

The mediating role of perceived risk in the impact of tourist behavior on liminoid behavior in the covid-19 pandemic

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ABSTRACT

Keywords:

Covid-19 pandemic,
Perceived risk,
Liminoid behaviors,
Healthcare professionals,
Tourist behavior

The main purpose of this study is to determine the mediating role of perceived risk in the impact of tourist behavior on liminoid behavior in the Covid-19 pandemic process and the risk perceived at the level of acting liminoid behaviors. The main research question of the study is to what extent liminoid behaviors are perceived as risky by healthcare professionals in the context of tourist behavior despite the precautions. Participants consist of healthcare professionals working in the health sector in Turkey in 2020. A total of 135 questionnaires were obtained using random sampling with the participation of healthcare professionals working in different hospitals in Turkey. Factor analysis and Partial Least Squares structural modeling (PLS) were applied in the analysis of the collected data. According to the analysis results, perceived risk has a mediating effect between the covid tourist behavior and liminoid behavior in various contexts. As one of the prominent findings, it was concluded that the time risk perceived by the participants mediated the relationship between tourist behavior affected by the pandemic and liminoid behavior. Also the relationship between tourist behavior and the subscales of the risk factor will enable the determination of tourism strategies to be developed for tourist behavior.

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1. Introduction


Although there have been many pandemics over the centuries in human history, the Covid-19 pandemic that emerged in late 2019 has seriously affected the economies and social life of the countries, based on the rate of spread and the level of anxiety it created. Many measures such as the cancellation of national and international flights, closing of border gates, bringing quarantine practices to travelers after their travels, curfews, and restrictions have caused travel movements around the world to come to a halt. Regarding the contraction in the tourism sector, the United Nations World Tourism Organization (UNWTO) announced that international tourist mobility decreased by 72% in 2020. Due to the obstruction of tourism and travel activities, the pandemic also negatively affects the economic contribution in many areas where the multiplier effect has decreased, especially the employment opportunities provided by the tourism sector (Yang, Hongru, & Xiang, 2020).

The Covid-19 pandemic carries a great risk and uncertainty for both general consumers and


tourism consumers. Generally, consumers make decisions under conditions of a certain level of risk and uncertainty, but these levels are often bearable (Bauer, 1960). From a tourism perspective, it is known that travel decisions in the normal period before Covid-19 carried certain risks (Quintal, Lee, & Soutar, 2010). It is known that factors such as perceived risk, anxiety, and security have important effects in shaping the intention of travel (Reisinger & Mavondo, 2005). However, it is thought that the perceived risk under the pandemic conditions is much higher and the health risk caused by Covid-19 is almost impossible to tolerate (Kim, Kim, & Wang, 2021). Therefore, considering the macro-level effects of the differentiation of risk perceptions of individuals, it becomes necessary to conduct more research on the perceived risk during the pandemic process.

It is thought that with the pandemic, consumption habits that are affected by both economic balances and risk factors have also changed. The most important factor underlying this is that the concept of tourism promises tourists to relax and have fun away from daily life and personal responsibilities

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Research paper

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(Urry, 2002). For this reason, tourists tend to adopt a personality different from their own, to change and develop their aspects that are open to change, and exhibit behaviors that others do not expect. Edensor (2000) tried to explain this situation with liminoid behaviors that tourists display as playful and temporary behaviors. Because, non-routine, in other words, liminoid behaviors displayed during the holiday have a tremendous effect on tourist satisfaction (Dann, 1977). Nevertheless, it has been demonstrated that tourist behavior can be explained by the degree of perception that may differ in extraordinary situations such as a pandemic (Chang, 2009). At this point, the main research area of the study was established considering that the risks perceived by tourists will affect on their tendency to exhibit liminoid behavior. Examination of the studies investigating the effects of liminoid behaviors in the tourism sector so far (Lett, 1983; Thomas, 2005; Light, 2009; Varley, 2011; Weichselbaumer, 2012) and the studies investigating the effects of the Covid-19 pandemic (Mahase, 2020; Columbus, Brust, & Arroliga, 2020; Ayittey, Ayittey, Chiwero, Kamasah, & Dzuovor, 2020; Ahmad, Khan, Khan, & Hui, 2020; Chen Yang, Yang, Wang & Bärnighausen, 2020; Rodriguez-Morales, Gallego, Escalera-Antezana, Mendez, Zambrano, Franco-Paredes, Suárez, Rodriguez-Enciso, Balbin-Ramon, Savio-Larriera, Riskey, & Cimerman, 2020; Wilson & Chen, 2020) has revealed that there is no study in the literature investigating the Covid-19 pandemic together with tourism liminoid behaviors. To explain the relationship between these two variables, the mediating role of the perceived risk factor was included in the study model.

In line with the purpose of the study, a survey was conducted among the healthcare professionals who are potential tourists. Besides their analytical knowledge during the pandemic period, healthcare professionals are the people who have the most extensive knowledge about Covid-19 disease and risks. The study is expected to make original contributions to the literature in the context of the sample. In addition, the study aims to provide theoretical contributions to understanding tourist behavior in the field of tourism after the Covid-19 pandemic.

2. Literature Review

Events that do not occur frequently, such as short-term epidemics, natural disasters, political and economic crises, may adversely affect tourism development in the short or long term. Out of these,

epidemic diseases reduced the volume of tourism in the regional sense before COVID-19, SARS in 2003 was effective in the Far East, and MERS was effective in the Middle East and Arabian Peninsula. Tourism is one of the industries where the negative effects of the epidemic are seen the most. Travel restrictions and social isolation were among the first measures taken to contain COVID-19. With the start of voluntary and mandatory quarantine practices all over the world, travel movements have ended, and the tourism industry has experienced a sudden pause. Against this pause, various measures were taken to overcome the crisis in tourism, and with the decrease in the number of cases, some flexibility in travel restrictions began to be offered. In this process, a lot of research has been done on the covid-19 pandemic and tourist behavior. These researches have been diversified and applied in different sectors due to the expansion of the impact areas of the pandemic. In the basis of the study, the effects of liminoid behaviors in tourist behaviors, which have not been found in a similar study before in the literature, on risk perception and tourist behavior were investigated.

Covid-19 Pandemic and Tourist Behavior

After the World Health Organization (WHO) declared the Covid-19 pandemic as a "pandemic" (global pandemic), the process are taken on a global structure and many academic studies have been conducted on this subject. Upon the emergence of Covid-19, many studies have been conducted examining the possible behavioral effects of the pandemic on the tourism sector, as in almost every field; Butcher (2021), stated that the pandemic has made the downsizing in tourism an advantage, Akhtar et al., (2021) pointed out the potential of digital tourism to replace mass tourism, Petrovic, Roblek, Radenkovic, Nejkovic and Papachashvili (2021) stated the development of smart technologies in the tourism sector after the pandemic, Zhang, Wang and Rickly (2021) pointed out that the effect of lack of interaction during the pandemic process on the identity uncertainty of people, Avraham (2021) stated that the activities of global destinations on image recovery and new marketing strategies, Mihalic (2021) examined the future of tourism and the sustainability of tourism after the pandemic, Duro, Laborda, Turrión and Fernandez (2021) stated the the identification of vulnerabilities and sensitivities towards security vulnerability and tourism supply after the pandemic and the strategies that can be developed were investigated, Acar (2020) stated regarding the economic effects that there will be devastating

consequences in the long term, Akca (2020) stated that transportation facilities are negatively affected, Alpagó and Oduncu Alpagó (2020) pointed out the magnitude of the socio-economic effects of the pandemic, Brouder (2020) stated that the impact of the pandemic will create a new order and perception, Desbiolles (2020) noted that tourism requires a change in socialization effects, Gössling, Scott, Hall, (2020) put forward that tourism potential in the world requires economic development, Wang, Nie, Wang, Zhao, Xiong et al. (2020) stated that economic risk situations in the field of tourism have increased. When the recent scientific studies on the pandemic are examined, it is understood that travels made by people with the virus are effective in the spread of the virus worldwide (Wilson & Chen, 2020). This situation pushes national governments to take a series of measures on travel health. Travel measures taken to slow down and stop the spread of the virus primarily affect the tourism industry. World Tourism Organization; under the title of "Tourism and Coronavirus Outbreak", stated that the tourism sector was affected more than other economic activities due to its social aspect and its interaction between societies, while travel restrictions and flight cancellations continued, the supply of travel services at a national and international scale decreased significantly due to the pandemic, and this reduced tourism activity by 1% to 3%, resulting in a loss of approximately 30 to 50 billion dollars (UNWTO, 2020).

Considering that the changing living conditions and the measures implemented have significantly affected the living standards and habits, consumer behavior towards the tourism sector has become quite different in this period. With the most basic explanation, the Covid-19 pandemic is a crisis due to its sudden emergence and creating an environment of uncertainty (Zhong & Sun, 2021). Crisis periods are global events, in which, naturally, people distrust each other, uncertainty arises, unemployment increases, and hence, consumption expenditures decrease, leading to economic consequences. In these circumstances, sectors with specific and non-compulsory expenditures such as tourism are the areas most affected by consumers.

In studies focusing on tourist behavior, it is estimated that after the pandemic, tourists will be more experiential and turn to transformational tourism (Ateljevic, 2020; Galvani, Lew, & Perez, 2020). Transformational travels include personal goals and motivations such as self-realization for

the individual (Ateljevic, 2020). The fact that the tourism sector is affected by many factors examined during these processes makes it necessary to carry out new studies and creates the need to examine different variables to make sense of these processes.

Liminoid Behaviors and Perceived Risk

Behavior style, which is considered liminoid behaviors, is used in this study to describe the behaviors of individuals when they assume a different identity than their normal life during vacation periods when they are considered tourists. In other words, a holiday is perceived as a period when people want to spend their vacations by separating their daily life with an imaginary boundary (Polat, 2015). Many researchers (Turner, 1979; Kottak, 1991; Galani-Moutafi, 2003; Shaw & Williams, 2004; Pearce, 2005; Getz, 2008; Bauer, 2009; Varley, 2011; Berdychevsky, Poria & Uriely (2013) have associated the concept of liminoid behaviors, which are generally used in the field of psychology, with tourist behavior in the field of tourism, and examined the process as a transition area in which people are involved in tourism activities.

When examined basically, transitional rituals in human life are traditional rituals performed through the society, in which people move to a different status than their current status (Van Gennep, 1909; Honko, 2006). Transition rituals were accepted as three different elements as separation, liminal/transition, and incorporation phases (Van Gennep, 1909). Separation usually refers to funeral ceremonies, the stage called incorporation refers to wedding ceremonies, and liminal/transition rituals refer to important processes in human life such as pregnancy, promise/engagement, newborn baby, divorce (Van Gennep, 1909). The stage emphasized in this study, which examines tourist behavior, is the liminal stage. In the liminal phase, the situation and position of the people in which they live and will live are not taken into consideration and even they are turned into a situation opposite to the current situation. Liminality can be defined as the reversal of social status, financial situation, or roles in society that make up everyday life (Turner, 1979; Kottak, 1991). At this point, the liminoid behaviors of the tourists who are the subject of the study, in this conceptual framework, reveal that people, consciously or to adapt to their environment, live by going beyond their daily routine behaviors and even their behavioral frameworks, by putting some of their values on

hold during their vacation. While being a tourist, if the person exceeds the specified thresholds, he/she prefers to live himself/herself differently than he/she is by taking a break from "being himself/herself" tough for a certain period time. In the mentioned threshold process, although the individuals on holiday and in daily life are the same, the attitudes and behaviors of these individuals may appear in different ways. Behaviors expressed as liminoid behavior; basically include daily life behaviors that include "fun and pleasure" and behaviors that are generally displayed in a different situation, acting in a role or having non-serious indicators. The reason why people exhibit different behaviors can be attributed to the pleasure and fun inherent in being a tourist.

Developments during the Covid-19 pandemic and changes in daily life seriously affect tourist behavior. In particular, it is thought that the level of exhibiting liminoid behaviors, which is the main topic of the study, by tourists during the pandemic, differentiated significantly. It is thought that the perceived risk factor, which is considered to be one of the reasons and is the subject of the study, is effective in the liminoid behaviors of tourists. The perceived risk factor, which varies from person to person, has been examined as a factor that is thought to affect the degree of liminoid behavior during the pandemic process.

While the concept of risk expresses preferences that cause positive and negative consequences in many areas, when considered as consumer behavior, it is generally used to express situations that are likely to have negative consequences (Stone & Gronhaug, 1993). The concept of perceived risk is used by Mitchell (1992) to describe the complex, uncertainty process that can occur in the purchasing process, which is exhibited by the consumer who prefers habitual situations, minimizing incompatibility. Perceived risk shows the negative consequences of people's preferences and emerges when a wrong decision made as a result of the consumer's behavior during the purchasing process, will have a significant outcome. Perceived risk was evaluated in six different dimensions by Stone and Mason (1995). According to the literature review, 6 risk types were practiced in numerous studies, and they were explained under the titles "physical, time, social, functional (performance), psychological and financial risk".

Considering that individuals from different professions are also potential tourists, it is a

natural result that tourist behaviors during the pandemic also show personal differences. Nevertheless, the fact that the period, which is thought to cause the differentiation of tourist behavior, is caused by a pandemic, reveals the importance of the views and behaviors of healthcare professionals. With the analytical knowledge they have, the healthcare professionals who constitute the universe of the study can differentiate from the behaviors expected from society in line with the precautions. What will enable these behaviors to differ is proportional to the degree to which this analytical information affects the understanding of the perceived risk. As a result, the perceived risk underlying the displayed liminoid behaviors, based on healthcare professionals who are expected to exhibit potential tourist behaviors during the period when they can be considered tourists, gains importance. The reason for this is the significant relationship between perceived risks and behaviors (Mitchell, 1992; Cases, 2002; Pikkarainen, Pikkarainen, Karjaluoto, & Pahlila, 2004; Lim, 2003). Therefore, the mediating role of the perceived risk factor was tested and the degree of interaction in the model was examined in order to explain more significantly the relationship between tourist behavior and liminoid behavior, which is the area of the study. Examining different variables to explain tourist behavior during the Covid-19 pandemic will be useful in explaining the process.

3. Research Methodology

An online survey technique was implemented for the data collection in this study. The online survey technique is frequently used in social researches, as it enables to reach of a large number of participants in a short time (Evans & Mathur, 2018). In addition, because data were collected during the period when pandemic measures were in progress, the online survey technique was considered the most convenient technique to reach the participants.

Participants consist of healthcare professionals working in the health sector in Turkey. Healthcare workers were accepted as the research sample because it was accepted that they had the most accurate information to be applied during the pandemic process and the degree of application of this information would reflect the truth more accurately. Statements made to the public during the pandemic process and their counterparts in practice can sometimes conflict. For this reason, compliance with the rules set by the rule makers and the degree of compliance should be compared

with their own views. Data were collected in September and December 2020, when the pandemic protection measures are most intense. A total of 134 questionnaires were obtained using random sampling with the participation of healthcare professionals working in different hospitals in Ankara, Turkey. It was decided that this number was sufficient for PLS modelling according to the number of items in the scale (Hair, Ringle, & Sarstedt, 2011).

In addition to demographic variables, the questionnaire includes constructs of “the pandemic impacts on participants’ tourist behaviour”, “the risk perceptions”, and “the liminoid behaviours”. In the explanation of the pandemic impacts on tourist behaviour by Wen, Huimin, & Kavanaugh, (2005) scale was applied such as “I will reduce the length of travel and tourism after Covid-19”. For other variables, Polat’s (2015) liminoid behaviour scale was used. A sample item from this measure is “I try to have fun unlimited during the holidays”. Lastly, Stone and Mason’s (1995) risk perception scale was performed such as “When getting a touristic service, I am concerned it will harm my health.”. The five-point Likert scales (ranging from 1 = strongly disagree to 5 = strongly agree) was used as the item format.

In analysis, factor analysis was applied for the construct validity of the variables in the research model. Partial least squares structural modeling (PLS) were used to test the research hypothesis with the help of the SmartPLS 2.0 analysis software. Also, PLS makes minimal demands in terms of a sample size to validate a model, compared to alternative structural equation modeling technique (Chin, 1998).

Table 1 - Characteristics of the participant

Variable	Sample composition	Frequency	Percentage
Age	18-25 years	31	23.134
	26-33 years	26	19.403
	34-41 years	36	26.866
	42-49 years	28	20.896
	Over 50	13	9.701
Gender	Female	63	47.014
	Male	71	52.985
Working duration	Less than 5 year	44	32.836
	6-11 year	35	26.119
	12-17 year	25	18.657
	18-23 year	18	13.433
	Over 24 years	12	8.955

Source: Author

4. Findings and Analysis

In the study, to understand the characteristics of the participants, their age, gender, and working duration were asked in the questionnaire. The findings show that the participants have heterogeneous characteristics (Table 1). Generally, most of the participants are under the age of 40. The rates of female and male participants are very close. Besides, the working duration of the majority of the participants is over 5 years.

The validity of the constructs was tested by applying factor analysis. Items whose factor loadings and reliability scores were not at a good enough level were removed from the analysis (Tinsley & Brown, 2000). The pandemic impacts on participants’ tourist behaviour consisting of 13 items with three factors. Factors were named with general impacts, travel attitudes and preferences, and hygiene and safety factors as in the original scale. A structure with 4 factors and 12 items was obtained in the perceived risk variable. According to the analysis, social, financial, time, and physical risk factors have explained the risk perceptions of the participants. Finally, it was revealed that the liminoid behaviours of the participants had privacy, tolerance, hedonism, and playful dimensions.

As can be seen in Table 2, factor loadings which indicate the scale is convergent validity, are above the value of 0.70 (Chin, 1998). Cronbach's Alpha values of each variable are 0.70, a good level (Nunnally, 1967). Composite reliability (CR), and the average variance extracted (AVE) were examined to test the reliability of variables. CR values for each variable are above the recommended value of 0.70 and AVE values are also above 0.50, which is the acceptable value (Fornell & Larcker, 1981; Hair et al., 2014).

The correlations mean, and standard deviation values for the variables are presented in Table 3. Fornell-Larcker criterion and the heterotrait-monotrait (HTMT) ratios were examined for discriminant validity. As Fornell-Larcker criterion, the square root of AVE for each factor is greater than the levels of correlations (Fornell & Larcker, 1981). As an alternative approach based on the multitrait-multimethod matrix, the HTMT ratio of correlations has been suggested for assessing discriminant validity by Henseler, Ringle, and Sarstedt, (2015). In this regard, the HTMT value is below 0.90 as suggested (Gold et al. 2001).

Table 2 - Scale items, reliabilities, and factor analysis results

Variables	Factors	Items	Loadings	Cronbach's Alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
The pandemic impacts on participants' tourist behaviour	General impacts	C1	0.894	0.709	0.843	0.646
		C2	0.866			
		C3	0.724			
	Travel attitudes and preferences	C6	0.801	0.860	0.891	0.627
		C7	0.862			
		C10	0.883			
		C12	0.834			
		C21	0.704			
	Hygiene and safety	C15	0.871	0.896	0.922	0.704
		C16	0.907			
C17		0.772				
C19		0.865				
C22		0.769				
The risk perceptions	Financial risk	R4	0.835	0.772	0.866	0.683
		R5	0.871			
		R6	0.770			
	Social risk	R7	0.917	0.908	0.942	0.844
		R8	0.920			
		R9	0.920			
	Physical risk	R10	0.903	0.777	0.870	0.694
		R11	0.883			
		R12	0.707			
	Time risk	R16	0.896	0.911	0.944	0.849
R17		0.939				
R18		0.929				
The liminoid behaviors	Hedonism	L3	0.810	0.858	0.904	0.702
		L4	0.777			
		L5	0.874			
		L6	0.885			
	Privacy	L7	0.735	0.911	0.931	0.695
		L8	0.860			
		L9	0.857			
		L10	0.859			
		L11	0.804			
		L12	0.878			
	Tolerance	L13	0.904	0.819	0.880	0.649
		L14	0.775			
		L15	0.840			
L16		0.718				
Playful	L21	0.919	0.914	0.946	0.853	
	L22	0.934				
	L23	0.917				

All loadings are significant at the 0.01 level or better.

Source: Author

Table 3 – HTMT ratios, the square roots of the AVE, correlations, means and, standard deviations values.

Factors	General impacts	T. attitudes and p.	Hygiene and safety	Financial risk	Social risk	Physical risk	Time risk	Hedonic	Privacy	Tolerance	Playful
Mean	4.057	3.775	4.388	4.221	2.878	4.025	2.876	3.103	2.496	3.299	2.326
S.D.	1.265	1.350	4.729	0.934	1.466	1.152	1.422	1.496	1.589	1.518	1.548
1	0.804*	0.381	0.267	0.394	0.464	0.484	0.458	0.305	0.389	0.488	0.463
2	0.320	0.792*	0.590	0.209	0.147	0.355	0.355	0.232	0.162	0.188	0.189
3	0.171	0.474	0.839*	0.459	0.100	0.481	0.140	0.097	0.097	0.241	0.184
4	0.314	0.198	0.399	0.827*	0.175	0.677	0.160	0.199	0.197	0.305	0.247
5	0.374	0.114	0.013	0.035	0.819*	0.258	0.767	0.399	0.641	0.338	0.565
6	0.379	0.322	0.373	0.525	0.184	0.833*	0.486	0.439	0.641	0.443	0.244
7	0.371	0.229	0.124	0.119	0.704	0.427	0.821*	0.579	0.672	0.542	0.697
8	0.239	-0.108	0.021	0.138	0.356	0.373	0.516	0.838*	0.786	0.801	0.738
9	0.315	-0.088	-0.054	-0.016	0.590	0.197	0.615	0.691	0.833*	0.769	0.811
10	0.366	0.103	0.199	0.265	0.309	0.362	0.484	0.725	0.657	0.806*	0.653
11	0.368	-0.126	-0.155	-0.146	0.524	0.214	0.637	0.656	0.795	0.549	0.823*

Notes: *The diagonal elements (in bold) show the square roots of the AVE of each construct.

The off-diagonal elements' upper side shows the HTMT ratios

The off-diagonal elements' lower side shows the correlations.

Source: Author

The structural model of the research was tested with the PLS modeling method to test the research hypotheses. A bootstrap procedure (with 1000 samples) has been applied to evaluate the statistical significance path coefficients (Chin,1998). The first step in applying mediation analysis is to test a direct relationship between independent and dependent variables (Baron & Kenny, 1986). Because of significant relationship was not observed between the travel attitudes and preferences ($p > 0.05$) and hygiene and safety ($p > 0.05$) factors and the dependent variables, mediation analysis for these variables couldn't be performed. On the other hand, the mediating role of perceived risk factors in the causal relationship between the variable of perceived general (pandemic) impacts and liminoid behaviours factors could be tested. Table 4 presents path coefficients, t-values, Cohen's Indicator (f^2), R^2 values, and hypothesis decisions. In this regard, the R^2 of the endogenous variables presents that the explanatory power of the model was over 0.25, within acceptable limits (Chin, 1998). The Cohen's Indicator revealed how useful each construct is for the structural model evaluated and f^2 values of 0.02, 0.15, and 0.35 are considered small, medium, and large, respectively.

According to the path analysis results, perceived risk has mediating effects between pandemic's

impacts and liminoid behaviour in various contexts. Firstly, time risk perception mediates between the pandemic's general impact variable and privacy liminoid behaviour (β : 0.13, t : 2.495, $p < 0.05$). Also, social risk perception mediates between variables of general impact variable and privacy liminoid behaviour (β : 0.11, t : 2.474, $p < 0.05$). On the other hand, the perceived time risk factor has a mediating effect in explaining tolerance liminoid behaviour (β : 0.14, t : 2.490, $p < 0.05$). The role of the perceived time risk factor in the structural model is quite remarkable. Similarly, the perceived time risk mediates in the explanation of the hedonism liminoid behavior (β : 0.13, t : 2.386, $p < 0.05$). Moreover, perceived time risk has a mediating role in the explanation of playful liminoid behavior (β : 0.17, t : 2.738, $p < 0.05$). Finally, the financial risk perception has a negatively and low mediating effect between the general impact and playful liminoid behaviour (β : -0.07, t :2.231, $p < 0.05$).

5. 5. Discussion

The effects of the Covid-19 pandemic in the world have brought different measures and practices in many sectors, leading to the occurrence of situations that have higher risks and are not constantly encountered. The tourism sector, which is one of these sectors, was also affected by the pandemic at macro levels, such as tourism

Table 4 – Structural model test results

Hypothesized relationships	Path coefficient	f ² values	T values	Supported/ not supported
General impacts -> Time risk -> Privacy	0.134	0.118	2.495*	Supported
General impacts -> Physical risk -> Privacy	0.003	0.000	0.126	Not supported
General impacts -> Financial risk -> Privacy	-0.022	0.008	0.783	Not supported
General impacts -> Social risk -> Privacy	0.115	0.080	2.474*	Supported
R ² = 0,43				
General impacts -> Time risk -> Tolerance	0.147	0.112	2.490*	Supported
General impacts -> Physical risk -> Tolerance	0.027	0.007	0.738	Not supported
General impacts -> Financial risk -> Tolerance	0.045	0.027	1.054	Not supported
General impacts -> Social risk -> Tolerance	-0.010	0.000	0.215	Not supported
R ² = 0,28				
General impacts -> Time risk -> Hedonism	0.136	0.098	2.386*	Supported
General impacts -> Physical risk -> Hedonism	0.061	0.033	1.669	Not supported
General impacts -> Financial risk -> Hedonism	-0.005	0.000	0.148	Not supported
General impacts -> Social risk -> Hedonism	0.011	0.001	0.254	Not supported
R ² = 0,29				
General impacts -> Time risk -> Playful	0.172	0.206	2.738*	Supported
General impacts -> Physical risk -> Playful	0.032	0.012	1.124	Not supported
General impacts -> Financial risk -> Playful	-0.073	0.097	2.231*	Supported
General impacts -> Social risk -> Playful	0.056	0.020	1.271	Not supported
R ² = 0,47				

*The t-values demonstrate a statistically significant relationship at the 0.05 level or better.

Source: Author

activities and economic reflections, and micro levels such as tourist behaviors and preferences.

Revealing the relationship between the dimensions of the study is important in unveiling the behavior of healthcare professionals as tourists within the framework of the measures in the Covid-19 pandemic and several different behaviors necessitated by being a tourist. How the perceived risk factor examined within the scope of its mediating relationship is evaluated by healthcare professionals with analytical knowledge is considered here as an element that should be examined in parallel with social risk factors. One of the most important elements that reveal the importance of the study is the behavioral evaluation of the pandemic restrictions and precautions applied and the ability to unveil the reasons for behavioral changes in this extraordinary situation. During the Covid-19 pandemic, academic studies have been conducted in many different fields and sectors, but studies on tourist behavior in the field of tourism (Aydın & Doğan, 2020; Acar, 2020; Wen et al., 2020; Kusumaningrum & Wachyuni, 2020) from a behavioral perspective are limited. No other study in which tourist behaviors during the pandemic are associated with liminoid behaviors and the risk factor is associated with the mediating role has been found in the literature. Therefore, the originality of the study emerges, and the examination of the risk factor, which is the other variable, in terms of the healthcare professionals selected as the research universe, has brought a different sectoral perspective to the study. Research constraints in social sciences are also

valid for this study, yet the research variables and the fact that there is no similar study in the literature renders this study a pioneering study. The limitations of the study are that the sample was limited to Ankara province only and that healthcare professionals could be reached via online surveys due to the pandemic. Repeating the study in the future, in different demographic universes or professional groups where risk perception and liminoid behavior interaction are thought to differ, will provide important information to the literature which shows the changes in the process.

6. Conclusions

In order to test the mediating role of the risk factor in the relation of tourist behavior in the Covid-19 pandemic, which is the independent variable in the research model, with liminoid behaviors, which is the dependent variable, the analyzes were carried out only on the related dimensions due to the precondition that the dependent and independent variables were related. As a result of these analyzes, the sub-dimensions of privacy, tolerance, pleasure, and playful personality can significantly explain that healthcare professionals can turn to liminoid behavior as tourist behavior in the Covid-19 pandemic.

In this case, it is possible to say that during the pandemic period, healthcare professionals exert liminoid behaviors as tourists secretly, ignoring certain behaviors, putting their playful personalities in the foreground, and enjoy acting in this way. In other words, the tendency of people to exhibit touristic behavior during the pandemic can

cause them to exert liminoid behavior. The fact that these two expressions are in a significant relationship shows that people do not restrict their actions towards the realization of certain liminoid behaviors they want to exhibit as a result of certain restrictions. It is thought that the fact that healthcare professionals who have more and detailed information from the society can show liminoid behaviors may also be an indication that healthcare professionals who are expected to be more sensitive in the pandemic may ignore certain restrictions or that some restrictions recommended to the society are applied more strictly than they should be. However, this is an attitude of the health workers in the sample. It may not be applicable to all healthcare professionals who apply the measures in the pandemic process to varying degrees.

While exhibiting these behaviors, as people perceive social risk and time risks, they attach more importance to confidentiality in exhibiting liminoid behaviors. In other words, they prefer to exert liminoid behaviors secretly in a less noticeable way. It is thought that the reaction they may get from the society with liminoid behaviors or the incompatibility of liminoid behaviors they exhibit with their social status may be effective in considering the social risk and time risk here. Likewise, the perception created by the time risk in terms of exhibiting liminoid behavior on individuals can be perceived as the time lost or unnecessary fatigue considering the situation before and after exhibiting liminoid behaviors. For this reason, it can be concluded that people try to exert liminoid behaviors more secretly due to the thought of losing this time or not being able to use it efficiently.

Likewise, according to the results of the study, healthcare professionals revealed a significant relationship between time risk and tolerance, which is a sub-dimension of liminoid behavior. In the concept of time, which is considered before or after performing a certain behavior, it can be concluded that in the liminoid behavior to be exhibited while deciding to perform the behavior, the tendency to get away from the current situations by enjoying the moment is predominant. Here, it can be concluded that the basic motivation, whether it be social, friends or family circle or social status requirements of the individuals, are not taken into consideration too much and in many liminoid behaviors that are desired to be exhibited, people leave their status or usual structures aside. In addition, the hedonism dimension and the

perception of time risk, which are found to be in a significant relationship, show that the participants in the study are willing to display behaviors they enjoy in order to spend their time better and to increase the satisfaction levels of the moment they live. In other words, the pleasure felt for the present moment and the tendency to move away from many ordinary situations are considered worth the time spent on these behaviors.

There is a significant relationship between tourist behavior's tendency to see liminoid behaviors as a game and its social and financial risk dimensions. If a financial risk is perceived in tourist behavior during pandemic periods, the actions that tend to exhibit liminoid behavior are seen as a game, and exhibiting more fake behaviors apart from the world in which we live, appears in negative correlation. In other words, if the financial risk is perceived, people do not assume liminoid player personalities and they move away from the tendency to behave differently by moving away from the real world. It is possible to say here that financial opportunities create a limit to the tendency to head towards liminoid behaviors. It is important to reveal the relationship between the dimensions of the study and to reveal the different behaviors of healthcare professionals as tourists within the framework of the measures in the Covid-19 epidemic. The degree of evaluation of the perceived risk factor examined within the scope of the mediation relationship in the study by healthcare professionals who have analytical knowledge was accepted as an element that should be examined when considered in parallel with the social risk factors. Research constraints in social sciences are also valid for this study, and considering the research variables, it emerges as a pioneering study since there is no study similar to the literature. Future studies in different universes and processes will make significant contributions to the literature. In particular, studies on different age groups, income levels, education levels and different occupational groups will be important in explaining tourist behavior after the pandemic. Strategies that can be developed for these demographic variables will increase the accuracy of tourism policies. In addition, in this study, different studies can be carried out with different variables such as the quality of experience, well-being or socialization level, which are thought to affect tourism and liminoid behaviors.

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INFO PAGE

The mediating role of perceived risk in the impact of tourist behavior on liminoid behavior in the covid-19 pandemic

Abstract

The main purpose of this study is to determine the mediating role of perceived risk in the impact of tourist behavior on liminoid behavior in the Covid-19 pandemic process and the risk perceived at the level of acting liminoid behaviors. The main research question of the study is to what extent liminoid behaviors are perceived as risky by healthcare professionals in the context of tourist behavior despite the precautions. Participants consist of healthcare professionals working in the health sector in Turkey in 2020. A total of 135 questionnaires were obtained using random sampling with the participation of healthcare professionals working in different hospitals in Turkey. Factor analysis and Partial Least Squares structural modeling (PLS) were applied in the analysis of the collected data. According to the analysis results, perceived risk has a mediating effect between the covid tourist behavior and liminoid behavior in various contexts. As one of the prominent findings, it was concluded that the time risk perceived by the participants mediated the relationship between tourist behavior affected by the pandemic and liminoid behavior. Also the relationship between tourist behavior and the subscales of the risk factor will enable the determination of tourism strategies to be developed for tourist behavior.

Keywords: Covid-19 pandemic, Perceived risk, Liminoid behaviors, Healthcare professionals, Tourist behavior

Authors

Full Name	Author contribution roles	Contribution rate
Kerem Kaptangil:	Conceptualism, Methodology, Validation, Formal Analysis, Investigation, Writing - Original Draft, Writing - Review & Editing	50%
Kübra Aşan:	Conceptualism, Methodology, Validation, Formal Analysis, Writing - Original Draft, Writing - Review & Editing	50%

Author statement: Author(s) declare(s) that All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. **Declaration of Conflicting Interests:** The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article

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