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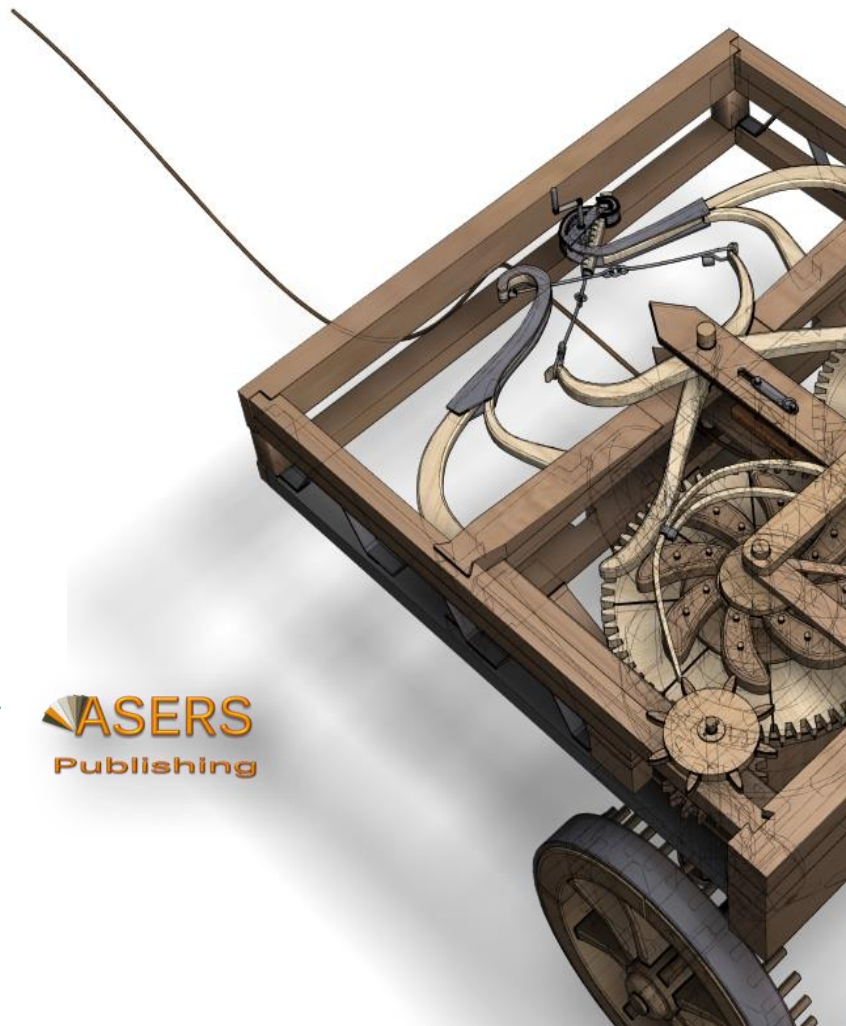
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Table of Contents:

1	Collective Intelligence and Structural Transformation in the Moroccan Tourism Industry during the COVID-19 Pandemic: A Field Survey in the Marrakech-Safi Region	1899
	Wijdane MERIOUMI, Bouchra AIBOUD BENCHEKROUN	
2	Navigating the Fine Line of Sustainable Tourism: A Critical Analysis with Implications for Tourism Planning	1908
	Kevin FUCHS	
3	The Contribution of Tourism Industry Cash Flows to Economic Growth “Middle East Evidence”	1915
	Mohammad ALADWAN	
4	The Influence of Halal Attractions and Memorable Experiences on Tourists' Destination Choices: An Indonesian Perspective	1926
	Muaidy YASIN, Lalu Edy HERMAN	
5	The Complexity of the Legal Framework for Regulating the Activity of Tourist Guides in Kosovo	1935
	Armand KRASNIQI, Diamanta SOJEVA, Bekë KUQI	
6	Strategic Planning for Taiwanese Industrial Tourism Parks Themed on Local Characteristic Industries	1942
	Hung-I TAI, Li-Wei LIU, Lung-Shih YANG, Chi-Chiang HSIEH	
7	Tourism and COVID-19: Changes in Travel and Behavioral Patterns of Residents of Bosnia and Herzegovina	1950
	Amra ČAUŠEVIĆ	
8	Land Areas Management for Development of Tourism Different Types	1962
	Aigul SHAIMERDENOVA, Madi NURPEISSOV, Kamshat AKHMETOVA, Valentina GARKUSHINA	
9	Identification of Features for the City Branding: The Case of Shusha City, Azerbaijan as Tourism Destination	1972
	Bahman HUSEYNLI	
10	Strategies for Sustainable Rural Tourism Innovation: Evidence from Hanoi, Vietnam	1984
	Hoa VU DINH, Tuan NGO ANH, Anh NGUYEN THI NGOC, Chi NGUYEN THI	
11	Non-Price Competitiveness Factors in a Value Chain of a Tourism Product	1996
	Mariia GARASYMLIUK, Bohdan DANYLYSHYN, Uliana MARTYNIUK, Viktoriia MAKAROVYCH, OIha POLIVODA, Tetiana NEZVESHCHUK-KOHUT, Nazariy POPADYNETS	
12	State Policy Regulations of Agriculture for Sustainable Development of Rural Tourism	2004
	Baglan AIMURZINA, Shakhman YERTARGYN, Aigul NURMAGANBETOVA, Aina NARYNBAYEVA, Gulzhan ABDRAMANOVA, Zhamilya MIZAMBEKOVA	
13	How Smart Are You at Traveling? Adoption of Smart Tourism Technology in Influencing Visiting Tourism Destinations	2015
	Lusianus KUSDIBYO, Wahyu RAFDINAL, Eko SUSANTO, Rina SUPRINA,	

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14	The Effect of the Dollar, Euro, and Sterling Exchange on the Tourism Index in the Turkish Economy Fariz AHMADOV, Nigar HUSEYNLI, Bahman HUSEYNLI	2029
15	Putting Cities in the Framework of Sustainable Development; Evolution, Evaluation and Features of SDG 11 Ioannis METAXAS, Theodore METAXAS	2039
16	The Transformational Role of Entrepreneurial Universities in Fostering Tourism Sector of Kazakhstan: Legal Documentary Analysis Aigerim BAYANBAYEVA, Dauletkeldi MAKHMADINOV, Nurmukhamed MYRZATAYEV, Gaukhar NIYETALINA, Gulmira NARBAYEVA, Saule SULEIMENOVA, Bakhyt ALTYNBASSOV	2046
17	Demand for Water Tourism by Rafting in the Upper Northeastern Region 1 of Thailand Supreeya WAIYAWET, Sakkarin NONTHAPOT	2056
18	Application of Interactive Media Techniques in Virtual Reality in the Marketing of Tourist Trails in Jordan Ibrahim ALKURDI, Omar A. ALANANZEH, Ranea Mohammed QADDHAT, Lubna S. HAIJAWI, Sami A. ALHASANAT	2066
19	Educational Tourism as a Source of Linguistic and Cultural Competence of Foreign Students on the Example of Azerbaijan Tofik ABDULHASANLI, Gulnara RZAYEVA, Aygun AMIROVA, Zeynab HUSEYNOVA	2077
20	Audit of the Effectiveness of Inter-Budgetary Relations: The Case of Tourism Industry Aigul ALIBEKOVA, Gulmira NASYROVA, Aizhan ZHAMIEVA, Madina TOLYSBAYEVA, Balsheker ALIBEKOVA, Zhanargul ZHUGUNISSOVA	2083
21	Tourism Development and Local Community Welfare: A Case Study of the Mandalika Special Economic Zone Sri Budi Cantika YULI, Emilia SEPTIANI, Risky Angga PRAMUJA, SUPIANDI, Mohamad NAJMUDIN	2097
22	From Concept to Practice: Implementing Sustainable Tourism Development at Anurak Community Lodge in Thailand Scott SMITH	2107
23	Tourism Potential and the Assessment of Tourist Destinations as Basis for the Tourism Sustainable Development Zhassulan SADYKOV, Rimma TAKHTAYEVA, Larissa NUSSUPOVA, Sharipa NURMUKHAMEDOVA, Zhaxylyk AKIMOV	2117
24	From Decision Making to Practice: Economic Growth on Halal Tourism Policies Based on Sharia Regulation in Lombok, Indonesia M. SYAMSURRIJAL, Achmad NURMANDI, Hasse JUBBA, Mega HIDAYATI, Zuly QODIR, Irwan ABDULLOH	2127
25	Empirical Approaches Regarding Interdependency between Technology and Sustainable Tourism Laura NICOLA-GAVRILĂ	2140
26	The Impact of the COVID-19 Pandemic on the Tourism Industry of Kazakhstan Dauren BERDIBEKOV, Olga LASHKAREVA, Aigul MAIDYROVA	2148

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Tourism and COVID-19: Changes in Travel and Behavioral Patterns of Residents of Bosnia and Herzegovina

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Abstract:

This paper analyses whether there have been any changes in the behavior and patterns of tourist travel after the outbreak of the COVID-19 pandemic. The convenience sample included 265 respondents. The results of the study show that the most important factors in choosing to travel during the COVID-19 pandemic are: cleanliness, safety, comfort, costs, and social distance. The results of the study show a statistically significant difference in the factors that influence choosing to travel during COVID-19 with regard to employment, *i.e.*, occupation, whereby the most factors when deciding on travel during COVID-19 are considered by pensioners and the least by students. When choosing a destination, as well as the image of the destination from the perspective of tourists, the study showed that owning a car is a statistically significant factor. The study also shows that there is a positive relationship that is statistically significant between the factors that influence choosing to travel during COVID-19 and the factors when choosing a destination from the perspective of tourists and the image of the destination, so those respondents who take into account more factors when choosing to travel during COVID-19, also take into account several factors when choosing a destination from the perspective of tourists and the image of the destination.

Keywords: COVID-19; tourists' behavior; Bosnia and Herzegovina; travel patterns.

JEL Classification: Z30; Z32; R11.

Introduction

Given that COVID-19 is a global health crisis, it is necessary to investigate changes in consumer behavior. Therefore, this study is aimed at investigating the effects of the COVID-19 pandemic on changes in tourist travel and behavior patterns. This research builds on the study "Tourism and COVID-19: changes in travel patterns and tourists' behavior in Iran" conducted in Iran, which investigated the changes caused by the COVID-19 pandemic in the travel patterns and behavior of tourists in Iran, and the study "Exploring the impacts of COVID-19 on travel behavior and mode preferences" which examined the changes that occurred in travel behavior due to the COVID-19 pandemic.

For the purposes of this paper, the following research questions were defined: What factors influence choosing to travel before and during the COVID-19 pandemic and whether there is a change in the significance of certain factors during the COVID-19 pandemic; what is the influence of socio-demographic variables on the factors influencing choosing to travel during the COVID-19 pandemic; what are the statistically significant factors that influence the choice of destination and its image from the perspective of tourists; what is the influence of socio-demographic variables on the factors that influence the choice of a destination and its image from the perspective of tourists and is there a connection between the factors that influence the choice of travel during COVID-19 and the factors of choosing a destination and its image from the perspective of tourists?

1. Literature Review

The COVID-19 pandemic has had a negative impact on the world economy, especially the economy of regions and countries that depend on tourism (Mariolis *et al.* 2021). Numerous measures have been introduced, from social distancing to closing or restricting entry into countries, closing schools, online classes, working from home, closing restaurants, closing shops, various other restrictions such as restrictions on social events, public gatherings and meetings, complete or partial closures of countries or cities, introducing curfew, suspension of public transport and taxi transport (Abdullah, Dias, Muley and Shahin 2020), then there was a decline in the supply of international transport and all this led to a large drop in income generated from international tourism. It will take some time for everything to return to normal and the state before the pandemic. Predictions are that in all regions the decline of the sector will be asymmetrical, depending on the importance of international tourism, price movements, and their epidemiological circumstances (Boto-García and Mayor 2022). Previous research has indicated that useful mitigation policies and mechanisms include: working from home, reducing consumption, limiting contact with people, and limiting domestic and international travel (Jones *et al.* 2021, Yilmazkuday 2020). The aforementioned policies can have a great impact on how people will behave when traveling (Abdullah *et al.* 2020) but also on their health (De Vos 2020).

The introduced measures have a significant impact on travel behavior. Perceived risk and fear of infection have a major impact on travel behavior, and the impact can be different and depend on numerous factors and demographic characteristics of people (Cahyanto *et al.* 2016, Kim *et al.* 2017, Abdullah *et al.* 2020). During the pandemic, people perceive all types of travel as higher risk and avoid traveling to places where they perceive high or medium risk (Hottle *et al.* 2020, Abdullah *et al.* 2020).

A recent study examined how the COVID-10 pandemic is affecting the tourism sector with regard to different regions and countries (Boto-García and Mayor 2022). The tourism industry has faced the worst impact of COVID-19 and is among the most damaged industries (Abbas *et al.* 2021). The results of published studies so far show that interaction and human mobility during pandemics directly contribute to the spread of infectious diseases (Funk *et al.* 2010, Belik *et al.* 2011, Rizzo *et al.* 2014, Yan *et al.* 2018, Peixoto *et al.* 2020, Boto-García and Mayor 2022). Disease pandemics and epidemics cause global economic and health crises. Pandemics negatively increase mental health problems and affect the behavior of tourists and mental well-being (Aman *et al.* 2019, Abbas *et al.* 2021). Tourists, fearing the risk, are canceling the trips they had planned to avoid virus infection during the trip (Mamirkulova *et al.* 2020). During the pandemic, therefore, travel is generally limited (Zhang *et al.* 2011, Cooley *et al.* 2011, Peak *et al.* 2018, Muley *et al.* 2020, Boto-García and Mayor 2022).

The pandemic has turned global tourism upside down (Brouder 2020, Hall *et al.* 2020, Lim 2021) leading to a boom in academic research (Filep 2022). Research that investigates, measures, and predicts the impacts of COVID-19 on tourism is very important (Sigala 2020). The impact of pandemic greatly affects the risk of travel and the perception of tourists. Management perception and travel risk refer to the assessment of the situation regarding the risk of making decisions about traveling to a specific destination. Risk perception and passenger management are key components of tourist destinations. Risk management implies recognizing and analyzing the potential risks of the tourism industry due to the pandemic, taking and improving preventive steps to reduce risks. A large number of countries have started to recover from the crisis. Tourist arrangements should be organized in such a way that stress and risk for tourists are reduced to a minimum (Rahman *et al.* 2021). Researchers as Bassil, Saleh & Anwar (2019) concluded that the tourism and travel industry is subject to risks, including pandemics, epidemics and other crisis events that affect and threaten tourists' sense of safety. Previous study has shown that risk has an impact on limiting travel, but also has a negative impact on tourism demand (Wilder-Smith 2006, Kongoley-MIH 2015, Joo *et al.* 2020). Other authors, Loureiro and Jesus (2019), came to the conclusion that the perceived risk negatively affects the tourist perception of the destination (Rahman *et al.* 2021).

Authors as Abdullah *et al.* (2020) investigated the impact of COVID-19 on travel behavior and preferences. In the study, 1203 responses from different countries of the world were collected. In the study, they investigated factors affecting mode choice during and before COVID-19 and the influence of socio-demographic variables on the factors affecting the choice of mode before and during COVID-19. This research builds on the previously mentioned study "Exploring the impacts of COVID-19 on travel behavior and mode preferences" and it is conducted among the population of Bosnia and Herzegovina on a sample of 265 respondents, thereby expanding the analysis with a factor analysis of important factors that influence the choice of travel during and before the COVID-19 pandemic. Also, this study builds on the study "Tourism and COVID-19: changes in travel patterns and tourists' behavior in Iran", which investigated changes in the patterns and behavior of tourists when traveling due to the outbreak of the COVID-19 pandemic. Therefore, for this research, the previously mentioned two studies

were used as a basis, and in the same one, a correlation was made between the factors that influence the choice of travel during COVID-19 and the factors of choosing a destination and its image from the perspective of tourists, which tested the connection between the factors. In this way, a gap in the existing literature was filled.

1. Research Methodology

The necessary data for this study were collected using a survey that was conducted through an online questionnaire. The questionnaire link was distributed to respondents via the Internet, that is, sent via e-mail or the social network Facebook. The convenience sample included 265 respondents. The respondents are citizens of Bosnia and Herzegovina and the research was conducted between 2nd of March, 2022, and 17th of May, 2022.

Table 1. Factors affecting the choice of travel before and during COVID-19

	DESCRIPTIVE STATISTICS				WILCOXON-TEST	
	Before COVID-19		During COVID-19		Z	p
	M	s	M	s		
Safety	3.94	1.158	4.12	1.140	-3.291 ^b	.001
Comfort	3.80	1.068	3.93	1.067	-2.441 ^b	.015
Cleanliness	3.96	1.093	4.30	.949	-6.194 ^b	.000
Concern about infection	2.41	1.231	3.71	1.282	-10.811 ^b	.000
Personal social status	2.86	1.288	3.04	1.327	-2.676 ^b	.007
Social distance	2.18	1.241	3.69	1.288	-11.088 ^b	.000
Costs	3.69	1.112	3.80	1.187	-2.136 ^b	.033
Less travel time	3.52	1.197	3.63	1.231	-1.597 ^b	.110
Travelers with face masks	1.87	1.161	3.58	1.349	-11.484 ^b	.000
Online system of prepaid tickets	2.45	1.345	3.17	1.429	-7.849 ^b	.000
Door-to-door service	2.28	1.299	2.97	1.452	-6.718	.000

Note: b. Based on negative ranks.

The table shows descriptive statistics and the Wilcoxon signed rank test for all factors that determine the choice of travel before and during COVID-19. The most significant factors of travel choice before COVID-19 are: cleanliness (M = 4.30, s = 0.949), safety (M = 4.12, s = 1.140), comfort (M = 3.80, s = 1.068) and costs (M = 3.69, s = 1.112), while the least important factors were: travelers with face masks (M = 1.87, s = 1.161) and social distance (M = 2.18, s = 1.241).

The most significant factors in the choice of travel during COVID-19 are: cleanliness (M = 3.96, s = 1.093), safety (M = 3.94, s = 1.158), comfort (M = 3.93, s = 1.067), costs (M = 3.80, s = 1.187) and social distance (M = 3.69, s = 1.288), while the least important factors were: door-to-door service (M = 2.97, s = 1.452) and personal social status (M = 3.04, s = 1.327).

The Wilcoxon signed rank test based on negative ranks, with higher average values on all factors during COVID-19, shows the existence of a statistically significant difference ($p < 0.01$) in considering all factors during COVID-19, travelers with face masks ($z = -11.484$, $p < 0.01$), social distance ($z = -11.088$, $p < 0.01$), concern about infection ($z = -10.811$, $p < 0.01$), online prepaid ticket system ($z = -7.849$, $p < 0.01$), door-to-door service ($z = -6.718$, $p < 0.01$), cleanliness ($z = -6.194$, $p < 0.01$), safety ($z = -3.291$, $p < 0.01$), personal social status ($z = -2.676$, $p < 0.01$), comfort ($z = -2.441$, $p < 0.05$), costs ($z = -2.136$, $p < 0.05$) compared to the period before COVID-19, except for time savings during travel ($z = -1.597$, $p > 0.05$).

Table 2. Group statistics of the factors influencing the choice of travel before COVID-19

Factors influencing travel choices before COVID-19		Mean Rank	Mann-Whitney Wilcoxon-rank ^b	z	P
Sex	Male	124.91	7,276.500 ^a	-1.275	.202
	Female	137.45			
Employment	Student	124.53	2.253 ^b	-	.522
	Employed	138.23			
	Pensioner	144.79			
	Other	132.32			
Owning a car	YES	137.32	6,486.000 ^a	-1.421	.155
	NO	122.65			
Owning a motorcycle	YES	130.53	2,066.000 ^a	-.138	.891
	NO	133.17			

From Table 2 and Table 3 of the group statistics factors on factors on the choice of travel before and during COVID-19, it can be concluded that the Wilcoxon test shows a statistically significant difference in the factors that influence the choice of travel during COVID-19 considering employment, i.e., profession ($p < 0.01$), whereby pensioners ($M = 182.79$) and students ($M = 119.02$) take the most factors into account when deciding on travel during COVID-19.

Table 3. Group statistics of the factors that influence the choice of travel during COVID-19

Factors influencing travel choices before COVID-19		Mean Rank	Mann-Whitney ^a Wilcoxon-rank ^b	z	p
Sex	Male	120.68	6,879.000 ^a	-1.942	.052
	Female	139.77			
Employment	Student	119.02	11.759 ^b		.008
	Employed	134.94			
	Pensioner	182.79			
	Other	152.38			
Owning a car	YES	136.67	6,606.500 ^a	-1.208	.227
	NO	124.20			
Owning a motorcycle	YES	106.59	1,659.000 ^a	-1.470	.142
	NO	134.81			

Source: Research results, 2022.

Potentially indicative, the Mann-Whitney test shows that women consider many more factors ($M = 139.77$) when making travel decisions during COVID-19 than men ($M = 120.68$), although the difference in our sample is not statistically significant ($z = -1.942$, $p = 0.052$). Below is a factor analysis of important factors that influence the choice of travel before COVID-19.

Table 4. Kaiser-Meyer Olkin (KMO) and Bartlett's Test

KMO - Measure of Sampling Adequacy		.789
Bartlett's Test of Sphericity	Approx. Chi-Square	1,148.670
	Df	55
	Sig.	.000

Source: Research results, 2022.

Since the Kaiser-Meyer-Olkin value is .789, and Bartlett's Test of Sphericity is $\chi^2 = 1148.670$, $p < 0.01$, it was justified to apply factor analysis. The Total Variance Explained table shows that 2 factors with a value above 2 explain 55.27% of the total variance and that they have a relatively good correlation with each other ($r = .313$), which the following table shows, which is why it is recommended to use a two-factor solution.

Table 5. Component Correlation Matrix

Components	1	2
1	1.000	.313
2	.313	1.000

Note: Method: Principal Extraction Component Analysis; Rotation Method: Oblimin with Kaiser Normalization

Source: Research results, 2022.

The first factor, which we can name "Concern about infection", and whose contribution to the common variance is 36,696, is best explained by the following individual factors: concern about infection ($r = 0.701$), online prepaid ticket system ($r = 0.666$), door-to-door service ($r = 0.659$), social distance (0.628) and personal social status (0.624). The second factor, which we can call "travel comfort", and whose contribution to the common variance is 18.575, is best explained by the following individual factors: cleanliness ($r = 0.559$), safety ($r = 0.576$), and comfort ($r = 0.542$). Below is a factor analysis of important factors that influence the choice of travel during COVID-19.

Table 6. KMO and Bartlett's Test

Kaiser – Meyer – Olkin of Sampling Adequacy		.888
Bartlett's Test of Sphericity	Approx. Chi-Square	2,013.733
	Df	55
	Sig.	.000

Since the Kaiser-Meyer-Olkin value is .789, and Bartlett's Test of Sphericity is ($\chi^2 = 2013.733$, $p < 0.01$), it was justified to apply factor analysis. The Total Variance Explained table shows that 2 factors with a value above 1 explain 66.69% of the total variance and that they have a very good correlation with each other ($r = .553$), as shown in the following table, which is why it is recommended to use a two-factor solution.

Table 7. Principal component analysis

Components	1	2
1	1.000	.553
2	.553	1.000

Note: Rotation Method: Oblimin with Kaiser Normalization

Source: Research results, 2022.

The first factor, which we can call "concern about infection", and whose contribution to the common variance is 56.013, is best explained by the following individual factors: social distance ($r = 0.837$), concern about infection ($r = 0.830$), travelers with face masks ($r = 0.810$), cleanliness ($r = 0.777$), less travel time ($r = 0.760$) and safety ($r = 0.753$). The second factor, which we can call "modern ways of applying for tourist trips", and whose contribution to the common variance is 18,575, is best explained by the following individual factors: online system of prepaid tickets ($r = 0.542$) and door-to-door service ($r = 0.508$).

Table 8. Testing the normality of the distribution for the variable "Factors of destination selection and its image from the perspective of tourists"

Factors of destination selection and its image from the perspective of tourists	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
	.061	265	.018	.973	265	.000

Note: Lilliefors Significance Correction

Source: Research results, 2022.

Since the Kolmogorov-Smirnov distribution normality test for the variable destination selection factors and its image from the perspective of tourists (at the significance level of 0.01) deviates from the normal distribution, we used the non-parametric Mann-Whitney and Wilcoxon rank-test to test the difference of arithmetic means with regard to sociodemographic factors.

Table 9. Group statistics of socio-demographic factors on factors of destination selection from the perspective of tourists

Factors of destination selection and its image from the perspective of tourists		Mean Rank	Mann-Whitney Kruskal-Wallis ^b	z	p
Sex	Male	123.06	7,102.500 ^a	-1.566	.117
	Female	138.46			
Age	18 – 30	124.45	4.033 ^b		.133
	31 – 50	142.36			
	Over 50	145.60			
Employment	Student	131.70	2.552 ^b		.466
	Employed	131.07			
	Pensioner	161.41			
	Other	127.00			
Owning a car	YES	140.13	5,960.000 ^a	-2.345	.019
	NO	115.91			
Owning a motorcycle	YES	127.94	2,022.000 ^a	-.281	.778
	NO	133.35			

Source: Research results, 2022

The non-parametric Mann-Whitney test shows that owning a car is a statistically significant factor ($z = -2.345$, $p < 0.05$) when choosing the destination so that respondents who own a car ($M = 140.13$) take into account more factors when choosing a destination from their own reason, as a tourist, than respondents who do not own a car ($M = 115.91$).

Table 10. Correlation

Spearman's rho			Factors affecting the choice of travel during covid-19	Factors of destination selection and its image from the perspective of tourists
	Factors affecting the choice of travel	Correlation Coefficient	1.000	.625**
		Sig. (2-tailed)	.	.000
		N	265	265
	Factors of destination selection and its image from the perspective of tourists	Correlation Coefficient		1.000
		Sig. (2-tailed)		.
		N		265

Note: **Correlation is significant at the 0.01 level (2-tailed).

Source: Research results, 2022.

The correlation table shows that there is a statistically significant positive correlation between the factors that influence the choice of travel during COVID-19 and the factors of choosing a destination and its image from the perspective of tourists ($r = 0.625$, $p < 0.01$), so that those respondents who take into account several factors when choosing a trip during COVID-19, also take several factors into account when choosing a destination and its image from the perspective of tourists. The following Table 11 is a factor analysis.

Table 11. KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.936
Bartlett's Test of Sphericity	Approx. Chi-Square	6557.345
	df	325
	Sig.	.000

Source: Research results, 2022.

Since the Kaiser-Meyer-Olkin value is .936, and Bartlett's Test of Sphericity is: $\chi^2 = 6557.345$, $p < 0.01$, it was justified to apply factor analysis. The Total Variance Explained table shows that 3 factors with a value above 1.7 explain 67.92% of the total variance. The first and third factors are in good mutual positive correlation ($r = 0.464$), while the first and second factors are in negative correlation ($r = -0.492$), as well as the second and third factors ($r = -0.270$), as shown in the following table, which is why it is recommended to use a three-factor solution.

Table 12. Component correlation matrix

Components	1	2	3
Hygiene	- 1.000	-.492	.464
Discounts	-.492	1.000	-.270
Avoidance of travel due to COVID-19	.464	-.270	1.000

Note: Extraction Method: Principal Component Analysis; Rotation Method: Oblimin with Kaiser Normalization.

Source: Research results, 2022.

The first factor, which we can call "Hygiene", and whose contribution to the common variance is as much as 52.45, is best explained by the following individual factors: "Hygiene and disinfection of transport facilities" ($r = 0.872$), "Hygiene and disinfection of tourist and recreational facilities" ($r = 0.865$), "Hygiene and disinfection of accommodation facilities" ($r = 0.856$), "Health and hygiene system of the destination" ($r = 0.833$), "I would choose destinations that follow the instructions and recommendations related to COVID-19" ($r = 0.835$), "Hygiene and disinfection of tourist and recreational facilities before COVID-19" ($r = 0.809$) and "Hygiene and disinfection of transport facilities before COVID-19" ($r = 0.791$).

The second factor, which we can call "Discounts", and whose contribution to the common variance is 8.65, is best explained by the following individual factors: "I would choose airlines that offer special discounts" ($r = -0.865$), "I would choose a destination that offers special discounts" ($r = -0.865$), "I would choose hotels that offer special discounts" ($r = -0.856$) and "I would travel by plane" ($r = -0.785$).

The third factor, which we can call "Avoidance of travel due to COVID-19", and whose contribution to the common variance is 6.81, is best explained by the following individual factors: "The outbreak of COVID-19 made

me hesitant to travel" ($r = 0.825$), "The outbreak of COVID- 19 forced me to take shorter trips" ($r = 0.797$) and "The outbreak of COVID-19 forced me to choose another destination" ($r = 0.780$).

2. Research Findings and Discussions

The research results provided answers to the following research questions:

Q1: What factors influence the choice of travel before and during the COVID-19 pandemic *and* is there a change in the significance of certain factors during the COVID-19 pandemic?

The research results showed that the most important factors in the choice of travel before COVID-19 pandemic were: cleanliness, safety, comfort, and costs, while the least important factors were: travelers with face masks and social distance, while the most important factors in the choice of travel during the COVID-19 pandemic are: cleanliness, safety, comfort, costs, and social distance. The Wilcoxon signed rank test based on negative ranks, with higher average values on all factors during COVID-19 shows the existence of a statistically significant difference in paying attention when traveling on all factors during COVID-19, travelers with face masks, social distance, concern about infection, online prepaid ticket system, door-to-door service, security, personal social status, comfort, costs compared to the period before COVID-19, except for time savings during travel. The results of the study "Exploring the impacts of COVID-19 on travel behavior and mode preferences" showed that respondents gave higher priority to factors such as cleanliness, safety, concern about infection, travelers with face masks, social distance, online system in advance of paid tickets, door-to-door service, during the pandemic, which is in agreement with this research. Research of Abdullah, *et al.* (2020) shows that respondents give a significantly lower priority to comfort, and costs, which is not in agreement with this research and saving travel time during the pandemic, which was also confirmed by this research. This suggests that factors associated with the risk of infection become salient when choosing travel modes during a pandemic.

Q2: What is the influence of socio-demographic variables on the factors influencing the choice of travel during the COVID-19 pandemic?

The results of the study show a statistically significant difference in the factors that influence the choice of travel during COVID-19 with regard to employment, *i.e.*, profession, with pensioners taking into account the most factors when deciding on travel during COVID-19, and students take the least. Statistical tests of the study by Abdullah, *et al.* (2020) explained that students give a significantly lower priority to items related to the pandemic compared to employed respondents. Respondents who are employed are more concerned about infections, probably because they are older compared to students. In their study, Jones and Salathe (2009) concluded that elderly people avoid public transport and large gatherings, especially during the pandemic, which was confirmed by the results of this study. Also, this study shows that women consider many more factors when making travel decisions during COVID-19 than men, although the difference is not statistically significant.

Analyzing the effect of socio-demographic variables on factors affecting mode choice during COVID-19, in the study "Exploring the impacts of COVID-19 on travel behavior and mode preferences", it was determined that respondents who own a motorcycle gave a lower priority to items related to the pandemic, and respondents who own a car gave a higher priority. However, these effects were not statistically significant. It was also observed that essential workers gave a significantly lower priority to factors related to the pandemic compared to other people. Essential workers must report to work even during the pandemic, and transportation is organized by the workplace. Therefore, it is logical that they give lower priority to items related to the pandemic compared to the general public. The study also found that men perceive a significantly lower priority on items related to the pandemic compared to women. Accordingly, women may be more concerned about the spread of the virus. Previous research has also shown that during a pandemic, women are more concerned about the spread of the virus (Al Shehri *et al.* 2006, Bukhari *et al.* 2016), which is in agreement with this research.

Q3: What are the statistically significant factors that influence the choice of a destination and its image from the perspective of tourists?

The first factor, which we can call "Hygiene", is best explained by the following individual factors: "Hygiene and disinfection of transport facilities", "Hygiene and disinfection of tourist and recreational facilities", "Hygiene and disinfection of accommodation facilities", "Health and hygiene system of the destination", "I would choose destinations that follow the instructions and recommendations related to COVID-19", "Hygiene and disinfection of tourist and recreational facilities before COVID-19", and "Hygiene and disinfection of transport facilities before COVID-19". Hygiene and disinfection of tourist facilities were very important even before the outbreak of COVID-

19. When choosing a destination, hygiene has always been an important factor, as well as special service in restaurants, accommodation facilities and tourist attractions (Mirzaei *et al.* 2021). In numerous previous researches in choosing a destination, this factor was recognized as a decisive factor (Lockyer 2003, Ryan and Huimin 2007, Tsai *et al.* 2009, Ramanathan and Ramanathan 2013, Amblee 2015, Zemke *et al.* 2015, Alananzeh 2017, Mirzaei *et al.* 2021), which is in agreement with this research. Authors Mirzaei *et al.* (2021) concluded that disinfection of accommodation facilities and hygiene are also essential for tourists traveling during the COVID-19 pandemic. Also, in the same study, the importance of the hygiene and health system of the destination is high. Regarding hygiene and safety before the outbreak of COVID-19, the data reveals that the disinfection of accommodation facilities and hygiene before COVID-19 were outstanding. Components related to health are of great importance based on the attitudes of the respondents.

The hygiene of accommodation facilities is important in the tourism sector regardless of the pandemic and has not lost its importance even during the pandemic. Social distancing and hygiene affect the behavior of tourists (Mirzaei *et al.* 2021). The importance of hygiene and safety in tourist destinations is considered one of the most critical factors when choosing a destination from the perspective of tourists and its image (Chan and Baum 2007, Swarbrooke and Horner 2007, Kayar and Kozak 2010, Jovanović *et al.* 2015; Naumov *et al.* 2020). COVID-19 and health care are related to the role of adherence with the COVID-19 related health protocols when choosing a tourism services and destination. Adherence to protocols in a tangible way that tourists can observe plays a significant role in the selection of destinations and providers of tourist services in the destination (Mirzaei *et al.* 2021).

The second factor, which we can call "Discounts", is best explained by the following individual factors: "I would choose airlines that offer special discounts", "I would choose a destination that offers special discounts", "I would choose hotels that offer special discounts" and "I would travel by plane". The study "Tourism and COVID-19: changes in travel patterns and tourists' behavior in Iran" shows that, according to the tourist, it is necessary to offer special packages and discounts related to the services of the destination, which is confirmed by the results of this study. However, these offers influence the choice of services provided in the destinations more than the choice of destination (Mirzaei *et al.* 2021). Mirzaei *et al.* (2021) came to the conclusion that many consumers use special promotional offers, which contradicts some previous research (Correia and Crouch 2004). When there is a competitive discount package, consumers may generally choose to travel to the destination (Rewtrakunphaiboon and Oppewal 2004).

The third factor, which we can call "Avoidance of travel due to COVID-19", is best explained by the following individual factors: "The outbreak of COVID-19 has made me hesitant to travel", "The outbreak of COVID-19 has made me take shorter trips" and "The outbreak of COVID-19 made me choose another destination". The COVID-19 pandemic has become a key issue for travelers' and travel service providers; therefore, following the guidelines will ensure a safe journey. Tourists prefer to choose a destination where they do not have to worry about safety and health. Also, tourists travel to other destinations and change their previous choices. Tourists prefer shorter trips, because a longer stay in a new environment can expose them to greater dangers. Also, they prefer destinations where COVID-19 is not widespread or that are not labelled as dangerous by government health authorities (Mirzaei *et al.* 2021), which is in agreement with this research. Prior knowledge of destinations leads to being confident in providing reliable services for tourists. After the outbreak of COVID-19, tourists prefer to choose destinations that can be reached by car and are close by. This means that the COVID-19 pandemic is changing the way we travel. Due to the outbreak of the COVID-19 pandemic, tourists are more inclined to choose a nearby destination. New restrictions and restrictions on international travel, flight cancellations, and hygiene concerns will be greater when traveling to further destinations, resulting in tourists choosing local and closer destinations (Mirzaei *et al.* 2021).

Q4: What is the influence of socio-demographic variables on the factors that influence the choice of a destination and its image from the perspective of tourists?

The findings of the research show that owning a car is a statistically significant factor when choosing a tourist destination and its image, so those respondents who own a car consider more factors when choosing a tourist destination and its image than respondents who do not own cars. The results of the study "Tourism and COVID-19: changes in travel patterns and tourists' behavior in Iran" show that during the pandemic, tourists prefer to avoid public transport and use personal cars. Numerous studies show that people will use a private car for short-distance trips and avoid public transport (De Vos 2020), which is in agreement with this research. It can be concluded that the use of private vehicles ensures compliance with the requirements of health and hygiene protocols. In addition, tourists are not required to wear a mask (Mirzaei *et al.* 2021).

Q5: Is there a connection between the factors that influence the choice of travel during COVID-19 and the factors of choosing a destination and its image from the perspective of tourists?

The results show that there is a statistically significant positive relationship between the factors that influence the choice of travel during COVID-19 and the factors of choosing a tourist destination and its image so that those respondents who take into account more factors when choosing to travel during COVID-19 also take into account several factors when choosing a tourist destination and its image.

Conclusion

The study aims to highlight changes in tourist travel and behavior patterns during the COVID-19 pandemic. This research is very important, especially in times of health crises and the perception of tourist destinations, and the results are important for predicting future tourism needs, tourist behavior, and the development of adequate recovery strategies.

Destinations must earn the trust of tourists by adhering to all safety and health regulations and guidelines published by international organizations such as the World Health Organization. Publishing health and hygiene protocols on the websites of service providers and destinations is an appropriate way to inform tourists and to recognize any potential health risks (Mirzaei, Sadin and Pedram 2021). The results of this research can be used in policy making during the pandemic based on tourist needs, but also in transport planning. Governments in different destinations could especially use the mentioned results for planning and introducing future measures and restrictions. Service providers, for example, hotels, restaurants, retailers, and taxi companies, could use the information to better plan their operations and services.

Recommendations for further research are that qualitative research should be included in similar research, that the sample should be larger and more diverse, and that the research should last for a longer period of time. It is also recommended that similar research be conducted in several countries so that a comparative analysis can be conducted. Other valuable findings could be found if this research could be conducted in other countries where the measures were different. Considering the recommendations, there were a couple of limitations in the research that did not affect the results of the work, namely that the research lasted for a relatively short period of time (a month and a half), that the sample was relatively small (265 respondents), that the results cannot be applied to the entire population of Bosnia and Herzegovina, and therefore cannot be generalized and that the respondents are only residents of Bosnia and Herzegovina who have access to the Internet. This paper provides the latest information on changes in tourism travel behavior and patterns that may be implied by governments, numerous institutions, tourism businesses, travel agencies, Destination Marketing Organizations and guides to understand the new needs of tourists that need to be taken into account.

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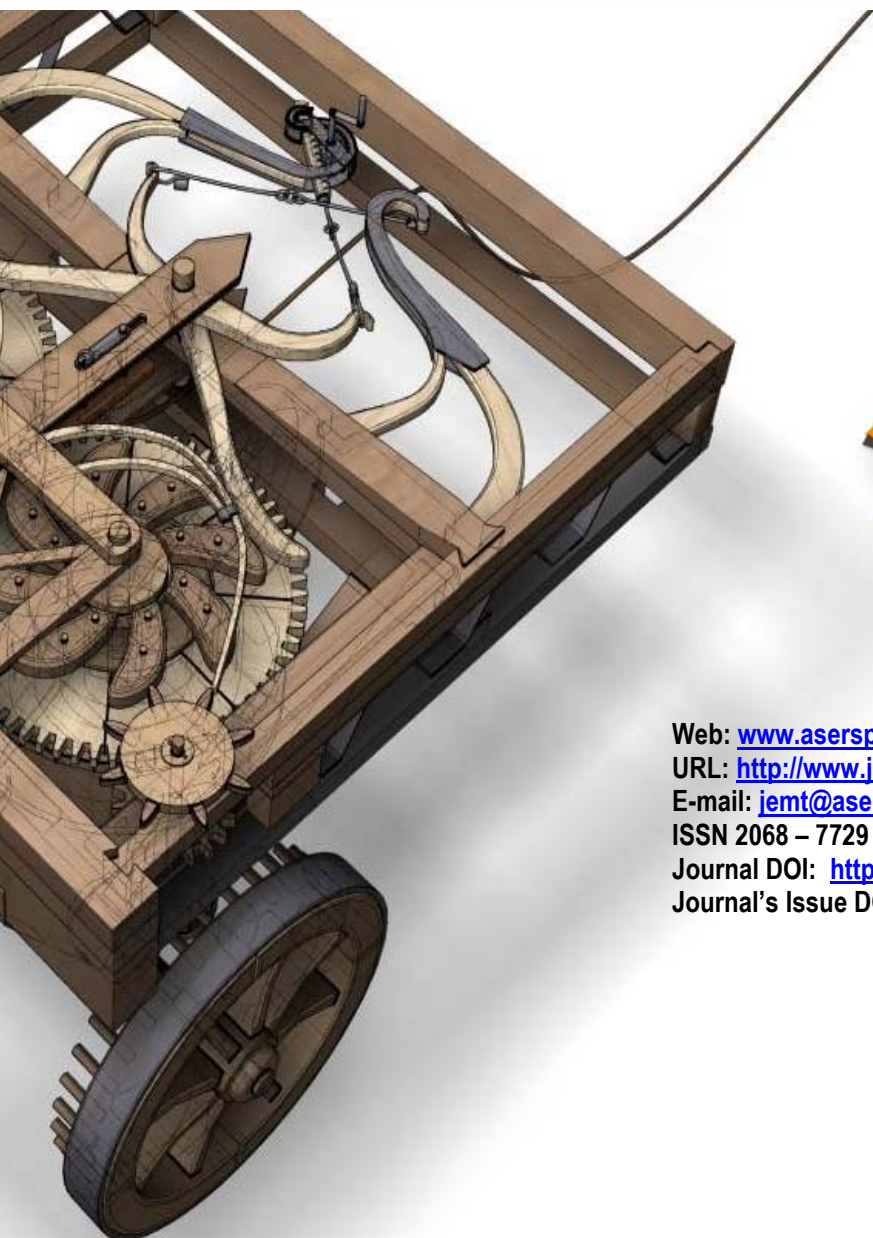
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