

Personalities shaping travel behaviors: post-COVID scenario

Aleksandra Terzić, Biljana Petrevska and Dunja Demirović Bajrami

Abstract

Purpose – This study aims to offer insights into a sounder understanding of tourist behavior and travel patterns by systematically identifying psychological manifestations reflected in the basic human value system in the pandemic-induced environment.

Design/methodology/approach – A large random sample (49,519 respondents from 29 European countries), generated from the core module Round 9 of the European Social Survey, was used. A post-COVID-19 psychological travel behavior model was constructed by using 12 variables within two opposing value structures (openness to change versus conservatism), shaping specific personalities.

Findings – Four types of tourists were identified by using K-means cluster analysis (risk-sensitive, risk-indifferent, risk-tolerant and risk-resistant). The risk-sensibility varied across the groups and was influenced by socio-demographic characteristics, economic status and even differed geographically among nations and traveling cultures.

Research limitations/implications – First, data were collected before the pandemic and did not include information on tourism participation. Second, the model was fully driven by internal factors – motivation. Investigation of additional variables, especially those related to socialization aspects, and some external factors of influence on travel behaviors during and after the crisis, will provide more precise scientific reasoning.

Originality/value – The model was upgraded to some current constructs of salient short-term post-COVID-19 travel behavior embedded in the core principles of universal human values. By separating specific segments of tourists who appreciate personal safety and conformity, from those sharing the extensive need for self-direction and adventure, the suggested model presents a strong background for predicting flows in the post-COVID-19 era.

Keywords Travel behavior, Human values, Personality types, COVID-19, Risk perception, Travel restriction and regulations

Paper type Research paper

Introduction

At specific points in time, various risks affect people's lives and behaviors, causing changes in consumer habits in line with the new situation. Tourism is highly sensitive to risks (natural hazards, wars, pandemics, terrorism, politics, environmental risks, etc.) that influence sudden changes in the tourist market (Lee *et al.*, 2021). Any severe risk that outbreaks promptly reduces the tourism flows due to the decision of tourists not to visit dangerous destinations, but also due to government restrictions that cause shifts in tourist demand and affect travelers' choices and behaviors (Fotiadis *et al.*, 2021). The recent global COVID-19 pandemic endangered people's health and lives, disturbed everyday life, disrupted the economy and brought tourism to a standstill. The COVID-19 outbreak followed by lasting travel bans and strict regulations changed almost every aspect of tourism. The whole tourism system went through profound negotiations on multiple levels. Underpinned by reasonable concerns among tourists and governments on travel risks, each country defined its own regulatory measures and entrance rules. A whole two years of COVID-19 frightening and fighting, along with lasting travel bans, brought a reasonable question of what to expect in the forthcoming tourist seasons. When dealing with uncertainties, the existing differences

Aleksandra Terzić is based at the Geographic Institute Jovan Cvijić of the Serbian Academy of Sciences and Arts, Belgrade, Serbia.

Biljana Petrevska is based at the Faculty of Tourism and Business Logistics, Goce Delcev University Stip, Stip, Macedonia.

Dunja Demirović Bajrami is based at the Geographic Institute Jovan Cvijić of the Serbian Academy of Sciences and Arts, Belgrade, Serbia and Institute of Sport Tourism and Service, South Ural State University (National Research University), Celabinsk, Russia.

Received 4 February 2022

Revised 13 June 2022

14 July 2022

Accepted 17 August 2022

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in risk construction are potentially crucial for assessing existing risks and their implications for the travel industry (Gossling *et al.*, 2020; Hall *et al.*, 2020). There were some indications that harsh restrictions even magnified travel intentions, particularly among those most severely affected by the pandemic (Boto-García and Leoni, 2021). Aside from travel restrictions, different prohibitions and sanctions imposed as coercive measures for diplomatic and political reasons. Fluctuating mobility bans caused confusion among tourists, creating various perceptions of the ease of traveler access (Seyfi *et al.*, 2020) and outlined radical behavioral changes.

Demand aspects are changing swiftly because of the growing uncertainties in the world. Values and the psychological response to crises could provide insight into probable scenarios in pandemic and post-pandemic situations. In line with Li and Cai (2012), this study investigated the effects of values on travel motivation and behavioral intentions of European tourists. It contributes to motivational and behavioral tourism research by improving comprehension of the psychological manifestations of tourist motivation and behavior by applying multiple methodologies and big data quantifications. A developed post-COVID-19 travel behavior model implied the existence of distinct tourist segments by distinguishing those who genuinely appreciate personal safety and conformity from those with intensified travel needs.

Literature review

The devastating impacts of COVID-19 on tourism demand and future travel behavior have been widely discussed (Brouder, 2020; Ivanova *et al.*, 2021; Aebli *et al.*, 2022). Tourists' risk perception and protective behavior during or after crises (wars, terrorism, health, financial collapse, natural disasters, etc.) have been discussed repeatedly, while a multitude of studies have recently been published regarding COVID-19 effects on tourism (Chua *et al.*, 2021; Matiza, 2022; Podra *et al.*, 2021; Ahmad *et al.*, 2021).

Motivation, opportunity and ability are lead factors influencing travel intentions, but the perception of travel risks is focal for making travel decisions (Hasan *et al.*, 2017). Motivation is a principal psychological aspect that directs an individual's behavior, activity, travel intentions, choices and behaviors (Dann, 1981; Demirović *et al.*, 2019; Yoon and Uysal, 2005). Travel motivation and decision-making include gauging perceived benefits against perceived costs or risks (Aebli *et al.*, 2022) and reaching extremes during COVID-19 circumstances. Restrictions occurring in pandemics inhibit continued traveling and lower the subjective perception of well-being (Hwang and Lee, 2019; Brodeur *et al.*, 2021). Some studies strived to identify the behavioral patterns caused by fearful reactions to crises and uncertainties (Kock *et al.*, 2020; Miao *et al.*, 2021), while others even proposed the existence of crisis-resistant tourists who follow their travel plans despite unexpected internal and external events (Hajibaba *et al.*, 2015).

Personality and human values

Personality is strongly related to psychological processes, defined as an enduring disposition that causes characteristic behavioral patterns, shaped by values, being closely linked to motivation (Parks and Guay, 2009). Psychological theories (Locke, 2000; Rokeach, 1973; Roccas and Sagiv, 2010) indicated that needs, values and goals were arranged hierarchically, as needs influenced the development of value systems, while values influenced the decision to pursue various goals (e.g. to travel). The fulfillment of long-term goals leads to the attainment of values and satisfaction of needs (Parks and Guay, 2009). Values stand for the manifestation of culture as the basis on which attitudes, cognition, emotions and behaviors evolve (Hills, 2002; Li and Cai, 2012; Schwartz, 2012).

Schwartz's theory (Schwartz, 2012) is the most well-known and widely used value theory, which identified and described dynamic relationships between motivationally distinct value groups (power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, conformity, tradition and security). This theory classified human values into four dimensions: openness to change, self-enhancement, conservation and self-transcendence. The basic human value sets determine

motivation and can be employed to predict general travel behavior, destination choices, leisure activities, preferences, trip length, etc. (Salim Saji *et al.*, 2015; Terzić *et al.*, 2021).

Aebli *et al.* (2022) use Herzberg's theory of motivation to consider tourists' needs and observed risks as opposing sets of psychological factors shaping travel willingness during and after the COVID-19 pandemic. People's psychological reactions are embedded in the underlying psychological constructs – human values. According to Parks and Guay (2009), values are more general than attitudes and are ordered by importance, as a person will tend to follow the more important value when two values are in conflict.

Risk perception, protection motivation, travel intentions and behaviors

Risk perception has a severe impact on travel intentions and destination choices (Denda *et al.*, 2021), as people tend to carry out travel decisions in a way that mitigates threats, reflecting the basic psychological defense strategy of humans (Miao *et al.*, 2021). Even though tourism demand declines as health risk increases (Yang *et al.*, 2020), there is also an opportunity to develop a sort of tourism resilience (Gossling *et al.*, 2020). Perception of risk may vary depending on different cases and subjective risk assessment, dependent on individual psychological characteristics, socio-demographic factors, cultural background, previous travel experiences and the influence of various external factors such as media (Pennington-Grey and Schroeder, 2013). When a tourist is confronted with a threat (health risk), the psychological response is to take protective action by performing a coping appraisal that influences changes in attitudes and travel intention (Seow *et al.*, 2022). Common psychological responses related to COVID-19 were reflected in increased xenophobia, tourist ethnocentrism and negative crowding perception (Kock *et al.*, 2020; Miao *et al.*, 2021). Taking into account the effects of aggressive media reports, Miao *et al.* (2021) use “terror management theory” and “posttraumatic growth” as theoretical grounding for understanding the psychological processes underlining overt human behaviors during COVID-19 pandemic. Miao *et al.* (2021) proposed proximal and distal travel behavior to represent short-term (travel abstinence, disruptive travel behavior, rational travel and compensative travel behavior) and long-term post-COVID-19 travel behavior (distal bounded travel behavior, voluntary de-crowding, mindful tourism and travel as a quest for meaning).

Using a large random sample generated by the European Social Survey (ESS), this study seeks to test whether the human value system can provide a basis for dividing Europeans into various personalities and behavioral types, using a large random sample generated by the ESS and if such segments can be empirically linked to crisis-resilient tourist behavior.

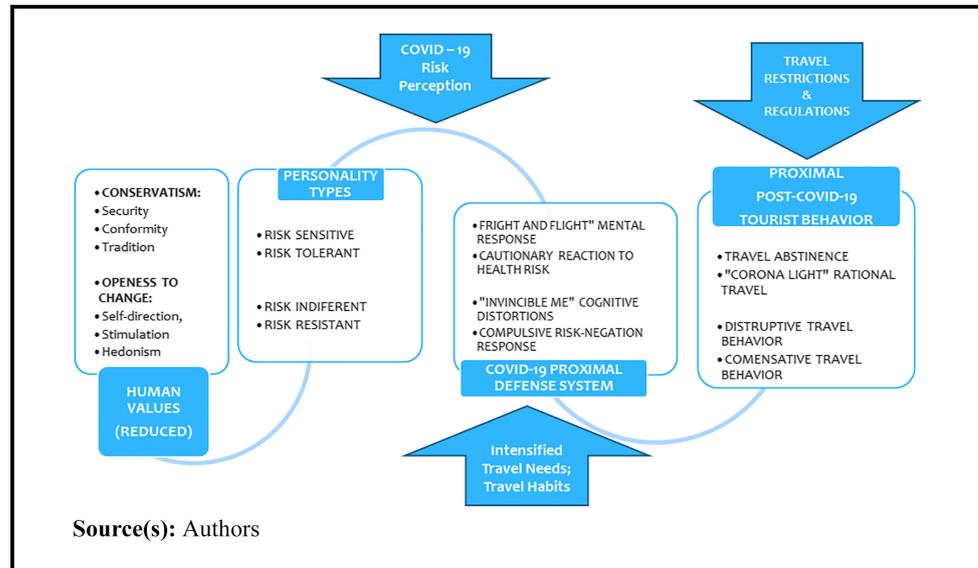
Research methodology

We engaged the protection motivation theory and used the post-COVID-19 travel behavior construct developed by Miao *et al.* (2021) to construct a post-COVID-19 travel behavior model based on human value systems. To do this, we have upgraded the salient proximal post-COVID-19 travel behavior construct by using the personality traits defined by universal human values (Schwartz and Bardi, 2001) as principles governing all aspects of people's lives (Figure 1).

Data extracted from the core module Round 9 of the ESS (ESS, 2018) consisted of a random sample of 49,519 respondents from 29 European countries. Over two-third of the Europeans participated in tourism in 2019, which provides some certainty that the data can be considered reliable for the examination of the travel intentions of Europeans (Terzić *et al.*, 2021). The ESS database allows result generalization, while extant socio-demographical, political, economical and geographical data provided can be continuously added and tested using different samples and timeframes. The constructed model based on psychological constructs can be used for predicting post-pandemic travel to indicate expected tourist behaviors.

The original human values construct (Schwartz, 2012) was reduced from the initial 21 to 12 variables directly related to general safety and conformity, openness to change, and hedonism.

Figure 1 A post-COVID-19 travel behavior model



Variables considered influential to tourism decision-making were divided into two categories: (1) *openness to change* and (2) *conservatism*. Six variables were used to assess *openness to change*, including self-direction and stimulation values, reflected in independent thought and action (choosing, exploring, creativity, excitement, novelty and challenge in life) and certain aspects of hedonism (tourism satisfaction). The fundamental motive of exploration was a focal evolutionary driver of modern tourism activity. *Conservatism* (six variables), on the other hand, reflected greater general importance of issues of security, conformity and tradition. These characteristics were reflected in certain restraint of actions and violations of social norms and expectations, placing personal security and safety on a pedestal and indicating general anxiety avoidance (demotivation). For the study, we focused on opposing value sets – *conservation* (security and conformity) as a demotivation factor, and *openness to change* (hedonism and stimulation) as a motivator indicating intensified tourists’ needs. The proposed model divided people who are more conservative in terms of the role of personal safety from those whose travel needs and adventure-seeking blur their risk perception and stimulate more risky behavior. The latter were used as indicators of a person’s willingness to engage in traveling and transmitted into the post-pandemic behavioral construct.

Performing a K-means cluster analysis in SPSS 24.0 software was used for data processing. The K-means clustering represents one of the most commonly used quantitative analysis techniques in tourism for market segmentation (Dolnicar *et al.*, 2014; Fuchs and Höpken, 2022). The main limitations of K-means lay in the potential of cluster overlapping, the need for pre-defining the number of clusters, dimensionality and unbalance in cluster sizes (Fränti and Sieranoja, 2018). In this study, clusters were defined based on previously established models (Miao *et al.*, 2021) and empirical findings (Aebli *et al.*, 2022; Hajibaba *et al.*, 2015). The dimensionality problem was avoided by using a large random sample and the modest number of variables provided by the ESS database, as suggested by Dolnicar *et al.* (2014). Despite the slight disproportion in cluster sizes, the size of each cluster was large enough to provide confidence in the presented results and to reflect a more realistic situation in life.

Results

Sample profile

Among the sample, there was slight domination of female respondents (51.4%) compared to males (48.6%). Young adults up to 39 years made up 36.2% of the sample, middle-aged people (aged 40 to 65) made up 42.9% and seniors (aged 66 to 90) made up 20.9% of the total sample.

Secondary education was the most common (58%), followed by advanced vocational and lower tertiary (BA) education (22%) and higher tertiary education (12.1%). Employed and self-employed persons (89.1%) were dominant respondents. The primary source of the household income was salary from employment (66%), pensions (24.1%) or unemployment or other social benefits (4.5%).

Defining clusters

Human values (12 variables) on the opposite sides of the human value system were manipulated to produce clusters reflecting the psychological types of potential tourists, particularly those with outlined travel needs and those with contrasting conservative characteristics. The first cluster analysis (containing two to six clusters) indicated that three- and four-cluster solutions provided the best cluster solution. The use of four clusters to indicate behavioral patterns was chosen in accordance with [Miao et al. \(2021\)](#). Conduction of the K-means non-hierarchical cluster analysis classified 48,789 respondents (with valid responses) into four clusters. ANOVA found that all included variables were statistically different ([Table 1](#) and [Figure 2](#)). Means were calculated for each variable and compared for the whole sample. The final cluster solution was achieved due to no or small change in cluster centers, with the maximum absolute coordinate change for any center 0.000, with 84 iterations and minimal distance between initial centers 12.41.

The ANOVA analysis showed that the values reflected in the statements “Important to seek adventures and having an exciting life,” “Seek fun and things that give pleasure,” “Try new and different things in life” and “Having a good time” strongly affected the segmenting process. These statements were in direct relationship with tourism motivation. Other issues related to general safety and stability are of utmost importance in the crisis-related (pandemic) circumstances and give some insight into possible behavioral aspects of different groups considering defined and proposed safety measures at destinations.

[Table 2](#) presents some patterns of the clusters’ socio-demographic characteristics. There was evident slight gender difference across clusters indicating women were more risk-sensitive than men. Sharper age differences existed, marking older respondents risk-sensitive, while younger groups were predominantly risk resistant. Travel risk perception increases with age and decreases with travel experience. The influence of gender and age on risk perceptions was consistent with the results of previous research ([Floyd and Pennington-Gray, 2004](#); [Lepp and Gibson, 2003](#)).

According to [Bernini and Carcolici \(2015\)](#), economic stability has the greatest impact on tourism participation and consumption. Differences in tourism participation reflect inequalities in living standards, as disposable income is an important determinant influencing tourist behavior, participation and spending ([Bernini and Fang, 2021](#)). Risk-sensitive and risk-resistant personalities are dependent on subjective general health evaluation and current financial status assessment. Education and economic status were important aspects, as risk-sensitive personalities were predominant among less educated and economically disadvantaged groups.

Certain aspects of the overall trust in governmental decisions revealed that the risk-indifferent group displays a slightly lower confidence in national politics than other groups. Emotional attachment levels to country and Europe might indicate possible travel boundaries in post-pandemic circumstances. The risk-sensitive and risk-tolerant groups have an extremely high emotional attachment to their country of residence, and the risk-tolerant and risk-resistant groups are highly attached to Europe. Such attitudes might indicate the expected level of ethnocentrism that will most probably affect post-COVID-19 travel behaviors. The same is reflected in some moral obligations to support the domestic tourism economy by staying within national borders ([Kock et al., 2020](#)). [Figures 3 and 4](#) present the uneven geographical distribution of certain tourist types in Europe with a clear dominance of risk-tolerant personalities.

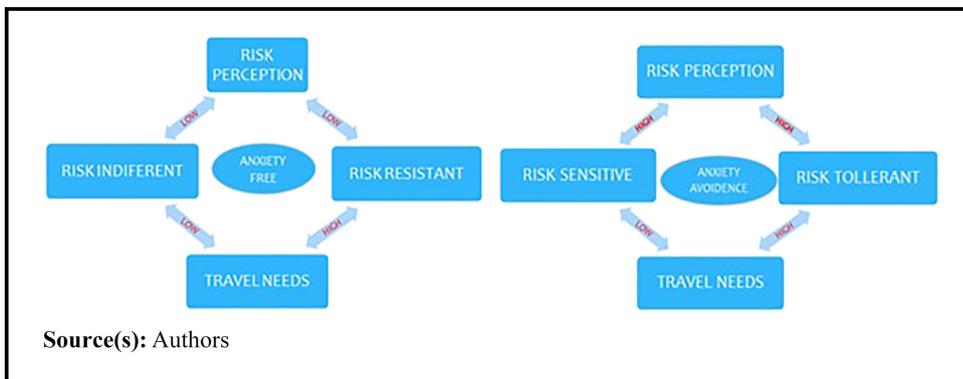
In 2019, 64.9% of the EU population (aged 15 or over) made at least one travel for personal purposes, but tourism participation share ranged from 85% in The Netherlands to 28.6% in Romania ([Eurostat, 2020](#)). Nearly half of the Europeans (45%) who did not participate in tourism

Table 1 Clusters reflecting psychological types (personalities) of the potential tourists

Variable (value)	Overall mean	Cluster means			ANOVA results		
	48,789 (100%)	Risk- sensitive N = 11,639	Risk- indifferent N = 10,567	Risk- tolerant N = 15,341	Risk- resistant N = 8,682	F-value	p- value
Important to live in secure and safe surroundings	2.35	1.80	3.17	1.79	3.02	6,220.7	0.000
Important that government is strong and ensures safety	2.33	1.87	3.30	1.80	2.66	5,732.5	0.000
Important to behave properly	2.69	2.11	3.44	2.07	3.54	7,084.5	0.000
Important to be humble and modest, not to draw attention	2.71	2.21	3.30	2.27	3.33	3,408.5	0.000
Important to follow traditions and customs	2.72	2.11	3.55	2.09	3.55	5,853.3	0.000
Important to do what is told and follow the rules	3.26	2.80	3.85	2.60	4.23	4,968.3	0.000
Important to make own decisions and be free	2.23	2.54	2.88	1.85	1.74	3,309.7	0.000
Important to think new ideas and being creative	2.66	3.23	3.21	2.18	2.13	3,455.2	0.000
Important to have a good time	2.97	3.99	3.55	2.29	2.22	7,549.6	0.000
Important to try new and different things in life	3.04	4.03	3.81	2.30	2.23	9,096.2	0.000
Important to seek fun and things that give pleasure	3.00	4.06	3.66	2.21	2.26	9,263.6	0.000
Important to seek adventures and have an exciting life	3.88	5.13	4.40	3.37	2.64	10,113.2	0.000

Note(s): 1 = very much like me; 2 = like me; 3 = somewhat like me; 4 = a little like me; 5 = not like me; 6 = not like me at all
Source(s): Authors' calculations

Figure 2 Visualization of the impact of risk on travel behavior of specific personalities (cluster groups)



reported financial reasons as one of the main reasons for not traveling, 25% mentioned no motivation to travel and another 24% of non-tourists outlined health problems (Eurostat, 2020). The standard travel patterns of European nations before the COVID-19 pandemic are presented in Figure 5. Travel habits are likely to be transmitted into post-COVID-19 travel patterns, as previous knowledge and experiences provide certain confidence for tourists.

To provide more precise conclusions, stratification filters were used to exclude those highly unlikely to engage in travel activities due to the justified risks of poverty or health-related disability. The effects on cluster groups were minimal, as socio-demographic characteristics of defined clusters were experiencing insignificant changes (0.2%–0.5%). The spatial distribution of clusters remains stable, experiencing changes up to 1%: in risk-resistant cluster (–0.1 to –0.7%), risk-tolerant group (–0.7%–0.3%), risk-indifferent group (–0.6 to 0.4%) and risk-sensitive group (–0.1 to 1.4%). The risk-resistant and risk-tolerant groups were most stable. However, the share of the risk-sensitive group was slightly enlarged, particularly on account of the economically unstable SEE countries: Slovakia, Estonia, Croatia, Bulgaria and Serbia (up to 1.4%).

Discussion

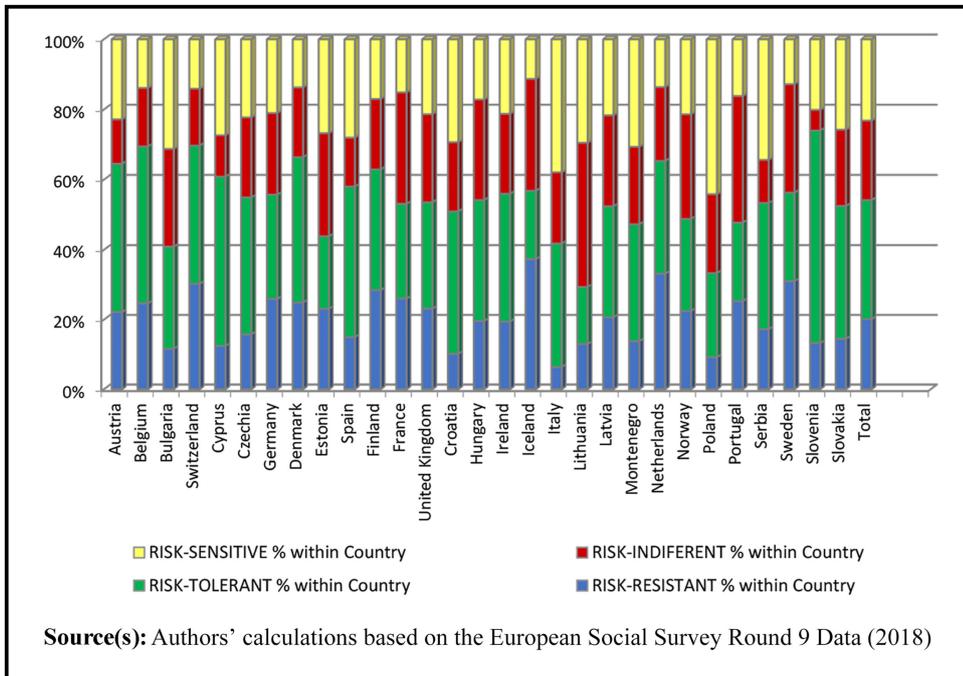
Increased perceived security in a travel context does not necessarily motivate travel because motivation is stimulated by higher-level socio-psychological needs (self-achievement), whereas safety concern is an elementary need of avoiding unpleasant situations/death (Aebli et al., 2022). Tourists exhibit a “zone of tolerance” when faced with high motivation and high risks, appearing to be willing to modify their behavior if the overall perceived risk associated with travel does not exceed an individual threshold. In dealing with a crisis (COVID-19 pandemic) some tourists may still travel and apply risk reduction strategies, while others will desist from traveling (Aebli et al., 2022). Risk-related behavior can be determined by the risk category and perceived behavioral control, indicating potential differences in crisis resistance (Hajibaba et al., 2015). Neuburger and Egger (2021) identified segments of travelers with distinctive characteristics based on their perceived risk of traveling during the pandemic and changes in travel behavior: the anxious, the nervous and the reserved. Our study identified four different risk-related tourist segments based on the psychological constructs embedded in the human values and showed that there was a clear dominance of the risk-tolerant personalities (34%), followed by the risk-indifferent (22.7%) and risk-sensitive (23.2%) groups. The smallest share was present in risk-resistant one (20.1%). Furthermore, differences in socio-demographic characteristics of defined cluster groups were present.

Conservatism is the supreme factor influencing the behavior of risk-sensitive group (Cluster 1). This group is dominated by middle/aged and senior respondents (aged 55 plus), with a slight prevalence of women. Moreover, this group is characterized by modest education (secondary),

Table 2 Clusters' socio-demographic characteristics

<i>Characteristics % within cluster number of case</i>	<i>Sample</i>	<i>Clusters</i>				<i>Pearson chi- square</i>
		<i>C1: Risk- sensitive</i>	<i>C2: Risk- indifferent</i>	<i>C3: Risk- tolerant</i>	<i>C4: Risk- resistant</i>	
<i>Gender</i>						
Male	48.5	40.0	51.6	49.7	52.9	0.000
Female	51.5	60.0	48.4	50.3	47.1	
<i>Age</i>						
15–24	14.1	4.4	10.3	15.3	27.3	0.000
25–34	15.0	7.8	14.7	16.5	22.0	
35–44	15.5	12.6	16.8	16.5	17.1	
45–54	18.1	18.5	24.4	17.8	16.0	
55–64	15.7	19.6	17.3	14.3	10.5	
> 65	21.6	37.1	16.5	19.6	7.1	
Average age	47.84	56.9	48.5	46.0	38.3	
<i>Education</i>						
Elementary	6.9	10.8	6.9	6.2	3.6	0.000
Secondary	57.9	61.2	56.0	59.5	54.1	
Sub-degree and BA	22.4	18.3	23.4	22.4	26.5	
Tertiary (MA, PhD)	12.2	9.4	13.3	11.6	15.5	
<i>Occupation – main activity</i>						
Paid work	52.3	37.8	51.8	48.6	54.7	0.000
Unemployed	5.5	3.0	3.9	3.7	4.5	
Housework	6.6	18.3	13.0	14.3	9.6	
Education	9.9	4.1	8.1	11.4	19.9	
Retirement	21.9	28.9	18.0	17.0	7.1	
Sick or disabled	2.0	5.2	3.8	2.6	2.7	
Other	1.5	2.7	1.4	2.3	1.4	
<i>Number of household members</i>						
Single	16.1	18.8	16.0	14.3	16.5	0.000
Two	33.1	38.0	34.5	31.3	28.9	
Three to five	46.6	38.7	46.1	49.8	51.0	
Six or more	4.2	4.5	3.4	4.6	3.6	
<i>Household's total net income</i>						
Extremely low	17.5	23.5	16.5	16.5	13.3	0.000
Low	21.2	24.7	20.6	21.3	17.6	
Medium	21.7	22.1	22.2	21.9	20.3	
High	21.6	17.6	22.3	22.4	24.1	
Extremely high	18.0	14.9	18.6	17.8	24.7	
<i>Subjective general health</i>						
Very good	26.1	16.1	21.1	30.3	36.3	0.000
Good	42.7	38.6	45.6	43.3	43.4	
Fair	24.3	32.8	26.9	21.3	16.6	
Bad	5.8	10.2	5.5	4.4	3.1	
Very bad	1.1	2.3	0.8	0.8	0.7	
<i>Trust in country's parliament</i>						
No trust at all	10.7	12.7	10.0	11.0	8.6	0.000
Low trust	33.9	34.4	36.6	32.3	32.8	
Medium trust	17.5	18.9	18.3	16.1	16.0	
High trust	35.6	31.6	33.6	37.7	40.5	
Complete trust	2.3	2.2	1.5	3.0	2.2	
<i>Emotional attachment to country</i>						
Low	5.8	3.7	7.5	4.0	9.1	0.000
Medium	16.0	12.1	20.1	12.1	19.8	
High	78.2	84.3	52.8	82.3	71.2	
<i>Emotional attachment to Europe</i>						
Low	17.4	20.8	18.0	15.0	17.1	0.000
Medium	36.8	36.8	40.8	34.1	36.6	
High	45.8	42.6	41.2	50.9	46.4	

Figure 3 Geographical distribution of risk-related personalities within Europe



low to medium household income coming from wages or pensions and slightly lower subjective health perception compared to other groups. They indicate the insignificant effect of “openness to change” in their value system. Travel abstinence behavior is expected, reflected in a significant decline in travel members of a risk-sensitive group in proximal post-pandemic circumstances. However, younger, healthier or more financially secure members of this cluster may continue to travel domestically, or in exceptional cases, regionally. Travels will most likely be organized strictly according to social norms and defined rules, with extreme caution toward the pandemic flow and outstanding prudence in cost–benefit evaluations.

The risk-indifferent group (Cluster 2) maintains slight domination of middle-aged and older men, living as couples or families. Average education (secondary or tertiary), medium to high household incomes and good to fair subjective general health are present. This group reflects the more modes to influence of both “openness to change” and “conformity” factors. However, they demonstrate greater affinity for “making own decisions and being free” while opposing “proper behavior and following the defined rules.” Such group characteristics are in line with “invincible me” as proximal travel behavior (Miao *et al.*, 2021), whose behavioral patterns reject the existence of “potential risk” and follow societal rules, strongly opposed to changing their travel habits. Despite being relatively less interested in travel, this type of personality is likely to avoid sustainable destinations and seek hedonic destinations that do not have bans and rigorous regulations. This personality trait alarms for potentially problematic behavior and avoidance of defined rules, especially concerning social distancing.

Risk-tolerant and risk-resistant groups are those whose travel needs have the potential to overpower the risk perception in proximate post-COVID-19 travels. The dominant risk-tolerant group (Cluster 3) displays equal distribution of age and gender. There is a domination of couples and family living, with the prevalence of secondary education, medium to high-income levels and excellent health condition. Exhibiting a high level of “openness to change” and equally important values related to personal safety and security, their behavior resembles Miao *et al.* (2021) “corona light” rational travel behavior. Such personalities are likely to make careful choices keeping up to the well-known domestic or regional destinations to ensure safety and confidence, excluding all potential risks (overcrowding, swift changes in prices and regulations).

Figure 4 Spatial distribution of dominant types on regional (NUTS 3) level

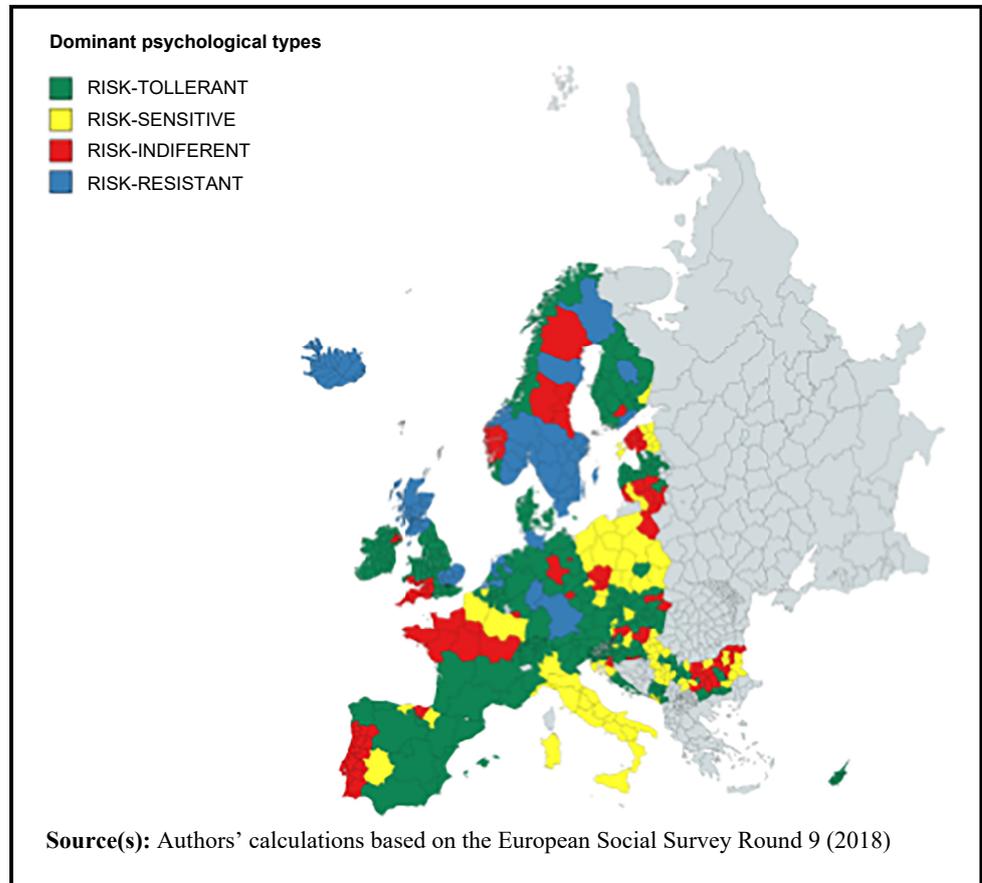
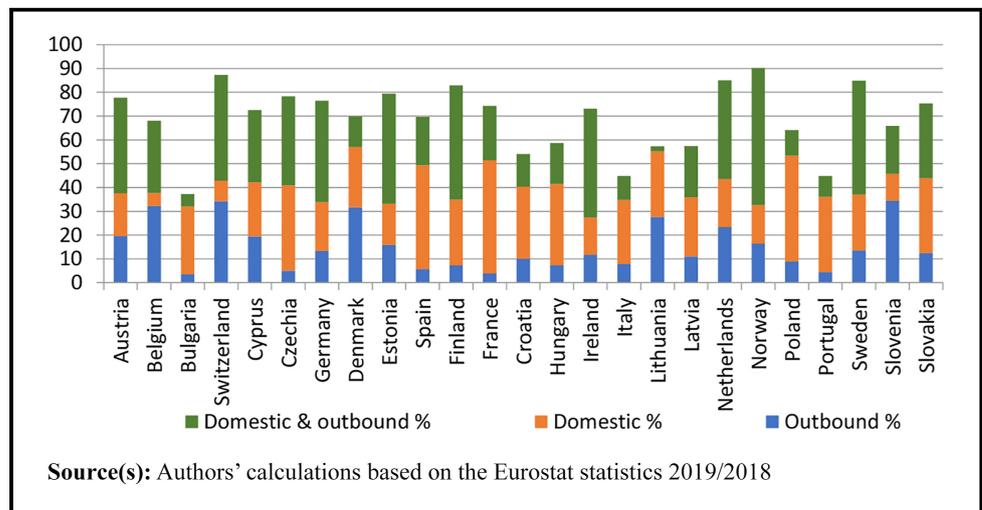


Figure 5 Common travel patterns of European nations



The humblest presence has the risk-resistant group (Cluster 4) whose willingness to travel is dominated by the “openness to change” values. The risk-resistant group is significantly younger than other groups, made of economically independent (mostly employed) and/or financially supported youth, with better financial status, very healthy and predominantly living in a household

composition of three or more. Highly educated juvenile males dominate in this cluster. This kind of personality likes to try new and different things, have a good time, make their own decisions and seek adventures, pleasure, fun and excitement. Personal safety and security are of lesser importance, indicating extremely intense travel needs that suppress risk-related factors, even in times of pandemics (in line with findings of [Hajibaba et al., 2015](#)). It stands for “binge” travel behavior ([Miao et al., 2021](#)) when personalities try to compensate for a previously experienced loss. Apart from great willingness to travel, this group is directed to more sustainable travel choices, far-away destinations providing more stimulation and experiences than standardized tourist products, but mostly staying within the European continent. Despite frequent findings that crisis-resistant tourists are often single (family-free), [Hajibaba et al. \(2015\)](#) found that internal crisis-resistant tourists are more frequently traveling with their partner and children (30.5%) and less alone (13.3%). According to [Kim et al. \(2021\)](#), the compensatory tourism consumption may be expected after the pandemic crisis, as COVID-19 will likely increase the latent travel demand. Exotic destinations with low infection numbers and mild governmental bans will become extremely popular among higher-income segments of risk-resistant and risk-indifferent groups.

The geographical distribution of cluster groups within countries show the dominance of risk-resistant groups in Iceland, The Netherlands, Switzerland and Sweden (> 30%), whose tourist stereotypes indicate very active and adventure-seeking personalities ([Terzić et al., 2021](#)). Risk-tolerant groups dominate in Slovenia (>60%), Cyprus (>50%), Belgium, Austria, Spain, Denmark, Croatia, Czechia (>40%), Finland and Germany (>30%). The latter marked as countries with stable economies, high quality of life index and sustainable tourism performance ([Băndoi et al., 2020](#)) reflect in well-established travel habits (with over 80% travel-active populations).

The results revealed the high presence of risk-sensitive groups in Poland, Italy, Serbia, Bulgaria and Croatia. These countries have a lower quality of life index and a modest share of active tourist populations ([Băndoi et al., 2020](#)), characterized by a predominance of domestic travel ([Figure 5](#)). Such behavior is also in line with common traveling patterns of popular destination countries like France, Croatia, Greece, Italy, Montenegro and Spain, whose domestic tourism is traditionally higher than outbound ([Figure 5](#)).

Relatively passive tourists, placed under the risk-indifferent group, can be found in the most significant numbers in Lithuania (40%), Portugal and Iceland (>30%), Bulgaria, Estonia and Norway (>25%). The determining psychological trait for this group is strong opposition to “following rules and proper behavior” and lack of travel motivation. This cluster represents personalities (stereotypes) that are considered rather passive and domestically oriented, such as people in Bulgaria and Portugal, but are also present in countries with predominantly active tourist populations, such as Norway, Iceland and Estonia. Such personalities indicate a lack of need for exploration and unwillingness to exit a personal comfort zone. Strong opposition to confine to defined behavioral rules and avoidance of restrictive measures in times of pandemic will inevitably lead to the favorization of domestic travels within this group.

Conclusions

Travel bans were lifted to a large extent by March 2022, announcing pandemic relief. Nevertheless, a new crisis in the form of the Russian–Ukrainian war ensued, bringing concerns about the possible escalation of the conflict in Europe. The latter have swiftly shifted media attention and public worries from COVID-19 to another topic. Yet, the tourism recovery process has already started, still strongly dependent on people’s travel motivations and overall risk perceptions. The new circumstances brought a reasonable question of what to expect in the forthcoming period. Mindful observations indicated that two crucial factors are likely to determine the future of tourism: politics and personalities. Politics and regulatory policies immensely impact travel intentions and decisions, in line with the slow international tourism recovery process. General risk perception in times of pandemic went beyond health-related issues, spilling over economic and regional political tensions, while controversial travel bans and sanctions affected not only targeted countries but

perceptions of travel risks in general. The enforcement of quarantine on international travelers has immense implications for the relative attractiveness of countries to tourists after lockdowns have been eased. The safe resumption of outbound tourism will continue to highly depend on a coordinated response among countries considering travel restrictions, harmonized security and hygiene protocols, as well as effective communication to help restore consumer confidence and trust.

Risk perceptions and behavioral responses differ significantly between individuals, groups and even nations. In general, European tourists proved to be crisis-tolerant as their travel intentions remained strong despite pandemic concerns and all existing obstacles to travel. As people's travel needs were suppressed and significantly magnified due to the previous long-term restrictions, psychological constructs will likely prevail on the demand side. Along with various socio-economic aspects, evaluation of personal health status, reliability of governmental decisions and available health services in destination countries will be very important for the decision-making process. Tourists will undoubtedly seek the most flexible destination countries, providing some confidence in risk mitigation and the lowest impact on satisfaction aspects.

Theoretical and practical implications

This study has important implications for theory and practice, extending the body of knowledge on consumer behavior by investigating the effects of perceived risks on travel motivation and behavioral intention in the context of European tourists projected to post-pandemic circumstances. In a theoretical context, the use of psychological constructs for explaining travel motivation and behavior supports predicting tourist flows and related economic effects in the tourism recovery process. Risk perception and travel needs act in opposing directions when it comes to travel motivation and related behaviors. Furthermore, the proposed model provides evidence that values can affect travel motivation and behaviors to a great extent. Also, other internal and external factors influence travel motivation as well. The findings of this study indicated that despite the fact that perceived risks of COVID-19 negatively affected travel motivation, it has increased significantly travel needs and changed travel preferences in the post-pandemic period. Tourism experiences act as sort of stress relievers, as leisure travels provide opportunities for relaxation, physical and mental recovery ("escapism" and "discovery"). Two years of constant COVID-19-related stress, produced by various reasons, increased people's need for recovery, a need for movement, a need for travel. However, those needs are not of same importance and strength for all. The given construct provides some indication that various nations differ significantly in these aspects, which influence their travel behavior. Thus, outlining the existence of specific tourist stereotypes is based on their demographic and cultural background. Due to predicted changes in tourist behavior, the tourism industry could benefit from observing psychological characteristics and demands of specific market segments (clusters), and in line with this, re-evaluate tourist product development. The proposed model illustrates the importance of combining different methodologies and data sources to produce tourism forecasts. Empirical studies providing reliable quantifications and predictions in tourism were lacking, and the comparability and replicability of such models were often questionable. In this line, the ESS database provided valuable source of information with a potential to indicate travel motivation (psychological constructs), socio-demographic, economic and health-related indicators for various European countries. Those were utilized in the construct and transformed to a tourism-prediction model. The developed model is applicable to various types of risks that might have direct effects on tourism flows. Contrary to the pandemic that had global and rather uniform characteristics, the effects of other types of risks are more localized, reflected in most negative effects on the tourism sector within affected and nearby countries.

As the research indicates potential demand markets across Europe, practical implications lay in given insights into basic behavioral information for developing post-pandemic tourism recovery strategies. Although coordinating tourism recovery strategies across Europe may seem politically difficult, insight into psychological constructs (motivational aspects), tourism trends and related

behavioral patterns of Europeans may provide solutions to dealing with potential risks. Various measures defined by tourism policy regulators on the national level to control the pandemics strongly affect tourist decision-making, obstructing travel intentions more severely than health concerns. Providing some expectations on behavioral aspects among tourists, appropriate and timely responses in the risk management process can be provided. The effects of the COVID-19 pandemic produced increased demand for personal safety and security grants during the travel planning process. Despite expectations of fast tourism recovery, the effects of pandemic on tourism industry, caused by deep psychological distress, will last for long time and will be less predictable. Destination policymakers are especially interested in ensuring destination safety, which can be accomplished by communicating destination trust to reduce fear and uncertainty among tourists. Addressing the most vulnerable groups and encouraging their travel participation by increasing destination trust, while identifying and managing potentially risky/unwanted behaviors, is regarded as beneficial in shaping future travel intentions.

Limitations and recommendations for future research

The research has several limitations. First, ESS data were collected before the pandemic and do not include information on tourism participation nor risk perception measured during the pandemic. Therefore, it provides limited tourism-related predictions, while geographical distribution of clusters (potential tourism markets) must be taken into consideration with caution and with support of other more recent of future empirical findings. Second, the model is fully driven by internal factors – motivation. Investigation of additional variables, especially those related to social and economic aspects, and some external factors of influence on travel behaviors, can provide more precise scientific reasoning. Effects of political stability and confidence are also of great importance in this particular timeframe and current crises. The proposed basic model can be upgraded to create more complex theoretical construct with higher predictability potential and continuously replicated and tested. The next ESS Round 10 (2020/2021) will include COVID-19-related questions that open new research possibilities for testing the presented results. Exploring similarities and differences between European nations in terms of travel needs and cultures, as well as the formation of tourist stereotypes, are of future research interest. Comparing results to similar research in different cultural and geographical settings is also a challenge.

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Further reading

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Corresponding author

Dunja Demirović Bajrami can be contacted at: d.demirovic@gi.sanu.ac.rs

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