 2021. The average scores for the forecasted periods are: June-July - 1.65; August-September, 2.24; October-December. 3.04; January-March of the following year, 4.52; and the period following the mentioned months, 5.56. Based on all the above-mentioned months for tourism recovery, the respondents believe that it will still take a longer period of time for the tourism of Serbia to return to normal, that is, as it was in 2019. Thus, the period after everything stated in the questionnaire has the highest average score of 5.56, immediately followed by the time period January-March with a score of 4.52. This period is rated high by catering facilities based on winter tourism traffic. The reliability coefficient based on the items related to the projected period of tourism recovery is 0.784.

The performance of the government of the Republic of Serbia related to the tourism sector was characterized by the respondents as very satisfactory.

## 5 Discussion

Although some crises have had a great global impact on tourism development, what has always accompanied such phenomena is the fact that it has always shown an exceptional ability to recover. The beginning of the 21<sup>st</sup> century was marked by several crises of global proportions, from the terrorist attacks on the United States, the pandemics H1N1 and SARS, as well as the appearance of the world economic crisis. The coronavirus pandemic (COVID-19) is one of the most influential events of the 21<sup>st</sup> century. Even in the early stages of its existence, the impact on tourism was enormous. Current estimates reflect the loss of 75 million jobs in tourism at immediate risk, where the industry will lose more than \$2.1 trillion (WTTC, 2020). Borders have been closed; cruises have been suspended; air fleets have been grounded; and hotels, restaurants and tourist attractions have been almost completely shut.

Tourism is targeted as one of the main opportunities that Serbia has to increase economic development in the near future. However, after the appearance of the COVID-19 virus, it is unlikely that this opportunity will be realized in the near future. Serbia has suffered enormous damage during the pandemic, and so did tourism on a global scale. From January to May 2019, the total influx of tourists in mountainous and spa areas was 489,856, which is an encouraging the further course of tourism development in this country. However, from January to May 2020, the total influx of tourists in both of these areas was reduced by almost half of the 2019 number and amounted to exactly 286,947 tourists. During the state of emergency, in the month of April in the Republic of Serbia in 2020, the total influx of tourists was 1,336, which is the lowest figure in the tourism sector since the Second World War. In May, after the situation caused by the appearance of the COVID-19 stabilized for a short period, the influx of tourists was slightly higher and amounted to 26,773, but it was still insufficient for the greater development of the tourism sector in Serbia. The large losses in the tourism sector of the Republic of Serbia are evidenced by the data, which show that from the maximum increase in the number of tourists in mountainous and spa areas in January and February 2020, the trend became negative in April, while the number of tourists was very small in May. The fact that the respondents, owners of catering and tourist facilities in Serbia, estimate that it will take a long time for the tourism section to recover and that it will take at least a year for such recovery, is also discouraging. Based on the statistical data of the field survey, the respondents expressed uncertainty when asked whether the government of Serbia would be able to help with the recovery of local tourism. The measures taken by the gov-

ernment of the Republic of Serbia to assist the tourism sector are comparable to the measures taken by developed countries within the European Union (Germany, France, Austria, Belgium, Poland, Greece, Italy, etc.) and other countries in the world (Sharma, Thomas and Paul, 2021).

## 6 Conclusion

It can be stated that the impact of the COVID-19 virus on Serbian tourism has left significant consequences. People's ignorance, uncertainty and concern for their health and the health of their loved ones were limiting factors for any kind of free movement of people. All this was a turning point for people from urban areas to return to nature and understand its importance, and rural tourism in Serbia gained special importance. The government of the Republic of Serbia has taken measures in order to convince people to take care of their health and in that way especially stimulated domestic tourism. The owners of catering and tourist facilities accepted all the adopted measures with approval and tried to realize their pre-defined plans for the summer tourist season with a moderate dose of confidence. According to the results derived on the basis of field research, the position of the owners of catering facilities is that the recovery of local tourism is not expected until next year.

The tourism sector in Serbia needs credible government measures to build market confidence and reduce the risk of viruses. The role of the government should be stronger, emphasizing the importance of measures for recovery and further development of the tourism sector.

Some of the measures the government should focus on may be:

- awarding grants to tourism organizations, companies and other organizations and institutions for tourism development;
- allocations of subvention to support the work of the hotel industry of Serbia;
- granting incentives for the construction of infrastructure and superstructure in tourist destinations, for projects of promotion, education, and training in tourism;
- deferred payment of taxes and contributions to entrepreneurs for at least two years;
- continue to promote domestic tourism through subvention to the population (voucher distribution);
- allocation of grants intended for tourism development projects in 2021;
- allocation of credit funds to encourage the quality of the tourist offer in 2021

These measures directly affect the mitigation of the consequences caused by the corona virus on the tourism sector, but also through tourism on the process of recovery of the entire economy.

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### Bionotes

**Ajša Gicić** completed her undergraduate and master studies at the Department of Geography, Faculty of Natural Sciences and Mathematics in Kosovska Mitrovica. Ajša is engaged in research in the field of tourism and sustainable development. E-mail: ajsagicic@hotmail.com  
ORCID 0000-0002-0781-626X

**Miroљub Milinčić** is a full professor of environmental sciences and applied geography in the Faculty of Geography, University of Belgrade. His research fields are environmental protection, human and social ecology and applied geography. Milincic has participated in the realization over 20 national research projects. Furthermore, he has published five scientific monographs and over 200 scientific articles in several national and international journals. Additionally, he is a Planet Earth's Serbian Committee member and a member of the editorial board of number of scientific and professional publications. E-mail: mikan@gef.bg.ac.rs  
ORCID 0000-0002-2492-9557

**Marko Ivanović** is an assistant at the Department of Geography, Faculty of Science in Kosovska Mitrovica. Marko is engaged in research in the field of Cartography, Geographic Information Systems, Tourism and the Environment. E-mail: marko.ivanovic@pr.ac.rs  
ORCID 0000-0001-5281-4776

**Danijela Vukoičić** is an Associate Professor at the Department of Geography, Faculty of Science, University of Pristina, temporarily seated in Kosovska Mitrovica. She received her PhD in 2013 at the Faculty of Geography, University of Belgrade, Serbia. She engaged in research in the field of tourism, environment and sustainable development and social geography. She is the author of two mon-

ographs, 10 scientific research papers referred to in the Web of Sciences, and more than 50 professional papers.  
E-mail: danijela.vukoicic@pr.ac.rs  
ORCID 0000-0002-3139-1070

## References

- [1] Antić, A., Vujko, A., & Tomić, N. (2020). Examining and forecasting tourist arrivals and speleotourism development in Resava Cave (Eastern Serbia). *European Journal of Tourism, Hospitality and Recreation*, 10(2), 146–153. <https://doi.org/10.2478/ejthr-2020-0012>
- [2] Assaf, A., & Scuderi, R. (2020). COVID-19 and the recovery of the tourism industry. *Tourism Economics*, 26(5), 731–733. <https://doi.org/10.1177/1354816620933712>
- [3] Ashour, H.M., Elkhatib, W.F., Rahman, M.M., & Elshabrawy, H.A. (2020). Insights into the recent 2019 novel coronavirus (SARS-CoV-2) in light of past human coronavirus outbreaks. *Pathogens*, 9(3), 186. [10.3390/pathogens9030186](https://doi.org/10.3390/pathogens9030186)
- [4] Benjamin, S., Dillette, A., & Alderman, D. H. (2020). “We can’t return to normal”: Committing to tourism equity in the post-pandemic age. *Tourism Geographies*, 22(3), 476–483. <https://doi.org/10.1080/14616688.2020.1759130>
- [5] Berhan, Y. (2020). Will Africa be devastated by Covid-19 as many predicted? Perspective and prospective. *Ethiopian Journal of Health Sciences*, 30 (3), p. 459–467.
- [6] Carr, A. (2020). COVID-19, indigenous peoples and tourism: A view from New Zealand. *Tourism Geographies*, 22(3), 491–502. <https://doi.org/10.1080/14616688.2020.1768433>
- [7] Centers for Disease Control and Prevention. (2020), CDC updates, expands list of people at risk of severe COVID-19 illness. Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/media/releases/2020/p0625-update-expands-covid-19.html>
- [8] Centers for Disease Control and Prevention. (2020). Quarantine and Isolation | Quarantine | CDC . Retrieved March 20, 2020 from <https://www.cdc.gov/quarantine/index.html>
- [9] Chen, K., Wang, M., Huang, C., Kinney, P.L., & Paul, A.T. (2020). Air pollution reduction and mortality benefit during the COVID-19 outbreak in China. Comment, *The Lancet Planetary Health*. Published Online May 13, 2020. [https://doi.org/10.1016/S2542-5196\(20\)30107-8](https://doi.org/10.1016/S2542-5196(20)30107-8)
- [10] Chen, H., Huang, X., & Li, Z. (2020). A content analysis of Chinese news coverage on COVID-19 and tourism. *Current Issues in Tourism*, 1–8. <https://doi.org/10.1080/13683500.2020.1763269>
- [11] COVID-19. <https://covid19.rs/>
- [12] Crossley, E. (2020). Ecological grief generates desire for environmental healing in tourism after COVID-19. *Tourism Geographies*, 22(3), 536–546. <https://doi.org/10.1080/14616688.2020.1759133>
- [13] Drakulić Kovačević, N., Kovačević, L., Stankov, U., Dragičević, V., & Miletić, A. (2018). Applying destination competitiveness model to strategic tourism development of small destinations: The case of South Banat district. *Journal of Destination Marketing & Management*, 8, 114–124. <https://doi.org/10.1016/j.jdmm.2017.01.002>
- [14] Faulkner, B. (2001). Towards a framework for tourism disaster management. *Tourism Management*, 22(2), 135–147. [https://doi.org/10.1016/S0261-5177\(00\)00048-0](https://doi.org/10.1016/S0261-5177(00)00048-0)
- [15] Faus, J. (2020). This is how coronavirus could affect the travel and tourism industry. World Economic Forum, Reuters, 17 March 2020. From (Retrieved on 28 April 2020). <https://www.weforum.org/agenda/2020/03/world-travel-coronavirus-covid19-jobs-pandemic-tourism-aviation/>
- [16] U.S. Food and Drug Administration (2020). FDA updates policy about serology tests for COVID-19, 2020. <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-serological-tests>
- [17] Fong, L.H.N., Law, R., & Ye, B.H. (2020). Outlook of tourism recovery amid an epidemic: Importance of outbreak control by the government. *Annals of Tourism Research*, 25 May 2020. <https://doi.org/10.1016/j.annals.2020.102951>
- [18] Gössling, S. (2002). Global environmental consequences of tourism. *Global Environmental Change*, 12(4), 283–302. [https://doi.org/10.1016/S0959-3780\(02\)00044-4](https://doi.org/10.1016/S0959-3780(02)00044-4)
- [19] Gössling, S., Fernandez, S., Martin-Rios, C., Pasamar, S., Fointiat, V., Isaac, R. K., & Lunde, M. (2020). Restaurant tipping in Europe. A comparative assessment. *Current Issues in Tourism*, <https://doi.org/10.1080/13683500.2020.1749244>
- [20] Gössling, S., Scott, D., & Hall, C.M. (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>
- [21] Hall, C.M. (2019). Constructing sustainable tourism development: The 2030 agenda and the managerial ecology of sustainable tourism. *Journal of Sustainable Tourism*, 27(7), 1044–1060. <https://doi.org/10.1080/09669582.2018.1560456>
- [22] Hall, C. M. (2020). Biological invasion, biosecurity, tourism, and globalisation. In D. Timothy (Ed.), *Handbook of globalisation and tourism* (pp. 114–125). Edward Elgar.
- [23] Henderson, J.C. (2007), Corporate social responsibility and tourism: Hotel companies in Phuket, Thailand, after the Indian Ocean tsunami. *International Journal of Hospitality Management*, 26(1), 228–239. <http://dx.doi.org/10.1016/j.ijhm.2006.02.001>
- [24] Ioannides, D., & Gyimothy, S. (2020). The COVID-19 crisis as an opportunity for escaping the unsustainable global tourism path. *Tourism Geographies*. 22(3), 624–632. <https://doi.org/10.1080/14616688.2020.1763445>
- [25] Jin, Y.H., Cai, L., Cheng, Z.S., Cheng, H., Deng, T., Fan, Y.P., . . . Wang, X.H. (2020). For the Zhongnan Hospital of Wuhan University Novel Coronavirus Management and Research Team, Evidence-Based Medicine Chapter of China International Exchange and Promotive Association for Medical and Health Care (CPAM), 2020. A rapid advice guideline for the diagnosis and treatment of 2019 novel coronavirus (2019-nCoV) infected pneumonia (standard version). *Military Medical Research* 7(1), 4. <https://doi.org/10.1186/s40779-020-0233-6>
- [26] Lau, J.T.F., Griffiths, S., Au, D.W.H., & Choi, K.C. (2011). Changes in knowledge, perceptions, preventive behaviours and psychological responses in the precommunity outbreak

- phase of the H1N1 epidemic. *Epidemiology and Infection*, 139(1), 80–90. DOI: 10.1017/S0950268810001925
- [27] Lew, A. A., Cheer, J. M., Haywood, M., Brouder, P., & Salazar, N. B. (2020). Visions of travel and tourism after the global COVID-19 transformation of 2020. *Tourism Geographies*, 22(3), 455–466. <https://doi.org/10.1080/14616688.2020.1770326>.
- [28] Lloyd, K.M., & Auld, C.J. (2002). The role of leisure in determining quality of life: Issues of content and measurement. *Social Indicators Research*, 57(1), 43–71. <https://doi.org/10.1023/A:1013879518210>
- [29] Ministarstvo trgovine, turizma i telekomunikacija, 2020. <https://mtt.gov.rs/slider/ljajic-jos-400hlada-vaucera/>
- [30] Official Gazette 146/2020. <https://www.neobilten.com/objavljen-sluzbeni-glasnik-rs-broj-146-od-4-12-2020-godine/>
- [31] Official Gazette 21/2020. <https://www.paragraf.rs/glasila/rs/sluzbeni-glasnik-republike-srbije-21-2020.html>
- [32] Popesku, J. (2011). Menadžment turističke destinacije. Univerzitet Singidunum, Beograd.
- [33] Rittichauinwat, B., & Chakraborty, G. (2009). Perceived travel risks regarding terrorism and disease: The case of Thailand. *Tourism Management*, 30(3), 410–418. <https://doi.org/10.1016/j.tourman.2008.08.001>
- [34] RZS-Republički zavod za statistiku, 2019. <https://www.stat.gov.rs/>
- [35] Republic Statistical Office, Serbia, 2020. <https://www.stat.gov.rs/publikacije/publication/?p=12526>
- [36] 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>
- [37] Tourist Organization of Serbia, <https://www.srbija.travel/>, July, 2020
- [38] UNWTO Tourism Highlights, 2018 Edition, <https://unwto.org>
- [39] United Nations World Tourism Organization (UNWTO), <https://www.unwto.org/>, July, 2020.
- [40] WHO declares that South America is the new coronavirus epicenter. *The Washington Post*. Retrieved 22 May 2020a. <https://www.washingtonpost.com/nation/2020/05/22/coronavirus-update-us/>
- [41] World Health Organization, 2020b. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>, Accessed date: 17 April 2020.
- [42] World Travel & Tourism Council (WTTTC) | Travel & Tourism, (2015). <https://reports.weforum.org/travel-and-tourism-competitiveness-report-2015/>
- [43] World Travel & Tourism Council. (2020). Latest research from WTTTC. Retrieved 8th of April 2020, from <https://www.wttc.org/about/media-centre/press-releases/press-releases/2020/latest-research-from-wttc-shows-an-increase-in-jobs-at-risk-in-travel-and-tourism/>.
- [44] Zaigham, M., & Andersson, O. (2020, April 7). Maternal and perinatal outcomes with COVID-19: A systematic review of 108 pregnancies. *Acta Obstetrica et Gynecologica Scandinavica*, 99(7), 823–829. <https://doi.org/10.1111/aogs.13867>
- [45] Zhuo, K., & Zacharias, J. (2020). The impact of out-of-home leisure before quarantine and domestic leisure during quarantine on subjective well-being. *Leisure Studies*, Published online: 21 Nov 2020, (40)3. <https://doi.org/10.1080/02614367.2020.1843693>