

Exploring Travel Behaviour Post-COVID-19: Towards a More Responsible Tourism

Rehab El Gamil

Alexandria University, Egypt
rehab.elgamil@alexu.edu.eg

Worldwide, the COVID-19 pandemic has affected the economy and seriously hit the travel and tourism industry. This will certainly impact destination image and travel behaviour in the future. This study aims to explore the changes in travel behaviour post-COVID-19. Specifically, it seeks to examine to what extent these changes could lead to responsible tourism post-COVID-19. Primary data was collected from 400 respondents through an online questionnaire and exploratory factor analysis was conducted. The study findings showed that many changes in travel behaviour will emerge following the COVID-19 pandemic. This will accelerate the shift towards more responsible travel. Moreover, the exploratory factor analysis revealed that responsible travellers post-COVID-19 will be determined by three main factors: travel preferences, health and hygiene considerations, and destination choices. Thus, the study concluded that the responsible traveller post-COVID-19 is the person whose travel behaviour, preferences, and choices will minimize the risk of spreading the pandemic before, during, and after the travel. This study ends with important implications for urgent cooperation between all tourism stakeholders such as DMOS, service providers, and health authorities in tourism destinations.

Keywords: COVID-19 pandemic, travel behaviour, preferences, responsible traveller, exploratory factor analysis



<https://doi.org/10.26493/2335-4194.15.203-216>

Introduction

At the beginning of the year 2020, the world witnessed an exceptional moment when WHO declared the new pandemic, namely 'the novel Coronavirus disease 2019' as a global public health emergency (Wu et al., 2020). On February 11, 2020, China accounted for 42,708 coronavirus cases. Accordingly, many countries imposed travel bans to reduce the movement of people, especially from the most affected areas. In this context, Polyzos et al. (2020) stated that the COVID-19 outbreak altered all the growth predictions of the tourism sector as the pandemic hit the global economy aggressively.

UNWTO (2020a) predicted that tourist activities would decline by 20–30% and this would reduce in-

ternational tourism receipts by about 300–450 USD billion. Furthermore, UNWTO (n.d.) declared that the impact of COVID-19 on the tourism sector would be more threatening than the financial crisis of 2008 and the SARS epidemic, and that it will affect negatively tourism growth for the upcoming seven years. Additionally, both short and long-term changes in travel behaviour could emerge (Papagiannakis et al., 2018).

Quite recently, many studies have focused on the negative impacts of the COVID-19 pandemic on the tourism sector (Sharma & Nicolau, 2020; Sigala, 2020; Uğur & Akbıyık, 2020), recovery strategies for the tourism sector post COVID-19 (Prayag, 2020; Yeh, 2020), and COVID-19 pandemic and travel risk perception (Matiza, 2020; Neuburger & Egger, 2020; Sán-

chez-Cañizares et al., 2020). However, only a few studies have addressed the changes in travel behaviour and preferences post-COVID-19 (Ivanova et al., 2021; Molloy et al., 2021; Sinha & Nair, 2020). In fact, the tourism industry has not experienced a global crisis such as COVID-19 so the findings of the previous studies may be limited and not applicable (Abdullah et al., 2020). Moreover, there is no previous study that clarified how the changes in travel behaviour and tourism demand post-COVID-19 may lead to the emergence of a new concept of responsible tourism.

This study will contribute by highlighting the importance of exploring the new trends and changes in travel behaviour post-COVID-19. Accordingly, the study will focus on how these changes may lead to the emergence of a new concept of responsible tourism which will depend mainly on health and hygiene considerations. Furthermore, this study will contribute to defining the concept of the responsible traveller post-COVID-19. This could help the destinations, marketers, and service providers to a better understanding of the new trends and changes in tourism demand post-COVID-19 and accordingly to design a suitable tourism product.

Thus, the purpose of this study is to fill the gap in knowledge related to the changes in travel behaviour post-COVID-19 and illustrate the most significant travel trends that will dominate the tourism market in the upcoming years. Specifically, this study aims to examine to what extent this travel behaviour will be responsible and how COVID-19 adds another dimension to the concept of responsible tourism in terms of sanitary and hygiene considerations. Consequently, the research questions can be summarized as follows:

1. What are the potential changes/shifts in travel behaviour that could emerge post-COVID-19?
2. To what extent post-COVID-19 travellers will act responsibly?

Literature Review

Post-covid-19 Tourists' Behaviour

The tourism sector has been recognized for a long time as a sector vulnerable to any disasters or risks, especially health and safety crises (Estevão and Costa,

2020). Concerning the current context of the COVID-19 pandemic, it is expected that several changes will occur in tourism demand and travel behaviour.

In fact, tourist behaviour is a result of interaction between internal elements (attitudes, motivations, beliefs) and external elements (economic, social, and cultural settings) (Andrades et al., 2015). The external factors are often responsible for the changes in tourists' decisions and perceptions (Chebli and Said, 2020). However, Sinha and Nair (2020) emphasized that every unexpected outbreak leaves behind a shift, which may be oriented toward the visitor, the destination, or even the behaviour. Accordingly, studying tourists' behaviour is a very important issue to improve tourism businesses and understand tourists' choices and preferences in the future (Quilty et al., 2020).

In the context of unexpected crises, the decisions of travellers and their choices are influenced by their perceptions of the safety and security of the tourism destination (Taylor & Toohey, 2007). After such shocks and challenges, the tourism sector has to recover and understand the travellers' new behaviour (Mair et al., 2016; Chebli & Said, 2020). However, travel behaviour is very difficult to predict, particularly following any crisis (Vo Thanh, 2006). Besides, the change in travel behaviour is a long process and travellers change their preferences gradually (Hagoort, 2020).

As noted by Haque (2020), travel behaviour after any crisis will pass through three main stages: panic, adapt, and new normal. From this perspective, Andreini and Mangiò (2020) highlighted that, according to the theory of travel planning, the changes can emerge in the travel planning process during three stages (pre-trip, during the trip, and post-trip).

Previously, the tourism sector has experienced various crises such as terrorist attacks, natural disasters, health crises, and financial crises. These crises directly affected the tourist demand in many destinations in the short and long term (Polyzos et al., 2020). In this regard, Reichel et al. (2007) mentioned that such crises lead to an obvious shift in the tourist demand and consequently affect travel behaviour and destination choices. Similarly, Novelli et al. (2018) explained that managing the tourism industry during and after pandemic crises is a hard mission, particularly for the gov-

ernments, which should adopt recovery strategies and explore the changes in travel behaviour and preferences.

Since the spread of the COVID-19 pandemic, the number of air passengers has dropped by 93% (Gössling et al., 2020). Accordingly, some travellers cancelled their travel plans for the rest of 2020 while others are still searching for low prices and willing to travel (Wachyuni & Kusumaningrum, 2020). Travel became a dream between fears and hopes and will probably be more difficult post-COVID-19 (Foreign & Commonwealth Office, Department for Transport, The Rt Hon Dominic Raab MP, The Rt Hon Grant Shapps MP, 2020). In this respect, Han et al. (2020) mentioned that globally, the travel behaviour of international travellers post-COVID-19 remains unclear mainly due to the uncertainty in the tourism market.

Indeed, COVID-19 has posed many challenges for destination marketing organizations (DMOs) since they have to study the market carefully post-pandemic. Recently, COVID-19 has influenced travel behaviour and tourist decisions and it is expected that new patterns of tourists will emerge. Unexpectedly, travellers have found themselves confronted with internal restrictions such as economic and health barriers, and external restrictions such as travel bans and closed borders (Gössling et al., 2020; De Vos, 2020). Hence, travellers have been forced to change their behaviour to adapt to the new normal (De Vos, 2020). Parallel to the previous arguments, some studies (Shamshiripour et al., 2020; Molloy et al., 2021; Sinha & Nair, 2020) noted that the impacts of COVID-19 will cause changes in various aspects such as travel plans, destination choice, and tourist preferences. The next section will address how COVID-19 affects travel behaviour and how this could lead to more responsible tourism.

Destination Choice

Destination choice is a negotiation process conducted between destination characteristics and tourist attributes (Ankomah et al., 1996). Commonly, three elements affect tourists while making their travel decisions and choosing destinations: firstly, their social and psychological attributes; secondly, their perceptions of travel risk; and thirdly, attributes of the desti-

nations including the risk elements which are associated with these destinations (Perpiña et al., 2020).

Furthermore, destination choice is a filtration process that eases the decision-making through grouping alternative destinations (Karl et al., 2015) based on the tourist's desire to visit a destination and the possibility of taking a holiday in this destination (Karl et al., 2020). Risk perception is a key factor that affects the intentions and choices of tourists to travel (Bae & Chang, 2020). Therefore, destinations with high risk will be unattractive and also impossible to visit (Karl et al., 2020). The decisions of travellers and their choices are influenced by their perceptions of the safety and security of the tourism destination (Taylor & Toohey, 2007).

In general, several studies (Bae & Chang, 2020; Kock et al., 2020; Neuburger & Egger, 2020; Wang et al., 2020) mentioned that fears about COVID-19 will impact travel decisions for the next six months. According to H2R Market Research (2020), most of the respondents (more than 50%) stated that they do not have the intention to visit destinations with high cases of COVID-19 infections. Additionally, Wilson and Chen (2020) stated that tourism and travel will witness two phases of changes: short-term trends that will control the market for more than two years, and long-term which will be hard to predict.

In this light, tourist demand will experience a noticeable shift from visiting large and crowded cities and tourism hot spots to small cities, and less populated and remote destinations (Chebli & Said, 2020). Tourist behaviour while choosing a destination will be affected by distance (Yang et al., 2018). Thus, Bratic et al. (2021) highlighted that due to the COVID-19 pandemic, tourists will replace their international vacations with safer domestic ones. It is obvious that domestic tourism will be the first choice for many tourists after the pandemic, at least in the upcoming six months (Li et al., 2020; Wachyuni & Kusumaningrum, 2020). Similarly, during the 2003 SARS outbreak, tourist demand increased for nature-based destinations and countryside accommodation (Han et al., 2020).

It is evidently clear that health and hygiene issues become an important factor while tourists are choos-

ing their destinations in the pandemic era (Wachyuni & Kusumaningrum, 2020) Also, the number of infected cases in the host destinations is considered a key determinant in tourists' choices. This may affect tourists' intentions toward the host destination (Li et al., 2021). Therefore, a consistent health system in the host destination will be an important aspect of tourists' decisions.

From the previous arguments, it can be noted that the tourist post-COVID-19 will be more responsible in terms of destination choice. They will avoid choosing destinations with a high number of infected cases, and choose to travel domestically in remote and small destinations which could reduce the risk of spreading the virus and protect themselves and others.

Tourist Preferences

Due to the continuous risk of infection and the restrictions of COVID-19, which are imposed by many destinations, choices have become very limited. Tourists will certainly change their preferences and attitudes to travel (Jamal & Budke, 2020). So, meeting the demand of this new tourist is the only choice.

As mentioned above, tourists will prefer to choose domestic destinations; in this regard, the study of the Family Travel Association (n.d.) expected an evident increase in road trips between cities as a suitable alternative to travel by plane. This reflects that two emerging trends may dominate travel post-COVID-19. Firstly, the increasing demand for traveling by private cars and vehicles as travellers will feel safer and will avoid public transportation (Sadique et al., 2007; De Vos, 2020; Wilson & Chen, 2020). Secondly, the increasing demand for family leisure travel for short vacations as travellers will choose to travel in small groups (family members, relatives, or close friends) to avoid contact with unknown groups (Wilson & Chen, 2020). Similarly, Sadique et al. (2007) explained that older people in Asian and European destinations have adopted this behaviour during times of SARS and influenza.

Regarding bookings and travel insurance, travellers will look for more flexible bookings. During the spread of the COVID-19 pandemic, many travellers were disappointed as they bought non-refundable

tickets (Chebli & Said, 2020). As a result, many travel agencies will change their policies to encourage people to travel, for example, adopting a last-minute cancellation' policy. Actually, numerous insurance companies have started to improve their policies to be more flexible and to offer various options to travellers (Uğur & Akbıyık, 2020).

In terms of accommodation preferences post-COVID-19, Wilson and Chen (2020) expect that guests will be concerned with sanitation and cleanliness practices. Consequently, booking of private accommodations such as apartments, campsites, and cabins will increase while the bookings of hotels and resorts may decrease. The new tourists will also choose luxury hotels where they can trust in the applied sanitization measures. In this context, UNWTO (n.d.) predicted that many travellers will choose to spend their holidays close to their homes. Thus, staycation tourism will be more suitable for short vacations.

With respect to tourist activities, it is expected that travellers will prefer outdoor and recreational activities such as cycling, yoga, and walking tours. The recreational destinations and open areas such as parks may create positive experiences post-COVID-19 (De Vos, 2020; Singh et al., 2020). Travelers will prefer more ecotourism and green tourism and will support responsible travel (Chebli & Said, 2020). On the other hand, travellers will depend more on online purchasing to book all tourism services and products (Martin et al., 2013). As predicted by Shi et al. (2019) and De Vos (2020), the pandemic and its measures will lead to an increase in the online shopping rate and this may affect shopping trips, which will decrease.

From the previous arguments, it is obvious that there is a significant shift and change in tourist preferences post-COVID-19. Most of them are linked to health and safety measures to decrease their risk of exposure to the coronavirus. This reflects that post-COVID-19 travellers will be more responsible for their safety and will adopt responsible behaviour towards travel and destinations.

Responsible Travel in the Post-COVID-19 Era

The rapid changes in the travel and tourism industry following the COVID-19 pandemic raised an ur-

gent call for more responsible travel. Therefore, the concept of responsibility has become a key approach for the recovery of the tourism sector.

Responsible tourism is a form of tourism that aims to reduce the negative impacts of tourism on the community and the environment. Hence, responsible tourism is aligned with sustainability's objectives (Goodwin & Francis, 2003; Cheng & Wu, 2015). In this context, Kim et al. (2017) noted that responsible tourism is a promising market as the consumers are characterized by ethical consumption and responsible behaviour towards destinations. As mentioned in *Lexico* ('Responsibility,' n.d.) the concept of responsibility includes two aspects, individual behaviour and ethical aspects.

It has been widely recognized that tourism based on ethical actions supports the idea of responsible travel (Tribe, 2002; Fennell & Malloy, 2007; Kim et al., 2017). Indeed, responsible travel includes visiting natural sites, social responsibility, protecting the environment, and supporting the local community (Honey & Stewart, 2002).

Previously, the travel sector was dominated by the insistent drive for profits and growth (Jover & Diaz-Parra, 2020). In a simple sense, over-tourism was a remarkable phenomenon that threatened many destinations before the COVID-19 crisis (Higgins-Desbiolles, 2020). Within this context, the COVID-19 crisis has pointed out the need for sustainability and responsibility in managing economic activities (UNWTO, 2020b).

One of the most important aspects of responsible travel is to collect information about the host destination and understand the risks carefully (Jamal & Budke, 2020). Due to the pandemic, tourism destinations imposed some ethical values and legal measures for travellers to follow before and during their trips, in order to respect the places they visit. These measures are mostly related to safety and health concerns, for example, passing a coronavirus test, wearing a face-mask, and practising social distancing.

UNWTO (2020b) confirmed that well-planned and managed tourism could responsibly contribute to the improvement of the health and well-being of travellers, the local community, and service. In response to the pandemic risk, UNWTO started to guide the travel

and tourism sector to mitigate the impacts of this crisis by collaborating with the World Health Organization to emphasize that the tourism industry is coping with the new normal in a responsible way. For instance, a hashtag was launched for all travellers – 'Stay home today, #traveltomorrow.' It was one of the most influential calls from UNWTO to increase travellers' awareness, solidarity, and responsibility to slow down the spreading of the virus. Beyond the economic losses of the tourism sector, UNWTO (2020b) highlighted the importance of putting people first. Furthermore, it reported that the destinations and tourists should share the responsibility.

The negative impacts of the COVID-19 pandemic on the global economy, especially the travel and tourism sector, led many destinations around the world to reopen their borders to save their economies. Although UNWTO called for more responsibility while reopening the tourism industry, it failed to define clearly the concept of responsible tourism in the context of COVID-19 recovery strategies (Tremblay-Huet & Lapointe, 2021). Undoubtedly, this responsibility should be a long-term approach for all service providers, local communities, and travellers as well, to reduce the spread of the virus and manage the contamination (Jamal & Budke, 2020).

Interestingly, the COVID-19 pandemic crisis is considered an exceptional opportunity to rearrange and readjust the tourism sector towards a new path for a better future. This means that the responsible approach is an essential requirement to reorient tourism to the public benefit (Higgins-Desbiolles, 2020). Additionally, Tremblay-Huet and Lapointe (2021) underscored that through the choices of responsible tourists, the impacts can be mitigated. Thus, tourists have a responsibility to follow the measures imposed by WHO and their national authorities to minimize transmission during and after their trip.

Methodology

Sampling Technique

A convenience sampling technique was used to collect the study data. It is a time-saving technique and allows the researcher to reach a huge number of respondents regardless of their geographic location. In

addition, the participants are free to complete the survey questionnaire at any time (An et al., 2019). The data of this study were collected from a total of 400 participants through an online questionnaire. Of the sample, 56% were females, 45.25% aged between 31–40 years old, 49% were single, 52% had a Bachelor degree and 43% of the respondents originated from the Middle East.

Data Collection

A quantitative approach was used in this research to collect data, as it is the most appropriate approach for the research subject. A questionnaire was conducted to realize the study's objectives and to answer the research questions. The questionnaire was shared online through social media (Facebook, WhatsApp) and some pages for travel bloggers and travel groups in order to reach a greater geographical and demographic sample. 420 questionnaires were received online in one month starting from 5th of May till 5th of June 2020. Twenty questionnaires were excluded due to incomplete responses so that 400 valid questionnaires were retained for data analysis.

Questionnaire Design

The questionnaire was written in English and translated to Arabic to increase the sample size and the rate of participation. The measurement items (34 items) were developed based on the existing measurement scales from the literature and previous studies but adapted to the current situation of the COVID-19 pandemic. Additionally, the questionnaire was anonymous and participation was voluntary.

The questionnaire was divided into three main sections to explore the expected changes and shifts in tourist behaviour post-COVID-19. In addition, it aims to investigate whether these changes will lead tourists toward responsible behaviour. The first section describes the socio-demographic characteristics of the respondents (e.g. gender, age, nationality, marital status, educational level, and job). The second section consists of six questions that explore the respondents' travel plans and destination choices following the COVID-19 pandemic. The third section includes 34 statements that highlight the tourists' behaviour

and preferences post-COVID-19 and their trend toward responsible travel post-COVID-19.

Data Analysis

Descriptive statistics such as frequencies and percentages were used to describe the respondents' socio-demographic characteristics and their travel plans and destination choices post-COVID-19. A Likert scale consisting of a five-point scale from one (strongly disagree) to five (strongly agree) was used and the importance of each statement for the travellers was determined by the value of its mean and standard deviation. Furthermore, exploratory factor analysis based on the principal component method was conducted to explore the factors determining responsible travel behaviour post-COVID-19. Accordingly, only the factors with an Eigenvalue greater or equal to one were considered essential (Luo & Deng, 2008).

Results and Discussion

Travel Plans and Destination Choice

Table 1 showed that most of the respondents (73%) used to travel between one to three times per year; 86.25% of them had a travel plan before the COVID-19 pandemic. Also, the results showed that 47.25% of

Table 1 Respondents' Travel Plan

Variables		<i>n</i>	%
Number of travels abroad per year	1–3 times	292	73.00
	3–6 times	65	16.25
	More than 6 times	43	10.75
Having a travel plan this year before COVID-19 crisis	Yes	345	86.25
	No	55	13.75
Concerning the respondent's plan after COVID-19 crisis	I cancelled it	103	25.75
	I postponed it	108	27.00
	I will decide after the travel bans are lifted	189	47.25
Planning to travel after the cancel. of COVID-19 meas.	Yes	222	55.50
	No	57	14.25
	I am not sure	121	30.25

Notes *N* = 400.

Table 2 Post COVID-19 Pandemic Destination Choice

Regions	Safest regions		Risky regions	
	<i>n</i>	%	<i>n</i>	%
African countries	102	25.50	25	6.25
European countries	12	3.00	89	22.25
USA	8	2.00	170	42.50
Asian countries	30	7.50	57	14.25
Middle East	33	8.25	39	9.75
Australia and New Zealand	130	32.50	11	2.75
Oceania and Pacific Islands	85	21.25	9	2.25
Total	400	100.00	400	100.00

the respondents will decide about their travel plans after the travel bans are lifted and 55.5% of them have a plan to travel after the cancellation of COVID-19 outbreak measures. This result is supported by Wachyuni and Kusumaningrum (2020) who highlighted that the traveller’s attitude to travel post-COVID-19 is positive and many of them have a plan after the travel bans are lifted. Overall, Assaf and Scuderi (2020) expected that the tourism industry will start again one year later after the COVID-19 pandemic, whereas Ivanova et al. (2021) explored the future behaviour of Bulgarian travellers and found that most of them have the intention to travel inside the region within two months. These results emphasize the importance of studying the market’s needs and tourists’ preferences post-COVID-19.

Concerning destination choice and tourist risk perception post-COVID-19, Table 2 showed that 32.5%, 25.5%, and 21.2% of the respondents considered Australia and New Zealand, African countries, Oceania, and the Pacific Islands, respectively, as the safest destinations to travel post-pandemic.

However, 42.5%, 22.2%, and 14.2% of the respondents considered the USA, European countries, and Asian countries respectively as the riskiest destinations to travel to post-COVID-19. This is clear evidence that the COVID-19 pandemic plays a significant role in various aspects of life and dominates where and how people spend their vacations (Bratić et al., 2021). These results are in accordance with Sönmez and Graefe (1998) who discussed that the tourist could change

his travel plan to avoid risky destinations and look for safer alternatives. Likewise, this certainly fits with Cahyanto et al. (2016), who mentioned that there is an evident relationship between travel behaviour and risk perception. Also, in the same study, he stated that tourists choose their destinations according to the reported cases and infection rate. In this respect, Chew and Jahari (2014) clarified that the risks which are related to health, for example viral infection, could affect destination choice and tourism providers.

Tourist Behaviour and Preferences Post-COVID-19

A list of 34 statements related to the travellers’ behaviour and preferences post-COVID-19 was provided to respondents. They were asked to indicate the importance of each statement, ranging from one to five (strongly disagree to strongly agree). The mean and standard deviations of the statements are shown in Table 3. The five top-ranked features are (with means): I now will not trust staying in rented apartments, Airbnb and hostels (4.19); I will prefer travelling by car, train or bus to travelling by plane (4.18); I will prefer booking with free cancellation (4.16); I will respect the social distancing in all places and while dealing with people (4.14); and I will accept passing a coronavirus test as a requirement to travel to some countries (3.98) (Table 3).

Exploratory Factor Analysis

Exploratory factor analysis was performed on the 34 statements to reveal any underlying patterns of responses. After factor loading, only 18 of 34 statements were retained and considered as essential due to their eigenvalue which was greater or equal to one (Luo & Deng, 2008). With a KMO value of 0.9448, the study sample showed good adequacy and reliability, as Hair et al. (2010) noted that a Kaiser-Meyer-Olkin (KMO) value greater than 0.6 indicates sampling adequacy.

The final analysis revealed three-factor solutions with a total variation of 71.78 %. These factor-solutions include tourist preferences, health and hygiene considerations, and destination choice. Table 4 showed the percentage of variance explained by each factor, in which Eigenvalues are greater than or equal to

Table 3 Travellers' Behaviour and Preferences Post-COVID-19

Statements	Mean	SD
I will prefer to travel solo	3.105	1.220
I will avoid travel with unknown groups of people	3.453	1.341
I will start to travel inside my home country (domestic travel)	3.338	1.222
In the case of feeling ill, I will avoid interaction with my family and friends for a while	2.758	1.207
I will start travelling by visiting my friends, family, and relatives in other cities	3.168	1.240
I tend to choose destinations depending on their natural and rural tourism-based activities rather than urban/mass destinations	3.470	1.182
There are some countries and regions that are very risky and I don't wish to visit them now	3.785	1.299
I will choose to travel to small cities rather than large cities and capitals	3.195	1.202
I will follow the social rules that apply at the places I visit	2.978	1.277
I will prefer environmentally friendly tours	3.518	1.110
I will give more attention to the reviews about the accommodation cleanness	3.943	1.157
I will prefer booking with free cancellation	4.163	1.109
I will seek comfort and hygiene rather than luxury in the accommodation	3.918	1.183
I will seek day trips and overnights as a short vacation	3.350	1.086
I will look for lower airfares and emptier planes	3.563	1.223
I will look for booking a flight ticket with more flexibility	3.850	1.149
I will book online all the attractions, activities and my tickets for internal tours to avoid waiting in queues	3.700	1.137
I will check and read carefully all the items covered by travel insurance to ensure that I will receive reimbursement during any travel ban	3.908	1.096
I will accept passing the coronavirus test as a requirement to travel to some countries	3.985	1.191
I will avoid eating street food during my trip	3.275	1.268
I will reduce dining out and I will prefer to order take away meals	3.218	1.195
I now will not trust staying in rented apartments, Airbnb, and hostels	4.190	1.117
I will give more time to free walking tours	3.765	1.128
I will prefer a different form of tourism, more respectful of the visited communities and nature	3.743	1.060
I will prefer to visit natural sites such as parks and beaches more than closed historical places	3.670	1.185
I believe my way of shopping will fundamentally change	3.353	1.175
I will respect social distancing in all places and while dealing with people	4.148	1.111
I will go out with my mask, gloves, and sanitizer	3.845	1.247
I will use mobile payment options more	3.753	1.170
I will write reviews about the hygiene and sanitation measures related to all the places I visited	3.493	1.146

Continued on the next page

one. With a total variance of 71.78%, factor one is explained by 38.68%, so this factor is the most significant determinant of responsible travel behaviour post-COVID-19. This factor (factor 1) is named tourists'

preferences and it includes 11 items and comprises the tourists' preferences, such as: flight booking, travel insurance, type of accommodation, means of transportation, booking attractions, and activities, and fol-

Table 3 Continued from the previous page

Statements	Mean	SD
I will write reviews about the hygiene and sanitation measures in the visited destination	3.605	1.182
I will send reviews about the management of the COVID-19 crisis in the visited destination	3.470	1.203
I will continuously check my health status	3.833	1.146
I will prefer travelling by car, train or bus to travelling by plane	4.185	1.146

Table 4 Factor Analysis of Responsible Traveller Behaviour Post-COVID-19

Statements	Factor 1	Factor 2	Factor 3	Com.
I will prefer booking with free cancellation	0.8074			0.2586
I will look for booking a flight ticket with more flexibility	0.7329			0.3169
I now will not trust staying in rented apartments, Airbnb, and hostels	0.7005			0.2028
I will check and read carefully all the items covered by travel insurance to ensure that I will receive reimbursement during any travel ban	0.6946			0.3070
I will give more attention to the reviews about the accommodation's cleanness	0.6790			0.2849
I will prefer travelling by car, train or bus to travelling by plane	0.6779			0.2853
I will seek comfort and hygiene rather than luxury in the accommodation	0.6560			0.2682
I will respect social distancing in all places and while dealing with people	0.6255			0.2013
I will look for lower airfares and emptier planes	0.6222			0.3476
I will accept passing the coronavirus test as a requirement to travel to some countries	0.5742			0.3852
I will book online all the attractions, activities and my tickets for internal tours to avoid waiting in queues	0.5562			0.4106
I will write reviews about the hygiene and sanitation measures related to all the places I visited (including hotels, restaurants, tourism sites)		0.8681		0.1298
I will write reviews about the hygiene and sanitation measures in the visited destination.		0.8532		0.1653
I will send reviews about the management of the COVID-19 crisis in the visited destination.		0.8358		0.2073
I will continuously check my health status.		0.5361		0.2692
I will start to travel inside my home country (domestic travel).			0.5543	0.5592
There some countries and regions that are very risky and I don't wish to visit them now.			0.5514	0.5691
I will choose to travel to small cities rather than large cities and capitals			0.5149	0.4009
Eigenvalue	14.4621	1.6881	1.4346	
Percentage of variance (total = 71.78)	38.68	23.41	9.69	
Cumulative variance percentage	38.68	62.09	71.78	
Cronbach's alpha (total = 0.9500)	0.9363	0.9113	0.6708	

Notes Factor 1: Tourist preferences, Factor 2: Health and hygiene considerations, Factor 3: Destination choice.

lowing COVID-19 measures. These results are in line with those obtained by Wilson and Chen (2020) and Chebli and Said (2020), who predicted that travellers will be aware of the importance of buying travel in-

surance which could cover various options, and also highlighted that travellers will look for more flexible booking means.

Additionally, these results are similar to the study

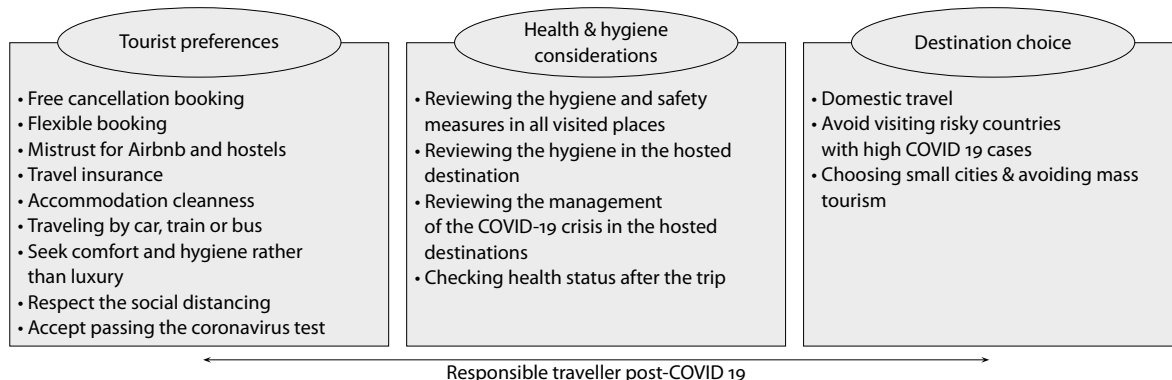


Figure 1 Determinant Factors of the Responsible Traveller Post-COVID-19

of Wachyuni and Kusumaningru (2020), who noted that travellers have become more careful about cleanliness and safety after the COVID-19 pandemic. Also, this is supported by the findings of Chebli and Said (2020), who explained that COVID-19 put hygiene and the cleanliness of accommodation, tourism facilities, services, and tourist attractions as a priority for travellers. Furthermore, these results are aligned with the study of Wen et al. (2005), who explained that during the SARS crisis in China, tourists started to travel domestically, especially in rural areas where social distance can be easily applied. They preferred travelling with family by car instead of by plane.

Factor two is named ‘Health and hygiene considerations,’ and comprises four items. The results reflected that travellers are very interested in the hygiene and sanitation measures in the visited destinations and they stated that they give their feedback about the management of the COVID-19 crisis in these destinations. This reflects that the travellers’ behaviour post-COVID-19 will be more responsible, not only during their trips but even after the trip. This finding comes in line with the study of Chebli and Said (2020) who stated that the health system, the quality of the offered care, and the management of the host destination during the COVID-19 pandemic have turned into significant factors that affect travel decisions.

Finally, factor three is named ‘destination choice’; it includes only three items. The items loaded are related to destination choices. The results showed that post-COVID-19 travellers prefer domestic travel, vis-

iting countries with low COVID-19 cases and small cities, and that they will avoid mass tourism. These aspects were examined by Lahood (2020), who clarified that the COVID-19 pandemic will influence tourists’ preferences and will change their choices. Also, it matches with the previous studies of Pizam and Fleischer (2002) and Rittichainuwat and Chakraborty (2009), who emphasized that tourists avoid choosing the countries and regions with safety risks, for instance, natural disasters, terrorism, or a pandemic outbreak. Similarly, this finding is affirmed by Floyd et al. (2004) and Chebli and Said (2020), who clarified that risk perception is an important aspect in decision making and also influences tourist behaviour. The values of each statement included in these above-mentioned three factors have a factor loading above 0.5.

It can be concluded that the concept of responsible tourism has been redefined following the COVID-19 era. Currently, health and sanitary considerations are the key factors that affect travel behaviour and tourist choices. Accordingly, the responsibility has become a sharing mission between tourists and destinations.

Conclusion and Recommendations

This study provided an exploratory overview of the changes in travel behaviour post-COVID-19. It highlighted the expected trends which will dominate the travel and tourism sector for the short and medium-term. The findings revealed that *the responsible travellers post-COVID-19 will be determined by three main*

factors: travel preferences, health and hygiene measures, and destination choices. Moreover, the study concluded that the contamination rate and the number of coronavirus cases might have a negative impact on tourist demand. This means that health/safety considerations and perceived risk are significant factors that affect destination choice following the COVID-19 crisis.

Significantly, the study also presented a new concept of the responsible traveller post-COVID-19 which highlights two aspects: the importance of health and hygiene considerations and the impact of travellers' choices on others and the destinations. Consequently, the study concluded that a responsible traveller is a person whose travel behaviour minimizes the risk of spreading the pandemic before, during, and after travel. This highlights the power of the traveller as a responsible decision-maker in the COVID-19 era. This pandemic has accelerated the transformation of worldwide tourism to a sustainable path which should be the new normal. Developing guidelines for responsible and safe travel post-COVID-19 could significantly help travellers to make responsible choices. To design these guidelines, the stakeholders should use mutual standards based on sustainability and responsibility to cope with any challenges in the future.

Recommendations for Service Providers Such As Hotels, Tour Operators, and Airlines

Depending on the above-mentioned findings, the service providers should make serious responses effectively and quickly. Presently, they face challenges to regaining the confidence of travellers. This requires adopting new policies related to refund/cancellation rules and hygiene measures. In addition, there is an urgent need to redesign the tourism products and offers to match with the new needs and expectations of tourists. In other words, service providers should re-examine their marketing mix carefully with regard to new preferences.

Recommendations for Destinations Marketers and Managers

The destination marketers should adopt, for instance, the strategy implemented by Asian countries, particularly Thailand, Hong Kong, Vietnam, and Singapore

after the SARS pandemic. This strategy is based on promoting these destinations as safe and responsible countries to repair their tourism images and attract visitors again. DMOS have to review their business model and launch innovative marketing and promotional campaigns to attract more tourists. It is important for DMOS to collaborate with public and private sectors to ensure a sufficient level of safety before and during travel.

In addition, it is essential for tourism managers and marketers to increase their communication efforts and use various channels. Finally, DMOS have to encourage stakeholders to spread the marketing messages aimed at responsible tourism post-COVID-19, trying to increase the awareness of tourists and promoting sustainable actions.

The Limitations and Future Research

The main limitations of this research are: firstly, this study has a time limitation as the data were collected at the beginning of the pandemic outbreak, and the effects of the pandemic may bring more changes in the travel and tourism industry. Secondly, the sample is limited as the author collected data through an online questionnaire and mainly from social media channels. Finally, this study has an obvious limitation as it only focused on the future trends and the changes in tourist behaviour.

Future studies could explore the relationship between tourist behaviour and the risk factors related to health. In addition, more studies should address the tourist profile and experience post-COVID-19. This could help the destinations and marketers to target the new tourists based on their new beliefs and perceptions after the COVID-19 crisis.

Lastly, future studies should explore the changes in travel behaviour post-COVID-19 in specific regions and nationalities and different market segments. This will help the service providers to design tourism products which will meet the tourists' expectations based on their socio-demographic characteristics.

References

Abdullah, M., Dias, C., Muley, D., & Shahin, M. (2020). Exploring the impacts of COVID-19 on travel behavior and

- mode preferences. *Transportation Research Interdisciplinary Perspectives*, 8, 100255. <https://doi.org/10.1016/j.trip.2020.100255>
- An, J., Do, D. K. X., Ngo, L. V., & Quan, T. H. M. (2019). Turning brand credibility into positive word-of-mouth: Integrating the signaling and social identity perspectives. *Journal of Brand Management*, 26(2), 157–175.
- Andrades, L., Dimanche, F., & Ilkevich, S. (2015). Tourist behavior and trends. In f. Dimanche & L. Andrades (Eds.), *Tourism in Russia: A management handbook* (pp. 101–130). Emerald Group Publishing.
- Andreini, D., & Mangiò, F. (2020). Back to the basics in the tourism marketing during Covid-19 emergency. In F. Burini (Ed.), *Tourism facing a pandemic: From crisis to recovery* (pp. 41–47). Università degli Studi di Bergamo.
- Ankomah, P. K., Crompton, J. L., & Baker, D. (1996). Influence of cognitive distance in vacation choice. *Annals of Tourism Research*, 23(1), 138–150.
- Assaf, A., & Scuderi, R. (2020). COVID-19 and the recovery of the tourism industry. *Tourism Economic*, 26(5), 731–733.
- Bae, S. Y., & Chang, P. J. (2020). The effect of coronavirus disease-19 (COVID-19) risk perception on behavioural intention towards 'untact' tourism in South Korea during the first wave of the pandemic (March 2020). *Current Issues in Tourism*, 24(7), 1017–1035.
- Bratić, M., Radivojević, A., Stojiljković, N., Simović, O., Juvan, E., Lesjak, M., & Podovšovnik, E. (2021). Should I stay or should I go? Tourists' COVID-19 risk perception and vacation behavior shift. *Sustainability*, 13(6), 3573. <https://doi.org/10.3390/su13063573>
- Cahyanto, I., Wiblishauser, M., Pennington-Gray, L., & Schroeder, A. (2016). The dynamics of travel avoidance: The case of Ebola in the US. *Tourism Management Perspectives*, 20, 195–203.
- Chebli, A., & Said, F. B. (2020). The impact of Covid-19 on tourist consumption behaviour: A perspective article. *Journal of Tourism Management Research*, 7(2), 196–207.
- Cheng, T. M., & Wu, H. C. (2015). How do environmental knowledge, environmental sensitivity, and place attachment affect environmentally responsible behavior? *Journal of Sustainable Tourism*, 23(4), 557–576.
- Chew, E. Y. T., & Jahari, S. A. (2014). Destination image as a mediator between perceived risks and revisit intention. *Tourism Management*, 40, 382–393.
- De Vos, J. (2020). The effect of COVID-19 and subsequent social distancing on travel behavior. *Transportation Research Interdisciplinary Perspectives*, 5, 100121. <https://doi.org/10.1016/j.trip.2020.100121>
- Estevão, C., & Costa, C. (2020). Natural disaster management in tourist destinations: A systematic literature review. *European Journal of Tourism Research*, 25, 2502. <https://ejtr.vumk.eu/index.php/about/article/view/417>
- Family Travel Association. (N.d.). *Family travel trends and research*. <https://familytravel.org/family-travel-trends-and-research/>
- Foreign & Commonwealth Office, Department for Transport, The Rt Hon Dominic Raab MP, and The Rt Hon Grant Shapps MP. (2020, March 23). *Foreign Secretary advises all British travelers to return to the UK now*. Gov.uk. <https://www.gov.uk/government/news/foreign-secretary-advises-all-british-travellers-to-return-to-the-uk-now>
- Fennell, D., & Malloy, D. (2007). *Codes of ethics in tourism, practice, theory, synthesis*. Channel View Publications.
- Floyd, M. F., Gibson, H., Pennington-Gray, L., & Thapa, B. (2004). The effect of risk perceptions on intentions to travel in the aftermath of September 11, 2001. *Journal of Travel & Tourism Marketing*, 15(2–3), 19–38.
- Goodwin, H., & Francis, J. (2003). Ethical and responsible tourism: Consumer trends in the UK. *Journal of Vacation Marketing*, 9(3), 271–284.
- Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1–20.
- H2R Market Research. (2020, June 26). *More post-pandemic travel trends to expect*. <http://news.h2rmarketresearch.com/news/2020/6/26/more-post-pandemic-travel-trends-to-expect>
- Hagoort, A. M. (2020). *Travel behaviour changes during times of COVID-19: A mixed methods research to the effects of COVID-19 on travel behaviour in the Netherlands* [Unpublished master's thesis]. Universiteit Utrecht.
- Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). *Multivariate data analysis: A global perspective* (7th ed.). Pearson.
- Han, H., Al-Ansi, A., Chua, B. L., Tariq, B., Radic, A., & Park, S. H. (2020). The post-coronavirus world in the international tourism industry: Application of the theory of planned behavior to safer destination choices in the case of US outbound tourism. *International Journal of Environmental Research and Public Health*, 17(18), 6485. <https://doi.org/10.3390/ijerph17186485>
- Haque, A. (2020). *COVID 19 and changes in travel behavior: Is there any 'new normal'?* https://www.academia.edu/43430446/COVID_19_and_Changes_in_Travel_Behavior_Is_there_any_New_Normal
- Higgins-Desbiolles, F. (2020). The 'war over tourism:' Chal-

- allenges to sustainable tourism in the tourism academy after COVID-19. *Journal of Sustainable Tourism*, 29(4), 551–569.
- Honey, M., & Stewart, E. (2002). The evolution of 'green' standards for tourism. In M. Honey (Ed.), *Ecotourism and certification* (pp. 33–71). Island Press.
- Ivanova, M., Ivanov, I. K., & Ivanov, S. (2021). Travel behaviour after the pandemic: The case of Bulgaria. *Anatolia*, 32(1), 1–11.
- Jamal, T., & Budke, C. (2020). Tourism in a world with pandemics: Local-global responsibility and action. *Journal of Tourism Futures*, 6(2), 181–188.
- Jover, J., & Díaz-Parra, I. (2020). Who is the city for? Over-tourism, lifestyle migration and social sustainability. *Tourism Geographies*, 24(1), 9–32.
- Karl, M., Muskat, B., & Ritchie, B. W. (2020). Which travel risks are more salient for destination choice? An examination of the tourist's decision-making process. *Journal of Destination Marketing & Management*, 18, 100487. <https://doi.org/10.1016/j.jdmm.2020.100487>
- Karl, M., Reintinger, C., & Schmude, J. (2015). Reject or select: Mapping destination choice. *Annals of Tourism Research*, 54(C), 48–64.
- Kim, M. J., Park, J. Y., Lee, C. K., & Chung, J. Y. (2017). The role of perceived ethics in the decision-making process for responsible tourism using an extended model of goal-directed behavior. *International Journal of Tourism and Hospitality Research*, 31(4), 5–25.
- Kock, F., Nørfelt, A., Josiassen, A., Assaf, A. G., & Tsionas, M. (2020). Understanding the COVID-19 tourist psyche: The evolutionary tourism paradigm. *Annals of Tourism Research*, 85, 103053. <https://doi.org/10.1016/j.annals.2020.103053>
- Lahood, B. (2020, June 10). *Destination marketing is not just about the recovery – It's now a long game*. PhocusWire. https://www.phocuswire.com/Destination-marketing-coronavirus-long-game?oly_enc_id=6344G1891512G4Z
- Li, J., Nguyen, T. H. H., & Coca-Stefaniak, J. A. (2020). Coronavirus impacts on post-pandemic planned travel behaviours. *Annals of Tourism Research*, 86, 102964. <https://doi.org/10.1016/j.annals.2020.102964>
- Li, X., Gong, J., Gao, B., & Yuan, P. (2021). Impacts of Covid-19 on tourists' destination preferences: Evidence from China. *Annals of Tourism Research*, 86, 103258. <https://doi.org/10.1016/j.annals.2021.103258>
- Luo, Y., & Deng, J. (2008). The new environmental paradigm and nature-based tourism motivation. *Journal of Travel Research*, 46(4), 392–402.
- Mair, J., Ritchie, B. W., & Walters, G. (2016). Towards a research agenda for post-disaster and post-crisis recovery strategies for tourist destinations: A narrative review. *Current Issues in Tourism*, 19(1), 1–26.
- Martin, D., Sirakaya-Turk, E., & Cho, W. (2013). International tourism behavior in turbulent times. *Journal of Business Research*, 66(6), 689–691.
- Matiza, T. (2020). Post-COVID-19 crisis travel behaviour: Towards mitigating the effects of perceived risk. *Journal of Tourism Futures*, 8(1), 99–108.
- Molloy, J., Schatzmann, T., Schoeman, B., Tchervenkov, C., Hintermann, B., & Axhausen, K. W. (2021). Observed impacts of COVID-19 on travel behaviour in Switzerland based on a large GPS panel. *Transport Policy*, 104(C), 43–51.
- 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*, 24(7), 1003–1016.
- Novelli, M., Gussing Burgess, L., Jones, A., & Ritchie, B. W. (2018). 'No Ebola . . . still doomed' – The Ebola-induced tourism crisis. *Annals of Tourism Research*, 70, 76–87.
- Papagiannakis, A., Baraklianos, I., & Spyridonidou, A. (2018). Urban travel behaviour and household income in times of economic crisis. *Transport Policy*, 65, 51–60.
- Perpiña, L., Prats, L., & Camprubí, R. (2020). Image and risk perceptions: An integrated approach. *Current Issues in Tourism*, 24(3), 367–384.
- 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.
- Polyzos, S., Samitas, A., & Spyridou, A. E. (2020). Tourism demand and the COVID-19 pandemic: An LSTM approach. *Tourism Recreation Research*, 46(2), 175–187.
- Prayag, G. (2020). Time for reset? COVID-19 and tourism resilience. *Tourism Review International*, 24(2–3), 179–184.
- Quilty, B. J., Clifford, S., Flasche, S., & Eggo, R. M. (2020). Effectiveness of airport screening at detecting travellers infected with novel coronavirus (2019-nCoV). *Eurosurveillance*, 25(5), 2000080. <https://doi.org/10.2807/1560-7917.ES.2020.25.5.2000080>
- Reichel, A., Fuchs, G., & Uriely, N. (2007). Perceived risk and the non-institutionalized tourist role: The case of Israeli student ex-backpackers. *Journal of Travel Research*, 46(2), 217–226.
- Responsibility. (N.d.). In *Lexico.com*. <https://www.lexico.com/definition/responsibility>
- Rittichainuwat, B. N., & Chakraborty, G. (2009). Perceived travel risks regarding terrorism and disease: The case of Thailand. *Tourism Management*, 30(3), 410–418.

- Sadique, M. Z., Edmunds, W. J., Smith, R. D., Meering, W. J., De Zwart, O., Brug, J., & Beutels, P. (2007). Precautionary behavior in response to perceived threat of pandemic influenza. *Emerging Infectious Diseases*, 13(9), 1307–1313.
- Sánchez-Cañizares, S. M., Cabeza-Ramírez, L. J., Muñoz-Fernández, G., & Fuentes-García, F. J. (2020). Impact of the perceived risk from Covid-19 on intention to travel. *Current Issues in Tourism*, 24(7), 970–984.
- Shamshiripour, A., Rahimi, E., Shabanpour, R., & Mohamadian, A. K. (2020). How is COVID-19 reshaping activity-travel behavior? Evidence from a comprehensive survey in Chicago. *Transportation Research Interdisciplinary Perspectives*, 7(3), 100216. <https://doi.org/10.1016/j.trip.2020.100216>
- Sharma, A., & Nicolau, J. L. (2020). An open market valuation of the effects of COVID-19 on the travel and tourism industry. *Annals of Tourism Research*, 83, 102990. <https://doi.org/10.1016/j.annals.2020.102990>
- Shi, K., De Vos, J., Yang, Y., & Witlox, F. (2019). Does e-shopping replace shopping trips? Empirical evidence from Chengdu, China. *Transportation Research Part A: Policy and Practice*, 122, 21–33.
- Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, 117, 312–321.
- Singh, V., Tech, M., Gupta, K., & Chakrabarty, N. (2020). *Psychological impacts on the travel behavior post-COVID-19*. Indian Institute of Technology Roorkee.
- Sinha, S., & Nair, B. B. (2020). Impact of COVID-19 on destination choice: An empirical study on sociodemographic determinants of future travel behaviour. *Anatolia*, 32(1), 128–131.
- Sönmez, S. F., & Graefe, A. R. (1998). Influence of terrorism risk on foreign tourism decisions. *Annals of Tourism Research*, 25(1), 112–144.
- Taylor, T., & Toohey, K. (2007). Perceptions of terrorism threats at the 2004 Olympic Games: Implications for sport events. *Journal of Sport & Tourism*, 12(2), 99–114.
- Tremblay-Huet, S., & Lapointe, D. (2021). The new responsible tourism paradigm: The UNWTO's discourse following the spread of COVID-19. *Tourism and Hospitality*, 2(2), 248–260.
- Tribe, J. (2002). Education for ethical tourism action. *Journal of Sustainable Tourism*, 10(4), 309–324.
- Uğur, N. G., & Akbiyık, A. (2020). Impacts of COVID-19 on global tourism industry: A cross-regional comparison. *Tourism Management Perspectives*, 36, 100744. <https://doi.org/10.1016/j.tmp.2020.100744>
- UNWTO. (2020a, March 26). *International tourist arrivals could fall by 20–30% in 2020*. <https://www.unwto.org/news/international-tourism-arrivals-could-fall-in-2020>
- UNWTO. (2020b, January 31). *UNWTO statement on the novel coronavirus outbreak*. <https://www.unwto.org/unwto-statement-on-the-novel-coronavirus-outbreak>
- UNWTO. (N.d.). *Impact assessment of the covid-19 outbreak on international tourism*. <https://www.unwto.org/impact-assessment-of-the-covid-19-outbreak-on-international-tourism>
- Vo Thanh, T. (2006). Time for risks: A marketing approach for a tourist destination in the face of the new global tourism context. *The Journal of Management Sciences*, 22(6), 35–45.
- 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*, 33(4), 67–76.
- Wang, F., Xue, T., Wang, T., & Wu, B. (2020). The mechanism of tourism riskperception in severe epidemic – The antecedent effect of place image depicted in anti-epidemic music videos and the moderating effect of visiting history. *Sustainability*, 12(13), 5454. <https://doi.org/10.3390/su12135454>
- Wen Z., Gu H., & Kavanaugh R. (2005). The impacts of SARS on the consumer behaviour of Chinese domestic tourists. *Current Issues in Tourism*, 8(1), 22–38.
- Wilson, M. E., & Chen, L. H. (2020). Travellers give wings to novel coronavirus (2019-nCoV). *Journal of Travel Medicine*, 27(2), taaa015. <https://doi.org/10.1093/jtm/taaa015>
- Wu, X., Nethery, R. C., Sabath, B. M., Braun, D., & Dominici, F. (2020). *Exposure to air pollution and COVID-19 mortality in the United States*. medRxiv. <https://doi.org/10.1101/2020.04.05.20054502>
- Yang, Y., Liu, H., Li, X. R., & Harrill, R. (2018). A shrinking world for tourists? Examining the changing role of distance factors in understanding destination choices. *Journal of Business Research*, 92(2), 350–359.
- Yeh, S. S. (2020). Tourism recovery strategy against COVID-19 pandemic. *Tourism Recreation Research*, 46(2), 188–194.