Understanding the Travel Risk Profile and Travel Intentions of Generation Z Amidst Covid-19

Dionisia Tzavara, Joshua Makinson, Persefoni Polychronidou, and Christos Grose

Abstract Travel restrictions as a result of COVID-19 have dramatically impacted international travel and tourism. The aim of this study is to explore the travel intentions of Generation Z consumers living in the UK, in light of Covid-19 and to understand their travel risk profile. Data is collected with the use of an online questionnaire distributed to Generation Z consumers living in the UK. We find that Generation Z are not inclined to avoid travel during Covid 19. Their perceptions about the travel risk associated with Covid 19 are relatively neutral and their self-efficacy is very high. They are confident travelling during Covid-19 is not posing a significant risk for their health, but they are concerned about passing the virus to a friend or to family who may be at risk. Our findings contribute to the understanding of the travel risk profile, intentions and concerns of Generation Z travelers during Covid-19.

Keywords Covid-19 · Generation Z · Travel risk · Travel intentions · International travel · Domestic travel

1 Introduction

The Covid-19 pandemic has had a dramatic impact on travel and tourism. According to UNWTO (2021a), despite the slight recovery that the travel and tourism sector demonstrated in June and July 2021 in comparison to earlier in 2021, "international

D. Tzavara (✉)
University of London Worldwide, London, UK
e-mail: dtzavara@gmail.com

J. Makinson
Management School, University of Liverpool, Liverpool, UK

P. Polychronidou
Department of Economic Sciences, International Hellenic University, Serres, Greece

C. Grose
Department of Accounting and Finance, International Hellenic University, Kavala, Greece

tourist arrivals (overnight visitors) in the first seven months of 2021 were 40% below the levels of 2020, and still 80% down when compared to the same period of pre-pandemic year 2019". As a result of the pandemic, international markets have experienced a dramatic downturn, and the travel and tourism sector is one of the sectors of the global economy impacted the most (Abbas et al. 2021; da Silva Lopes et al. 2021; UNWTO 2021a). Since the outbreak of the pandemic in 2020, governments across the globe have implemented travel restrictions of one form or another—ranging from completely or partially closed borders to requiring tourists to present some kind of Covid-19 test upon their arrival to the host country, to quarantine upon arrival at the host country. As a result of the new Omicron variant, travel restrictions that had been eased in previous months are now reinstated (Durbin 2021) and, as of November 2021, "still 98% of all destinations have some kind of travel restrictions in place" (UNWTO 2021b). These travel restrictions are limiting people's ability to travel and are putting on hold what seemed to be a (slow) restart of domestic and mainly international tourism.

Along with travel restrictions, additional measures have been put in place by countries, such as social distancing, closure of or restrictions to the operation of restaurants and bars, bans of public events, all of which are having an impact on the tourist experience. These travel and other restrictions impacting the tourism experience, along with concerns about contracting and transmitting the virus, are eroding travellers' confidence and impacting their intention to book holidays and travel (Abbas et al. 2021; Gossling et al. 2020; PWC 2020). As a result, airlines, travel agents, tour operators, hotels, and the entire tourism industry are experiencing a significant drop in business resulting in significant financial difficulty.

The demographic characteristics of travellers are impacting their travel behaviour and creating distinctive profiles of consumer behaviour across generations (Baltescu 2019). This has a direct or indirect impact on the travel and tourism industry which should take into account these demographic differences between generations in order to be able to understand the unique consumer behaviour of each generation and to meet the demand for travel and tourism (Robinson and Schanzel 2019). Younger travellers have their own unique risk profile. Research is suggesting that young travellers are characterised by a higher likelihood to take health risks due to low-risk perceptions regarding travel-related illness and infections (Ma et al. 2020; Aro et al. 2009). However, at the same time, younger generations have been found to be characterised by "an underlying desire for security" (Wood 2013, p. 1) and to show considerable concern for physical risk during travel (Dolnicar 2005). Research conducted by DCI (2020) is suggesting that compared to other generations, Generation Z expresses an increased concern about their health during travel amidst Covid-19 (DCI 2020).

The aim of this research is to explore the impact of Covid-19 on the travel intentions of Generation Z consumers. More specifically, we want to explore the travel risk perceptions of Generation Z in light of Covid-19, and to understand how concerns about Covid-19 are impacting their planning and purchasing of holidays. Generation Z are individuals born between 1995 and 2009 and, according to Euromonitor (2018), Generation Z accounted for 1.8 billion people or 24% of the global population in 2017. This generation of young consumers is anticipated to become, and remain,

the largest consumer group across all generations until 2030 (Euromonitor 2020). This makes it imperative for businesses operating in the travel and tourism sector to understand the travel intentions of this consumer group amidst Covid-19. Our study focuses on Generation Z consumers living in the UK at the time of the research. We find that Generation Z are not inclined to avoid travel during Covid 19. Their perceptions about the travel risk associated with Covid 19 are relatively neutral and their self-efficacy is very high. They are confident travelling during Covid-19 is not posing a significant risk for their health, but they are concerned about passing the virus to a friend or to their family who may be at risk. Our research contributes to the research about travel intentions and travel risk perceptions in light of Covid-19. As young Generation Z travellers are going to be the largest customer group in the years that follow, it is very important for the travel and tourism sector as well as for governments and organisations wishing to support a dynamic restart of the travel and tourism sector to gain insights into the needs, wants and concerns that shape the travel intentions of this group of consumers.

2 Literature Review

2.1 Travel and Risk

It is widely discussed and acknowledged in the travel and tourism literature that travel risk perceptions are a primary consideration in travel and vacation planning and decisions (Quintal et al. 2010; Cahyanto et al. 2016; Williams and Balaz 2015; Carballo et al. 2017; Huang et al. 2021). Williams and Balaz (2015) underline the centrality of risk in travel and vacation planning, arguing that "risk and uncertainty are inherent to, and provide lenses for deepening understanding of, tourism" (p. 271). Different types of risk have been associated with travel and tourism, such as for example, physical risk (Schiffman and Kanuk 2010; Roehl and Fesenmaier 1992; Maser and Weiermair 1998), financial risk (Schiffman and Kanuk 2010; Sonmez and Graefe 1998); psychological risk (Schiffman and Kanuk 2010; Sonmez and Graefe 1998); risk of natural disasters (Maser and Weiermair 1998); hygiene and health related risk (Cahyanto et al. 2016; Maser and Weiermair 1998; Lepp and Gibson 2003; Carballo et al. 2017) among others.

Travel risk considerations become more prominent following recent, negative events) and evidence is suggesting that recent crises and disasters are increasing travellers' concerns about health and safety during travel (Bergstrom and McCaul 2004; Cahyanto et al. 2016). Travel risk can be classified on the basis of the level of control over a negative event and the speed of onset of the negative event (Glaesser 2006). Also, according to Glaesser (2006), travel risk considerations enter travel and tourism planning and decisions in the form of two key factors: (i) the likelihood of a negative incident taking place and (ii) the damage resulting from the negative incident. The consequences of a choice or a behaviour have been found to impact travel

and tourism planning and decision making, with individuals using-costs benefit analysis in order to conduct travel risk assessment and make travel decisions (Williams and Balaz 2015; Cahyanto et al. 2016; Chien et al. 2017). Risk and safety are gaining importance in the travel and tourism booking process and tourists are more concerned about safety and security during travel.

The tourism industry is particularly susceptible to crises, disasters and exogenous threats which may increase the level of perceived travel risk, largely due to the nature of tourism and the tourism product. Tourism involves a level of information uncertainty, it is experiential in nature, it typically involves movement of tourists from one place to another and it involves social interaction (Arbulu et al. 2021; Cahyanto et al. 2016; Williams and Balaz 2015; Sirakaya and Woodside 2005). As a result, travel and vacation planning and decision making largely depends on perceptions of safety and security (Carballo et al. 2017).

2.2   Travel and Covid-19

The experiential nature of tourism and the movement and social interaction elements make tourism particularly susceptible to health crises such as pandemics and epidemics (Arbulu et al. 2021; Seabra et al. 2021; Cahyanto et al. 2016). Also, the industry has been dramatically impacted by measures taken to contain the virus and to limit its spread, such as travel restrictions (including closing of borders), advice to limit non-essential travel, quarantine measures, vaccination requirements, social distancing (including the closing or restrictions on bars, restaurants, and public events), etc. (Beck and Hensher 2020; Linka et al. 2020; Adekunle et al. 2020; Gossling et al. 2020; Movsisyan et al. 2021), all impacting people's ability to travel as well as the tourist and holiday experience.

Tourism has been impacted by health crises in the past, for example during the outbreak of SARS, H1N1, MERS, or Ebola. Research conducted on the impact of these health crises on travel and tourism suggested that the impact was more prominent for domestic travel and tourism of the affected countries and that global travel and tourism continued to grow despite these health crises (Gossling et al. 2020; Arbulu et al. 2021; Duro et al. 2021). As Gossling et al. (2020, p. 3) suggest, prior to Covid-19, "tourism as a system has been resilient to external shocks". However, Covid-19 has had an unprecedented impact on the travel and tourism industry. The impact of Covid-19 on the travel and tourism industry appears to be more devastating than World War II (da Silva Lopes et al. 2021) and the 2018 financial crisis (Duro et al. 2021). The unprecedented impact of Covid-19 on travel and tourism makes it imperative to understand the impact that the pandemic has on tourists travel intentions and planning and how these are impacted by travel risk perceptions.

There have been some studies exploring the travel intentions of tourists and travel risk perceptions since the outbreak of the pandemic. Huang et al. (2021) investigated the impact of Covid-19 on Chinese national's tourism preferences and found that Covid-19 has negatively impacted preference to travel to countries with a high

number of infections, and to geographically, administratively and culturally distant destinations. Also, the study found that Chinese tourists had less interest in all travel modes and forms in general and that tourists preferred shorter trips and shorter distances after Covid-19. Da Silva Lopes et al. (2021) used surveys conducted in the metropolitan area of Porto in Portugal to investigate tourists' risk perception before and during Covid-19. The authors found that the impact of Covid-19 was significant on how tourists perceive the risks of using public spaces and in the way they arrange tourist visits. Zhan et al. (2021) measured risk perceptions of Chinese travellers to Wuhan after the outbreak of the virus across different demographic dimensions and experiences and found that significant differences in risk perceptions were found in relation to attitudes such as "involvement in disease prevention control, losses suffered during the pandemic, and previous experiences of visiting Wuhan" (p. 1). Neuburger and Effer (2021) studied the impact of travel risk perception during Covid-19 on travel behaviour in the DACH region (Germany, Austria, Switzerland), aiming to understand changes in travel risk perceptions and behaviours toward changing, cancelling and avoiding travel. The study found that the outbreak of Covid-19 had a significant impact on travel risk perceptions and that avoiding or cancelling travel during the pandemic is highly associated with travel risk perception. Bae and Chang (2021) investigated the effect of risk perception on the travellers' intentions toward 'untact' tourism in South Korea during the Covid-19 pandemic. The study found a positive attitude toward 'untact' tourism stemming from travellers' concerns about theirs and their families' health and lives. None of these studies focuses on Generation Z consumers or UK residents.

A study which investigates the behaviour of Generation Z travellers during Covid-19 is Percic and Spasic (2021). More specifically, the study conducted an online survey among Generation Y and Generation Z consumers in order to explore travellers' preferences and opinions about organised travel during Covid-19. The authors found that respondents were less inclined to opt for organised travel arrangements post-Covid-19 and had an increased preference for self-directed travel. Also, the authors found that Generation Z travellers were even less interested in organised travel compared to Generation Y travellers. A second study investigating the impact of Covid-19 on the travel behaviour of Generation Z is Roncak et al. (2021). This research investigated the intention to travel during and after the pandemic outbreak, the safety concerns and changes in travel behaviour of Generation Z in the Czech Republic. The researchers found that respondents were not inclined to change their travel habits because of Covid-19 and that they would continue to travel internationally. They also found that the respondents prepared individual travel and accommodation rather than group travel, as a precautionary measure to reduce the risk of being exposed to Covid-19. These two studies did not look at travel risk perceptions of Generation Z travellers. Our research will complement existing research and will add to our understanding of travel intentions of tourists and travel risk perceptions since the outbreak of the pandemic.

2.3 Generation Z, Risk Behaviour and Travel

Generation Z, also referred to as the iGen and Gen Z, are individuals born between 1995 and 2010. According to research conducted by Bloomberg (Wood 2018), they were expected to "account for 2.47 billion people of the 7.7 billion inhabitants of planet Earth" by 2019, representing 32% of the world's population. Members of Generation Z are a very dynamic consumer group that is expected to become and remain the largest consumer group across all generation groups until 2030 (Euromonitor 2018). They are often referred to as true natives, as they are a generation born in a technologically advanced era and exposed to the internet, mobile devices and social media from a very young age (Baltescu 2019). As consumers, members of Generation Z are characterised by "(1) a focus on innovation, (2) an insistence on convenience, (3) an underlying desire for security, and (4) a tendency toward escapism" (Wood 2013, p. 1). Moreover, their consumption patterns become part of their identity and an experiential process for them, and they are more concerned about ethics, the environment and sustainability compared to previous generations (Turner 2015; Francis and Hoefel 2018; Baltescu 2019).

Generation Z consider travel as an important part of their lives and they make savings in order to travel (Seabra et al. 2021; Roncak et al. 2021). They are more open to travel, and travel and tourism are motivated by a desire for conviviality, socialisation and empowerment, a need for new and unique experiences and a sense of connectedness and desire to explore the world (Haddouche and Salomone 2018; Yeoman and McMahon-Beattie 2019; Niemczyk et al. 2019, Seabra et al. 2021). Generation Z is characterised by a desire for security (Wood 2013), a profound sense of anxiety and distrust (Robinson and Schanzel, 2019), and considers health and safety to be very important (Seemiller and Grace 2018). According to Duman et al. (2020, p. 217) Generation Z travellers "are not particularly looking for risk and adventure in their vacation choices and Covid-19 has increased their anxiety about travel (Roncak et al. 2021; DCI 2020)." According to DCI (2020), Generation Z are more concerned about travel during Covid-19 than Generation X and Boomers and getting sick during travel is a stronger hindrance for Generation Z than it is for Generation X and Boomers. At the same time, Generation Z has developed a sense of safety (Seabra et al. 2021, p. 467), their upbringing in an era of major crises, environmental, economic, political, security, has helped them develop coping mechanisms (Robinson and Schanzel, 2019, p. 129), they perceive themselves as above average when considering their health (Seemiller and Grace 2018) and they are more likely to engage in riskier travel than older generations (DCI 2020).

3 Data Collection

Data for the study were collected with the use of an online survey questionnaire distributed through JISC online surveys. The questionnaire included eight (8) demographic/profile questions designed to capture the profile of the participants and then used 5-point Likert scales (1 = extremely unlikely/strongly disagree to 5 = extremely likely/strongly agree) to capture participants' opinions on travel risk and their holiday preferences. The survey was based on Cahyanto et al. (2016) who used the Health Belief Model (HBM) to capture the dynamics of travel avoidance following Ebola in the U.S. More specifically, this study developed a framework on the basis of six factors, namely perceived travel risk, perceived susceptibility, perceived severity, self-efficacy, subjective knowledge and socio-demographics, to explain travel avoidance in the U.S. due to the Ebola epidemic. Also, our questionnaire captured participants' intention to travel to the following international destinations: Asia (except China); Canada; China; Europe; UAE, USA, Other. The list of international destinations was adapted from Seeman et al. (2019).

Our study population consisted of Generation Z consumers over the age of 18 residing anywhere in the UK at the time of the study. Generation Z tourists are considered a very dynamic consumer group and a very important consumer group for the future of the tourism and travel industry (Yeoman and McMahon-Beattie 2019). Statista (2015) estimated the size of the Generation Z population in the UK 14.5 million in 2015, so a minimum of 384 completed questionnaires would be representative of the population. Although the dynamic of Generation Z as a consumer group is recognized in the literature, there is limited academic literature examining their travel intentions and even fewer studies investigating the impact of Covid-19 on Generation Z travel and tourism habits. The online survey was disseminated via social media platforms and in particular Facebook and Instagram, and the data was collected in the summer of 2020. A total of 402 completed surveys were used for analysis.

4 Findings

4.1 Participant Profile

Females constituted the majority of the participants of this study, with 69.4% of 402 participants being female and the remaining 30.6% being male. Although female participants were more than double the male participants in this study, we still think that the number of male participants was representative. The study participants were primarily between the age of 21 and 23 (45%), followed by the age of 24 and 25 (36.3%), then 18 and 20 (14.9%), and 'other' (3.7%). More than two thirds of the study participants indicated that they had received higher education or vocational equivalent (71.4%), while 23.4% had A-Level education or equivalent vocational

experience. Caucasian participants represented 87.6% of the sample, followed by Asian or Asian British (6.5%), 'mixed ethnic group' (2.7%), and Black, African, Caribbean or Black British (2.2%), and 1% of the participants who reported that they were from another ethnic background. This is suggesting that all other ethnic origins, except White, were under-represented in our sample, and as a result our findings should be interpreted with caution. Most of the study participants were employed (59.7%), followed by students (33.6%), while only 6.7% of the sample indicated that they were unemployed at the time of data collection. At the time of data collection, the majority of the participants resided in England (85.6%), followed by Scotland (8%), Wales (2.5%) and only 1.2% of the study participants resided in Northern Ireland. Also, 11 participants did not indicate their country of residence in the UK. When asked how many times they had travelled internationally in 2019 the majority of the participants (48.3%) reported more than 3 times, followed by 45.5% who reported that they had travelled internationally 1–2 times in 2019, while only 6.2% reported that they did not make any international travel in 2019. This finding confirms the view that Generation Z perceives international travel as an important part of their lives (Seabra et al. 2021; Roncak et al. 2021). Finally, the majority of the respondents (33.8%) reported that their average vacation cost was between £400 and £599, followed by £800+ (28.6%), £600 and £799 (19.7%), £200 and £399 (16.2%) and finally, only 1.7% reported that their average vacation cost was between £0 and £199. Table 1 summarises the profile of the respondents.

4.2   International Travel Intention

We were interested in capturing the international travel intentions of the participants and we asked them how likely they were to travel internationally within the next 6 months and the next 12 months. The responses suggested that the study participants were less likely to travel internationally within the next 6 months compared to the next 12 months (mean responses 3.19 and 4.19 respectively). Also, we asked participants where they were more likely to travel for their next international trip. The responses suggested that Europe was the most likely next international destination, selected by 91.6% of the participants. China was the least likely next international destination, selected only by 8.4% of the participants. Table 2 summarises the participants' travel destination preferences.

4.3   Reliability of Test Results and Travel Risk Profile

In order to study the overall travel risk profile, the variables of the questionnaire were grouped in scales. More specifically, six scales were created from specific items of the questionnaire, and we used the responses to develop a score for each of the six scales. The scales, descriptive statistics, reliability estimates using Cronbach's α

Table 1 Profile of the respondents

Demographic characteristics	Variable	Frequency	Percentage (%)
Gender	Male	123	30.6
	Female	279	69.4
Age	18–20	60	14.9
	21–23	181	45
	24–25	146	36.3
	Other	15	3.7
Education	No qualifications	2	0.5
	Other qualifications: level unknown (including foreign qualifications)	2	0.5
	Qualifications at level 1 and below	2	0.5
	GCSE/O level grade A*-C	15	3.7
	A-levels, vocational level 3 and equivalents	94	23.4
	Higher education and professional/vocational equivalents	287	71.4
Race and ethnicity	Asian/Asian British	26	6.5
	Black/African/Caribbean/ Black British	9	2.2
	Mixed/multiple ethnic groups	11	2.7
	White	352	87.6
	Other ethnic group	4	1
Employment	Student	135	33.6
	Employed	240	59.7
	Unemployed	27	6.7
Country	England	344	85.6
	Northern Ireland	5	1.2
	Scotland	32	8
	Wales	10	2.5
	Missing values	11	2.7
International travel in 2019	None	25	6.2
	1–2 international trips	183	45.5
	3+ international trips	194	48.3
Average vacation cost	£0–£199	7	1.7
	£200–£399	65	16.2
	£400–£599	136	33.8
	£600–£799	79	19.7

Table 1 (continued)

Demographic characteristics	Variable	Frequency	Percentage (%)
	£800+	115	28.6

Table 2 International travel destination preferences

Travel to		Highly unlikely	Unlikely	Don't know	Likely	Highly likely	Missing values
Asia	Frequency	137	82	30	90	57	6
	Percent	34.1	20.4	7.5	22.4	14.2	1.5
Canada	Frequency	100	97	65	88	43	9
	Percent	24.9	24.1	16.2	21.9	10.7	2.5
China	Frequency	228	95	32	17	17	13
	Percent	56.7	23.6	8	4.2	4.2	3.2
Europe	Frequency	5	4	18	129	240	6
	Percent	1.2	1	4.5	32.1	59.7	1.5
UAE	Frequency	130	110	56	56	38	12
	Percent	32.3	27.4	13.9	13.9	9.5	3
USA	Frequency	137	89	49	67	54	6
	Percent	34.1	22.1	12.2	16.7	13.4	1.5
Other countries	Frequency	66	34	131	90	65	16
	Percent	16.4	8.5	32.6	22.4	16.2	4

and the F-statistic and p-value of ANOVA are indicated on Table 3. The reliability estimate using Cronbach's α is in all cases very satisfactory except the Perceived travel risk scale. All means between items are statistically different, as suggested by the F-statistic and p-value of each of the nine scales.

The study participants demonstrated a relative neutrality toward travel risk associated with Covid-19, as indicated by the overall mean score of 3.3436 of the Perceived Travel Risk scale. Interestingly, the respondents considered domestic travel almost as risky as international travel. Participants were rather neutral about the riskiness of air travel, even though they reported a relatively higher concern about travelling by air compared to other items of the scale, as indicated by the mean scores of the items *I am concerned about Coronavirus during travel by air right now* and *It is dangerous to travel internationally by air right now because of Coronavirus* (3.44 and 3.54 respectively).

Perceptions about the Perceived Susceptibility to Covid-19 were almost neutral, as indicated by the overall mean score of 3.0680 of this scale. The participants were less concerned about contracting the virus if they travelled within the next few weeks compared to if they travelled in general (mean scores of 2.90 and 3.47 respectively). Also, the participants were less concerned about contracting the virus if they travelled

Table 3 Scale statistics

	Scale	Number of items	Cronbach's α	Min	Max	Mean	Standard deviation	F-statistic	p-value
1	Perceived travel risk	10	0.581	10	46	33.436	5.167	50.280	0.00
2	Perceived susceptibility	5	0.807	5	25	15.340	3.832	59.106	0.00
3	Perceived severity	5	0.800	5	24	13.455	3.841	642.960	0.00
4	Self-efficacy	5	0.815	5	25	21.333	2.785	5.701	0.00
5	Pay for vacation safety	4	0.913	4	20	13.676	4.042	70.791	0.00
6	International travel in the next 6 and 12 months	2	0.814	2	10	7.375	2.430	326.95	0.00

in the UK compared to travelling internationally (mean responses of 2.74 and 3.23 respectively).

Our findings show that perceived severity of Covid-19 was relatively low, as indicated by the overall mean score of 2.6910 of this scale. More specifically, the participants were relatively neutral about how dangerous the virus is (mean response of 3.45), and they were even less worried about dying from the virus. The main concern for our participants was passing the virus to a member of their family or a friend who might die (mean response of 3.99).

The self-efficacy of the participants was very high, as suggested by the high overall mean score of 4.2666 of this scale. Our participants were very confident that they understood the health and prevention instructions that they knew how to avoid contracting the virus, and that they could identify the symptom and how to behave in case they were exposed to the virus.

In addition, the respondents were relatively neutral about paying more for safety during travel. The participants were less inclined to pay more for safety during travel in the UK (mean response of 3.04) and a little more inclined to pay more for safety during international travel (mean response of 3.58), during flying (mean response of 3.51) and at their hotel (mean response of 3.54). Finally, as indicated earlier, the participants reported that they were highly likely to travel internationally in the next 6 and 12 months. This was mainly driven by their intention to travel internationally in the next 12 months, while the participants were relatively neutral toward travelling in the next 6 months.

4.4   Independent Samples t-Test and ANOVA

We used independent samples t-test to compare the results on the five scales capturing the participants' travel risk profile across the two categories of the gender variable. The significance of the t-statistic on Table 4 being lower than 0.05 (p-value) provides evidence of a statistically significant difference between the two samples of gender, indicating larger differences in Perceived Travel Risk, Perceived Susceptibility, Perceived Severity and Pay more for Vacation Safety, between female and male participants.

Table 4
Independent-samples t-test

Scale	t-test	p-value
Perceived travel risk	−3.048	0.003
Perceived susceptibility	−3.092	0.002
Perceived severity	−3.433	0.001
Self-efficacy	0.157	0.875
Pay more for vacation safety	−2.101	0.037

Table 5 ANOVA

Scales	Variables	F	p-value
Perceived travel risk	International travel in 2019	5.952	0.003
Perceived susceptibility	International travel in 2019	3.767	0.024
Perceived severity	International travel in 2019	5.535	0.004
Self-efficacy	Average vacation cost	2.978	0.019
Pay more for vacation safety	International travel in 2019	6.455	0.002

In order to compare the five scales of the participants travel risk profile and variables with more than two categories, we apply the ANOVA procedure. Table 5 indicates which variables contribute the most to our cluster solution. Variables with large F values provide the greatest separation between clusters. In cases where the p-value is lower than 0.05, there is evidence that at least two means are different between them.

Specifically, regarding Perceived Travel Risk the respondents who have travelled 1–2 times in 2019 have higher scores than those who have travelled more than 3 times in 2019. The same difference appears in Perceived Susceptibility, Perceived Severity and intention to Pay more for Vacation Safety.

5   Discussion

Covid-19 has been characterised as an illness with a high potential risk and at the time of the study, the WHO (2022a) was reporting more than 35,000 daily deaths from the virus globally. Despite this, the research respondents were relatively neutral about Covid-19 being a frightening disease. This could be attributed to the fact that the virus is usually more severe for people over the age of 60 and for those with underlying medical conditions (WHO 2022b; CDC 2020). Our participants, being young and usually without conditions such as diabetes or cardiovascular disease, were less frightened about Covid-19. Also, the study participants considered the perceived severity of Covid-19 to be low. This is in line with Roncak et al. (2021), who are also reporting that their generation Z research participants were also neutral about the perceived severity of Covid-19. Earlier findings suggest that this generation perceive themselves as above average when considering their health (Seemiller and Grace 2018). What was a significant concern for our respondents was contracting the disease and passing it to a member of their family or a friend who might die. These findings are in line with Cahyanto et al. (2016) who also found that their study participants were neutral about the perceived severity of Ebola, but they were concerned about passing it to family and friends who might die of the disease.

Our findings show that the self-efficacy of the respondents was very high and they were very confident that they understood the health and prevention instructions, that they knew how to avoid contracting the virus, and that they could identify the symptom and how to behave in case they were exposed to the virus. Growing up in an era of major crises, environmental, economic, political, and security, has helped Generation Z develop coping mechanisms (Robinson and Schanzel 2019, p. 129) and to be more pragmatic (Francis and Hoefel 2018). Also, earlier research is suggesting that Generation Z considers health and safety to be very important (Seemiller and Grace 2018). As true digital natives and very comfortable with collecting information from many sources (Francis and Hoefel 2018; Merriman 2015), it is very likely that Generation Z are highly informed about Covid-19 and also feel very comfortable to be able to find more information, should this be needed, and this may be what's driving their self-efficacy.

The respondents were relatively neutral about the perceived travel risk associated with Covid-19 and they were almost neutral about their perceived susceptibility to Covid-19. Both these results could be related to the respondents' perceptions about how dangerous Covid-19 is and the severity of the virus, as well as their self-efficacy. The participants were relatively neutral about Covid-19 making travel risker and about being exposed to and contracting the virus if they travel. As a result, respondents were not inclined to refrain from travel and they reported that they were highly likely to travel internationally in the months following the study. Our findings are similar to those of Doncak et al. who also found that their Generation Z study participants were not inclined to change their travel behaviour because of Covid-19. In contrast with our findings, Neuburger and Effer (2021) found that their study participants' travel risk perception increased post-Covid-19. This could be attributed to two reasons: (i) the different demographic characteristics of our study and the profile of Generation Z travellers, and (ii) the timing of the Neuburger and Effer study, which was conducted in March 2020, immediately after WHO had declared Covid-19 a pandemic when the number of confirmed cases had started to increase and there was a lot of uncertainty about the virus.

We found that participants were very reluctant to travel to China for their next international trip and only a very small percentage of our study participants reported that they were likely or highly likely to travel to China for their next international trip. This is in line with Lu and Atadil (2021) who also found that US travellers were reluctant to travel to China after the outbreak of Covid-19 due to it being the first epicentre of the disease. China's hospitality sector was strongly impacted by the outbreak of the pandemic with hotel occupancy experiencing a dramatic drop in the early months of 2020, according to Hao et al. (2020). The country's image as a travel destination has been negatively impacted with fear of infection hampering tourists' intentions to travel to the country (Li et al. 2021). As earlier research on the impact of health crises on travel and tourism suggested, the impact of these health crises was more significant for the affected countries (Gossling et al. 2020; Arbulu et al. 2021; Duro et al. 2021) and the perceived travel risk of traveling to China, the first epicentre of the disease seems to be higher among travellers.

Participants reported some, but not a strong inclination to bear a cost in order to increase their safety during international travel, air flight and at their hotel accommodation as a reaction to Covid-19. Of course this is a plausible finding, in light of our findings about participants' perceived travel risk, perceived susceptibility, perceived severity and self-efficacy. This finding is suggesting that the price elasticity of the cost of these services for Generation Z travellers is low. However, given that we did not ask more specifically about bearing an extra cost to increase safety during travel amidst Covid-19, we believe that this issue might warrant more investigation.

Finally, we found that female participants reported higher concern about the travel risks associated with Covid-19, their susceptibility to the virus and the severity of the virus. Also, female participants were more likely to indicate an inclination to pay more for vacation safety, compared to male participants. Similar findings have been suggested by earlier studies. For example, Pericic and Spasic (2021) found that female travellers were more likely to organise travel on their own rather than group travel and to book private accommodation as additional measures to limit the risk of being exposed to and contracting Covid-19, compared to male travellers. Turnsec et al. (2020) also found that female study participants risk perception during travel was higher compared to male study participants. Cahyanto et al. (2016) also found that female participants were more likely to avoid travel due to Ebola. As Cahyanto et al. (2016, p. 200) are suggesting, this may be due to an increased 'ethic of care' associated with women and an increased perception of risk associated with infectious diseases.

Given the lack of studies conducted on COVID-19, the research increased critical understanding surrounding the problem highlighting possible solutions and recommendations. The findings suggest that Generation Z are more concerned with travelling internationally than domestically.

6 Conclusions and Recommendations

Our findings offer a clear insight into the perceptions and intentions of U.K. based Generation Z consumers about travel amidst the Covid-19 pandemic. Generation Z is a widely discussed population, but research on its travel intention and travel risk perceptions is limited, especially in relation to Covid-19. This generation of young travellers is anticipated to become, and remain, the largest consumer group across all generations, and it is expected to play a key role in the recovery of the travel and tourism industry. Given the scarcity of studies conducted on the travel behaviour of Generation Z travellers during COVID-19, our research increased critical understanding surrounding the subject. The findings suggest that perceptions of Generation Z relative to the risks associated with travel during Covid-19 and relative to their susceptibility to Covid-19 are relatively neutral. They do not consider Covid-19 as a severe disease and they feel very confident about understanding the virus being exposed to it and about handling the situation if they are exposed. Also, Generation Z will continue travelling. Although they suggest that they are less likely

to select certain destinations for their next international travel, they are not inclined to avoid international travel because of Covid-19.

Our study focused on the travel risk profile of Generation Z consumers in relation to Covid-19 and how this is impacting their travel intentions. We did not investigate at all other 'inconveniences' introduced to the travel experience as a result of Covid-19, such as for example, longer cues at airports, ports, museums and attractions, delays due to the introduction of additional checks and controls, the introduction of Covid-certificates for travel, and so on. Since Generation Z seem to be less concerned about the risk associated with travel during Covid-19, it would be interesting to investigate whether these other 'nuances' have an impact on their travel risk behaviour.

References

Abbas J, Mubeen R, Iorember PT, Raza S (2021) Exploring the impact of Covid-19 on tourism: transformational potential and implications for a sustainable recovery of the travel and leisure industry. Curr Res Behav Sci 2:1–11

Adekunle A, Meehan M, Rojas-Alvarez D, Trauer J, McBryde E (2020) Delaying the COVID-19 epidemic in Australia: evaluating the effectiveness of international travel bans. Aust N Z J Public Health 44(4):257–259

Aro AR, Vartti A, Schreck M, Turtiainen P, Uutela A (2009) Willingness to take travel-related health risks—a study among Finnish tourists in Asia during the avian influenza outbreak. Int J Behav Med 1668

Arbulu I, Razumova M, Rey-Maquieira J, Sastre F (2021) Measuring risks and vulnerability of tourism to the Covid-19 crisis in the context of extreme uncertainty: the case of the Balearic Islands. Tour Manag Perspect 39:1–16

Baltescu CA (2019) Elements of tourism consumer behaviour of Generation Z. Bull Transilvania Univ Brasov, Series V 12(1):63–68

Bae SY, Chang P-J (2021) 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. Curr Issue Tour 24(7):1017–1035

Beck MJ, Hensher DA (2020) Insights into the impact of COVID-19 on household travel and activities in Australia—the early days under restrictions. Transp Policy 96:76–93

Bergstrom RL, McCaul KD (2004) Perceived risk and worry: the effects of 9/11 on willingness to fly, United States. J Appl Soc Psychol 34(9):1846–1856

Cahyanto I, Wiblishauser M, Pennington-Gray L, Schroeder A (2016) The dynamics of travel avoidance: the case of Ebola in the U.S. Tour Manag Perspect 20:195–203

Carballo RR, Leon CJ, Carballo MM (2017) The perception of risk by international travellers. Worldwide Hospitality Tour Themes 9(5):534–542

CDC (2020) Assessing risk factors for severe COVID-19 illness. https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/assessing-risk-factors.html. Accessed 4 Mar 2022

Chien PM, Sharifpour M, Ritchie BW, Watson B (2017) Travelers' health risk perceptions and protective behavior: a psychological approach. J Travel Res 56(6):744–759

Da Silva Lopes H, Remoaldo PC, Ribeiro V, Martin-Vide, J. (2021) Effects of the Covid-19 pandemic on tourist risk perceptions—the case study of Porto. Sustainability 13(6399):1–29

DCI (2020) Post-Covid-19: generational divides in travel planning. https://aboutdci.com/wp-content/uploads/2020/04/Generation-Report-Final-2020.pdf. Accessed 5 Jan 2022

Dolnicar S (2005) Understanding barriers to leisure travel: tourist fears as a marketing Basis. J Vacation Mark 13(3):197–208

Duman T, Erkaya Y, Topaloglu O (2020) Vacation interests and vacation type preferences in Austrian domestic tourism. J Travel Tour Mark 37(2):217–245

Durbin A (2021) Covid: new omicron travel rules come into force. The BBC. https://www.bbc.com/news/uk-59558131. Accessed 9 Dec 2021

Duro JA, Perez-Laborda A, Turrion-Prats J, Fernandez-Fernandez M (2021) Covid-19 and tourism vulnerability. Tour Manag Perspect 38:1–12

Euromonitor (2018) Generation Z: the next wave of consumers. https://www.euromonitor.com/generation-z-the-next-wave-of-consumers/report#:~:text=Generation%20Z%20is%20the%20youngest,part%20of%20their%20business%20strategy. Accessed 23 Mar 2020

Euromonitor (2020) Converging megatrends: key strategies to deploy in this era of influencer marketing. https://www.euromonitor.com/converging-megatrends-key-strategies-to-deploy-in-this-era-of-influencer-marketing/report. Accessed 23 Mar 2021

Francis T, Hoefel F (2018) 'True Gen': Generation Z and its implications for companies. McKiney & Company. https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/true-gen-generation-z-and-its-implications-for-companies. Accessed 5 Jan 2022

Glaesser D (2006) Crisis management in the tourism industry, 2nd edn. Butterworth-Heinemann, Oxford

Gossling S, Scott D, Hall CM (2020) Pandemics, tourism and global change: a rapid assessment of COVID-19. J Sustain Tour 29(1):1–20

Haddouche H, Salomone C (2018) Generation Z and the tourist experience: tourist stories and use of social networks. J Tour Futures 4(1):69–79

Hao F, Xiao Q, Chon K (2020) COVID-19 and China's hotel industry: impacts, a disaster management framework, and post-pandemic agenda. Int J Hospitality Manag 90. https://doi.org/10.1016/j.ijhm.2020.102636

Huang SS, Shao Y, Zeng Y, Liu X, Li Z (2021) Impacts of COVID-19 on Chinese nationals' tourism preferences. Tour Manag Perspect 40:1–10

Lepp A, Gibson H (2003) Tourist role, perceived risk and international tourism. Ann Tour Res 30(3):606–624

Li Z, Zhang S, Liu X, Kozak M, Wen J (2021) Seeing the invisible hand: underlying effects of Covid-19 on tourists' behavioral patterns. J Destination Mark Manag 18:1–12

Linka K, Rahman P, Goriely A, Kuhl E (2020) Is it safe to lift COVID-19 travel bans? The Newfoundland story. Comput Mech 1–29

Lu Q, Atadil HA (2021) Do you dare to travel to China? An examination of China's destination image amid the COVID-19. Tour Manag Perspect 40. https://doi.org/10.1016/j.tmp.2021.100881

Ma T, Heywood A, MacIntyre CR (2020) Travel health risk perceptions of Chinese international students in Australia—implications for COVID-19. Infect Disease Health 25(3):197–204

Maser B, Weiermair K (1998) Travel-decision making: from the vantage point of perceived risk and information preference. J Travel Tour Mark 7(4):107–121

Merriman M (2015) What if the next big disruption isn't a what but a who. Gez Z is connected, informed and ready for business. Ernst & Young LLP. https://assets.ey.com/content/dam/ey-sites/ey-com/en_gl/topics/digital/ey-rise-of-gen-z-new-challenge-for-retailers.pdf. Accessed 4 Mar 2022

Movsisyan A, Burns J, Biallas R, Coenen M, Geffert K, Horstick O, Klerings I, Pfadenhauer LM, von Philipsborn P, Sell K, Strahwald B, Stratil JM, Voss S, Rehfuess E (2021) Travel-related control measures to contain the COVID-19 pandemic: an evidence map. BMJ Open 11:1–24

Neuburger L, Effer R (2021) Travel risk perception and travel behaviour during the COVID-19 pandemic 2020: a case study of the DACH region. Curr Issue Tour 24(7):1003–1016

Niemczyk A, Seweryn R, Smalec A (2019) Z Generation in the international tourism market. In: 38th international scientific conference on economic and social development, Rabat, 21–22 March 2019

Percic K, Spasic N (2021) How millennials and generation Z organise travel during COVID-19 pandemic. Hotel Tour Manag 9(2):79–94

PWC (2020) How to restore confidence in travel during an uncertain time. https://www.pwc.com/us/en/industries/consumer-markets/library/how-to-restore-confidence-in-travel-during-covid-19.html. Accessed 4 Mar 2022

Quintal VA, Lee JA, Soutar GN (2010) Risk, uncertainty and the theory of planned behavior: a tourism example. Tour Manage 31(6):797–805

Robinson VR, Schänzel HA (2019) A tourism inflex: Generation Z travel experiences. J Tour Futures 5(2):127–141

Roehl WS, Fesenmaier DR (1992) Risk perceptions and pleasure travel: an exploratory analysis. J Travel Res 30(4):17–26

Roncak M, Scholz P, Linderova I (2021) Safety concerns and travel behavior of Generation Z: Case study from the Czek Republic. Sustainability 13:1–17

Schiffman L, Kanuk L (2010) Consumer behavior: Global edition. Pearson Education, London

Seabra C, AlAshry M, Cinar K, Raja I, Reis M, Sadiq N (2021) Restrictions's acceptance and risk perception by young generations in a COVID-19 context. Int J Tour Cities 7(2):463–491

Seeman N, Goldfarb D, Kuzan E, Seeman M (2019) Feasibility of obtaining sufficient numbers of responses to questions about travel intentions, thereby facilitating effective health messaging. Int J Travel Med Global Health 7(2):48–52

Seemiller C, Grace M (2018) Generation Z. A Century in the Making. Routledge, Oxon

Sirakaya E, Woodside AG (2005) Building and testing theories of decision making by travellers. Tour Manage 26:815–832

Sonmez SF, Graefe AR (1998) Influence of terrorism risk on foreign tourism desitions. Ann Tour Res 25(1):112–144

Statista (2015) Population of different generations in the United Kingdom (UK) in 2015. https://www.statista.com/statistics/528577/uk-population-in-millions-by-generation/. Accessed 26 Mar 2020

Turner A (2015) Generation Z: technology and social interest. J Individ Psychol 71(2):103–113

Turnsec M, Brumen B, Rangus M, Gorenak M, Mekinc J, Lesnic Stuhek T (2020) Perceived threat of Covid-19 and future travel avoidance: results from an early convenient sample in Slovenia. Academica Turistica 13(1)

UNWTO (2021a) UNWTO world tourism barometer and statistical annex, September 2021. https://doi.org/10.18111/wtobarometereng.2021.19.1.5. Accessed 9 Dec 2021

UNWTO (2021b) New Covid-19 surges keep travel restrictions in place. https://www.unwto.org/news/new-covid-19-surges-keep-travel-restrictions-in-place. Accessed 9 Dec 2021

Williams AM, Balaz V (2015) Tourism risk and uncertainty: theoretical reflections. J Travel Res 54(3):271–287

WHO (2022a) WHO Coronavirus (Covid-19) dashboard. https://covid19.who.int/. Accessed 4 Mar 2022

WHO (2022b) Coronavirus disease (Covid-19). https://www.who.int/health-topics/coronavirus#tab=tab_1. Accessed 4 Mar 2022

Wood J (2018) Generation Z will outnumber Millennials this year. The World Economic Forum. https://www.weforum.org/agenda/2018/08/generation-z-will-outnumber-millennials-by-2019/. Accessed 05 Jan 2022

Wood S (2013) Generation Z as consumers: trends and innovation. NC State University, Institute for Emerging Issues. https://helenagmartins.files.wordpress.com/2019/04/genzconsumers.pdf. Accessed 27 Feb 2022

Yeoman IS, McMahon-Beattie U (2019) The experience economy: micro trends. J Tour Futures 5(2):114–119

Zhan L, Zeng X, Morrison AM, Liang H, Coca-Stefaniak A (2021) A risk perception scale for travel to a crisis epicentre: visiting Wuhan after COVID-19. Curr Issue Tour. https://doi.org/10.1080/13683500.2020.1857712