



**Supplementary Notebook (RTEP - Brazilian academic journal, ISSN 2316-1493)**

## **The Impacts of the COVID-19 Pandemic on the Consumer Behavior of Turkish Tourists**

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**Abstract:** Tourism sector has already affected severely by the existing coronavirus (COVID-19) epidemic as of Feb 11, 2020 started in China and spread all over the world. World Health Organization (WHO), therefore, has been recommended travelers to avoid travelling. Since then, the number of tourists has essentially plummeted to a level that world has not ever experienced before. In the view of the lacking studies in tourism literature that scrutinize by the subject. This study inspects the effect of the coronavirus (COVID-19) epidemic on the tourism industry by examining the effects of COVID-19 outbreak on the tourist behavior of Turkish travelers. Furthermore, this empirical study analyses into the sensitivity of tourists concerning crises in making decisions regarding travel. The analysis shows that COVID-19 outbreak has significantly affected people's life, work and travelling during the COVID-19 outbreak period while the impacts on individuals' inclination to travel, the preference of leisure trips and concern of public hygiene vary. In general, the influences of COVID-19 outbreak are of a nature of paroxysm and period, and the lessening of travel and tourism was triggered by a combination of internal motivation as well as external compulsory measures and travel bans. Additionally, the formation of an effective communication system and crisis action will add to the rescue of the tourist market.

**Keywords:** COVID-19, consumer behavior of tourists, pandemic, Turkey.

### **INTRODUCTION**

International tourism is greatly sensitive to adverse events, containing epidemics of bizarre diseases for which the disease vector can be transported by humans – resulting in restrictions on visitors' movements (Smorfitt et al., 2005) of major importance in this context is Coronavirus (COVID-19), a highly contagious viral disease.

Coronavirus (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Together with Severe Acute Respiratory Syndrome (SARS) coronavirus and Middle East Respiratory Syndrome (MERS), this is the third highly pathogenic human coronavirus that has emerged in the last two decades (WTO, 2020). In last three decades, some major disruptions that have appeared in international tourism streams contain the September 11, 2001 terrorist attack on the United States, the Foot and Mouth outbreak in UK farms in 2001, the October 12, 2002 terrorist attack on Indonesia's resort island of Bali, Severe Acute Respiratory Syndrome (SARS) in 2003 and the 2004 tsunami disaster in South Asia. These incidents led great declines in tourist travels in those places and had a vital effect on national tourism (Blake and Sinclair, 2003; Prideaux et al., 2003; Mao et al., 2010). Such unexpected incidents are not new to the tourism sector (Isaac and den Beedem, 2020). Up till now, coronavirus is different in two significant ways: unlike previous natural catastrophes its impact is international rather than national level. And - unlikely to the international economic crisis - the danger is not losing money, but losing human. Travelers sensitive about health matters (Mao et al., 2010; Gupta et al., 2020). Contagious infection predominantly poses a direct effect on travel behavior (Cartwright, 2000). Moreover, recently most of labor-intensive sectors went into failure or experienced enormous damages, because of limited travel consumption (Wen et al., 2020). As the influence of COVID-19 be ginned to reduce speed, governments started strategies to recommence travel and reestablish economic growth (Kour et al., 2020; Koh, 2020; Barbier and Burgess, 2020; Collins, 2020; Oldekop et al., 2020). Preparation for the resume necessitates a considerable revolution within the service industry, containing an important amount of restructuring and the addition of new procedures and standards (Ivanova et al., 2020; Lew et al., 2020). For the moment, tourists also changed because of the pandemic, specifically their perceptions, choices and attitudes to travel (Ivanova et al., 2020; Peters et al., 2020). As a result, organizations' business policies following the pandemic unavoidably should pay great attention to the changes in tourists' behavior and demand (Brouder, 2020). Numerous studies have examined risk perception of travelers as a result of health crises (Cahyanto et al., 2016; Wen, Huimin and Kavanaugh, 2005). However, little is known about how COVID-19, a pandemic exceeding all former tourism crises, affects the hygiene perception of tourists and influences travel behavior over time. Thus, the aim of this study is to examine risk and future travel perception regarding travel during the outbreak of COVID-19 and how it influences travel behavior among Turkish Outbound tourists. Understanding tourist behavior would help governmental bodies, tourism and travel ambassadors as well as service industries to handle with a crisis more effectively. The study has three research questions; Has COVID-19 outbreak affected people's normal life and work? Does COVID-19 outbreak have an impact on tourists' travel intention, behavior and pattern? Has COVID-19 outbreak changed tourists' need for hygiene for virus?

This research contributes a new perspective of the development of risk perception and travel behavior during a health crisis by identifying profiles of prospective Turkish tourist during a pandemic outbreak. The aim of this empirical research is to collect data from the Turkish outbound travelers who have experienced COVID-19, such as what actually were the impacts they thought that they got from COVID-19; whether their consumption behavior has changed because of COVID-19 or not; what is their sensitivity towards outbreak; and what implications can be drawn from COVID-19 for the governmental bodies, sector and other stakeholders in terms of

market recovery and the formation of a tourism catastrophe management system. Understanding and forecasting tourists' behavior is a key subject for tourism professionals, predominantly when a number of problems for traveling as pandemic exists.

## LITERATURE REVIEW

### Pandemics and tourism

As a field of human activity, tourism cannot be immune to unexpected issues (Huang et al., 2020). With the growth of global tourism and the attractions of exotic destinations, tourists and tourism destinations face greater risks (Rittichainuwat, 2013). Indeed, some destinations around the world are facing possible disasters (Faulkner, 2001). However, on 31st January 2020, the World Health Organization (WHO) declared China's coronavirus outbreak a public health emergency of international concern, only the sixth of its kind (ABC News, 2020). On 8th February 2020, the National Health Commission of the People's Republic of China (2020) officially renamed the new coronavirus 'novel coronavirus pneumonia' (NCP). The disease originated in Wuhan, Hubei Province, China and has been classified as a global epidemic. As of 16th February 2020, 50,580 cases had been confirmed around the world (WHO, 2020). Afterward the COVID-19 outbreak, number of researches discovered this new disease and its effect on the people and specially on the tourism sector (Gössling, Scott and Hall, 2020; Farzanegan et al., 2020; Mao et al., 2020). Most of the research concentrate on the recent effects and the undesirable results over varied economic sectors (Goodell, 2020; Nicola et al., 2020), containing tourism (Ivanova et al., 2020). The research gauges deeply the supply-side viewpoint, approximating the harm caused, predicting the consequent fluctuations and restoration of the tourist offers (Gössling, Scott and Hall, 2020). Conversely, the demand side investigations continue to be mysterious (Zenker and Kock, 2020), possibly because the vagueness in the economic side and the continuing risk of contamination. Yet, number of studies gauged the emerging behavior of tourists' recovery and a willingness to restart their travel.

China forerunners of strategies to resuscitate its tourism sector (Wen et al., 2020). The Chinese travelers are anticipated to start their touristic activities in terms of domestic tourism because of restricted global flights. Comprehensibly, travelers feel secure when having transportation shorter distances from home (Enger et al., 2020). Self-guided and self-driven tours will rule over the group and prearranged tour packages (Enger et al., 2020), which is an important change for the Chinese travelers, who are famous to choose guided group tours and special care during their trips (Wen et al., 2020). In addition, the British has proclivity to reserve a tour once travel is broadly allowable (Collins, 2020), but since there is an international limitation, they possibly will stay on the islands, thus increasing local tourism in the United Kingdom. However, their absence in other countries (Spain, France, Portugal) should have an undesirable effect on tourism and travel industry in those destinations (Collins, 2020), because of the change in tourism movements. Furthermore, Ivanova et al. (2020) conducted study in Bulgaria. Their study demonstrated that most of the participants are motivated to travel within 2 months after travel is allowed in the country. In addition, hygiene, sterilization and trustworthy health system in a destination will be the leading factors in travelers' decisions, according to the findings. One research examined the relationship between perception of COVID-19, travel risk perception and travel behavior among travelers in

the Germany, Austria, Switzerland. Results revealed a significant increase in risk perception of COVID-19, travel risk perception and travel behavior over a short period of time (Neuburger and Egger, 2020).

Coronavirus (COVID-19) has newly been found in 218 countries. For the moment, about 42 745 212 cases of humans who have been infected by Coronavirus (COVID-19) have been confirmed, and number of deaths was 1 150 961 so far (WHO, 2020). Currently, the risk of a new human coronavirus, SARS-CoV-2, has become an international health worry triggering severe respiratory tract infections in humans. Therefore, a short- to medium-term slowdown could be the consequence in the shutdown of the tourism and travel industry. Consequently, global tourism and travel sector will be enormously affected or even controlled to avoid the spread of COVID-19. Bad scenarios already have been drawn by tourism organizations. According to World Travel Tourism Council (WTTC) up to 75 million occupations are at direct risk in global tourism because of the coronavirus outbreak. The upsetting figure, based on investigation from WTTC, shows a punishing Travel & Tourism GDP loss to the world economy of up to US\$2.1 trillion in 2020. The latest projection of a 50% increase in jobs at risk, in less than two weeks, represents a significant and worrying trend, with an astounding one million jobs being lost every day in the Travel & Tourism sector, due to the sweeping effect of the coronavirus pandemic. The analysis by WTTC, which represents the global Travel & Tourism private sector, also exposes the depth of the crisis for individual regions. Asia-Pacific is expected to be most heavily impacted with up to 49 million jobs at risk throughout the region, representing a loss of nearly US\$800 billion to Travel & Tourism GDP. The latest figures also suggest that in Europe, up to 10 million jobs in Travel & Tourism are at risk, totaling a loss of nearly US\$552 billion (WTTC, 2020). Looking at the outbreaks in previous years, it was seen that the outbreak directly affected tourism. In SARS outbreak, China Travel Service, one of the country's top tourism agencies, reportedly recorded a loss of more than 30m Renminbi (US\$3.6m) in business turnover. Statistics from major tourism agencies revealed that the country's outbound tourism business saw a decrease of 80 per cent (Dombey, 2004). In Canada, caused \$4.3 billion in losses to the accommodation and food service sector (Keogh, Brown and Smith, 2008).

The sudden outbreak of severe acute respiratory syndrome (SARS) in Singapore in 2003 was a crisis for the tourism industry. Confirm the severity of the situation for the hotel sector. The average hotel occupancy rate (AOR) for the second quarter of 2003 was 21%, compared with 74.5% for the previous year, and average room rates contracted by 18.8%. Industry-wide data correspond to those for the surveyed hotels, which had an average AOR in April of 35.8%; this dropped to 27.7% in May (Henderson and Ng, 2004). In Hong Kong, because of SARS outbreak 27,000 employees lost their jobs in tourism sector while 17,500 unemployed in Singapore because of SARS (Pine and McKercher, 2004). A new influenza strain, of apparent swine origin, emerged by the end of April 2009 in Mexico and the USA (Rassy and Smith, 2013). On June 11, 2009, the World Health Organization (WHO) declared the outbreak of novel influenza A (H1N1) (referred to as pandemic (H1N1) 2009 per WHO nomenclature) a pandemic (Tracht et al., 2010). Furthermore, Monterrubio (2010) revealed that the hotel, restaurant and aviation industries were the most affected in Mexico during the first weeks of the influenza A (H1N1) outbreak. Additionally, American Health Organization as an outbreak of a novel influenza type virus (Neumann, Noda, and Kawaoka, 2009). Then, the United States Centers for Disease Control identified the virus as a new strain of Influenza later known



as 2009 H1N1. Within six months, as the number of people infected by 2009 H1N1 rapidly increased globally, the WHO quickly increased the pandemic alert for 2009 H1N1 to the high phase six level (WHO, 2009). Tourism, Mexico's third largest source of foreign exchange earnings (Wilson, 2008) and its biggest service sector, had already been affected by the global financial crisis of 2008, but the pandemic led to a virtual halt of the industry (Rassy and Smith, 2013). The 2015 MERS outbreak in the Republic of Korea was associated with an estimated US\$2.6 billion in lost revenue for the tourism and tourism-related service sectors, which was equivalent to 0.2% of GDP in 2015 (Joo et al., 2019). Additionally, the effect of epidemics (ex: SARS, MERS) on the restaurant industry examined. According to analyses, a total of nine events on four epidemic disease outbreaks during 2004–2016 confirmed the negative impact of epidemic disease outbreaks on the restaurant industry (Kim et al., 2020).

### **Tourist Behavior**

Studies on consumer behavior of tourists are conducted internationally consistent with the features of tourist activities as well as the development of the tourist markets according to general consumption theory (Wen, Huimin and Kavanaugh, 2005). Debates are addressed on how constructive issues regarding tourism effect tourist behavior (Moutinho 1987; Roehl and Fesenmaier 1992; Wen, Huimin and Kavanaugh, 2005); how important is the role of images in tourism decision making (Mykletun, Crotts and Mykletun, 2001) the relation between the essence of tourist behaviour and the purchasing decision and consumption of tourist products and services (Cai, Feng and Breiter, 2004); and the analysis of consumer behavior of tourists from economical angles (Guo and Zhang, 2002). In an uncertain era, nearly all firms linked to the tourism sector face the likelihood of experiencing some form of crisis (Henderson and Ng, 2004). Under these circumstances, academics have conducted investigations on the bases of crises and processes to manage unexpected crises (Wishnick, 2010; Alan, So and Sin, 2006). Crises, initiated by the unexpected alteration of external as well as internal factors, is a pressure which creates a danger to the well-being of tourism structure or its sub-system (Wen, Huimin and Kavanaugh, 2005). An unexpected and unplanned instance is adequate to bring out uncertainty of an entire structure, even to a large extent of changing the steadiness of a structure (Prideaux, Laws and Faulkner, 2003; Okumus, Altinay and Arasli, 2005). Under this circumstances, ambiguous instances may cause massive risks as well as negative results to the system. Because of the extensiveness and breakability of tourist activities, studies on crisis management, effects of crises on organizations as well as system, containing countries, sectors and initiatives, as well as influences of crises on tourist behavior, are very essential and vital (Ivanova et al., 2020).

Different crises have number of features and causes different type of effects, however crises that have occurred can serve as references to some extent. The international hospitality industry has been considerably affected by catastrophes and crises (Blakie et al., 1994; Kuo et al., 2008). Political events contain the common terrorist danger (Ladkin et al., 2008; Pizam and Fleischer, 2002), Asian financial crisis (De Saumarez, 2003) and the world economic crisis of 2008 (Ritchie et al., 2010), outbreaks such as Page et al. (2012) reported global economic crisis and the H1N1 epidemic on tourism demand to the UK within number of source markets. They exposed that there was an important effect on inbound tourism with a loss of 4.7 million tourists

in the period 2008. Similarly, Pine and McKercher (2004: 143) reported the influence of the SARS pandemic on the Hong Kong tourism sector such as outbreak can be plummeting air passenger amounts for some airlines by as much as 80 per cent and hotel vacancies from approximately 90 per cent. Tourists escaped travelling to destinations that were part of in conflicts. A characteristic behavior of tourists was that people did not wholly stop travelling, but condensed touristic expenditures, such as selecting inexpensive places, shortening the distance of vacation, and have a tendency to use low-rate services (Wen, Huimin and Kavanaugh, 2005).

After the SARS pandemic, number of global organizations conducted studies in relation to incident. For instance, Canadian Tourism Commission (CTC) Market Research, has directed study with the theme of “SARS impacts on American travelers”, in 2003. Related study included number of analyses: such as issue of security and travel proclivity in Canada, whether American tourists have made an altered or cancelled their vacation ideas. The study not only examines the causes of travel change and cancellation but also categorizes the details in relation to individual financial status, vacation costs, conflict as well as outbreak which was SARS. The study exposed that the main motive for travel change as well as cancellation were individual financial status as well as vacation expenditures, political instabilities of destination, and interestingly last one was outbreak SARS. In the literature, there were number of studies in relation to tourist behavior toward outbreak. According to Kang Yu (2003) SARS was an unexpected instance and effect of this outbreak would not importantly alter the overall level of demand. But, due to prohibitions of some activities for instance travel, food and beverage, leisure, would be limited throughout the outbreak progression, while with the failing of the virus, the limited consumption proclivity would be provoked and there would be demand after outbreak. Another study done by Wang Lei (2003) reported that pandemic of SARS effect on consumption from the consumer’s mental viewpoint and added that the probable post-SARS ‘blowout’ of demand would be the outcome of number of elements such as, sentience-depriving, relaxation, counter reaction, stimulus-seeking, counter reaction as well as account-separation. Because of mentioned aspects demand for consumption could increase greatly. Cai Jiacheng (2003) reported that the effects of SARS on travelers could undergo the number of tendencies such as eco-tourism would be more common, travelers will be precise in relation to the accommodation period, intensity of interaction with other tourists, selecting to use facilities where there is no crowdedness as well as tourists will be depend on more on the internet to obtain data as well as service.

As mentioned in the literature above, academics on outbreak effects are generally focused on the external setting as well as internal state of mind. There is a small amount of research about safety issues as well as effects of uncertainty on consumer choices (Wen, Huimin and Kavanaugh, 2005). From our horizon, no research consequences have up to now been published about novel coronavirus (COVID-19) effects on tourist behavior. The principle of the initiative of this research is to conduct an empirical investigation under the guidance of general consumption and behavior theory in relation to novel coronavirus (COVID-19). Therefore, the aim of research was to get first-hand data from the Turkish outbound travelers who have experienced coronavirus during their travels. In this regard general impacts, attitude and preference as well as safety and hygiene perception of Turkish outbound tourists examined.

## MATERIALS AND METHODS

### Participants and method

Data were gathered from 07 June to 7 August 2020. The authors developed an online questionnaire, and the link to it was distributed through social media. We used a Web-based survey to collect data from tourists because it was not possible to gather data from them via the drop-off and pick-up method due to governmental restrictions associated with the Covid-19 pandemic. The survey was designed to contain 21 items. To achieve research aim, items from existing literature were adopted. To operationalize tourist's behavior, we used the 21-item measure of tourist behavior developed by Wen, Huimin and Kavanaugh (2005). Survey included three dimension which are overall effects of COVID-19, attitude, preference and safety as well as hygiene. Time factor is considered in ordering the items: overall impacts, effects during the Coronavirus disease period and after coronavirus pandemic impacts (Wen, Huimin and Kavanaugh, 2005). In the study, items were assessed using 5-point Likert-type anchors (strongly disagree to strongly agree). The respondents were asked to rate the level from agreement to disagreement according to their judgement. In the second part, there were six demographic items. The questionnaire was originally prepared in English and then translated into Turkish through the back-translation technique. The readability and understandability of the items were tested via 15 tourists. As a result of this pilot test, there was no reason to make changes in the survey (cf. Karatepe and Choubtarash, 2014). To specify the sample of our study, Turkish tourists were selected traveling European countries selected who chose a package tour composed the sample of the study. In this context, it was contacted with two travel agencies and especially the tourists who participated in the tour to European countries formed the sample of the study. Within the framework of cooperation with the travel agencies, the mails of the tourists have been reached. Surveys were sent to the tourists with the online survey method. A total of 1050 questionnaires were sent, but the number of returning tourists' survey was 380 in total. The response rate was 36.1% (1050/380).

## RESULTS

Factor analysis has been carried out to check the validity of the scale. As a result of rotation, the 21-item scale used in the Effects of COVID-19 Outbreak on the Tourist Behaviors has been reduced to a scale consisting of 3 main items. The matrix obtained has been analyzed with the method of principle component analysis. Each item in the matrices formed during factor analysis is the factor loading indicating the correlation between each variable and each factor. By eliminating those variables with very low correlation a lower factorial dimension and a more detailed variance explanation have been obtained. Those values 0.4 and below have not been included in the table. Before performing factor analysis, one must first make sure that the amount of data available is suitable for factor analysis. For this purpose, we use KMO<sup>1</sup> indicators and Bartlett test. In this study, the KMO value was 0.865, which indicates that the number of samples is adequate for exploratory factor analysis (Table 1). The Bartlett test original correlation matrix is identical to the identity matrix (all correlation coefficients are zero) and it tests the null hypothesis. It is important that this test come out significant. Otherwise, a

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<sup>1</sup> Kaiser-Meyer Olkin.

reverse condition would imply that there is no relationship among the variables. As a matter of fact, as it can be observed in Table 1, this value has been calculated as zero (0.000) and therefore the result has been accepted as significant.

Table 1. KMO and Bartlett's test regarding the factor analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.865	
Bartlett's Test of Sphericity	Approx. Chi-Square	2734.718
	df	210
	Sig.	0.000

**Factor 1:** Factor loadings range from 0.863 (Q1) to 0.682 (Q4). When the rotation values are examined, they account for the 10.753% of the total variance. Its intrinsic value is 2.258. Taking into consideration the contents of the items in the subcategory, this factor can be named as "General impacts" (Table 2).

**Factor 2:** Factor loadings range from 0.862 (Q5) to 0.647 (item 14). When the rotation values are examined, they account for the 18.889% of the total variance. Its intrinsic value is 3.967. Taking into consideration the contents of the items in the subcategory, this factor can be named as "Attitude & preference". (Table 2).

**Factor 3:** Factor loadings range from 0.846 (Q9) to 0.611 (Q21). When the rotation values are examined, they account for the 20.987% of the total variance, which shows that the best data cluster is in Factor 3 with an intrinsic value of 4.407. Taking into consideration the contents of the items in the subcategory, this factor can be named as "Hygiene & safety" (Table 2).

Table 2. Factor analysis regarding the variables

Items	General impacts	Attitude & preference	Hygiene & safety
COVID-19 has significantly affected my work and life.	0.863		
COVID-19 has significantly affected my attitude towards life and my way of life.	0.709		
All of my business travels have been cancelled during the COVID-19.	0.704		
All of my travels cancelled in the time of COVID-19.	0.682		
Travelling will be dangerous because of COVID-19.		0.862	
I will decrease my travel plans for next six months.		0.716	
I will not travel to crowded big cities after COVID-19.		0.676	
I will decrease the length of tour after COVID-19.		0.716	
In selecting tourist destinations, I will avoid COVID-19-affected destinations.		0.583	
My selection in joining in outdoor activities and eco-tourism has increased due to COVID-19.		0.729	
I choose destinations within short distance for leisure travel after COVID-19.		0.644	
I am going to decrease the option of joining tour groups after COVID-19.		0.671	
I choose travelling with family members and relatives after COVID-19.		0.647	
I am more sensitive about cleanliness and safety of the tourist destinations after COVID-19.			0.846



Items	General impacts	Attitude & preference	Hygiene & safety
I am much more sensitive about hygiene and safety of the public recreation places after COVID-19.			0.760
I am much more sensitive about the hygiene and safety of the means of transportation after COVID-19.			0.689
I am much more sensitive about the health of the members in the tour group after COVID-19.			0.616
I have desire to accommodate in high quality star hotels after COVID-19.			0.653
I am much more sensitive about the hygiene and safety of the hotels after COVID-19.			0.694
I choose separated eating while having trip with a tour group.			0.721
I am more sensitive about the cleanliness of the daily needs while travelling after COVID-19.			0.611

Males are a strong majority of respondents (56.6% from the total sample), whereas the age groups are almost evenly represented (22.3% of respondents were within the 18 and below age group, 40.5%-19-35, 19.2%-36-55 and 17.9% were over 55 years old). Table 3. According to the average of tourists' response to questions 1 (COVID-19 has greatly affected my work and life), 3 (All of my business travels have been cancelled during the COVID-19) period and 4 (All of my leisure travels have been cancelled during the COVID-19 period) is more than 3.1, indicated that the COVID-19 pandemic has canceled many business and leisure trips of participants. Therefore, it can be demonstrated that COVID-19 had great impacts on the respondents' work and life during the COVID-19 period. In addition, the data analysis of Item 5 (Because of COVID-19 pandemic, I believe travelling will be dangerous), 6 (I will greatly decrease my travel plans in the next 12 months) and 7 (I will avoid travelling to crowded big cities after COVID-19 pandemic) show that the COVID-19 has not caused tourists' intention to travel and tourism potential. According to Table 4, COVID-19 has significant effect on People life and work (Mean=3.156, SD=1.105, P=0.006). also show that the COVID-19 has significant impact on the Hygiene and safety of people after the epidemic (Mean=3.386, SD=1.039, P=0.000). However, the results indicated that COVID-19 effect on people's attitudes and preferences is not significant (P>0.05).

Table 3. Summary of the responses of the Questionnaire

		N	Mean	Std. Deviation	Minimum	Maximum
General impacts	Q1	385	3.15	1.430	1	5
	Q2	385	3.17	1.501	1	5
	Q3	385	3.12	1.510	1	5
	Q4	385	3.18	1.523	1	5
Attitude & preference	Q5	385	2.79	1.392	1	5
	Q6	385	2.99	1.544	1	5
	Q7	385	2.95	1.579	1	5
	Q10	385	3.04	1.571	1	5
	Q11	385	3.01	1.532	1	5
	Q8	385	3.04	1.495	1	5
	Q12	385	2.97	1.479	1	5
	Q13	385	3.18	1.513	1	5
	Q14	385	3.21	1.460	1	5

Hygiene & safety	Q9	385	3.36	1.398	1	5
	Q15	385	3.37	1.519	1	5
	Q16	385	3.37	1.518	1	5
	Q17	385	3.43	1.499	1	5
	Q18	385	3.42	1.432	1	5
	Q19	385	3.34	1.517	1	5
	Q20	385	3.51	1.476	1	5
	Q21	385	3.30	1.539	1	5

Table 4. One Sample test (test value=3 and n=385)

	Mean	Std. Deviation	df	t	P-Value
General impacts	3.156	1.105	5	2.778	0.006
Attitude & preference	3.020	1.045	5	0.390	0.697
Hygiene & safety	3.386	1.039	5	7.290	0.000

Table 5. T-test results regarding the scale according the Attitude &amp; preference to differences in gender.

	Gender	N	Mean	Std. Deviation	df	t	P-Value
Attitude & preference	Male	218	2.806	0.954	383	-4.726	0.000
	Female	167	3.300	1.094			

Table 6 shows that the impacts of COVID-19 had gender differences: females were more prudent on “choosing tourist destinations”, “travel distance” and “preferring separated dining while travelling with a tour group”.

Table 6. Different responses between male and female

	Mean		Std. Deviation	
	Male	Female	Male	Female
Q11	2.85	3.22	1.517	1.530
Q12	2.78	3.21	1.435	1.504
Q20	2.99	3.43	1.518	1.474

Table 7. shows that there is a significant difference between different age groups in terms of hygiene & safety issues ( $P < 0.001$ ). So that the average response of people in the age group of 18 years and less is equal (2.684), for the age group 19-35 times (3.413), for the age group (36-55) equal to (3.636) and for the age group 55 years and above equal (3.929).

Table 7. ANOVA results regarding the scale according the Hygiene &amp; safety to differences in Age.

	Age	N	Mean	Std. Deviation	DF	F	P-Value
Hygiene & safety	18 and below	86	2.684	1.289	3	24.676	$P < 0.001$
	19-35	156	3.413	0.551			
	36-55	74	3.636	0.823			
	55 and above	69	3.929	1.266			

Table 8. explains the fact that older people are more prudent, while young people, pay less attention to hygiene and safety issues to tourist destinations and transportation vehicles. Also compared with older people, younger people pay less attention to health of the members of the touristic group. In the aspect of safety and hygiene, the older the people are exposed greater concern in compare to younger population.

Table 8. Different responses between Age groups

	Mean				Std. Deviation			
	18 and below	19-35	36-55	55 and above	18 and below	19-35	36-55	55 and above
Q9	2.49	3.53	3.54	1.149	1.485	1.316	3.84	1.451
Q16	2.84	3.59	3.29	1.419	1.651	1.374	3.96	1.490
Q17	2.73	3.84	3.40	1.458	1.575	1.194	3.91	1.473

Table 9 show the distribution of respondents' answers regarding "travel with my family", distance for travel, age, and gender. Regarding the age distribution, the respondents who disagree about "travel with their family" and "long distance for travel" are "55 and above", i.e. Elderly people in the community.

Table 9. Prefer to travel according to age and gender of the respondents

	AGE				Gender	
	18 and below	19-35	36-55	55 and above	Male	Female
prefer places with shorter distance for leisure activities						
strongly Disagree	16	38	10	7	51	32
disagree	20	39	25	11	61	30
abstaining	12	14	12	14	28	24
agree	17	28	10	18	40	33
strongly agree	21	37	17	19	38	48
	$\chi^2 = 22.781 (P = 0.030)$				$\chi^2 = 10.480 (df = 0.033)$	
prefer to travel with my family						
strongly Disagree	16	28	10	17	40	29
disagree	9	30	20	17	46	22
abstaining	22	20	5	15	37	25
agree	19	34	14	13	43	41
strongly agree	20	44	25	7	52	50
	$\chi^2 = 23.912 (df = 12, P = 0.021)$				$\chi^2 = 5.983 (df = 0.200)$	

COVID-19 has impacts on Attitude & preference of tourists, especially the types of tours and the patterns of travel. Results showed that, tourists tend to be more interested in outdoor activities and travel to short distance places, and city residents prefer to travel to the suburbs. This finding contrasts the results from the Middle East and American markets, where the most important motivation for travel is business (Choufany, 2020), but goes in line with the preferences of Indonesians, who search for more nature-based holidays (Wachyuni and Kusumaningrum, 2020). The impacts of COVID-19 on the behavior of tourists vary in terms of demographic features. Tourists have different attitudes towards the pandemic. Hence the intervention strategies to crisis should also be different to meet the diversification. COVID-19 has aroused the tourists' attention to the matter of hygiene. Hygiene and safety will become an important factor when people make travel and tourism decisions. However, the results of this study indicate that the impacts of COVID-19 on the safety of 18 and below years olds is not significant. Therefore, it is necessary to increase promotion health protocols in the touristic places and it is recommended that relevant state administrative departments should formulate national standards for tourist attractions, transportation means, and hotels, and adopt compulsory measure to implement the standards, so as to guarantee the hygiene and safety requirements of tourists.

## CONCLUSION

The hospitality sector is yet to make progress from the COVID-19 pandemic. For the organizations of tourism and travel, it is important to listen the expressions of travelers and think through changes in travel demand (Ivanova et al., 2020). Current research explored Turkish travelers' intention, behavior and pattern and need for hygiene for virus considering the COVID-19 pandemic. The key understandings have many mutual results with similar studies in the Bulgaria, China and other nations (Ivanova et al., 2020; Wachyuni and Kusumaningrum, 2020; Neuburger and Egger, 2020; Wen et al., 2020). Still, Turkish tourists seem positive and excited to coming back to their consistent touristic practices, but tourists have also accepted the "novel" procedure as a supplementary principle in the hospitality sector. The prominent characteristics of travel behavior of Turkish travelers stemming from the current study are:

1. Turkish travelers will choose touristic sites according to cleanness and safety;
2. Travelers have proclivity to travel places where reliable health system and the disinfection systems are taken seriously;
3. Turkish travelers will be more motivated in terms of selecting outdoor activities and eco-tours after COVID-19;
4. Finding of this research demonstrated that there was a significant difference between age groups in terms of hygiene & safety issues. Travelers with younger age are less sensitive toward hygiene and cleanliness in compare to elderly;
5. Study also showed that the impacts of COVID-19 had gender differences where females were more prudent on "choosing tourist destinations", "travel distance" and "preferring separated dining while travelling with a tour group."

From a practical point of view, current research adds appreciated informations and traveler's perceptions for destinations and tourism actors and supports the growth of communication strategies for the hospitality sector during the COVID-19 pandemic. Based on the findings, number of implications for the hospitality industry can be delivered. About communication strategies, hospitality administrations generally follow the regulations of governments and health organizations to mainly decrease the public spread of the disease. However, it is also essential to concentrate on decreasing travelers' tour risk (Neuburger and Egger, 2020) to be able to lead the sector to bounce back faster once the threat of COVID-19 declines. The results of this study show the alterations in the travel behavior of Turkish travelers and demonstrated the prominence of hygiene, disinfection, reliable health system and general awareness of individual safety and security (Ivanova et al., 2020; Wachyuni and Kusumaningrum, 2020; Neuburger and Egger, 2020). Thus, the findings could assist Turkish and international tourism actors in increasing appropriate as well as effective marketing strategies and campaigns to pull Turkish travelers during the COVID-19 pandemic. Importance on peacefulness and lessening would be helpful for the places' campaign, whereas tour operators might think about the restricted available financial resources of the possible travelers, and to adjust their tour packages accordingly, if at all possible for inbound tours (Ivanova et al., 2020). Moreover, the drawn preferences would additionally require lodging establishments and other organizations to provide safety procedures to address tourists' preferences and legal necessities. Lastly, the findings demonstrate that the travel behaviour of Turkish in the post-pandemic period increased where eco-



tourism available which will further enable travel providers to revise their products according to the “sustainable” travel behavior.

### LIMITATIONS AND AVENUE FOR FURTHER STUDIES

This research has number of limitations that should be addressed. First, results of this research are limited by its focus on prospective tourists from Turkey. Findings also are restricted by the nature single convenience sample from the online survey. According to results of this research, further works should target for longitudinal research or data collection at multiple points of time during the COVID-19 pandemic. Furthermore, future research should compare findings of this research with various cultural and geographical regions. This adds to better vision the long-term effect of infectious diseases on the change of risk perception and travel behavior over time.

### REFERENCES

- 1 ABC News, “Health authorities in Victoria and Queensland confirm more cases of coronavirus” (29 January 2020); [www.abc.net.au/news/2020-01-29/victoriaconfirms-second-case-of-coronavirus/11911076](http://www.abc.net.au/news/2020-01-29/victoriaconfirms-second-case-of-coronavirus/11911076).
- 2 Alan, C. B., So, S., & Sin, L. (2006). Crisis management and recovery: how restaurants in Hong Kong responded to SARS. *International Journal of Hospitality Management*, 25(1), 3-11.
- 3 Barbier, E. B., & Burgess, J. C. (2020). Sustainability and development after COVID-19. *World Development*, 135, 105082.
- 4 Blaikie, P., Cannon, T., Davis, I. and Wisner, B. (1994), *At Risk: Natural Hazards, People’s Vulnerability, and Disasters*, Routledge, London.
- 5 Blake, A., & Sinclair, M. T. (2003). Tourism crisis management: US response to September 11. *Annals of Tourism Research*, 30(4), 813-832.
- 6 Cahyanto, I., Pennington-Gray, L., Thapa, B., Srinivasan, S., Villegas, J., Matyas, C., & Kioussis, S. (2016). Predicting information seeking regarding hurricane evacuation in the destination. *Tourism Management*, 52, 264-275.
- 7 Cai, J. (2003) Pay attention to the influences of SARS on tourists' psychological changes. *China Tourism News*.
- 8 Cai, L. A., Feng, R., & Breiter, D. (2004). Tourists purchase decision involvement and information preferences. *Journal of Vacation Marketing*, 10(2), 138-148.
- 9 Cartwright, R. (2000). Reducing the health risks associated with travel. *Tourism Economics*, 6(2), 159-167.

- 10 Chung, Y. S., Kim, J. M., Kim, H. M., Park, K. R., Lee, A., Lee, N. J., ... & Kang, C. (2019). Genetic Characterization of Middle East Respiratory Syndrome Coronavirus, South Korea, 2018. *Emerging infectious diseases*, 25(5), 958.
- 11 Collins, S. (2020). COVID-19 recovery in the UK – The importance of domestic demand. HVS. <https://www.hvs.com/article/8787-covid-19-recovery-in-the-uk-the-importance-of-domestic-demand>
- 12 Dombey, O. (2004). The effects of SARS on the Chinese tourism industry. *Journal of Vacation Marketing*, 10(1), 4-10.
- 13 Enger, W., Saxon, S., Suo, P., & Yu, J. (2020). The way back: What the world can learn from China's travel restart after COVID-19. McKinsey & Company. <https://www.mckinsey.com/industries/travel-transport-and-logistics/ourinsights/the-way-back-what-the-world-can-learn-from-chinas-travel-restart-after-covid-19>.
- 14 Faulkner, B. (2001). Towards a framework for tourism disaster management. *Tourism Management*, 22(2), 135-147.
- 15 Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 1-20.
- 16 Guo, Y., & Zhang, H. (2002). The analysis of tourist decision making behavior. *Tourism Science*, 4, 24-27.
- 17 Gupta, V., Khanna, K., & Gupta, R. K. (2019). Preferential analysis of street food amongst the foreign tourists: a case of Delhi region. *International Journal of Tourism Cities*.
- 18 Henderson, J. C., & Ng, A. (2004). Responding to crisis: severe acute respiratory syndrome (SARS) and hotels in Singapore. *International Journal of Tourism Research*, 6(6), 411-419.
- 19 Huang, L., Yin, X., Yang, Y., Luo, M., & Huang, S. S. (2020). "Blessing in disguise": The impact of the Wenchuan earthquake on inbound tourist arrivals in Sichuan, China. *Journal of Hospitality and Tourism Management*, 42, 58-66.
- 20 Isaac, R. K., & Van den Bedem, A. (2020). The impacts of terrorism on risk perception and travel behaviour of the Dutch market: Sri Lanka as a case study. *International Journal of Tourism Cities*.
- 21 Ivanova, M., Ivanov, I. K., & Ivanov, S. (2020). Travel behaviour after the pandemic: the case of Bulgaria. *Anatolia*, 1-11.
- 22 Judd, C. M., Smith, E. R., & Kidder, L. H. (1991). Research methods in social relations (6th ed). Fort Worth: Holt, Rinehart and Winston.
- 23 Kang, Y. (2003) To compensate themselves: The consumption impulse in post SARS period. On WWW at <http://www.nbjd.gov.cn>.

- 24 Karatepe, O. M., & Choubtarash, H. (2014). The effects of perceived crowding, emotional dissonance, and emotional exhaustion on critical job outcomes: A study of ground staff in the airline industry. *Journal of Air Transport Management*, 40, 182-191.
- 25 Keogh-Brown, M. R., & Smith, R. D. (2008). The economic impact of SARS: how does the reality match the predictions? *Health policy*, 88(1), 110-120.
- 26 Kim, J., Kim, J., Lee, S. K., & Tang, L. R. (2020). Effects of epidemic disease outbreaks on financial performance of restaurants: Event study method approach. *Journal of Hospitality and Tourism Management*, 43, 32-41.
- 27 Koh, E. (2020). The end of over-tourism? Opportunities in a post-Covid-19 world. *International Journal of Tourism Cities*.
- 28 Kour, P., Jasrotia, A., & Gupta, S. (2020). COVID-19: a pandemic to tourism guest-host relationship in India. *International Journal of Tourism Cities*.
- 29 Kuo, H. I., Chen, C. C., Tseng, W. C., Ju, L. F., & Huang, B. W. (2008). Assessing impacts of SARS and Avian Flu on international tourism demand to Asia. *Tourism Management*, 29(5), 917-928.
- 30 Ladkin, A., Fyall, A., Fletcher, J., & Shipway, R. (2008). London tourism: A 'post-disaster' marketing response. *Journal of Travel & Tourism Marketing*, 23(2-4), 95-111.
- 31 Lee, C. K., Song, H. J., Bendle, L. J., Kim, M. J., & Han, H. (2012). The impact of non-pharmaceutical interventions for 2009 H1N1 influenza on travel intentions: A model of goal-directed behavior. *Tourism Management*, 33(1), 89-99.
- 32 Lew, A. A., Cheer, J. M., Haywood, M., Brouder, P., & Salazar, N. B. (2020). Visions of travel and tourism after the global COVID-19 transformation of 2020. *Tourism Geographies*, 1-12.
- 33 Mao, C. K., Ding, C. G., & Lee, H. Y. (2010). Post-SARS tourist arrival recovery patterns: An analysis based on a catastrophe theory. *Tourism Management*, 31(6), 855-861.
- 34 Mao, Y., He, J., Morrison, A. M., & Andres Coca-Stefaniak, J. (2020). Effects of tourism CSR on employee psychological capital in the COVID-19 crisis: from the perspective of conservation of resources theory. *Current Issues in Tourism*, 1-19.
- 35 Monterrubio, J. C. (2010). Short-term economic impacts of influenza A (H1N1) and government reaction on the Mexican tourism industry: an analysis of the media. *International Journal of Tourism Policy*, 3(1), 1-15.
- 36 Moutinho, L. (1987). Consumer behaviour in tourism. *European journal of marketing*.
- 37 Mykletun, R. J., Crofts, J. C., & Mykletun, A. (2001). Positioning an island destination in the peripheral area of the Baltics: a flexible approach to market segmentation. *Tourism Management*, 22(5), 493-500.

- 38 Neuburger, L., & Egger, R. (2020). Travel risk perception and travel behaviour during the COVID-19 pandemic 2020: a case study of the DACH region. *Current Issues in Tourism*, 1-14.
- 39 Neumann, G., Noda, T., & Kawaoka, Y. (2009). Emergence and pandemic potential of swine-origin H1N1 influenza virus. *Nature*, 459(7249), 931-939.
- 40 Okumus, F., Altinay, M., & Arasli, H. (2005). The impact of Turkey's economic crisis of February 2001 on the tourism industry in Northern Cyprus. *Tourism Management*, 26(1), 95-104.
- 41 Oldekop, J. A., Horner, R., Hulme, D., Adhikari, R., Agarwal, B., Alford, M., ... & Bebbington, A. J. (2020). COVID-19 and the case for global development. *World Development*, 134, 105044.
- 42 Page, S., Song, H., & Wu, D. C. (2012). Assessing the impacts of the global economic crisis and swine flu on inbound tourism demand in the United Kingdom. *Journal of travel research*, 51(2), 142-153.
- 43 Peters, K., Peters, J., & Peters, N. (2020). Visit people Tourism Recovery. KPPM Strategy. Retrieved from: <http://kppm.com.au/wp-content/uploads/2020/04/KPPM-Tourism-Recovery-Lit-Review-4-4-20.pdf>.
- 44 Peters, K., Peters, J., & Peters, N. (2020). Visit people Tourism Recovery. KPPM Strategy. Retrieved from: <http://kppm.com.au/wp-content/uploads/2020/04/KPPM-Tourism-Recovery-Lit-Review-4-4-20.pdf>.
- 45 Pizam, A., & Fleischer, A. (2002). Severity versus frequency of acts of terrorism: Which has a larger impact on tourism demand? *Journal of Travel research*, 40(3), 337-339.
- 46 Prideaux, B., Laws, E., & Faulkner, B. (2003). Events in Indonesia: exploring the limits to formal tourism trends forecasting methods in complex crisis situations. *Tourism management*, 24(4), 475-487.
- 47 Rassy, D., & Smith, R. D. (2013). The economic impact of H1N1 on Mexico's tourist and pork sectors. *Health economics*, 22(7), 824-834.
- 48 Ritchie, J. B., Amaya Molinar, C. M., & Frechtling, D. C. (2010). Impacts of the world recession and economic crisis on tourism: North America. *Journal of travel research*, 49(1), 5-15.4.
- 49 Rittichainuwat, B. N. (2013). Tourists' and tourism suppliers' perceptions toward crisis management on tsunami. *Tourism Management*, 34, 112-121.
- 50 Roehl, W. S., & Fesenmaier, D. R. (1992). Risk perceptions and pleasure travel: An exploratory analysis. *Journal of Travel research*, 30(4), 17-26.



- 51 Sausmarez, N. D. (2003). Malaysia's response to the Asian financial crisis: implications for tourism and sectoral crisis management. *Journal of Travel & Tourism Marketing*, 15(4), 217-231.
- 52 Smorfitt, D. B., Harrison, S. R., & Herbohn, J. L. (2005). Potential economic implications for regional tourism of a foot and mouth disease outbreak in North Queensland. *Tourism Economics*, 11(3), 411-430.
- 53 Tracht, S. M., Del Valle, S. Y., & Hyman, J. M. (2010). Mathematical modeling of the effectiveness of facemasks in reducing the spread of novel influenza A (H1N1). *PloS one*, 5(2).
- 54 Wachyuni, S. S., & Kusumaningrum, D. A. (2020). The Effect of COVID-19 Pandemic: How are the Future Tourist Behavior? *Journal of Education, Society and Behavioural Science*, 67-76.
- 55 Wen, J., Kozak, M., Yang, S., & Liu, F. (2020). COVID-19: potential effects on Chinese citizens' lifestyle and travel. *Tourism Review*.
- 56 Wen, Z., Huimin, G., & Kavanaugh, R. R. (2005). The impacts of SARS on the consumer behaviour of Chinese domestic tourists. *Current Issues in Tourism*, 8(1), 22-38.
- 57 Wilson, T. D. (2008). Economic and social impacts of tourism in Mexico. *Latin American Perspectives*, 35(3), 37-52.
- 58 Wishnick, E. (2010). Dilemmas of securitization and health risk management in the People's Republic of China: The cases of SARS and avian influenza. *Health Policy and Planning*, 25(6), 454-466.
- 59 World Health Organization, "Weekly update on COVID-19 - 23 October 2020" (WHO, 2020); Weekly update on COVID-19 - 23 October 2020 (Retrieved 27 October, 2020).
- 60 World Health Organization. (2009). Clinical features of severe cases of pandemic influenza. Retrieved October 21, 2009 from. [http://www.who.int/csr/disease/swineflu/notes/h1n1\\_clinical\\_features\\_20091016/en/index.htm](http://www.who.int/csr/disease/swineflu/notes/h1n1_clinical_features_20091016/en/index.htm).
- 61 World Travel Tourism Council (WTTC, 2020); <https://www.wttc.org/about/media-centre/press-releases/press-releases/2020/lives-being-devastated-and-one-million-jobs-a-day-being-lost-due-to-coronavirus-pandemic/> (Retrieved 30 March, 2020).
- 62 Zenker, S., & Kock, F. (2020). The coronavirus pandemic—A critical discussion of a tourism research agenda. *Tourism Management*, 81, 104164.