

Post-COVID-19 crisis travel behaviour: towards mitigating the effects of perceived risk

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Abstract

Purpose – The purpose of this paper is to provide insight into the on-going COVID-19 pandemic and its potential influence on tourist behaviour in the short- to medium-term. While the influence of the pandemic on tourist's perceived risk and its impact on their future travel behaviour is understandably yet to be established, the present paper discusses the potential nexus. Additionally, this paper provides tourism practitioners with some recommendations for mitigating the effect of potential heightened perceived risk on travel and tourism decision-making post the COVID-19 crisis.

Design/methodology/approach – The present paper synthesises contemporary academic literature on perceived risk and post-crisis tourism with emerging information associated with the unfolding COVID-19 crisis.

Findings – This paper draws empirical evidence from studies related to previous health crises and their impact on tourism, as well as tourist behaviour. By discussing previous studies within the context of the on-going COVID-19, it is possible to anticipate the influence that perceived risk associated with the pandemic may have on the post-crisis behaviour of tourists. Also, short-term measures to mitigate the effects of risk on tourism are posited to guide practitioners in the future recovery of the sector.

Research limitations/implications – The COVID-19 pandemic is an unprecedented and on-going crisis for the global tourism industry. Hence, the present paper serves as a primer to a broader discussion within the tourism discourse and provides theoretical direction for future tourism research.

Practical implications – Key to the recovery of the global tourism industry will be encouraging both domestic and international tourism activity. However, while the impact of the COVID-19 crisis on tourist behaviour is yet to be substantiated, previous research predicts a situation of heightened perceived risk and the potential cognitive dissonance that may negatively influence tourist decision-making. To mitigate this potential effect, governance, augmented immigration policy, destination media profiling, recovery marketing and domestic tourism will be critical interventions.

Originality/value – This paper is one of the first to discuss the potential influence of the COVID-19 pandemic on the post-crisis decision-making process of tourists and their conative behaviour. As a primer to further empirical research, this paper sets a pertinent research agenda for academic inquiry within an evolving and increasingly uncertain global tourism market.

Keywords *Tourism, Perceived risk, COVID-19 pandemic, Travel behaviour, The future of tourism, Tourism recovery*

Paper type *Research paper*

Introduction and background

The COVID-19 virus is an on-going global flu pandemic that has come to be considered as the worst post-World War II pandemic to affect the world, surpassing the outbreaks of severe acute respiratory syndrome (SARS) in 2003 and the Middle East respiratory syndrome (MERS) in 2012 (Baldwin and di Mauro, 2020; Huynh, 2020; Ruiz-Estrada, Park and Lee, 2020; Wilder-Smith, 2005). According to the World Travel and Tourism Council (WTTC, 2020), by the 14th of April 2020, the COVID-19 virus had spread to over 180

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countries, infecting an estimated 1.98 million people and accounting for 126 753 deaths worldwide. The travel and tourism industry – much like in the case of the SARS outbreak – is widely considered to have been the vector for the global spread of the COVID-19 virus and has virtually ground to halt, resulting in severe financial losses in the industry due to country lockdowns and stringent travel restrictions implemented to curtail the spread of the virus (Arezki and Nguyen, 2020; Novellia *et al.*, 2018; Stezhko *et al.*, 2020; Yanga *et al.*, 2020).

Preliminary economic modelling typically suggests a significant inverse relationship between the COVID-19 virus and tourism demand (Yanga *et al.*, 2020). Compared to the predominantly localised economic impact of previous health crises on tourism – SARS in China, Singapore, Hong Kong and Taiwan (USD\$7.7bn); Ebola in Sierra Leone and Guinea (USD\$152m); MERS in Saudi Arabia (USD\$2.4bn) and; H1N1 with a global economic impact of between USD\$45 and USD\$55bn – the impact of the COVID-19 virus is projected to be unprecedented (Global Rescue and World Travel and Tourism Council, 2019; Nicola *et al.*, 2020). Conservative estimates project that in 2020, the global travel and tourism industry is expected to shed at least 75 million jobs in the short-term and experience a tourism gross domestic product contribution deficit of up to US\$2.1tn (WTTC, 2020).

Interestingly, Novellia *et al.* (2018) observe that health-related crises have historically elicited “unscientific” and disproportionate global responses that have been mostly deleterious to the tourism industry. Moreover, the World Bank has also cautioned that up to 90% of all economic losses associated with epidemics and outbreaks are a result of, “[...] uncoordinated and irrational efforts of the public to avoid infection” (Global Rescue and WTTC, 2019). However, despite this observation, recovery from external shocks associated with cases of epidemics and outbreaks are estimated to take an average of 19.4 months and significantly impinge on global demand for travel and tourism (World Economic Forum, 2019; Global Rescue and WTTC, 2019). Therefore, of particular interest to tourism researchers is the influence of the current public health crisis of COVID-19 on the risk perceptions of consumers, and more significantly how risk perceptions will potentially influence the post-crisis recovery travel behaviour of tourists. What is unique about the COVID-19 scenario is that the global pandemic has particularly affected popular global tourism destinations including Germany, Spain, France, China, the USA, the UK, Iran and Italy, which currently account for at least 77% of all infections (WTTC, 2020). Thus, the implications for international tourist travel behaviour within the short to medium term are both unknown and potentially catastrophic.

Of particular concern to the future of the global tourism industry are the residual effects of the pandemic of on travel and tourism in the form of perceived risk associated with travel and tourism in the post-COVID-19 era. While there may be a probable link between perceived risk and the travel intentions of tourists within the contemporary post-COVID-19 global tourism market, this nexus is understandably yet to be established. Moreover, post-health crises in tourist behaviour are relatively under-researched. Thus, there is little empirical evidence modelling the behaviour of tourists after deleterious global events such as a pandemic. In an attempt to address this gap, the present paper – as a primer to further empirical research – provides a critical appreciation of the potential influence of heightened post-crisis risk perceptions on future travel intention.

Perceived risk and tourist decision-making

Perceived risk is generally characterised as “[...] the individual’s perceptions of the uncertainty and negative consequences of buying a product (or service)”, (Reisinger and Mavondo, 2005). Within the tourism context, perceived risk is associated with a tourist’s perception of uncertainty and potential adverse outcomes resulting from the consumption of travel and tourism offerings (Adam, 2015; Liu *et al.*, 2016). Perceptions of uncertainty and adverse outcomes may be distilled into eight distinct typologies, namely, health, psychological, physical, equipment, financial, satisfaction, time and social risk, respectively

(Fuchs and Reichel, 2011; Olya and Al-ansi, 2018; Qi *et al.*, 2009; Reisinger and Mavondo, 2005; Wolff *et al.*, 2019). Studies that have explored the effect of perceived risk within the tourism context have established risk as a multi-dimensional construct (Cui *et al.*, 2016). For instance, in the case of Israel, Fuchs and Reichel (2011) found amongst others food safety, weather, socio-psychological, financial and service quality risk to be influential to international tourists' decision-making. While, in the case of Ghana, Adam (2015) determined that environmental, political, financial, socio-psychological, physical and expectation risks were associated with travel and tourism to the country. Similarly, multiple risk dimensions, including personal safety, cultural, socio-psychological and violence risks, were associated with travel to China for the 2008 Olympic Games (Kim *et al.*, 2019). As a result, what is evident from the extent of the literature is that perceived risk is a multi-dimensional and idiosyncratic construct (Carballo *et al.*, 2017; Liu *et al.*, 2016; Wolff *et al.*, 2019).

With specific reference to the present discussion, three risk typologies – health, psychological, social risk – are most pertinent to the likelihood of tourists travelling for tourism in the near future, post the COVID-19 pandemic. Health risk in tourism is associated with potential hazards to the health and well-being of the tourist when engaging in travel and tourism activities (Olya and Al-ansi, 2018). Within the contemporary travel and tourism context, the perceived health risk is one of the most critical to the decision-making process of tourists (Huanga *et al.*, 2020). More-so, it is the perceived susceptibility to and severity of health risk that acts as a heuristic cue that influences the conative behaviour of tourists (Cahyanto *et al.*, 2016; Jonas *et al.*, 2011). However, apart from the perceived health risk associated with the COVID-19 crisis, the unique nature of the pandemic may also exacerbate both psychological and social risk. Psychological risk is related to the possibility that the travel and tourism experience will not reflect favourably on the tourist in relation to their image of self or personality (Adam, 2015). While, the social risk is attributable to how the choice to undertake travel and tourism would affect the tourist's social reference groups such as friends and family in terms of their opinion of them (Wang, 2017). Prior studies have determined the causal effect of health (Liu *et al.*, 2013) and socio-psychological (Adam, 2015; Kim *et al.*, 2019) risk on tourist decision-making in various contexts. This suggests that as an antecedent to consumptive decision-making in tourism, risk perceptions are multi-dimensional and dynamic and would be susceptible to both intrinsic and extrinsic forces such as the COVID-19 pandemic.

Seminal marketing theory opines that consumer behaviour is more susceptible to the subjective influence of perceived risk than it is to the objective assessment of the risk (Bauer, 1967). Furthermore, the extent of the literature (Fuchs and Reichel, 2011; Yeung and Yee, 2019) observes that the impact of perceived risk appears to be significantly more pronounced in service compared to physical product consumptive decisions due to the intangible and perishable nature of services. It follows then, that perceived risk would be a critical dimension and antecedent within the decision-making process of tourists, *inter alia*, their cognitive, affective and more pertinently conative (travel intentions) behaviour (Jonas *et al.*, 2011; Osland *et al.*, 2017; Ritchie and Jiang, 2019; Wang, 2017; Qi *et al.*, 2009). While the tourist decision-making process is inherently multi-dimensional and complex, Chen (2016) attempts to simplify the decision-making process into a "decision-consumption process", consisting of four distinct stages, the pre-decision; post-decision and pre-purchase; post-purchase, as well as; pre-consumption and post-consumption stages, respectively.

Of particular relevance to the present discussion is the potential influence of perceived health risk on the travel behaviour of tourists posts the COVID-19 crisis in relation to the first two stages of the decision-consumption process. Whereby, COVID-19 induced perceived risk will most likely influence tourists' decisions before they decide to travel to a particular destination, as well as post-decision, influencing their decision whether to purchase travel

and tourism products. The literature supports this notion to some extent, identifying the pre-travel phase as the first of the three stages at which perceived health risk-tourism nexus manifests (Akhoondnejad, 2015). Furthermore, Chien *et al.* (2017) observe that health risk predicts tourist information seeking and the decision-making stage of tourist behaviour.

Post-crisis travel behaviour

Perceived risk as a multi-dimensional construct, may have heterogeneous implications for tourists in their decision-making, whereby one or more risk dimension(s) can modify a tourist's evaluation of a destination and their intention to travel (Carballo *et al.*, 2017; Karl and Schmude, 2017; Reisinger and Mavondo, 2005). To this end, Nugraha (2014), Reisinger and Mavondo (2005), as well as Wolff *et al.* (2019) establish that perceived risk exacerbates anxiety and other negative affective behaviour that may negatively influence a tourist's intention to travel. Prior research (Chien *et al.*, 2017; Fuchs and Reichel, 2011; Huang *et al.*, 2020; Law, 2006; Osland *et al.*, 2017; Wang, 2017) also submits that disasters – natural or man-made – generally have a predominantly negative impact on destination images and that tourists naturally tend to avoid destinations they perceive to be risky. This avoidance of specific tourism destinations may be attributed to Cognitive Dissonance (CD) arising from the moderation of a tourist's intrinsic travel motives by the perceived risk associated with travel and tourism.

The seminal theory establishes that CD is primarily a psychological state that occurs as a result of inconsistencies associated with divergent (often positive versus negative) perceptions whose consequences include decision-making behaviour aimed at mitigating the adverse effects of consumptive decisions (Aronson, 1968; Festinger, 1957; Menasco and Hawkins, 1978). To this end, when confronted by risk, tourists may postpone their travel plans, re-evaluate their destination choice and seek to mitigate the perceived risk or cancel their trips altogether (Osland *et al.*, 2017; Roselius, 1971). Furthermore, Wolff *et al.* (2019) caution that by using current hazards as heuristic cues, individuals are prone to exaggerated impact bias, which is the overestimation of perceived risk in the future. Therefore, personal and physical safety concerns have a discernible impact on the decisions and choices made by tourists (Novellia *et al.*, 2018). For instance, the 2009 H1N1 influenza virus outbreak resulted in a 4% decrease in international tourism arrivals globally (Leggat *et al.*, 2010).

Generally, prior contemporary studies have also shown that perceived risk is detrimental to the travel intentions of tourists (Kim *et al.*, 2019; Novellia *et al.*, 2018; Olya and Al-ansi, 2018), including in the cases of risk associated with major tourist destinations which have been susceptible global shocks associated with health crises. Previous studies have generally alluded to the negative impact of both epidemics and pandemics on international tourism in the cases of China (McLaughlin, 2020; Qi *et al.*, 2009), Thailand (Rittichainuwat and Chakraborty, 2009; Tavitiyaman and Qu, 2013), the Gambia (Novellia *et al.*, 2018), Japan (Cooper, 2005) and Hong Kong (Law, 2006). Relatedly, by applying the Health Belief Model (Rosenstock *et al.*, 1988) to predict domestic tourist behaviour within the context of perceived health risk, Cahyanto *et al.* (2016) concluded that the Ebola outbreak in the USA heightened domestic tourist's perceived health risk and perceived severity. As a result, tourists engaged in avoidance behaviour which negatively impacted domestic tourism. While in the case of Chinese domestic tourists, Huang *et al.* (2020) found empirical evidence that suggests that tourists engaged in avoidance behaviour to mitigate health risks associated with tourism to Tibet.

The COVID-19 pandemic is an unprecedented global catastrophe of potentially epic proportions, more so for the tourism sector. What is evident from the extent of the literature is that perceived risk is a critical multi-dimensional construct within the tourism discourse. The heterogeneity of the influence of perceived risk on tourists and the susceptibility of tourism to a myriad of extrinsic shocks such as pandemics, provide an impetus for urgent

academic inquiry into the potential effects of the COVID-19 pandemic on the future conative behaviour of tourists. Based on the extent of the literature and the current unfolding pandemic, it is prudent to assume that the perceived risk associated with the current COVID-19 virus may make the global tourism industry more susceptible to a heightened estimation of perceived risk, post the pandemic – hence, potentially impinging on the recovery of the global tourism in the short- to medium-term.

Tourism recovery and the future of contemporary tourism

Conventional wisdom suggests that the recovery of the global tourism sector from a crisis depends on the scale, typology and scope of the crisis (Ritchie and Jiang, 2019). It is evident that the sheer scale and impact of the COVID-19 pandemic on the global travel and tourism industry is yet to fully unfold (McLaughlin, 2020; Nicola *et al.*, 2020; Rodríguez-Morales *et al.*, 2020; Yanga *et al.*, 2020). In the interim, attempting to model a practical approach to the recovery of the travel and tourism industry from the effects of the COVID-19 pandemic crisis is predicated on mitigating the perceived health, as well as subsequent psychological and social risk and its influence on tourist behaviour. This has become an urgent discourse within the extant of contemporary tourism research. The global tourism industry faces a multifaceted challenge from both the tourism demand (perceived health, social, psychological risk) and supply-side (massive fiscal deficits, job losses, business liquidation, human capital depletion). As such, the recovery of the travel and tourism industry requires a concerted multi-stakeholder approach to address both tourism demand and supply aspects. More-so, the mitigation of the cognitive dissonance associated with perceived risk in tourism may be predicated on the ability of the destination or destination country to manage both objective and subjective perceived risk factors for tourism activity to be within an acceptable threshold to alleviate cognitive dissonance (Cui *et al.*, 2016). Objective perceived risk factors are associated with the evaluation and the negative impact of potential consequences associated with travel. The COVID-19 virus represents the primary health risk that influences tourist behaviour and would be addressed by the practical government and immigration interventions to mitigate health risk factors. In contrast, subjective perceived risk factors are associated with negative feelings associated with the consequences or negative impact of travel. The subjective factors are the “subsequent” psychological and social risks associated with tourism in the COVID-19 era would be mitigated by the tertiary interventions to manage tourist perception. These interventions include managing the country’s media profile, marketing and domestic tourism.

Governance. Becken and Hughey (2013) advocate for a multi-stakeholder approach to better integrate tourism and government structures in the mitigation of risk associated with tourism. To this end, Ritchie and Jiang (2019) acknowledge that the ability of governments to harness financial, human and technical resources to support the tourism recovery process. For instance, post the COVID-19 crisis, governments will be crucial to the alleviation of the negative economic impacts associated with crises by providing tourism entities with financial stimulus packages, waiving taxes for tourism enterprises, as well as providing subsidies and low rate loans (Ritchie and Jiang, 2019). Furthermore, governments will catalyse destination marketing and promotion through public diplomacy initiatives aimed at opening and managing international communication channels, re-building tourist confidence and recovering destination image (Carlsen and Hughes, 2008; Cooper, 2005; Gu and Wall, 2006). However, most importantly, governments have a critical role in the effective management of the virus and responsible re-opening of their economies and countries to tourism activity. For instance, the Spanish Government has initiated a four-pillar tourism recovery plan that seeks to, develop and enforce the socio-sanitary specifications to ensure that tourist destinations are safe and perceived to be safe (Organisation for Economic Co-operation and Development, OECD, 2020). Furthermore,

The Spanish Government seeks to develop and implement new health-oriented knowledge and observation models, as well as ultimately activating tourism demand when it is appropriate (OECD, 2020). These measures illustrate how national governments are critical to the mitigation of the objective risk perception factors related to the COVID-19 virus.

Immigration. National governments typically introduce stringent measures to restrict inward and outbound travel to manage the spread of disease during pandemics (Cahyanto *et al.*, 2016; Yanga *et al.*, 2020). Stringent measures have predominantly included quarantining upon arrival (Folayan and Brown, 2015) and travel bans (Mackenzie, 2014). This holds in the case of the current COVID-19 pandemic. Due to the pandemic, at least 90% of the global population is currently under cross-border travel restrictions including, a moratorium on inbound and outbound travel by both locals and foreign nationals, as well as a complete or partial hold on visa applications, processing and granting (Fragomen, 2020). As of the 1st of June 2020, the World Tourism Organisation (UNWTO, 2020) reported that 156 national governments of tourism destination countries had imposed total border closers to international tourism. To this end, the OECD (2020) report on tourism policy responses to the coronavirus highlights that the lifting of travel restrictions will go a long way to restoring tourist confidence. Thus, as a critical first step, countries will need to open their borders and relax their stringent temporary immigration policies to facilitate more efficient travel and tourism once countries are adequately prepared for tourism activity in a post-COVID-19 virus era.

Media profile. Huynh (2020) observes a correlation between risk perception associated with the COVID-19 virus and an increase in information searches on social media. Some studies (Fuchs and Reichel, 2011; Swarbrooke and Horner, 2007) correspond with this observation, finding that the higher the perceived risk, the more information tourists seek to support their consumptive tourism decisions. The information-seeking process is deliberate and aids the “heuristic” or “analytical” cognitive process of decision-making (Dunwoody and Griffin, 2015). To this end, a destination’s post-crisis media profile on various platforms including the news, documentaries, movies, social media sites and official websites would be a critical touchpoint from which tourists derive the cues they may use to inform their decision-making (Chew and Jahari, 2014; Fuchs and Reichel, 2011; Kapu and Richards, 2016; Zhai *et al.*, 2019). It follows then that a destination’s media profile may be considered as a potential mitigator of perceived risk (Jonas *et al.*, 2011). For instance, Uganda’s organic image was deeply influenced by stereotypical factors such as the perceived prevalence of diseases in the country – that resulted in its image as a risky tourism destination. To mitigate these risk perceptions, an experimental study by Lepp *et al.* (2011) found that interventions by Tourism Uganda meant to provide information symmetry through its official tourism website positively influenced and changed tourist’s negative pre-test risk perceptions of the country as a tourism destination. Thus, notwithstanding the value of post-crisis information for tourism decision-making in the post-COVID-19 era, it is the credibility of the information source that may be critical to the risk information processing of tourists (Aliperti and Cruz, 2019), associated with perceived psychological and social risk, post the COVID-19 crisis.

Marketing. As a post-crisis risk mitigation strategy, recovery marketing (Campiranon and Scott, 2014) will be pivotal to the recovery of the global travel and tourism industry. Based on Aliperti and Cruz’s (2019) determination, post-crisis risk communication strongly influences risk perception and ultimately tourist behaviour by promoting awareness, motivating individual’s conative behaviour, facilitating consensus, as well as creating trust. As a result, Rodríguez-Morales *et al.* (2020) recognise that information symmetry is critical to managing tourist behaviour within the context of the COVID-19 virus. Evidence from Japan suggests that targeted marketing campaigns played a critical role in the mitigation of the perceived risk associated with travel and tourism to Japan post the 2011 earthquake that resulted in the Fukushima disaster (Chew and Jahari, 2014). The subsequent health, psychological and social risks attributable to fears of radioactive contamination from visiting

Japan and interacting with Japanese people resulted in the formation of a negative image of Japan as a tourism destination (Chew and Jahari, 2014). To mitigate these perceived risks, the Japanese National Tourism Organisation launched an intensive marketing programme that promoted the country in non-traditional markets, including Malaysia. By marketing the country as a safe destination through world-class disaster management capabilities, advanced food safety and health care competencies managed to influence both the subjective and objective perceived risk factors to restore and grow its market share in Malaysian outbound tourism (Chew and Jahari, 2014; Ishii *et al.*, 2011). Therefore, marketing may represent a viable intervention for influencing tourist behaviour post the COVID-19 virus and managing the subjective aspects of perceived risk.

Domestic tourism. Risk aversion is higher when tourists consider international tourism compared to when they consider domestic tourism. This is referred to as “home-is-safer-than-abroad bias” (Wolff and Larsen, 2016; Wolff *et al.*, 2019). This suggests that tourism practitioners may need to focus on promoting domestic tourism as a short-term measure to resuscitating their country’s tourism industry and kick-starting the global tourism industry in the medium-term. To this end, the OECD (2020) reports that as part of its COVID-19 recovery strategy Switzerland has committed an estimated USD\$42.2m in federal funding for Switzerland Tourism to promote sustainable domestic tourism to kick-start the Swiss sector by subsidising domestic travel and tourism. In the case of New Zealand, an estimated USD\$256.8m was approved the New Zealand parliament for disbursement through the Tourism Recovery Fund, to amongst other activities, fund a domestic tourism marketing campaign, fund a transition programme aimed at “pivoting” businesses towards domestic tourism, as well as support the strategic asset protection of New Zealand’s domestic tourism offerings and international brand (OECD, 2020). Such domestic tourism initiatives promote local tourism and assure both domestic and more importantly, international tourists of the safety of engaging in tourism, thus mitigating the subjective factors that influence both the psychological and social perceived risk.

In sum, tourism practitioners need to be consistently reflexive to recognise and respond to changes in the tourism market. More-so, it is the role of tourism researchers to close the knowledge and information gap between theory and practice, taking into account real-world events. The COVID-19 pandemic and its socio-economic effects on tourism are unprecedented and present a genuinely unique conundrum for the global tourism industry. Practically, the paper provides essential insights into the importance of mitigating the perceived risk factors currently influencing tourism, particularly within the short to medium term, hence providing tourism marketers impetus to seek to address the current evolving consumer trend(s) related to the COVID-19 pandemic. Pedagogically, this paper contributes to the burgeoning body of knowledge related to the COVID-19 pandemic crisis and tourism. In the absence of research on tourist behaviour in light of a global crisis of the magnitude of the COVID-19 pandemic, the present paper as a primer to broader research identifies a significant gap in the literature.

References

- Adam, I. (2015), “Backpackers’ risk perceptions and risk reduction strategies in Ghana”, *Tourism Management*, Vol. 49, pp. 99-108.
- Akhoondnejad, A. (2015), “Analysing the pre-travel, on-travel, and post-travel behaviours of Iran’s first-time visitors”, *Journal of Travel & Tourism Marketing*, Vol. 32 No. 8, pp. 1023-1033, doi: [10.1080/10548408.2014.957796](https://doi.org/10.1080/10548408.2014.957796).
- Aliperti, G. and Cruz, A.M. (2019), “Investigating tourists’ risk information processing”, *Annals of Tourism Research*, Vol. 79, p. 102803.
- Arezki, R. and Nguyen, H. (2020), “Novel coronavirus hurts the Middle east and North Africa through many channels”, in Baldwin, R. and di Mauro, B.W. *Economics in the Time of COVID-19*, Centre for Economic Policy Research, London.

- Aronson, E. (1968), "Dissonance theory: progress and problems", in Abelson R.P., Aronson E, Mcquire, W.J., Newcomb, T.M. Rosenberg, M.J. Tannenbaum P.H. (Eds), *Theories of Cognitive Inconsistency: A Source Book*, Rand McNally, Chicago, pp. 5-27.
- Baldwin, R. and di Mauro, B.W. (2020), *Economics in the Time of COVID-19*, Centre for Economic Policy Research, London.
- Bauer, R.A. (1967), "Consumer behaviour as risk taking", in Cox, D.F. (Ed.), *Risk Taking and Information Handling in Consumer Behaviour*. Graduate School of Business Administration, Harvard University, Boston, pp. 23-33.
- Becken, S. and Hughey, K.F.D. (2013), "Linking tourism into emergency management structures to enhance disaster risk reduction", *Tourism Management*, Vol. 36, pp. 77-85.
- Cahyanto, I., Wiblishauser, M., Pennington-Gray, L. and Schroeder, A. (2016), "The dynamics of travel avoidance: the case of ebola in the U.S", *Tourism Management Perspectives*, Vol. 20, pp. 195-203.
- Campiranon, K. and Scott, N. (2014), "Critical success factors for crisis recovery management: a case study of Phuket hotels", *Journal of Travel & Tourism Marketing*, Vol. 31 No. 3, pp. 313-326.
- Carballo, R.R., León, C.J. and Carballo, M.M. (2017), "The perception of risk by international travellers", *Worldwide Hospitality and Tourism Themes*, Vol. 9 No. 5, pp. 534-542.
- Carlsen, J.C. and Hughes, M. (2008), "Tourism market recovery in the Maldives after the 2004 Indian ocean tsunami", *Journal of Travel & Tourism Marketing*, Vol. 23 Nos 2/4, pp. 139-149.
- Chen, H. (2016), "Antecedents and consequences of post-tour dissonance: the case of Chinese group package tours in Australia", PhD thesis, Southern Cross University, Lismore, NSW.
- Chew, E.Y.T. and Jahari, S.A. (2014), "Destination image as a mediator between perceived risks and revisit intention: a case of post-disaster Japan", *Tourism Management*, Vol. 40, pp. 382-393.
- Chien, P.M., Sharifpour, M., Ritchie, B.W. and Watson, B. (2017), "Travelers' health risk perceptions and preventative behavior: a psychological approach", *Journal of Travel Research*, Vol. 56 No. 6, pp. 744-759.
- Cooper, M. (2005), "Japanese tourism and the SARS epidemic of 2003", *Journal of Travel & Tourism Marketing*, Vol. 19 Nos 2/3, pp. 117-131.
- Cui, F., Liu, Y., Chang, Y., Duan, J. and Li, J. (2016), "An overview of tourism risk perception", *Natural Hazards*, Vol. 82 No. 1, pp. 643-658.
- Dunwoody, S. and Griffin, R.J. (2015), "Risk information seeking and processing model", in Cho, H., Reimer, T. and McComas K.A. (Eds), *The SAGE Handbook of Risk Communication*, SAGE, Thousand Oaks, CA, pp. 102-116.
- Festinger, L. (1957), *A Theory of Cognitive Dissonance*, Stanford University Press.
- Folayan, M. and Brown, B. (2015), "Ebola and the limited effectiveness of travel restrictions", *Disaster Medicine and Public Health Preparedness*, p. 1.
- Fragomen (2020), "COVID-19 pandemic – immigration situation overview", available at: www.fragomen.com/file/newcoronavirustablefornewspage625v4pdf (accessed 25 June 2020).
- Fuchs, G. and Reichel, A. (2011), "An exploratory inquiry into destination risk perceptions and risk reduction strategies of first time vs repeat visitors to a highly volatile destination", *Tourism Management*, Vol. 32 No. 2, pp. 266-276.
- Global Rescue and World Travel and Tourism Council (2019), *Crisis Readiness: Are You Prepared and Resilient to Safeguard Your People and Destinations?*, World Travel and Tourism Council, London.
- Gu, H. and Wall, G. (2006), "SARS in China: tourism impacts and market rejuvenation", *Tourism Analysis*, Vol. 11 No. 6, pp. 367-379.
- Huanga, X., Daib, S. and Xub, H. (2020), "Predicting tourists' health risk preventative behaviour and travelling satisfaction in Tibet: combining the theory of planned behaviour and health belief model", *Tourism Management Perspectives*, Vol. 33, p. 100589.
- Huynh, T.L.D. (2020), "The COVID-19 risk perception: a survey on socioeconomics and media attention", *Economics Bulletin*, Vol. 40 No. 1, pp. 758-764.
- Ishii, S. Yanagisawa, J. Kobayashi, K. and Konagai, M. (2011), "Measures for dealing with the effects of the great east Japan earthquake on international transportation, tourism and logistics", available at: www.nri.co.jp/English/opinion/papers/2011/pdf/np2011168.pdf (accessed 25 June 2020).

- Jonas, A., Mansfeld, Y., Paz, S. and Potasman, I. (2011), "Determinants of health risk perception among low-risk-taking tourists traveling to developing countries", *Journal of Travel Research*, Vol. 50 No. 1, pp. 87-99.
- Kapu, G. and Richards, B. (2016), "News framing effects on destination risk perception", *Tourism Management*, Vol. 57, pp. 234-244.
- Karl, M. and Schmude, J. (2017), "Understanding the role of risk (perception) in destination choice: a literature review and synthesis", *Tourism*, Vol. 65 No. 2, pp. 138-155.
- Kim, M., Choi, K.H. and Leopkey, B. (2019), "The influence of tourist risk perceptions on travel intention to mega sporting event destinations with different levels of risk", *Tourism Economics*, doi: [10.1177/1354816619879031](https://doi.org/10.1177/1354816619879031), Special Issue: Sports and Tourism: Economic Impacts.
- Law, R. (2006), "The perceived impact of risks on travel decisions", *International Journal of Tourism Research*, Vol. 8 No. 4, pp. 289-300.
- Leggat, P.A., Brown, L.H., Aitken, P. and Speare, R. (2010), "Level of concern and precaution taking among Australians regarding travel during pandemic (H1N1) 2009: results from the 2009 Queensland social survey", *Journal of Travel Medicine*, Vol. 17 No. 5, pp. 291-295.
- Lepp, A., Gibson, H. and Lane, C. (2011), "Image and perceived risk: a study of Uganda and its official tourism website", *Tourism Management*, Vol. 32 No. 3, pp. 675-684.
- Liu, B., Pennington-Gray, L. and Schroeder, A. (2013), "Images of safe tourism destinations in the United States held by African Americans", *PASOS. Revista de Turismo y Patrimonio Cultural*, Vol. 11 No. 3, pp. 105-121.
- Liu, B., Schroeder, A., Pennington-Gray, L. and Farajat, S.A.D. (2016), "Source market perceptions: how risky is Jordan to travel to?", *Journal of Destination Marketing & Management*, Vol. 5 No. 4, pp. 294-304.
- McLaughlin, T. (2020), "Coronavirus is devastating Chinese tourism", available at: www.theatlantic.com/international/archive/2020/02/economy-coronavirus-myanmar-chinatourism/606715/ (accessed 21 April 2020).
- Mackenzie, D. (2014), "Ebola travel ban will not work", *New Scientist*, Vol. 224 No. 2992, pp. 4-5.
- Menasco, M.B. and Hawkins, D.I. (1978), "A field test of the relationship between cognitive dissonance and state anxiety", *Journal of Marketing Research*, Vol. 15 No. 4, pp. 650-655.
- Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M. and Agha, R. (2020), "The socio-economic implications of the coronavirus and COVID-19 pandemic: a review", *International Journal of Surgery*, Vol. 78, doi: [10.1016/j.ijsu.2020.04.018](https://doi.org/10.1016/j.ijsu.2020.04.018).
- Novellia, M., Burgessb, L.G., Jonesc, A., Ritchie, B.W. (2018), "'No ebola...still doomed' – the ebola-induced tourism crisis", *Annals of Tourism Research*, Vol. 70, pp. 76-87.
- Nugraha, A.K.N.A. (2014), "Consumers' decision to visit a risky destination country: an analysis of tourists' risk taking", Doctoral dissertation. Macquarie University, available at: www.researchonline.mq.edu.au/vital/access/services/Download/mq:44472/SOURCE1?view%4true (accessed 21 April 2020).
- Olya, H.G.T. and Al-Ansi, A. (2018), "Risk assessment of halal products and services: implication for tourism industry", *Tourism Management*, Vol. 65, pp. 279-291.
- Organisation for Economic Co-operation and Development, OECD (2020), "Tourism policy responses to the coronavirus (COVID-19)", available at: www.oecd.org/coronavirus/policy-responses/tourism-policy-responses-to-the-coronavirus-covid-19-6466aa20/ (accessed 25 June 2020).
- Osland, G.E., Mackoy, R. and McCormick, M. (2017), "Perceptions of personal risk in tourists' destination choices: nature tours in Mexico", *European Journal of Tourism, Hospitality and Recreation*, Vol. 8 No. 1, pp. 38-50.
- Qi, C.X., Gibson, H.J. and Zhang, J.J. (2009), "Perceptions of risk and travel intentions: the case of China and the Beijing Olympic games", *Journal of Sport & Tourism*, Vol. 14 No. 1, pp. 43-67.
- Reisinger, Y. and Mavondo, F. (2005), "Travel anxiety and intentions to travel internationally: implications of travel risk perception", *Journal of Travel Research*, Vol. 43 No. 3, pp. 212-225.
- Ritchie, B.W. and Jiang, Y. (2019), "A review of research on tourism risk, crisis and disaster management: launching the annals of tourism research curated collection on tourism risk, crisis and disaster management", *Annals of Tourism Research*, Vol. 79, p. 102812.
- Rittichainuwat, B.N. and Chakraborty, G. (2009), "Perceived travel risks regarding terrorism and disease: the case of Thailand", *Tourism Management*, Vol. 30 No. 3, pp. 410-418.

- Rodríguez-Morales, A.J., MacGregor, K., Kanagarajah, S., Patel, D. and Schlagenhauf, P. (2020), "Going global – travel and the 2019 novel coronavirus", *Travel Medicine and Infectious Disease*, Vol. 33, p. 101578.
- Roselius, T. (1971), "Consumer rankings of risk reduction methods", *Journal of Marketing*, Vol. 35 No. 1, pp. 56-61.
- Rosenstock, I.M., Strecher, V.J. and Becker, M.H. (1988), "Social learning theory and the HBM", *Health Education Quarterly*, Vol. 15 No. 2, pp. 175-183.
- Ruiz-Estrada, M.A. Park, D. and Lee, M. (2020), "The evaluation of the final impact of Wuhan COVID-19 on trade, tourism, transport, and electricity consumption of China", available at: <https://ssrn.com/abstract=3551093> (accessed 21 April 2020).
- Stezhko, N., Oliinyk, Y., Polishchuk, L., Tyshchuk, I., Parfinenko, A. and Markhonos, S. (2020), "International tourism in the system of modern globalisation processes", *International Journal of Management (IJM)*, Vol. 11 No. 3, pp. 97-106.
- Swarbrooke, J. and Horner, S. (2007), *Consumer Behaviour in Tourism*, 2nd ed., Butterworth-Heinemann, Amsterdam.
- Tavitiyaman, P. and Qu, H. (2013), "Destination image and behavior intention of travellers to Thailand: the moderating effect of perceived risk", *Journal of Travel & Tourism Marketing*, Vol. 30 No. 3, pp. 169-185.
- Wang, H.Y. (2017), "Determinants hindering the intention of tourists to visit disaster-hit destinations", *Current Issues in Tourism*, Vol. 20 No. 5, pp. 459-479, doi: [10.1080/13683500.2015.1062471](https://doi.org/10.1080/13683500.2015.1062471).
- Wilder-Smith, A. (2005), "The severe acute respiratory syndrome: impact on travel and tourism", *Travel Medicine and Infectious Disease*, Vol. 4 No. 2, pp. 53-60.
- Wolff, K. and Larsen, S. (2016), "Flux and permanence of risk perceptions: tourists' perception of the relative and absolute risk for various destinations", *Scandinavian Journal of Psychology*, Vol. 57 No. 6, pp. 584-590.
- Wolff, K., Larsen, S. and Øgaard, T. (2019), "How to define and measure risk perceptions", *Annals of Tourism Research*, Vol. 79, p. 102759.
- World Economic Forum (2019), *Outbreak Readiness and Business Impact: Protecting Lives and Livelihoods across the Global Economy*, World Economic Forum, Geneva.
- World Tourism Organization (UNWTO) (2020), "Restrictions on travel easing as Europe leads cautious restart of tourism", available at: <https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-06/200623-Travel-Restrictions-EN.pdf> (accessed 25 June 2020).
- World Travel and Tourism Council (2020), "Coronavirus brief: the 15th of april 2020", available at: https://wttc.org/Portals/0/Documents/WTTC%20Coronavirus%20Brief%20External%2015_04.pdf?ver=2020-04-15-120258-850 (accessed 21 April 2020).
- Yanga, Y., Zhang, H. and Chen, X. (2020), "Coronavirus pandemic and tourism: dynamic stochastic general equilibrium modelling of infectious disease outbreak", *Annals of Tourism Research*, Vol. 83, doi: [10.1016/j.annals.2020.102913](https://doi.org/10.1016/j.annals.2020.102913) (accessed 21 April 2020).
- Yeung, R.M.W. and Yee, W.M.S. (2019), "Travel destination choice: does perception of food safety risk matter?", *British Food Journal*, Vol. 122 No. 6, doi: [10.1108/BFJ-09-2018-0631](https://doi.org/10.1108/BFJ-09-2018-0631) (accessed 21 April 2020).
- Zhai, X., Zhong, D. and Luo, Q. (2019), "Turn it around in crisis communication: an ABM approach", *Annals of Tourism Research*, Vol. 79, p. 102807.

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