



Determining Perceived Risk of Domestic Visitors During COVID-19 Pandemic in Turkey

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Abstract

To purpose of present study is to determine the perceived risk of domestic visitors and whether risk perceptions factors differ in terms of demographic variables. Data were gathered in June 2021 via online questionnaire from 385 domestic visitors in Turkey. After second order confirmatory factor analyses, four-factor model of risk perception was determined. Furthermore, t-test and ANOVA test were applied to data. Result indicates that there was no significant difference in age, education and marital status, only significant difference statistically found between male and female. Result shows that female participants are more worried than male during COVID-19 and they feel themselves that they are not in safe when travelling.

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INTRODUCTION

Due to its fragile and sensitive structure, the tourism sector is affected very easily by the crises. Natural disasters, terrorism and epidemics or pandemic can negatively affect the tourism sector in many ways. There have been a few outbreaks in the past like SARS, MERS, EBOLA, H1N1 pandemic, so these outbreaks show that COVID-19 outbreak was not the first disaster outbreak in the 21st century. Moreover, the COVID-19 pandemic is still in full swing and looks like it will last a few years.

It can be said that the COVID-19 pandemic is one of the most impactful events of the century and has considerably disrupted tourism markets and mobility on a global scale (Zenker, Braun and Gyimóthy, 2021). Previous research indicates that various crises and outbreaks have negative consequences on tourism and hospitality. For example, SARS outbreak led to a considerable decrease, estimated at \$20bn, in GDP of China, Hong Kong, Singapore and Vietnam (Matiza, 2020; Wilder-Smith, 2006). During the COVID-19 pandemic, a large number of studies were conducted in the various perspective namely tourist behavior in the post COVID-19 (Matiza, 2020; Ilgaz, Dundar, Silik, and Atalay Oral, 2021), potential effects on tourists' travel behavior and tourism preferences in the short- and long-term period (Wen, Kozak, Yang & Liu, 2020), impact of COVID-19 on tourism industry (Foo, Chin, Tan & Phuah, 2020; Jaipuria, Parida & Ray, 2021; Uğur & Akbıyık, 2020), investigating the risk perception of tourist (Aydın, Arıca & Arslantürk, 2021; Bae & Chang, 2021; Çetinkaya, Yağmur & Altunel, 2020; Neuburger, & Egger, 2021; Perić, Dramićanin & Conić, 2021). The current literature shows that risk perceptions of tourist are intensively examined in the different country but limited during COVID-19 pandemic. Therefore, the aim of the present study is to investigate the perception risk of Turkish visitors who travel in the period of COVID-19 outbreak.

Literature Review

On the contrary previous outbreak, the outbreak of the COVID-19 has been spread easily and quickly and following its onset many social scientists and tourism researchers have started to explore the economic, social, and psychological consequences of the outbreak and also future travel behavior in the post COVID-19 (Zenker et al., 2021). Examining risk perception of tourist during COVID-19 is one of niche topics in the tourism due to its rapid spreading between humans. For most recent history of 21st century, a large number of studies were conducted tourist risk perception related different events like political instability (Zenker, Von Wallpach, Braun, & Vallaster, 2019), economic crises (Bodosca, Gheorghe, & Nistoreanu, 2014), financial problems (Sio Chong and So, 2020), natural disasters (Ruan & Li, 2018), and infectious diseases (Perić et al., 2021; Okuyama, 2018; Yu et al., 2020). Historically, disease outbreaks have forced countries to close their borders, and institute travel bans as in COVID-19 period (Liu et al., 2020). In addition, with the fear of COVID-19, majority of traveler cancelled their trip to avoid the virus and decrease health risk regarding infection.

The risk factors concerning tourism has been investigated for many years. Risk perceptions of tourist were classified under the different factors in the tourism and hospitality literature (Seabra et al., 2013). Various factors revealed in the studies conducted by various researchers. The first study to identify to risk perception dimension is conducted by Jacoby and Kaplan, (1972) which included the psychological, the social risk, the financial risk, the time risk and the physical risk (how purchasing can affect our physical and mental well-being). In another study, Roehl and Fesenmaier (1992) used seven factors of risk and identified three new more dimensions of perceived risk namely

physical and equipment risk, vacation risk, and destination risk. Subsequent research also identified the new dimension, for example the political risk (Seddighi et al., 2001; Sönmez & Graefe, 1998a), the health risk (Richter, 2003), and the terrorism risk (Sönmez & Graefe, 1998b).

The term of risk can be defined as exposure to certain threats/dangers or potential loss of something valuable for people (Perić et al., 2021). The perceived risk is described that a product or service will not offer the expected benefits (Roselius, 1971). Risk perception in tourism refers to the tourists' perception about possible negative consequences during their vacation in a tourist destination (Tsaur et al., 1997), and varies depending on the typology of tourists and the type of perceived risks (Reisinger & Mavondo, 2006). Risk factors can lead to anxiety in expected tourists about what might happen to them while traveling (Wachyuni and Ayu Kusumaningrum, 2020). During COVID-19, people watch tv, read online newspaper and follow the social media to get information about news and negative consequences COVID-19 outbreak. Because of this news, the fear of the COVID-19 may increase. Therefore, the traveler intentions could be affected negatively. Because if tourists feel some risk factors or do not feel themselves in safe when travelling during the COVID-19 pandemic, they will avoid travelling.

After reviewing relevant literature, a few research attempted to reveal risk perceptions of tourist in different region and nation during the COVID-19 (Abraham et al., 2021; Bae and Chang, 2020; Elizabet et al., 2021; Perić et al., 2021; Samdin et al., 2021; Neuburger and Egger, 2021). To illustrate, Perić et al., (2021) tried to determine the risk perceptions of Serbian tourist who think to visit abroad, and they classified risk perceptions under five dimensions included: health risk, psychological risk, the financial risk, destination risk and travel risk. In the study of Elizabet et al., (2021), it is examined that the relationship between perceived impacts of COVID-19, risk perceptions, emotions, and travel intentions within selected higher education institutions of the Macau Special Administrative Region (SAR) and results of this study show that travel risk during COVID-19 has increased negative emotions and reduced intentions to travel. Samdin et al., (2021) aimed to investigate ecotourist's risk perception and how it affects the behavior of ecotourists in Malaysia in their study. They found that that risk perception affects tourists' decision-making during COVID-19. These studies show that it is very important to identify risky factors which can affect the travel choices and intentions of tourist and understand what kind of dimension they perceived as a risky during pandemics.

Method

The present study was conducted to identify risk factors of domestic visitors in Turkey and whether risk perceptions factors differ in terms of demographic variables. For this purpose, data collection was undertaken via an online survey (385) from Turkish domestic visitors in June 2021 with convenience sampling technique. Risk perception of visitors was measured using 22 items including five dimensions: health risk, psychological risk, financial risk, destination risk, travel risk as adapted from the study of Perić et al., (2021). The demographic characteristics of the respondents are presented in Table 1.

Table 1. Respondents Characteristics

Variables	Features	n:385	%
Gender	Female	193	50,1
	Male	192	49,9
Marital status	Married	202	52,5
	Unmarried	183	47,5
Age	18-34	192	49,9
	35-44	128	33,2
	45-54	38	9,9
	55-64	22	5,7
	65 over	5	1,3
Education	Primary education	9	2,3
	Secondary education	4	1,0
	High-school education	40	10,4
	University education	218	56,6
	Graduate education	114	29,6

The questionnaire used in this study was translated into Turkish with language expert and then translated back into English to ensure that the items were the same as in the original. The scale used a five-point Likert scale ranging from 1 to 5 to present strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree. The data analysis used SPSS 24.0 for Windows and Lisrel (8.80) software. To identify risk perceptions dimensions of visitors and to ensure convergent and construct validity first and second order confirmatory factor analyses was used in this study. In addition, the internal consistency coefficient was calculated via Cronbach's alpha coefficient and CR values were used for the reliability.

Table 2. Technical Details of Data Collection

Populations	Domestic Visitors (TURKEY)
Data collection method	Online Survey
Population size	Unknown (The Whole potential Turkish Domestic Visitors)
Sampling technic	Convenience sampling
Fieldwork	June 2021, In Turkey
Valid data	385

Findings

First and Second Order Confirmatory Factor Analyses (CFA)

In the first stage, first order CFA was conducted to validate the measure of risk perception. The convergent validity and composite reliability were calculated. As a result of CFA, the values of goodness of fit were examined, only one item (COVID-19 is a very dangerous disease) was found to be problematic because of being close relationship with many items and increased the values of Chi-Square. After one item removed, CFA was re-run with remaining items, goodness of fit index was met recommended value (Table 3). The result of CFA indicate that all constructs have AVE values above 0.50 (except for destination risk dimension), standardized factor loads were higher than 0.50, and composite reliability values were above 0.70. Next, a second-order confirmatory factor analyze was used to assess the construct validity of risk perception. The fit indices were acceptable, but dimension of destination risk has a lower factor loading. Therefore, this dimension removed, and CFA was conducted again. Four dimensions has been

remained after CFA, namely health risk, psychological risk, financial risk and travel risk which constitute of perceived perception risk of domestic visitors. Table 3 and Table 4 summarize the CFA results.

Table 3. First Order CFA

Dimension and Items	Factor Loadings	Mean	Cronbach Alpha (α)	(CR)	(AVE)
Health Risk		4.14	0.806	0.82	0.53
1. Health safety is an important attribute that a destination can offer.	0.65	4.00			
2. I take care of hygiene in the accommodation facilities.	0.78	4.37			
3. Special attention should be paid to the health system when choosing a destination.	0.86	4.23			
4. When traveling, it is important to have good health (travel) insurance	0.59	3.95			
Psychological risk		3.56	0.812	0.83	0.50
5. I wouldn't feel comfortable if I had to travel now.	0.54	3.33			
6. It is risky to travel now.	0.85	3.45			
7. I am worried that the epidemiological situation in the destination could worsen during the trip.	0.89	3.39			
8. I will wear disinfectants, masks, and gloves on the trip.	0.56	3.96			
10. I am worried about the appearance of a new virus.	0.63	3.66			
Financial risk		3.45	0.817	0.82	0.54
11. I worry that the trip will affect my financial situation	0.72	3.38			
12. I worry that the trip will not provide the value for money.	0.77	3.22			
13. I worry that the trip will also involve some unforeseen expenses.	0.82	3.33			
14. I am worried that because of COVID-19 and the crisis it has caused, there will be higher costs for food and drinks.	0.61	3.89			
Destination risk		2.66	0.805	0.81	0.46
15. I feel it would be very comfortable to travel now.	0.65	2.39			
16. Traveling to natural areas like national park is not risky	0.62	3.28			
17. Visits to museums and other tourist attractions are not risky.	0.80	2.63			
18. Visits to swimming pools and other water attractions are not risky.	0.64	2.24			
19. Traveling near the place of residence is not risky.	0.64	2.76			
Travel risk		3.46	0.776	0.78	0.55
20. Due to COVID-19, I will avoid traveling in organized groups.	0.78	3.77			
21. Due to COVID-19, I will use only my own transport for the trip.	0.81	3.63			
22. Due to COVID-19, I will not use air transport for travel.	0.61	2.98			

Not: RMSEA: 0.057; NFI: 0.95; NNFI: 0.97; CFI: 0.97; IFI: 0.97; GFI: 0.91; AGFI: 0.88; RMR: 0.069; SRMR: 0.059; Chi-Square (χ^2) /df: 400.33/179: 2.236, $p < .01$ ($t > 2.58$). General scale reliability: 0.885.

Table 4. Second-Order CFA Findings

Perceived risk	Factor Loadings	t-Statistics	R ²
Health Risk	0.56	8.47	0.32
Psychological risk	0.97	10.13	0.94
Financial risk	0.60	9.25	0.36
Travel risk	0.72	10.99	0.52

Not: RMSEA: 0.061; NFI: 0.96; NNFI: 0.97; CFI: 0.98; IFI: 0.98; GFI: 0.93; AGFI: 0.90; RMR: 0.070; SRMR: 0.060; Chi-Square (χ^2) /df: 241.88/100: 2.4188, $p < .01$ ($t > 2.58$).

T-Test and One-way ANOVA Findings

To examine whether risk perceptions change in terms of demographic characteristics of the participants Independent Samples t- Test and One-way ANOVA tests were applied. Results of t-test indicate that female feels more overall perceived risk than male, and no significant value found within marital status (Table 5). Also, one-way ANOVA test was applied to determine whether the risk perceptions of the participants are changed in terms of their education and age status. The results show that no significant differences were observed between age group ($F(49,335):1.390$ $p: 0.051$), and between education status ($F(49,335): 0.925$ $p: 0.619$).

Table 5. T-Test Results

Construct	Variables	Frequencies	Mean	Standard deviations	t	p
Perceived Risk	Unmarried	202	3.6754	.65381	0.377	.706
	Married	183	3.6499	.66976		
Perceived Risk	Female	193	3.7341	.58956	2.108	.035
	Male	192	3.5921	.71975		

Conclusion and Implications

As it was occurred in the previous outbreak, COVID-19 has negatively influenced the business world. Tourism and hospitality sector, especially, have been influenced rigorously by the pandemic. When COVID-19 first emerged in Wuhan, several countries has taken precaution to prevent infection such as closing border, setting hard restriction. Therefore, in this period tourism has been affected negatively. After rapid vaccination along the whole world except under-developed countries many countries have been removed the restriction. As restrictions are lifted, travel restriction had been eased based on number of case or number of vaccination of countries, but people's perceived risks do not decrease. So, aim of this study is investigate the risk perception of Turkish domestic tourists when thinking of travel during COVID-10 pandemic. The first and second-order confirmatory factor analysis have evidence about convergent and construct validity. After first-order confirmatory factor analyses, five dimensions with 21 items has identified. Next, the second order confirmatory analysis was applied to construct validity and to identify upper dimension which is defined perceived risk. Reviewing the results of second-order CFA, the destination risk has not represented the upper dimension due to low factor load values. Therefore, four dimensions has been revealed specifically: health risk, psychological risk, financial risk, and travel risk which constitutes of perceived risk. This finding consistently show that risk dimensions are similar to the study of Perić et al., (2021). Additionally, to examine difference between risk perception and demographic variables such as age, marital status, education and gender, parametric tests (t-test and ANOVA) were conducted. Findings of these analyses show that only significant difference was found between gender of visitors. Past research indicates that some demographic characteristics such as gender, age, lifestyle, marital status has relationship between individual demographic characteristics and risk perception (Brug et al., 2004; Floyd & Pennington-Gray, 2004; Neuburger & Egger, 2021; Sönmez & Graefe, 1998a). Furthermore, results of this study are parallel to the study of Neuburger and Egger, (2021). They found that the influence of gender resulting in higher risk perceptions for females than males.

From the practical point of view, this study provides a good understanding of tourist the attitudes, views, and behavior of tourists regarding risks, and it provides an opportunity for destination management and tourism organizations to have better risk management strategies in the period of COVID- 19. For example, in the case of

health risk especially COVID-19 infection, destination management and government can give timely information about virus case and vaccination rates to public. Tourism destination management should manage the risk and develop to-way communication skills since potential tourist wants to learn everything regarding health safety when travelling. Thus, all business in destination and destination management stakeholder must measure all risk factors concerning COVID-19 and use social media network to decrease risk perceptions of tourist which revealed in this study. Moreover, in the web portal or social media applications, destinations and tourism business should improve healthy health care system and hygiene in business facilities to decrease infection. Because outbreak is still going on. Recently, after restriction has been lifted by Turkish government, despite tourist mobility has increase, people feel themselves in fear of COVID-19. Thus, tourist travel intention can be affected negatively in the near future. In this line, tourism destination must manage to this outbreak crisis by interpreting risk perception of tourist such as travel risk, health risk etc.

The study limitation is that it focuses only on domestic tourists in Turkey. So, it can be investigated risk perceptions of domestic tourist which wants to travel abroad and risk perceptions of international tourist who are eager to travel TURKEY. The present study was conducted to reveal to risk factors. Therefore, future research can be conducted to examine relationship between risk perception and different variables such as travel anxiety, travel intention, revisit intention, COVID-19 fear etc.

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