

TOURISM AND TRAVEL EXPOSURE DUE TO THE THREAT OF COVID 19

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ABSTRACT

The purpose of this review is to analyze scientific research and articles on the impact of the crisis COVID 19 on tourism. The review aims to provide a new and comprehensive look at the impact COVID 19 on the travel industry. It includes the findings of research on the risks and safety of tourism and travel that have been redefined by the COVID 19 crisis. Consequences The COVID 19 article places it in the broader context of tourism and travel, as a multi-faceted perspective on the operation of tourism during a pandemic. A review of the research shows that we cannot readily predict how the general population will behave in terms of their future travel avoidance, as tourists are susceptible to contextual factors in future travel decisions, such as health safety guarantees offered by the tourism industry. Understanding how the COVID -19 crisis affects travel provides insight into the problems that an infectious disease outbreak poses for the tourism sector. The findings provide additional suggestions for research into the impact and consequences of pandemics on tourism and travel, as well as suggestions for dealing with COVID -19 and other pandemics.

Keywords: COVID-19, tourism, travel, health threat perception, future travel avoidance

INTRODUCTION

The global spread of the COVID -19 pandemic and the widespread travel restrictions and conditions of social distancing have had a severe impact on tourism and the travel industry, leading to the worst recession in the global economy since World War II (World Bank, 2020). The crisis COVID -19 can be defined as an unexpected, random shock, a sudden halt in world society and economy, a significant disruption in economic activity, and long-term damage to the workforce (Karabakh, 2020; Orłowski, 2020). The consequences of the pandemic include international travel bans affecting more than 90% of the world's population, which have led to widespread restrictions on public gatherings and the mobility of individuals. The COVID -19 pandemic crisis has had the most severe and devastating impact with a global loss of 3.8 million lives. (Johns Hopkins University, 2021). With the declaration of pandemic, caused by the spread of COVID-19 disease, the world is experiencing the biggest lock-down in the last decades, also affecting the developed countries of the western hemisphere. WHO has released the information that COVID-19 disease is characterized as a pandemic on March 11th 2020, thus calling for action on global level to fight against the disease. Even though this pandemic is not the first nor the only one of the 21st century (Mathis, Briand, & Prentice, 2015), the world is facing the global health crisis unlike any in the last 75 years (UN 2020). Travel industry is amongst the first and most hit industries by the pandemic (OECD, 2020). Countries have taken different measures to limit the spread of the disease, including total or partial lock-down, strict limitations for meetings of people on public and closed public and private places, limited free mobility of residents and execution of services. Latest report by UNWTO shows, that 96 % of global destinations have imposed travel restrictions (UNWTO, 2020).

Pandemic is in literature classified as one of the five major categories of disasters, next to political events, natural disasters, financial event and man-made events and travel and tourism sector have suffered the hardest hit so far by series of pandemic and epidemics like avian flu and swine flu, which have occurred in 21st century (Bhati, Upadhyaya, & Sharma, 2016). Tourism industry has proven to be vulnerable to national disasters, even though on global level such downturns are not always visible (UNWTO, 2011). Considering modern development of tourism and latest events related to pandemic, tourism sector is expecting major challenges in the nearest future. Compared to usual asymmetric distribution of impact of economic recession, the impacts of pandemics are symmetrical. With COVID-19 related measures, tourism was practically suspended. According to UNWTO (UNWTO, 2020), 93% of destinations in Europe (as of 6 April) have adopted COVID-19-related restrictions since January 2020. Europe as a destination alone represents still more than 50 % of all international tourist arrivals, and Americas additional 15 % (UNWTO, 2019).

REVIEW

Safety and security have become key criteria in global travel decisions. The global importance and dimension of tourism as an economic activity have caused safety concerns not only to affect the individual and his or her travel choices, but also the economic and political stability of entire regions. Chen in Bajpai (2000) argue that the term human security directs the concept of security towards the survival, well-being, and freedom of people. Contrary to Chen in Bajpai (2000) Inglehart and

Norris (2012) refer to the concept of human security as a security concept that seeks to ensure the security of individuals and communities where there is a lack of agreement on its definition of content between "freedom from fear" and "freedom from desires".

In the United Nations Human Development Survey (Bajpai, 2000; Oberleitner, 2002; Paris, 2001), human security also refers to the protection of personal safety and individual freedom against diseases that we define as indirect violence and set them aside, underdevelopment, environmental degradation, overpopulation, wars and refugee crises. The COVID-19 pandemic has highlighted the extreme vulnerability of global population, both economically and physically. Protective policies are needed to reduce risks to the most vulnerable sections of the population. (Moussa, 2001). Notes that human security is an acknowledgment of the right of people and nations to an equal share of global economic, social and political development and protection against threats arising from their own and other countries.

The fact that global security crises prove the inseparable interdependence of tourism with security, (Mekinc & Dobovšek, 2011). complements finding that tourism has a very small impact on peace and security at the macro level, and that tourism is very dependent on security, as also claimed by (Hall, Dallen, & Duval, 2003). This is additionally confirmed by the findings of (Mansfeld & Korman, 2015). WHO emphasize that the seemingly safe and developing tourism environment is very fragile since the reason for the restoration of an environmental safety is not in the development of tourism, but in the fields of politics, economy and society, which together must first create safe conditions for the development of tourism in an environment. The COVID-19 pandemic has shown that the global health crisis as a security threat has hit global tourism and travel particularly hard. When security threats occur at or near tourist destinations, this is generally reflected in a decline in the number of tourist arrivals in the wider area of influence. However, if the security threat is global, the imbalances in global tourism are even more affected. The reasons for this are mainly the global information networking of the world, which can transmit information from one end of the world to the other in real-time. Thus, information on escalating security threats rounds off potential tourists' homes in real-time and discourages them from making a travel decision (Kurež, 2011). A characteristic of the COVID-19 pandemic, as a global security crisis, is also the stringent action taken by countries regarding movement, border crossings, closure of service activities, which hinders most tourism activities.

Global security threats, such as a pandemic, do not arise on their own but are a product of the security environment and its instability, which in COVID-19 is reflected in the development of individual health systems. International measures and proactive action will need to be taken to prevent and limit global health crises. As (Kurež, 2011). notes, the international community has many resources at its disposal to deal with security threats in tourism. The risks and threats need to be identified first, followed by risk and threat management. Proposals for security improvements should be based on an audit of the existing situation, which requires a thorough and in-depth analysis of vulnerabilities and security risks exposures, both internally and externally. Global risk management refers not only to the coherence of international measures but also to the understanding of individual countries' responsibilities to limit or counteract the security threat (Ivanuša, Lesjak, Roša, & Podbregar, 2012). In travel research, risk perception has long been recognized as one of the main

predictors of travel intentions, with early research focusing on the topic of general risk perception, see e.g. (Roehl & Fesenmaier, 1992; Sönmez & Graefe, 1998a) and becoming more case-focused in the last millennium. Risk perception is often researched in the context of destination image, with perceived safety being one of the common indicators of overall destination image measures, e.g. (Karl, 2018b; Kim, Leht, & Kandampully, 2019; Tavitiyaman & Qu, 2013; Tsiotsou, Ratten, Byon, & Zhang, 2010).

Health related risk perception, however, received a relatively smaller focus in travel research to date. (Yang & Nair, 2014). performed a content analysis of 46 articles on risk and perceived risk. Out of the 46 articles, only one was specifically focused on health risks - Atherton and (Wilks, 1994). while not including risk perceptions. From 42 risk factors involved in travel identified by (Mitchell & Vassos, 1998). in their “classic” study, none was related to health risks. At the time, the terrorism and sociocultural risk emerged as the most significant predictors of travel anxiety, with health risks remaining in the background (Reisinger & Mavondo, 2005).

As (Seabra, Dolničar, Abrantes, & Kastenholtz, 2013). point out, the past 50 years of study on risk perception reveal difficulties in operationalizing this concept, mostly because risk perceptions are specific to each situation, and should therefore be evaluated using measurement instruments appropriate to the decision-making context. Twenty years ago, Sönmez and (Graefe, 1998). Tested which types of risk are most often associated with tourism to specific destinations. These were financial, psychological, satisfaction, and time risks. Resinger and (Mavondo, 2005). defined perceived risk as one’s perceptions of the uncertainty and negative consequences of buying and consuming traveling services and at the destination. Perceived health risks were measured with one item: “possibility of becoming sick while travelling or at destination” (measured on a 7-point scale; 1 = none; 7 = very high). In their study it showed to be a part of a common factor named “health and financial risk” including also physical, financial and functional risk perceptions – reflecting the relative lesser importance of health-related risks in the overall perception of travel risks and its measurements.

Health related risks were in the past thus analysed primarily through the prism of becoming sick while travelling - what (Hunter-Jones et al. 2008). termed “everyday types” of health hazards while travelling. It was only after the foot and mouth disease outbreak affecting the livestock in UK (Frisby, 2003; Sharpley & Craven, 2001) and SARS and the bird flu epidemics (Mao, Ding, & Lee, 2010) that the fear of pandemics, or “crisis health hazards” (Hunter-Jones et al., 2008) started to be more prominently recognized in travel research. Both Seabra et al., 2013). (Yang & Nair, 2014). For example, mention “fear of pandemics”, “health threats such as influenza” or “a number of major tragedies, including the SARS outbreak” as main arguments on as to why risk perception should be analyzed in travel research but do not include any measures in their research.

Perceived threat is recognised as one of the main independent variables affecting one’s risk aversive behaviour also in relation to SARS pandemic (Brug, Aro, & Richardus, 2009; R. D. Smith, 2006; Vartti et al., 2009). The analysis of SARS specific travel literature (Aro, Vartti, Schreck, Turtiainen, & Uutela, 2009; Moreira, 2004, 2008; Rittichainuwat & Chakraborty, 2009; Zeng, Carter, & De Lacy, 2005) shows that more specific measures regarding perceived threats and pandemics were included, yet remained only at the level of comparing one disease against

another. For example, (Rittichainuwat & Chakraborty, 2009). included questions on perceived risks for three types of disease: SARS, Bird flu, and Anthrax, but did not include a more in-depth measure of perceived risks related to these types of disease.

What the COVID-19 pandemic at the moment calls for are more specific analyses of the extent to which the COVID-19 is perceived as a health risk and how this affects travel intentions. In order to analyse risk perception of COVID-19 more in-depth, we turned to measures in the promotion of health behaviour. While travel research recognises the importance of communicating safety information to the travellers (Abrams, Leong, Melena, & Teel, 2020; Wang & Lopez, 2020), the COVID-19 reflects a globally unprecedented need for public health risk communication of which we are currently witnessing the first analyses (Abrams et al., 2020; Zhang, Li, & Chen, 2020). An important area of research is so called threat or fear appeals (Dillard & Li, 2020; Yuen, Li, Ma, & Wang, 2020) with disease being a common threat in public fears appeals such as anti-smoking campaigns (Pechmann, Zhao, Goldberg, & Reibling, 2003). Following the protection motivation theory (Floyd, Prentice-Dunn, & Rogers, 2000; Rogers, 1975) and the extended parallel process model (Maloney, Lapinski, & Witte, 2011; Witte, 1992) we can identify what (Seabra, et al., 2013). term a more context-specific, more in-depth definition and measurement of risk perception in relation to COVID-19 pandemic.

(Rogers, 1975). was amongst the first to identify the two dimensions of perceived threat: (a) the magnitude of noxiousness of a depicted event ("*Severity of the threat*") and (b) the probability of that event's occurrence ("*Susceptibility or vulnerability to the threat*"). The literature review within tourism studies shows that various individuals perceive travel risk differently and react to in distinctive ways (Garg & Kumar, 2017; Karl, 2018, 2018; Yang & Nair, 2014), especially when from different cultural backgrounds (Le Serre, Legoh  rel, & Weber, 2013; Matyas et al., 2011; Park & Reisinger, 2010; Qi, Gibson, & Zhang, 2009; Reisinger & Mavondo, 2006a, 2006b; Vartti et al., 2009). Furthermore, even within the same nation or age group, tourists are heterogeneous in terms of their risk perception (Karl, 2018; Seabra et al., 2013; Wantono & McKercher, 2020). While risk is generally studied as a factor that increases risk aversive behaviour, it is important also to note that for some people risk includes higher motivation to seek risky behaviour - a point of research covered especially within the area of sensation seeking personality trait and tourism (Lepp & Gibson, 2003, 2008; Pizam et al., 2004; Pizam, Reichel, & Uriely, 2001).

In terms of demographic factors, risk perception is related to factors such as life stage, gender, nationality, education, and social class (Gibson & Yiannakis, 2002; Karl, 2018b; Lepp & Gibson, 2003, 2008; Matyas et al., 2011; Park & Reisinger, 2010; Pizam et al., 2004; Pizam et al., 2001; Qi et al., 2009; Reisinger & Mavondo, 2005, 2006a, 2006b; Roehl & Fesenmaier, 1992; S  nmez & Graefe, 1998). (Yang & Nair, 2014). study deals with 15 internal factors that can influence tourists' risk perception, categorized into four dimensions. The nationality and past experience were found to be the most significant factors shaping tourists' risk perception.

Regarding age, (S  nmez & Graefe, 1998). found that age did not influence an individual's perception of travel related risk, which was also confirmed by the work of Garg and (Kumar, 2017). However, (Gibson & Yiannakis, 2002). found that preference for risk related tourism tended to decrease with age. These were the results of many other research as well (Hajibaba, Gretzel, Leisch, & Dolnicar, 2015;

Hallahan, Faff, & McKenzie, 2004; Lepp & Gibson, 2003; Pizam et al., 2004; Reisinger & Mavondo, 2006a, 2006b; Williams & Baláž, 2013). Williams and Baláž (2013) highlight that the general health and safety factor tended to be significantly more important for older people. With age riskier travel forms decrease and was explored within the non-institutionalised forms of tourism (explorers and drifters) (Cohen, 1973), such as backpacking (Carr, 2001; Elsrud, 2001) and budget travelling (Riley, 1988). (Hajibaba et al. 2015). found that tourists who are extremely resistant to risk with high risk-taking propensities are generally younger than other tourists with a more risk averse behaviour. According to (Pizam et al. 2001). “Young males showed more propensity for adventurous and spontaneous vacations”. Higher age groups are more dominant in risk and uncertainty-averse tourist types (Karl, 2018).

However, there are large differences even within the same age groups and non-institutionalized tourism styles are not homogeneous in terms of risk perceptions. (Kozak et al., 2007). found that “older male travellers with experiences were less likely to change their travel plans when faced with potential health, terrorism, or natural disaster related risks”. (Williams & Baláž, 2013). found out that “package tourists were more likely to be relatively younger (and therefore to have young children), while explorers are likely to be relatively older”. Organized mass tourists and independent mass tourists are generally more concerned about health risks than tourists engaging in non-institutionalised forms of tourism (Lepp & Gibson, 2003).

Another important factor affecting travel risk perception is travel experience, with the most experienced tourists perceiving less risk (Hajibaba et al., 2015; Karl, 2018; Kozak et al., 2007; Lepp & Gibson, 2003, 2008; Park & Reisinger, 2010; Qi et al., 2009; Sönmez & Graefe, 1998, 1998b). The survey of Sönmez and Graefe (1998a, 1998b) showed that previous visits to a destination considered risky were associated with greater likelihood of avoiding these in future, but (Lepp & Gibson, 2003). Found positive relationships between travel experience and preference for destinations with higher risks.

Regarding gender and risk perception, the results are mixed. Although the research of (Sönmez & Graefe, 1998). showed no influence, other studies concluded that gender does influence travel risk perception and risk aversive behaviour while travelling (Carr, 2001; Darley & Smith, 1995; Elsrud, 2001; Garg & Kumar, 2017; Hawes, 1988; Kinnaird & Hall, 1996; Kozak et al., 2007; Lepp & Gibson, 2003; Loker-Murphy & Pearce, 1995; Matyas et al., 2011; McGehee, Loker-Murphy, & Uysal, 1996; Mitchell & Vassos, 1998; Pizam et al., 2004; Qi et al., 2009; Reichel, Fuchs, & Uriely, 2007; Squire, 1994; Williams & Baláž, 2013; Yang & Nair, 2014). Lepp and Gibson (2008) concluded that gender is only significant for subcategories of risk that may disrupt a holiday (i.e., strangeness of food) but not for life-threatening risk factors. According to Byrnes, Miller & Schaffer (1999) men are more risk tolerant in 14 out of 16 observed types of risk behaviour and (Boksberger, Bieger, & Laesser, 2007). showed that women have been found to be more likely to be concerned about physical risks in tourism. In general, thus, women are often showed as not as willing to take risks as men are (Garg & Kumar, 2017; Lepp & Gibson, 2003; Matyas et al., 2011; Pizam et al., 2004; Wantono & McKercher, 2020; Williams & Baláž, 2013), whereby risk aversion depends on the specific situation. In (Lepp & Gibsons 2003). study, the results have shown that amongst most travel styles men generally perceived less risks of terrorism than women, with one exception. The so-called “drifters” group of travellers showed the opposite results - here women

perceived less risks than men. On the other hand, (Williams & Baláž, 2013). found out that “drifters were more likely to be men, which is consistent with their greater risk and uncertainty tolerance”.

With respect to health risks, (Mattila et al., 2001). found gender differences in perceived health risk. According to (Kozak et al., 2007), female tourists are more concerned about risks in terms of infectious diseases, terrorist attacks and natural disasters than male tourists. (Lepp & Gibson, 2003) reported that men are less concerned about health and food-related risks than women. Literature from the field of disease prevention showed that after the SARS outbreak, women reported higher perceptions of risk than men (Brug et al., 2004). (Lau et al., 2004). investigation of SARS in connection to preventive and risk behaviours showed that male travellers were much less likely to be using masks or washing their hands frequently. An important warning about gender as a factor affecting risk perception is the fact that it is often only representative of other more comprehensive and in-depth differences. (Carr, 2001). For example, points out that other factors, such as personality type, are probably more influential on an individual’s travel risk perception than gender per se.

Finally, many authors confirm that tourists’ perceptions travel risks vary depending on education (Chang, 2010; Hallahan et al., 2004; Karl, 2018b; Park & Reisinger, 2010; Sönmez & Graefe, 1998a; Williams & Baláž, 2013). Generally, the results show that higher-educated tourists perceive lower travel risk than less-educated tourists (Garg & Kumar, 2017; Halek & Eisenhauer, 2001; Hallahan et al., 2004). (Williams & Baláž, 2013). concluded that package tourists had relatively lower educational qualifications, while explorers and drifters had higher qualifications. The research performed in Germany (Karl, 2018a, 2018b) has shown that high educational levels and high travel frequencies are distinct characteristics of risk-affine tourists. (Garg & Kumar, 2017). showed that tourists' decision-making is influenced by their risk perception level in relation with socio-cultural factors and media influence. (Park & Reisinger, 2010). Postulate that tourists with low educational attainment perceive a greater influence of social risk than high- and middle-educated tourists perhaps because they have relatively less social skills and are less confident about their vacation choice. Higher educated tourists are likely to be more informed regarding to natural disasters and travel risks and hold less misconception about the real risk than less-educated individuals (Laver, Wetzels, & Behrens, 2006). Similarly, (Brug et al., 2004) survey of SARS conducted in the Netherlands has shown that people with less education expressed more worries about the disease.

CONCLUSION

The COVID-19 pandemic is an unprecedented event that shook global tourism industry to its core. It is too early to reliably say what kind of effects it will have for the future of tourism. Perceived threat is a variable that is very context specific. In the past, travel research primarily focused on comparing several types of threats and providing only very general measures of health-related risks. The COVID-19 pandemic, however, is a specific situation that called for a more in-depth analysis of perceived threat. To achieve this, we have built on literature on health-related fear appeals in order to develop a scale that showed to be context specific, reliable and in-depth. However, an important limitation of measuring future travel avoidance is its’ dependence on the actual behaviour control – which is mostly not in the hands of the tourists but is rather an issue of policy regulation and how the disease will spread in

the future. Future travel avoidance is a measure of what people expect about the future, and not a measure of actual future behaviour. Therefore, it cannot be used as a valid predictor of actual future travels. It can, however, point to important early considerations. The review shows that the moral obligation towards taking care of others might be a highly important element in the success factor of COVID-19 measures for policy makers and tourism industry. In future persuasive appeals on COVID-19 related threats, appealing to the safety of one's loved-ones might show to be the most affective. The assurances of health safety that the tourism industry will provide in the after COVID-19 scenarios, are likely to fall on appreciative ears. And especially, how this moral stance might relate to the issues of sustainable tourism of the future. Finally, the role of tourism information sources and demographics needs to be analyzed in the future to find out why we perceive COVID-19 risks differently according to gender, age, travel experience and education level. Just as the September 11, 2001 attacks on the United States forever changed our understanding of security in international tourism, and we adapted to the consequences in the form of increased controls at airports, so will the COVID-19 global health crisis bring forth changes in the way international travel and transport are conducted. New security protocols will be implemented at airports, hotels, border crossings. The new security protocols will become part of international security standards. After every security crisis so far, tourists returned to their destinations as soon as the threat was eliminated. Even with the COVID-19 pandemic, we hopefully expect that "tourists have a bad memory" about security threats, as claimed (McKercher & Huij, 2003) and that tourism will blossom again when conditions calm down and safety measures are transformed in a way that they allow safe travelling again.

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REFERENCES

- Abrams, K.M., Leong, K., Melena, S., & Teel, T. (2020). Encouraging safe wildlife viewing in national parks Effects of a communication campaign on visitors behavior. *Environmental Communication* 14(2), 255-270.
- Aro, A.R., Varti, A.M., 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. *International journal of behavioral medicine* 16(1), 68-73.
- Atherton, T., & Wilks, J. (1994). Health and safety in Australian marine tourism A social medical and legal appraisal. *Journal of Tourism Studies* 5(2), 2-16.
- Bajpai, K.P. (2000). Human security concept and measurement Joan B Kroc Institute for International Peace Studies University of Notre Dame, 15.
- Bhati, A., Upadhyaya, A., & Sharma, A. (2016). National disaster management in the ASEAN an analysis of tourism resilience. *Tourism Review* 71(2), 148-164.
- Boksberger, P.E., Bieger, T., & Laesser, C. (2007). Multidimensional analysis of perceived risk in commercial air travel. *Journal of Air Transport Management* 13(2), 90-96.
- Brug, J., Aro, A.R., Oenema, A., de Zwart, O., & Richardus, J.H., et.,al. (2004). SARS risk perception knowledge precautions and information sources the Netherlands. *Emerging infectious diseases* 10(8), 1486-1489.

- Brug, J., Aro, A.R., & Richardus, J.H. (2009). Risk perceptions and behaviour towards pandemic control of emerging infectious diseases. *International Society of Behavioral Medicine* 16, 3-6.
- Byrnes, J.P., Miller, D.C., & Schafer, W.D. (1999). Gender differences in risk taking A meta-analysis. *Psychological Bulletin* 125(3), 367-383.
- Carr, N. (2001). An exploratory study of gendered differences in young tourists perception of danger within London. *Tourism Management* 22(5), 565-570.
- Chang, H.H. (2010). Nationality differences in youth tourists travelling risk perceptions and satisfactions within Taiwan. *Journal of Tourism* 11(2), 19-49.
- Cohen, E. (1973). Nomads from Affluence Notes on the Phenomenon of Drifter Tourism. *International Journal of Comparative Sociology* 14(1-2), 89-103.
- Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika* 16, 297-334.
- Darley, W.K., & Smith, R.E. (1995). Gender differences in information processing strategies An empirical test of the selectivity model in advertising response. *Journal of advertising* 24(1), 41-56.
- Dillard, J.P., & Li, S.S. (2020). How Scary Are Threat Appeals Evaluating the Intensity of Fear in Experimental Research. *Human Communication Research* 46(1), 509-532.
- Elsrud, T. (2001). Risk creation in traveling Backpacker Adventure Narration. *Annals of Tourism Research* 28(3), 597-617.
- Floyd, D.L., Prentice Dunn, S., & Rogers, R.W. (2000). A meta analysis of research on protection motivation theory. *Journal of applied social psychology* 30(2), 407-429.
- Frisby, E., (2003). Communicating in a crisis The British Tourist Authority's responses to the foot-and-mouth outbreak *Journal of Vacation Marketing* 9(1), 89-100.
- Garg, A., & Kumar, J. (2017). The Impact of Risk Perception and Factors on Tourists Decision Making for Choosing the Destination Uttarakhand India. *OTTOMAN Journal of Tourism and Management Research* 2, 144-160.
- Gibson, H., & Yiannakis, A. (2002). Tourist roles Needs and the Lifecourse. *Annals of Tourism Research* 29(2), 358-383.
- Goldman, L.K., & Glantz, S.A. (1998). Evaluation of Antismoking Advertising Campaigns. *Jama* 279(10), 772-777.
- Hajibaba, H., Gretzel, U., Leisch, F., & Dolnicar, S. (2015). Crisis-resistant tourists. *Annals of Tourism Research* 53, 46-60.
- Halek, M., & Eisenhauer, J.G. (2001). Demography of risk aversion. *Journal of Risk and Insurance* 68(1), 1-24.
- Hall, C.M., Dallen, J.T., & Duval, D.T. (2003). Security and Tourism Towards a New Understanding In *Safety and Security in Tourism* The Haworth Press New York USA 1-18. Available online at: https://doi.org/10.1300/J073v15n02_01
- Hallahan, T.A., Faff, R.W., & McKenzie, M.D. (2004). An empirical investigation of personal financial risk tolerance. *Financial services review* 13(1), 57-78.
- Hawes, D.K. (1988). Travel-related lifestyle profiles of older women. *Journal of Travel Research* 27(2), 22-32.
- Hunter-Jones, P., Jeffs, A., & Smith, D. (2008). Backpacking your way into crisis an exploratory study into perceived risk and tourist behaviour amongst young people. *Journal of Travel & Tourism Marketing* 23(2-4), 237-247.
- Inglehart, R.F., & Norris, P. (2012). The Four Horsemen of the Apocalypse Understanding Human Security The Johan Skytte Prize Lecture. *Scandinavian Political Studies*. 35(1), 71-96.
- Ivanuša, T., Lesjak, M., Roša, M., & Podbregar, I. (2012). Soodvisnost okolja turizma in nacionalne varnosti Interdependence between Environment Tourism and National Security. In *Ekološka kriminaliteta in varovanje okolja—multidisciplinarne perspektive* FDVLjubljana Slovenia 433-464.
- John Hopkins University. (2021). COVID-19 Center for Systems Science and Engineering CSSE.

Available online at:
<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

Karabag, S.F. (2020). An unprecedented global crisis The global regional national political economic and commercial impact of the coronavirus pandemic. *Journal of Applied Economics and Business Research* 10(1), 1-6.

Karl, M. (2018). The influence of risk perception on destination choice processes. *European Journal of Tourism Research* 18, 160-163.

Karl, M. (2016). Risk and uncertainty in travel decision making Tourist and destination perspective. *Journal of Travel Research* 19, 129-146.

Kim, S., Leht, X., & Kandampully, J. (2019). The role of familiarity in consumer destination image formation. *Tourism Review* 74(4), 885-901.

Kinnaird, V., & Hall, D. (1996). Understanding tourism processes a genderaware framework. *Tourism Management* 17(2), 95-102.

Kozak, M., Crotts, J.C., & Law, R. (2007). The impact of the perception of risk on international travellers. *International Journal of Tourism Research* 9(4), 233-242.

Kurež, B. (2011). Sodobno varnostno okolje in turizem. *Varstvoslovje Journal of Criminal Justice & Security* 13(3), 330-347.

Lau, J.T.F., Yang, X., Tsui, H.Y., & Pang, E. (2004). SARS related preventive and risk behaviours practised by Hong Kong-mainland China cross border travellers during the outbreak of the SARS epidemic in Hong Kong. *Journal of Epidemiology and Community Health* 58(12), 988-996.

Laver, S.M., Wetzels, J., Behrens, R.H. (2006). Knowledge of Malaria Risk Perception and Compliance with Prophylaxis and Personal and Environmental Preventive Measures in Travelers Exiting Zimbabwe from Harare and Victoria Falls International Airport. *Journal of Travel Medicine* 8(6), 298-303.

Le Serre, D., Legohérel, P., & Weber, K. (2013). Seniors motivations and perceived risks A cross cultural study. *Journal of International Consumer Marketing* 25(2), 61-79.

Lepp, A., & Gibson, H. (2003). Tourist roles perceived risk and international tourism. *Annals of Tourism Research* 30(3), 606-624.

Lepp, A., & Gibson, H. (2008). Sensation seeking and tourism Tourist role perception of risk and destination choice. *Tourism Management* 29(4), 740-750.

LokerMurphy, L., & Pearce, P.L. (1995). Young budget travelers Backpackers in Australia. *Annals of Tourism Research* 22(4), 819-843.

Maloney, E.K., Lapinski, M.K., & Witte, K. (2011). Fear appeals and persuasion A review and update of the extended parallel process model. *Social and Personality Psychology Compass* 5(4), 206-219.

Mansfeld, Y., & Korman, T. (2015). Between war and peace Conflict heritage tourism along three Israeli border areas. *Tourism geographies* 17(3), 437-460.

Mao, C.K., Ding, C.G., & Lee, H.Y. (2010). PostSARS tourist arrival recovery patterns An analysis based on a catastrophe theory. *Tourism Management* 31(6), 855-861.

Mathis, M., Briand, S., & Prentice, T. (2015). Emerging and re-emerging infectious threats in the 21st century. *Weekly epidemiological record* 90(20), 238-244.

Mattila, A.S., Apostolopoulos, Y., Sonmez, S., Yu, L., & Sasidharan, V. (2001) The impact of gender and religion on college students spring break behavior. *Journal of Travel Research* 40(2), 193-200.

Matyas, C., Srinivasan, S., Cahyanto, I., Thapa, B., & PenningtonGray, L., et al. (2011). Risk perception and evacuation decisions of Florida tourists under hurricane threats a stated preference analysis. *Natural Hazards* 59(2), 871-890.

McGehee, N.G., LokerMurphy, L., & Uysal, M. (1996). The Australian international pleasure travel market Motivations from a gendered perspective. *Journal of Tourism Studies* 7(1), 45-57.

Mekinc, J., & Dobovšek, B. (2011). Varnost v turizmu Univerity of Primorskem Annales ZRS, Scientific publishing house of ZRS Koper Slovenia 5.

Mitchell, V.W., & Vassos, V. (1998). Perceived risk and risk reduction in holiday purchases: A cross-cultural and gender analysis. *Journal of Euromarketing* 6(3), 47-79.

Moreira, P. (2004). Stealth risks and catastrophic risks Risk perception in a tourism destination Paper presented at the Proceedings of e New Zealand Tourism and Hospitality Conference Victoria University of Wellington New Zealand 257-264.

Moreira, P. (2008). Stealth Risks and Catastrophic Risks On Risk Perception and Crisis Recovery Strategies. *Journal of Travel & Tourism Marketing* 23(2-4), 15-27.

Moussa, G. (2001). Challenges to human security in the Middle East. In What Agenda for Human Security in the Twenty first Century First International Meeting of Directors of peace Research and Training Institutions UNESCO Paris France 87-91

Oberleitner, G. (2002). Human security and human rights ETC Occasional Paper Graz Austria European Training and Research Centre for Human Rights and Democracy 11.

OECD, (2020). OECD Report Tackling Coronavirus (COVID-19) Contributing to a Global Effort Tourism Policy Responses. Available online at: <https://www.oecd.org/dac/development-assistance-committee/daccovid19statement.htm>

Orlowski, L.T. (2020). The pandemic Economic repercussions and policy responses. Review of Financial Economics 39, 20-26.

Paris, R. (2001). Human security paradigm shift or hot air International security. 26(2), 87-102.

Park, K., Reisinger, Y. (2010). Differences in the Perceived Influence of Natural Disasters and Travel Risk on International Travel. *Tourism geographies* 12(1), 1-24.

Pechmann,C., Zhao,G., Goldberg, M.E., & Reibling, E.T. (2003). What to convey in antismoking advertisements for adolescents The use of protection motivation theory to identify effective message themes. *Journal of Marketing* 67(2), 1-18.

Pizam, A., Jeong, G.H., Reichel, A., van Boemmel, H., & Lusson, J.M., et.,al. (2004). The relationship between risktaking sensationseeking and the tourist behavior of young adults A crosscultural study. *Journal of Travel Research* 42(3), 251-260.

Pizam, A., Reichel, A., & Uriely, N. (2001). Sensation Seeking and Tourist Behavior. *Journal of Hospitality & Leisure Marketing* 9(3-4), 17-33.

Qi, C.X., Gibson, H.J., & Zhang, J.J. (2009). Perceptions of Risk and Travel Intentions: The Case of China and the Beijing Olympic Games. *Journal of Sport & Tourism* 14(1), 43-67.

Reichel, A., Fuchs, G., &Uriely, N. (2007). Perceived risk and the non institutionalized tourist role The case of Israeli student exbackpackers. *Journal of Travel Research* 46(2), 217-226.

Reisinger,Y., &Mavondo, F. (2005). Travel anxiety and intentions to travel internationally Implications of travel risk perception. *Journal of Travel Research* 43(3), 212-225.

Reisinger, Y., Mavondo, F. (2006). Cultural consequences on traveler risk perception and safety. *Tourism Analysis* 11(4), 265-284.

Reisinger, Y., & Mavondo, F. (2006). Cultural Differences in Travel Risk Perception. *Journal of Travel & Tourism Marketing* 20(1), 13-31.

Riley, P.J. (1988). Road culture of international longterm budget travelers. *Annals of Tourism Research* 15(3), 313-328.

Rittichainuwat, B.N., &Chakraborty, G. (2009). Perceived travel risks regarding terrorism and disease The case of Thailand. *Tourism Management* 30(3), 410-418.

Roehl, W.S., Fesenmaier, D.R. (1992). Risk perceptions and pleasure travel An exploratory analysis. *Journal of Travel Research* 30(4), 17-26.

Rogers, R.W. (1975). A protection motivation theory of fear appeals and attitude change1. *The journal of psychology* 91(1), 93-114.

- Seabra, C., Dolničar, S., Abrantes, J.L., & Kastenholz, E. (2013). Heterogeneity in risk and safety perceptions of international tourists. *Tourism Management* 36, 502-510.
- nmSharpley, R., Craven, B. (2001). The 2001 foot and mouth crisis rural economy and tourism policy implications a comment. *Current Issues in Tourism* 4(6), 527-537.
- Smith, R.D (2006). Responding to global infectious disease outbreaks lessons from SARS on the role of risk perception communication and management. *Social science & medicine* 63(12), 3113-3123.
- Sönmez, S.F, & Graefe, A.R. (1998). Determining Future Travel Behavior from Past Travel Experience and Perceptions of Risk and Safety. *Journal of Travel Research* 37(2), 171-177.
- Sönmez, S.F, & Graefe, A.R. (1998). Influence of terrorism risk on foreign tourism decisions. *Annals of Tourism Research* 25(1), 112-144.
- Squire, S.J. (1994). Gender and tourist experiences assessing women's shared meanings for Beatrix Potter. *Leisure Studies* 13(3), 195-209.
- Tavitiyaman, P., Qu, H. (2013). Destination Image and Behavior Intention of Travelers to Thailand: the Moderating Effect of Perceived Risk. *Journal of Travel & Tourism Marketing* 30(3), 169-185.
- Tsiotsou R.H., Ratten, V., Byon, K.K., Zhang,J.J. (2010). Development of a scale measuring destination image. *Marketing Intelligence & Planning* 28(4), 508-532.
- UNWTO (2011). Tourism Towards. Available online at: https://www.globalwellnesssummit.com/wp-content/uploads/Industry-Research/Global/2011_UNWTO_Tourism_Towards_2030.pdf
- UNWTO (2019). International Tourism Highlights. Available online at: <https://www.eunwto.org/doi/book/10.18111/9789284421152>
- UNWTO (2020). COVID-19 response of global destinations impose travel restrictions unwto reports. Available online at: <https://www.unwto.org/news/covid-19-response-travel-restrictions>
- Vartti, A.M., Oenema, A., Schreck, M., Uutela, A., de Zwart, O., et.,al. (2009) SARS knowledge, perceptions, and behaviors a comparison between Finns and the Dutch during the SARS Outbreak . *International journal of behavioral medicine* 16(1), 41.
- Wang ,F., & Lopez, C. (2020). Does communicating safety matter *Annals of Tourism Research* 80-102805.
- Wantono, A., & McKercher, B. (2020). Backpacking and risk perception the case of solo Asian women. *Tourism Recreation Research* 45(1), 19-29.
- World Bank. (2020). COVID-19 to Plunge Global Economy into Worst Recession since World War II. Available online at: <https://www.worldbank.org/en/news/press-release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii>
- Williams A.M., & Baláž, V. (2013). Tourism risk tolerance and competences Travel organization and tourism hazards. *Tourism Management* 35, 209-221.
- Witte, K. (1992). Putting the fear back into fear appeals: The extended parallel process model. *Communications Monographs* 59(4), 329-349.
- Witte, K. (1994). Fear control and danger control A test of the extended parallel process model (EPPM). *Communications Monographs* 61(2), 113-134.
- Witte,K., & Morrison, K. (2000). Examining the influence of trait anxiety repression sensitization on individuals reactions to fear appeals. *Western Journal of Communication includes Communication Reports* 64(1), 1-27.
- Yang, E.C.L., & Nair, V. (2014). Tourism at risk A review of risk and perceived risk in tourism. *Asia Pacific Journal of Innovation in Hospitality and Tourism (APJIHT)* 3(2), 1-21.
- Yuen, K.F., Li, K.X, Ma, F., & Wang, X. (2020). The effect of emotional appeal on seafarers safety behaviour An extended health belief model. *Journal of Transport & Health* 16, 100810.
- Zeng , B., Carter, R.W., De Lacy, T. (2005). Shortterm perturbations and tourism effects The case of SARS in China. *Current Issues in Tourism* 8(4), 306-322.
- Zhang, L., Li,H., & Chen, K. (2020). Effective risk communication for public health emergency: Reflection on the COVID-19 outbreak in Wuhan, China. *Healthcare* 8(1), 1-13.