

Linking residents' perceptions of pandemic quality of life with their support for sustainable tourism development in the post-COVID-19 era

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Abstract: The COVID-19 pandemic has changed tourist flows, reducing the number of international tourist arrivals around the world. One of the ways to protect the tourism industry from the ongoing health crisis was through the stimulation of domestic and proximity tourism. During the COVID-19 pandemic in Serbia, domestic tourists were attracted to spa destinations such as Vrnjačka Banja. Thus, residents of this small-town destination experienced a great influx of tourists, altering their everyday lives. This paper examines the quality of life domains of Vrnjačka Banja residents during the pandemic and their support for sustainable tourism initiatives in the viable future. Study findings suggest that *spirituality and support from friends* and *general quality of life* as identified domains of *quality of life during the pandemic* emerged as antecedents of *support for sustainable tourism*. The study contributes to the existing tourism knowledge by acknowledging the capacity of different domains of residents' quality of life in the pandemic context to frame future sustainable tourism initiatives.

Keywords: COVID-19, quality of life, support, sustainable tourism, Vrnjačka Banja

JEL classification: L83, Z30, Z32

Povezivanje percepcije lokalnog stanovništva o kvalitetu života tokom pandemije sa podrškom za održivi razvoj turizma u post-kovid eri

Sažetak: Pandemija COVID-19 promenila je turističke tokove, smanjivši broj međunarodnih dolazaka turista širom sveta. Kako bi se smanjile posledice krize u turizmu došlo je do podsticanja domaćeg turizma i putovanja do obližnjih destinacija. Tokom pandemije COVID-19 u Srbiji su banjske destinacije, poput Vrnjačke Banje, privukle domaće turiste. Lokalno stanovništvo ove, po površini male turističke destinacije, doživelo je pritisak zbog velikog priliva turista, koji je uticao na promenu njihovog svakodnevnog života. U radu se

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ispituje kvalitet života stanovnika Vrnjačke Banje tokom pandemije COVID-19 i njihova podrška održivom razvoju turizma u post-kovid eri. Rezultati studije sugerišu da *duhovnost i podrška prijatelja*, kao i *opšti kvalitet života* kao domeni kvaliteta života tokom pandemije utiču na *podršku održivom turizmu*. Predložena studija doprinosi postojećoj turističkoj literaturi isticanjem kapaciteta različitih domena kvaliteta života lokalne zajednice, u kontekstu pandemije, da stimulišu buduće inicijative održivog turizma.

Ključne reči: COVID-19, kvalitet života, podrška, održivi turizam, Vrnjačka Banja

JEL klasifikacija: L83, Z30, Z32

1. Introduction

The continuous growth of international tourism arrivals (from 2010 until 2019) ([World Tourism Organization – UNWTO, 2020](#)) was interrupted in 2020 by the biggest global health crisis in recent times – the COVID-19 pandemic ([Luković & Stojković, 2020](#); [UNWTO, 2021](#)). During the pandemic, restrictive measures were applied ([Grbić, 2022](#)), including lockdowns, travel bans, restrictions on public gatherings and strict bans against business opening. Consequently, the pandemic led to the loss of USD 1.3 trillion in export revenues and a 75% decrease in the number of international tourist arrivals, which is an 11 times greater loss in comparison to the 2009 global economic crisis ([UNWTO, 2021](#)).

The pandemic in Serbia has so far taken 15,552 lives by 11 March 2022, along with 1,937,183 confirmed cases ([Ministry of Health of the Republic of Serbia, 2022](#)). Moreover, the number of tourist arrivals in Serbia decreased by 50.7%. Considering the nature of restricted measures, domestic tourism was widely promoted, distinguishing spas and mountains as the most visited places in Serbia during the pandemic. Thus, our study is focused on Vrnjačka Banja as one of the most popular tourism (spa) destination in Serbia that has been particularly in demand during the COVID-19 health crisis ([Statistical Office of the Republic of Serbia – SORS, 2021](#)) and the effects of this specific crisis on residents quality of life (QoL) and eventually their support for sustainable tourism initiative upon the pandemic end.

There is an agreement among tourism scholars that recovery strategies for the tourism industry should be designed to reach a 'new normal' in tourism development ([Benjamin et al., 2020](#)) and to transform tourism on the global level according to sustainable development practices ([Brouder, 2020](#); [Hall et al., 2020](#)). These recovery strategies should be aligned with sustainable development goals and require the action of all critical stakeholders, especially host residents ([Žikić et al., 2022](#)). Since tourism has a direct impact on residents' QoL ([Milićević et al., 2020](#)), further investigation of residents' perceptions of tourism-induced QoL is of utmost importance ([Ramkissoon, 2020](#)). Since residents have experienced numerous social costs during the pandemic, their involvement in the tourism recovery is identified as critical ([Qiu et al., 2020](#)). The pandemic altered perceptions of peoples' QoL ([Asadi et al., 2019](#); [Gamage et al., 2020](#)), since the pandemic led to many job losses ([Vasić, 2020](#); [World Travel & Tourism Council – WTTC, 2021](#)), while social distancing, lockdowns and quarantining created psychological distress ([Khan et al., 2021](#)).

The rationale to implement the proposed research was based on the fact that due to restrictions to international travel worldwide, domestic destinations, especially those that could be perceived as smaller and therefore, more vulnerable to a considerable influx of tourists ([Lin et al., 2022](#)), such as spas, will witness considerable pressure on key residents' resources that will consequently lead to a decrease of their QoL. [Vinerean et al. \(2021\)](#) argued that residents' perspective on their QoL consequently determines their willingness to support sustainable tourism activities. Thus, a study examined how residents of lesser

populated spa destinations exposed to domestic over-tourism evaluate their QoL during the pandemic and how it affects their support for future sustainable tourism efforts. The study findings will accelerate destination management efforts that foster 'QoL-centred sustainable tourism' (Mihalič & Kuščer, 2021).

Based on published literature, it is expected that residents with a positive attitude towards QoL would eventually generate support for further tourism development (Liang & Hui, 2016; Woo et al., 2015). This study focuses on the host residents' perceptions' of the pandemic-induced QoL dimensions in the most visited spa in Serbia, and its effect on support towards sustainable tourism initiatives upon the pandemic end. Hence, this study aims to investigate if the pandemic has driven Vrnjačka Banja's residents' perception of QoL dimensions towards their support for sustainable tourism development initiatives in the future.

2. Literature review

2.1. Host residents as stakeholders

According to stakeholder theory, to achieve sustainable development in tourism, there must be a balance in decision-making and the participation of all stakeholders to create economic sustainability, social equality and environmental integrity in tourism destinations (Seba, 2012). This theory, in general, emphasizes the importance of all stakeholders (Theodoulidis et al., 2017), however, when applying stakeholder theory to tourism, the local population have a key stakeholder role, as they, directly and indirectly, experience both positive and negative impacts of its development (Liu et al., 2014; Mbaiwa, 2015). Positive impacts are primarily reflected in tourism's economic contribution to residents' QoL, while tourism impacts on the environment are usually viewed negatively (Benckendorff et al., 2009). Alongside the stakeholder theory approach that embraces residents' being vital stakeholders, Hadinejad et al.'s (2019) study of residents' attitudes towards tourism proposes that "future researchers can also contribute to research on residents' attitudes by applying bottom-up spillover theory through investigating local community's QoL and their support for tourism" (p. 159). Kim et al. (2021) confirmed the applicability of bottom-up spillover theory for evaluating residents' QoL, especially in the context of touristified destinations, such as Vrnjačka Banja during the pandemic.

2.2. Residents' quality of life

Attitudes, and perceptions of tourism-induced residents' QoL, have been topical issues among academics for some time (Hadinejad et al., 2019). QoL generally refers to the (objective and subjective) well-being of people (Santos-Júnior et al., 2020). Subjective indicators imply that QoL is viewed as a resident's perceived QoL caused by the tourism in the destination (Cornell et al., 2019) or as general satisfaction of the local population with certain areas of life (Woo et al., 2015). Objective indicators refer to external indicators (eg. economic income) (Lai et al., 2021). Tourism development can positively improve residents' QoL, and conversely, may reduce it. According to Nopiyani and Wirawan (2021) "employment opportunities, community pride, cultural exchange and availability of facilities" (p. 134) are usually considered as positive impacts of tourism on peoples' QoL, while "health, safety, quality of the physical environment, cost of living, accessibility to public facilities, and social relations" (p. 134) are viewed as negative domains of tourism induced QoL. In the context of a pandemic, QoL indicators were more intangible, especially taking into account the severity of the crisis, thus, some other aspects of QoL deserve additional attention, such as those conceptualized by World Health Organization (WHO)

within the QoL Instruments (WHOQOL-BREF), that has been recently empirically tested within the [Algahtani et al. \(2021\)](#). The QoL scale used in our study was grounded on three major dimensions of QoL identified in the WHOQOL-BREF scale: environmental, social, and religious. The environmental dimension considered the perception of safety, information access, and the pandemic's repercussions on income, social-relation aspects examined the effect of a pandemic on maintaining relationships with friends and family while spiritual/religious items examined the effect of a pandemic concerning resident spirituality ([Algahtani et al., 2021](#)).

It is evident that during the COVID-19 pandemic the QoL has been exposed to dynamic changes. For example, quarantine was reported as a solution for controlling the spread of the virus, but such measures affect the well-being and mental health of the community as well, particularly in the context of violated social relations and the misbalanced inner spirituality of residents. According to [Eurofond \(2021\)](#) research on QoL during COVID-19, there is a low level of mental health among young people who have lost their jobs, causing an increase in loneliness, worrying, tension and depression. Finally, people felt helpless and horrified, but on the other side, they had more time for rest from everyday work-related stress ([Al Dhaheri et al., 2021](#)). However, while the pandemic has negatively impacted residents' QoL it could also be perceived as an awakening call to reset the tourism industry and begin a new era of sustainable tourism development ([Ioannides & Gyimóthy, 2020](#)).

2.3. Residents' support for sustainable tourism initiatives

Previous studies have not taken into consideration changes in crucial stakeholders' sustainability behaviours that are the result of a health crisis ([Senbeto & Hon, 2020](#); [Talwar et al., 2022](#)). "Residents with a higher level of QoL are more supportive towards future tourism development initiatives" ([Uysal et al., 2016](#)), thus distinguishing QoL as an important predictor of such support ([Woo et al., 2015](#)). Also, residents' support towards tourism has become increasingly important because the essence of sustainable tourism lies in the participation of local people in tourism development, not only in the form of sharing economic benefits but also through their active involvement in tourism decision-making and management ([Wondirad & Ewnetu, 2019](#)).

[Chiang and Nguyen \(2019\)](#) found a positive correlation between residents' life satisfaction and their support for sustainable tourism development. By analysing residents' perceptions of their QoL in rural areas of Serbia, [Demirović Bajrami et al. \(2020\)](#) concluded that support for tourism development was impacted by their overall QoL. Negative impacts of unsustainable growth may negatively influence residents' QoL ([Mihalić & Kušćer, 2021](#)), which may consequently negatively affect their support for sustainable tourism development. [Szromek et al. \(2021\)](#) study of residents' attitudes in the post-pandemic times, indicated that residents "support the preservation of cultural heritage and landscapes over business and profit-making" (p. 1), highlighting the growth of pro-sustainable residents' behaviour in post-pandemic times. The fear of the negative pandemic impacts on the economy can be recognized as a motivator for residents to support the reopening of tourism ([Haryanto, 2020](#); [Ramkissoon, 2020](#)). However, there is a question of whether the residents, who are confronted with the fear of the pandemic's consequences, are aware that they need to be more supportive of sustainable tourism practices ([Ramkissoon, 2020](#); [Romagosa, 2020](#)). There was also concern that residents' support for tourism might decline due to anxiety over tourists spreading the virus further ([Abbas et al., 2021](#)). [Joo et al. \(2021\)](#) confirmed that such "perceived risk was negatively associated with residents' support for tourism" (p. 1). While the crisis was seen as an opportunity for applying sustainable practices for tourism recovery, there might be concern about how it would be implemented. Thus, [Hussain and Fusté-Forné](#)

(2021) argue that “residents’ perspectives must be kept in mind when developing a tourism recovery strategy” (p. 127). The theory of tourism resilience is widely discussed among academics in the context of the tourism industry’s recovery from the COVID-19 crisis (Adams et al., 2021; Prayag, 2020). Both tourism resilience and sustainable tourism require continuous support and participation of all stakeholders, however taking into account the issues depicting ongoing pandemics, residents’ support for sustainable tourism may be questionable.

Hence, support of the host community for sustainable development in the post-pandemic period is significantly determined by residents’ perception regarding the effects of the ongoing pandemic on QoL, in particular, those conceptualized by WHO within the QoL Instruments (WHOQOL-BREF). Accordingly, the following hypothesis is set:

H1: Residents’ perceptions of QoL (and its main dimensions) during the pandemic is (are) a significant predictor of support for sustainable tourism development in Vrnjačka Banja after the pandemic.

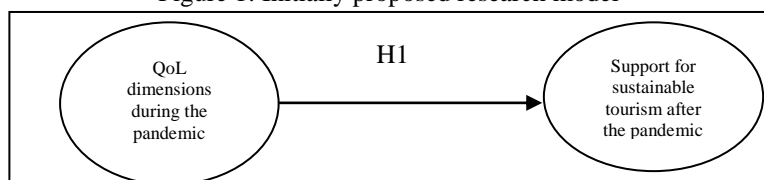
3. Materials and methods

A small town (population 27,527) – Vrnjačka Banja, has become one of the most famous Serbian tourism destinations primarily because of its mineral springs. In addition to health (spa) tourism, recreational and event tourism has been developed over time. In 2020, 211,496 tourists visited Vrnjačka Banja, out of which 200,879 were domestic and only 10,617 foreign (SORS, 2021). When the number of tourist arrivals was compared to 2019, the total number of tourists decreased by 25.4%, domestic tourists by 13% and foreign tourists by 80% (SORS, 2020). Irrespective of a significant decrease in tourist arrivals during the pandemic, it was interesting to evidence overtourism in the destination, especially since the destination of 27.527 inhabitants was exposed to the influx of 211.496 tourists, a ratio of almost 1:10 in favour of tourists.

In order to examine the QoL of residents during a pandemic and their support for sustainable tourism initiatives in Vrnjačka Banja after the pandemic, an online survey was implemented. Eleven items were adopted from Algahtani et al. (2021) study, initially proposed by the WHO, while items used to measure support for sustainable tourism were chosen based on Lee (2013) research. Respondents were asked to rate 11 items related to QoL and 5 items measured support for sustainable tourism, both of them using a five-point Likert scale. Only residents of Vrnjačka Banja could participate. The questionnaire was sent to 590 e-mail addresses through Google forms online survey (online format was chosen due to the ongoing pandemic) using a convenient sampling approach during July and August 2021. A total of 242 responses were collected, giving a satisfactory response rate for an online survey of 41.02%, as common response rates for online surveys range from 6% to 80% (Cobanoglu et al., 2001).

The collected data were then processed using SPSS 23 and AMOS 21. The following statistical analyses were deployed. Analysis of the descriptive statistics (mean values) provided insight into the level of residents’ perception of QoL during the pandemic and their level of support for sustainable tourism. QoL domains during the pandemic were extracted through the use of exploratory factor analysis. The internal consistency of the sample variables was measured by Cronbach’s alpha, followed by the validity of model fit based on the confirmative factor analysis. Finally, a structural equation model (SEM) was implemented to assess the effects of the identified dimensions of QoL based on the previously conducted factor analysis on the residents’ support for sustainable tourism.

Figure 1: Initially proposed research model



Notes for model: H – hypothesis number

Source: Authors' research

4. Results

Out of 242 respondents, 117 were male (48.3%) and 125 were female (51.7%). Most respondents were 20-30 years old (45.0%) and 31-40 years old (26.9%). The largest number of respondents held a bachelor's degree (48.3%), followed by high school graduates (23.6%). In terms of work, 57% were employed and 39.3% were unemployed. More than 50% of respondents worked in the tourism industry or a job related to tourism (Table 1).

Table 1: Socio-demographic characteristics

		Frequency	(%)
Gender	Male	117	48.3
	Female	125	51.7
Age	20-30	109	45.0
	31-40	65	26.9
	41-50	39	16.1
	51-60	21	8.7
	>61	8	3.3
Education	Primary school	5	2.1
	High school	57	23.6
	Bachelor's degree	117	48.3
	Master degree	52	21.5
	Doctoral degree	11	4.5
Professional status	Employed	138	57.0
	Unemployed	95	39.3
	Retired	9	3.7
Tourism-related job	Yes	78	32.2
	No	111	45.9
	Partially	53	21.9

Source: Authors' research

Descriptive statistics indicate that the mean value for *access to health services* (M=2.88) and *satisfaction with the income* during COVID-19 (M=2.95) was rated lowest, highlighting their severe effect on residents' QoL during the pandemic in Vrnjačka Banja. Conversely, results indicate that residents express a higher level of *Support for sustainable tourism development* (M=4.11) and *willingness to participate in its planning and development* (M=3.77), *participate in cultural exchange with tourists* (M=3.74), and *promotion of sustainable tourism* (M=3.71) (Table 2).

Table 2: Descriptive statistics table

Quality of life dimensions during the pandemic (Independent variables)	Mean value	St. dev.
The quality of your physical environment during COVID-19 pandemic	3.24	1.146
The availability of information needed in your daily life	3.28	1.168
Your feelings of being safe in your daily life during COVID-19 pandemic	3.28	1.139
Your income during COVID-19 pandemic	2.95	1.300
Access to health services during COVID-19 pandemic	2.88	1.238
Your QoL during COVID-19 pandemic	3.67	1.098
Your general health during COVID-19 pandemic	3.76	1.099
Your personal relationships with friends and relatives during COVID-19 pandemic	3.21	1.244
To what extent does any connection to a spiritual being help you to get through hard times of COVID-19 pandemic	3.40	1.333
To what extent does faith give you comfort in your daily life during COVID-19 pandemic	3.59	1.216
Support you get from your friends during COVID-19 pandemic	3.44	1.232
Support for sustainable tourism (Dependent variable)	3.81	1.124
I would cooperate with other stakeholders (tourists, public sector, tourism enterprises, etc.) in order to plan and develop sustainable tourism initiatives	3.74	1.273
I would participate in planning and developing sustainable tourism	3.77	1.227
I would participate in the promotion of sustainable tourism, conservation, and environmental education.	3.71	1.291
I would participate in cultural exchange with tourists	3.74	1.305
I support sustainable tourism development	4.11	1.076

Source: Authors' research

In order to determine the dimensions within the general QoL variable specific to the study context, items used to measure the QoL during pandemics were subjected to factor analysis (Principal component analysis). According to Bartlett's Test of Sphericity, the statistical significance is 0.000 and the Kaiser-Meyer-Olkin value is 0.904, meaning that the data are suitable for factor analysis. Two factors have eigenvalues exceeding 1, which is followed by a break after the second one on the Scree plot. The Varimax rotation was used. The eigenvalue of the first factor named *General quality of life during the pandemic* is 4.298, explaining 39.07% of the variance. This variable depicted items of general importance for residents' QoL during the pandemic, including environmental, economic and social QoL aspects. The second factor named *Spirituality and support from friends during the pandemic* explains 26.23% of the variance and has an eigenvalue of 2.885. This variable encircled the distinct nature of residents' (spiritual) perspective of QoL during the pandemic, highlighting the importance of spiritual, faith and social support while residents were challenged with a health crisis. Cronbach's Alpha for the first factor is 0.904, and 0.827 for the second, indicating strong internal consistency. The loadings for both factors are all above 0.5. The correlation between factors is 0.592.

The mean rate of 3.48 for the second-factor *Spirituality and support from friends during the pandemic* indicates that residents of Vrnjačka Banja perceived spiritual practices, faith, and support they get from their friends during the pandemic as more favourable in contrast to some general aspects of their QoL (Table 3).

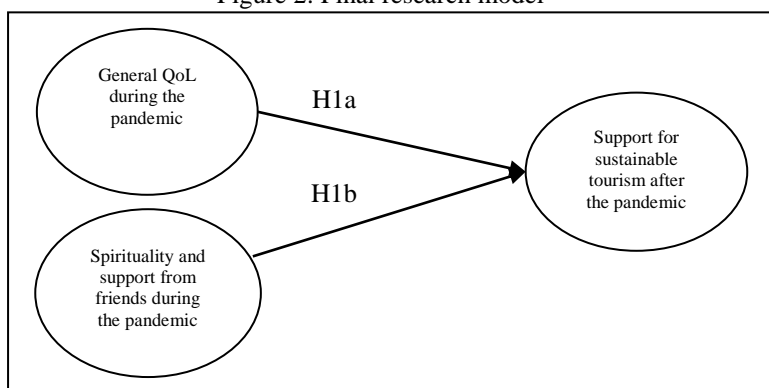
Table 3: Residents' QoL during the pandemic

Quality of life during the pandemic	Mean value	St. dev.	Factor loadings	Cronbach's Alpha
Factor 1: General quality of life during the pandemic (Eigenvalue = 4.298; Explained variance = 39.07%)	3.285	0.912		0.904
The quality of your physical environment during COVID-19 pandemic	3.24	1.146	0.846	
The availability of information needed in your daily life	3.28	1.168	0.788	
Your feelings of being safe in your daily life during COVID-19 pandemic	3.28	1.139	0.782	
Your income during COVID-19 pandemic	2.95	1.300	0.771	
Access to health services during COVID-19 pandemic	2.88	1.238	0.714	
Your QoL during COVID-19 pandemic	3.67	1.098	0.639	
Your general health during COVID-19 pandemic	3.76	1.099	0.549	
Your personal relationships with friends and relatives during COVID-19 pandemic	3.21	1.244	0.563	
Factor 2: Spirituality and support from friends during the pandemic (Eigenvalue = 2.885; Explained variance = 26.23%)	3.476	1.086		0.827
To what extent does any connection to a spiritual being help you to get through hard times of COVID-19 pandemic	3.40	1.333	0.857	
To what extent does faith give you comfort in your daily life during COVID-19 pandemic	3.59	1.216	0.862	
Support you get from your friends during COVID-19 pandemic	3.44	1.232	0.717	
Total variance explained	65.30%			

Source: Authors' research

Based on the exploratory factor analysis results dimensions within the QoL were identified, and therefore initial research model was revised to correspond to the novel understanding of the QoL during the pandemic in the context of Vrnjačka Banja tourism destination. Thus, a revised research model was proposed accompanied by supported hypotheses (Figure 2).

Figure 2: Final research model



Notes for model: H-hypothesis number
Source: Authors' research

To determine the model's internal consistency Cronbach's alpha values were analyzed. Cronbach's Alpha for the variable labelled *General quality of life during the pandemic* was 0.904, while for the second factor named *Spirituality and support from friends during the pandemic* was 0.826, indicating strong internal consistency. Finally, internal consistency was confirmed also for the variable labelled *Support for sustainable development* with Cronbach's Alpha coefficient of 0.948. All of Cronbach's alpha values were above the minimum threshold of 0.7 (Nunnally, 1978). Based on the confirmative factor analysis adequate model fit values were achieved (Table 4). Value χ^2/df is 3.16 which is below the threshold of 5.0 (Wheaton et al., 1977). The values of the CFI, TLI and IFI indices were also above the threshold of 0.9 (Byrne, 1998), while RMSEA is lower than 0.1 (Steiger, 1990).

Table 4: Model fit indices

Fit indices	Recommended value	Value in the model
χ^2 / df	< 5	3.16
CFI	> 0.9	0.925
TLI	> 0.9	0.911
IFI	> 0.9	0.926
RMSEA	< 0.1	0.095

Source: Authors' research

The proposed model has acceptable values for convergent validity, discriminatory validity, and composite reliability, as both values of CR (composite reliability) and AVE (average variance extracted) were above the threshold of 0.7 and 0.5 respectively. Moreover, AVE values were identified to be greater than the squared coefficient correlation between them (MSV and ASV) concluding that discriminatory validity was not an issue in the study (Table 5).

Table 5: Correlation matrix

	CR	AVE	MSV	ASV	Spirituality	General QoL	Support ST
Spirituality	0.837	0.632	0.461	0.368	0.795		
General QoL	0.905	0.545	0.461	0.334	0.679	0.739	
Support for ST	0.948	0.785	0.276	0.241	0.525	0.455	0.886

Notes: Spirituality – Spirituality and support from friends during the pandemic; General QoL – General quality of life during the pandemic; Support for ST – Support for sustainable tourism.

Source: Authors' research

The SEM analysis findings were presented in Table 6. Both *Spirituality and support from friends during the pandemic* and *General quality of life during the pandemic* as domains of *Quality of life during the pandemic* emerged as statistically significant antecedents of *Support for sustainable tourism*, confirming both main hypotheses (H1) and supported hypotheses (H1a and H1b). The stronger impact on *Support for sustainable tourism*, was identified for *Spirituality and support from friends during the pandemic* ($\beta = 0.402$, $p < 0.01$) in contrast to the *General quality of life during the pandemic* ($\beta = 0.182$, $p < 0.05$).

Table 6: SEM analysis findings

Relations	β coefficient	Significance	Hypotheses testing
H1a: Spirituality → Support ST	0.402	0.001	Supported
H1b: General QoL → Support ST	0.182	0.042	Supported

Notes: Spirituality – Spirituality and support from friends during the pandemic; General QoL – General quality of life during the pandemic; Support ST – Support for sustainable tourism.

** significance at level of 0.01; * significance at level of 0.05

Source: Authors' research

5. Discussion and concluding remarks

The results of this study indicate that residents of Vrnjačka Banja perceived neither low nor high, but rather medium QoL during the pandemic. Interestingly, when most of the destinations were closed for international travel (Lin et al., 2022), the investigated destinations have been exposed to the appeal of all the tourists that otherwise would spend their vacations abroad. The study acknowledged the unique residents' QoL dimensions specific to the COVID-19 pandemic (*General quality of life during the pandemic* and *Spirituality and support from friends during the pandemic*), in contrast to environmental, social and spiritual QoL aspects identified within Algahtani et al. (2021) study. Aside from study insight into residents' perceptions of QoL during the current pandemic, its effect on support for sustainable tourism development was also assessed. Based on the author's knowledge, there is an evident lack of empirical studies on this specific topic, in particular when residents' QoL was used to project their future behaviour concerning regenerative tourism practices, such as sustainable tourism (notable exception found within Matteucci et al., 2021). Since both investigated pandemic QoL domains had a significant effect on support for sustainable tourism, it could be concluded that residents' perception of QoL during pandemic has the initiated the urge to transform tourism in Vrnjačka Banja into a more

sustainable form, confirming previous literature (Demirović Bajrami et al., 2020; Uysal et al., 2016). Study findings also support the applicability of stakeholder (Hadinejad et al., 2019) and bottom-up spillover theory (Kim et al., 2021) in the context of touristified destination, such as Vrnjačka Banja, emphasizing the importance of the residents as a key stakeholder group in the destination capable to utilize QoL to foster sustainable tourism initiatives as a part of the spillover process.

Thus, as managerial implications of the study, it is evident that planning strategies for sustainable tourism development in Vrnjačka Banja should be firmly grounded on the residents' QoL perception, or 'QoL-centred sustainable tourism' (Mihalić & Kuščer, 2021). Finally, the proposed study suggests that residents' QoL could act as a resilience instrument for the tourism industry during the current crisis (Adams et al., 2021) and also as a means of securing a more sustainable future. Following Matteucci et al. (2021, p. 180) "alternative governance paradigm", residents QOL require "contextualised political actions for the benefit of residents". Destination managers, especially those in small, vulnerable destinations exposed to considerable pressure of tourism (such as spas) should work on both residents' spiritual and functional aspects of living in order to drive its development towards sustainability.

The study is limited to the residents' QoL perspective, while other stakeholder groups, such as tourists were ignored. Moreover, due to the peculiarities of the investigated spa tourism destination, limited generalizability on a global scale could be achieved, thus additional studies in different geographical contexts would be appreciated. The study does not include the residents' perceptions of the tourism impacts (both benefits and costs) during a crisis, and their correlation with support for sustainable tourism, which might be an interesting add-on to current research efforts.

Conflict of interest

The authors declare no conflict of interest.

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