

Negative and positive antecedents of intention to resume hotel consumption in new normal settings in Malaysia: insight from three psychological theories

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Abstract

Purpose – Applying three psychological theories, this study aims to attempt to investigate the role of consumer psychology, specifically the factors of trust in vaccination, threat severity, fear, anxiety, risk and hygiene, and safety, on intention to resume hotel consumption. The authors also tested the mediation effect of anxiety among psychological constructs: perceived threat, fear and risk with the intention to resume hotel consumption.

Design/methodology/approach – Using purposive sampling, data were collected from 470 respondents from four cities in Malaysia and analysed by applying analysis of moment structures (AMOS) structural equation model technique. The respondents for this study were frequent travellers meaning the leisure tourists who at least travel twice a year or travel when getting the occasion to explore new things. In this study, an online survey was employed to ensure easy accessibility and to enhance the number of replies.

Findings – The results of this study confirmed that perceived severity, risk and fear influence travellers' anxiety. This study further confirms that trust in vaccination and hygiene & safety provided by the hotelier reduces anxiety levels. Anxiety is found one of the most important predictors of intention to resume hotel consumption, which further mediates the relationship between other psychological variables: perceived severity, risk, fear and intention to resume hotel consumption. Anxiety mediates the relationship between perceived severity, fear and intention to resume hotel consumption and partially mediates the association between risk and intention to resume hotel consumption.

Originality/value – This study examined three psychological theories and extended them by including the trust in vaccination and the hygiene and safety constructs. Anxiety was investigated as a mediator.

Keywords Psychological theories, Trust in vaccination, Hygiene and safety, Intention to resume hotel consumption

Paper type Research paper

(Information about the authors can be found at the end of this article.)

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1. Introduction

The global tourism and hospitality industry is heavily affected by the COVID-19 pandemic. Unpredictably, the severe acute respiratory syndrome corona virus-2 (SARS-CoV-2) epidemic began in Wuhan (China) and quickly spread throughout the city and beyond (Kejal Hasmuk, 2020). The new SARS-CoV-2 pandemic has been formally named the COVID-19 pandemic by the World Health Organization and they declared this disease a worldwide pandemic on March 12, 2020 (Wu et al., 2020). While previous crises have been distinct from this one in terms of their global reach, Wen et al. (2020) suggested that this one has the potential to induce structural change over time, both in the economic and social spheres. Donthu and Gustafsson (2020) stressed that many

companies have been forced to close as a result of the outbreak, which has had a major impact on most economic sectors. Consequently, COVID-19 is one of the most critical commercial challenges of the last century (Hall *et al.*, 2021).

The pandemic affected the tourism industry undermining the economic power, i.e. the gross domestic product (GDP) of several countries (Jiang and Wen, 2020). The hotel and tourist business, according to Sigala (2020), is a major source of employment across the world. International travel has stopped because of the COVID-19 outbreak, which has led to more uncertainty in the sector as a whole (Backhaus *et al.*, 2023). According to researchers like Jiang and Wen (2020), the hospitality sector has been severely hit, with dramatic decreases in occupancy rates due to cancellations or delays of business or leisure visits due to government-imposed travel restrictions, as well as customer panic induced by COVID-19 (Hall *et al.*, 2021).

Malaysia's tourist business saw a rapid drop in international visitors, domestic movement limitations and heightened tourism health and safety issues. In the first quarter of 2020, domestic travellers dropped by 95% due to border closures and a sharp reduction in consumer demand (Balasubramanian and Hanafiah, 2022). By the third quarter of 2021, border closures cost the hotel industry about RM9 billion in income (MAH Report, 2021). From February 2020, Chinese travellers cancelled reservations and hotels saw a sharp decline in occupancy. The country's dependence on Chinese tourists, at 3.1 million in 2019, is likely to rise to a record high in 2020 with the "Visit Malaysia Year" push and became vein (Balasubramanian and Hanafiah, 2022). Many hotel openings (during 2019–2020) have been delayed, reducing job chances. Most hotels have halved their staff. Due to social alienation and material shortages, numerous new tourism and hotel amenities have been suspended construction (Balasubramanian and Hanafiah, 2022).

In response to the problem, Malaysia created multiple mega vaccination clinics at non-health facilities, allowing around 27 million individuals to be vaccinated in 2021. Tourism Malaysia's 2018 Malaysia Smart Tourism 4.0 programme will help make use of digital opportunities to advance. As a consequence of this, the sector is seeing some encouraging indicators, including an increase in domestic demand, the possibility of foreign travel bubbles and the distribution of booster vaccines picking up speed (Balasubramanian and Hanafiah, 2022). Likewise, internationally, the process of reopening has begun, with authorities gradually removing restrictions, following the removal of early travel prohibitions in several nations (Gursoy and Chi, 2020). The consequence of this is that even if restrictions have been removed, customers may be afraid or uneasy to return to hotels, at least in the near future (Gursoy *et al.*, 2020). Instead of only concentrating on recovery because COVID-19 is the organization has to determine the critical elements that affect consumer behaviour in terms of transitioning to the "new normal" because it is projected to have a long-term impact on the tourism industry (Sigala, 2020; Wen *et al.*, 2020).

In the last couple of decades, academics have become more interested in health concerns in tourism (e.g. Chen *et al.*, 2021; Novelli *et al.*, 2018), and the COVID-19 pandemic has led to a huge increase in the number of publications (Golets *et al.*, 2021; Senbeto and Hon, 2019). Existing studies have looked at how the COVID-19 outbreak affected the tourism industry, like how many tourists came, how much they spent and how full hotels were (e.g. Škare *et al.*, 2021). Other studies have looked at how risk perception affects tourists' behaviours, like their desire to travel or their plans to travel (e.g. Gallego *et al.*, 2022a, b; Neuburger and Egger, 2021). As per, Otoo and Kim (2018) consumers amid the COVID-19 crisis may perceive two distinct sorts of risk: first, there's a health risk that comes from a possible illness during the trip; second, there is an emotional danger that comes from the anxiety of maintaining constant contact with hotel personnel and other potentially sick guests, as well as the changes that come with new health. People may lose out on the overall experience because of these severe safeguards. The research by Ramos-Real and Martín-Azami (2019) and Alvarez *et al.* (2020) shows that risk has a detrimental impact on tourists' desire to visit or return. Both of these types of perceived risks might have a detrimental impact on the hotel industry. Additionally, Arumugam (2020) discovered that people's dread of an unidentified deadly contagious illness can have very negative psychological effects, increasing stress and anxiety (Arumugam, 2020). This is because, with the mutation of viruses during a

pandemic, people's perceptions of the risk posed by a new virus are often exaggerated, especially when the vaccine is not protecting 100% from the virus. Even though [WHO Report \(2020\)](#) and [Canady \(2020\)](#) reported that elderly individuals and those with a history of illness are more likely to be affected by COVID-19, the vast majority of people believe they are in danger.

Given that hotel firms' very survival depends on people wanting to use their services again ([Gursoy and Chi, 2020](#)), and also that threat will play a critical role in tourist decisions for the coming years ([Shin and Kang, 2020](#)). Thus, it is important to figure out which factors affect people's ability to adapt to the above-mentioned risk situations and how this affects their decision-making ([Wang et al., 2020](#)). In this regard, numerous theories have highlighted the role played by the personal characteristics of consumers in their decision-making under conditions of uncertainty and risk in the tourism field. Some examples of these theories include the "Health Belief Model" ([Cahyanto et al., 2016](#)), "Goal-Directed Behaviour" ([Lee et al., 2012](#)), the "Cumulative Prospect Theory" ([Xu et al., 2011](#)), "Theory of Planned Behaviour" ([Wang et al., 2021a,b](#)) and the "Model of International Tourism Decision-Making Process" ([Sonmez and Graefe, 1998](#)). It was also discovered that the consumers' perceptions of risk are highly dependent on the individual qualities of the consumers themselves ([Senbeto and Hon, 2020](#)).

Two more elements that may also play a key role trust in vaccination and hygiene and safety. In this study, these two factors are considered important predictors which positively affect the intention to resume hotel consumption. [Kim et al. \(2022\)](#) study exhibit that COVID-19 vaccination, along with other biosecurity behaviours such as wearing masks, hygiene and handwashing, and safety, is the main indicators that can help to revive domestic and international tourism and restart travel ([Wang et al., 2021a, b](#); [Sánchez-Caizares et al., 2021](#); [Moreno-González et al., 2020](#)). However, [Rahman et al. \(2021\)](#) and [Williams et al. \(2022\)](#) empirical studies argued that investigating COVID-19 vaccination trust and tourism are still lacking.

This research objective is to identify the function of consumer psychology, specifically the factors of trust in vaccination, threat severity, fear, anxiety, risk and hygiene, and safety, on intention to resume hotel consumption, while taking into account the non-existence of the literature. By analysing the correlation between the variables in the context of resuming hotel consumption, our research claims, we should be able to clarify the factors that affect consumers' intentions to restart hotel use, allowing governments and hotel management must take the appropriate preventative measures to minimise losses if and when similar circumstances occur in the future. Furthermore, it is possible to compare the results of this study to those of other researchers who are examining the psychological elements that influence consumers not to consume in other circumstances, allowing us to generalize our findings.

2. Underpinning theories

Three psychological theories are used to build the research model; expectancy theory ([Reiss and McNally, 1985](#)), reactance theory (RT) ([Brehm and Brehm, 1981](#)) and behavioural inhibition system (BIS) theory ([Gray, 1975](#)).

According to the BIS theory, people's brains have three distinct interconnected emotion systems: the BIS, the behavioural activation system (BAS) and the fight-flight system, all of which are elicited by the primary reinforcers and stimuli (secondary reinforcers) and control their emotional behaviour ([Gray, 1975](#)). According to this theory, people's anxiety is caused by an aversive stimulus, which prevents them from acting naturally and calmly ([Hagopian and Ollendick, 1994](#)). People become nervous when BIS emotion interacts with unfavourable inputs, which motivates them to make plans for their lives to avoid situations that make them uneasy ([MacAndrew and Steele, 1991](#)).

According to the expectation theory (ET), a person's fear is motivated to take the required precautions to avoid the fear stimulus by their awareness of risk and sensitivity to that dangerous thing ([Reiss, 1991](#)). According to the concept, people's levels of fear may vary based on their anticipated negative outcomes and how sensitive they are too unpleasant anxiety-related side

effects (Reiss, 1991). As a result, it's critical to understand the role of response expectancy in preventing anxiety disorders in people (Kirsch, 1997). Even though fear and anxiety are different in how they are thought of, the ET suggests that they are connected because a person's main fear(s) should affect the kinds of anxiety they feel. The differences in a person's more specific anxious thoughts should come from the fear or fears that they are most sensitive to (Reiss, 1991). So, people who are very sensitive to the fear of being judged negatively are often more likely to be nervous in public interactions where they might be judged by others, like the intention to resume hotel consumption. Zhang *et al.* (2022) looked at how the fear of getting a bad review affects interview anxiety and social-evaluative work anxiety.

Another theory in psychology that seeks to explain people's reactions when they are threatened with losing their freedom is the RT (Brehm and Brehm, 1981). People's ideas of freedom are based on how they act, not on an abstract idea of freedom (Brehm, 1966). So, people only feel free whenever they are capable of acting the way they want to. Psychological RT holds that the COVID-19 pandemic poses a threat to freedom of choice by making people feel like they have to do something (like wear a face mask) or behave in a certain way (like stay away from others) (Akhtar *et al.*, 2020). Messages that try to control people are used as freedom threats (Shen, 2015). The more threatening a message is to a person's need for freedom, the more coercive it is (Kavouris *et al.*, 2020). In recent years, RT has also been widely used in a wide range of research areas, such as restaurant catering (Kang *et al.*, 2021), binge-watching and programme purchases (Song *et al.* 2022), environmental protection (Kavouris *et al.*, 2020), and smoking (Clayton *et al.*, 2020). PRT has also been employed to look at how people buy things, which is called "product evaluation" (Jones *et al.*, 2014). Youn and Kim (2019) looked further into predictors related to psychological reactivity to find out why people don't want to see Facebook ads. Brinson *et al.* (2018) looked at the cognitive and emotional factors that led people to avoid personalized advertisements and install software that blocks ads. There is also research on tourism (Font and Hindley, 2017) that uses RT to explain how tourists' views of changing climate influence their travel choices.

The ET and RT discuss how people's perceived threat of losing their freedom impacts their incentive to reclaim it while analysing how the sensitivity of expected fear objects affects people's anxiety. Furthermore, the BIS theory explains why people react in different ways in different situations. Because psychological factors are believed to play a significant role in influencing consumers' anxiety following the outbreak of the COVID-19 pandemic, we have used them to explain the intention to resume hotel consumption even though all of these psychological theories are typically applied in the context of health.

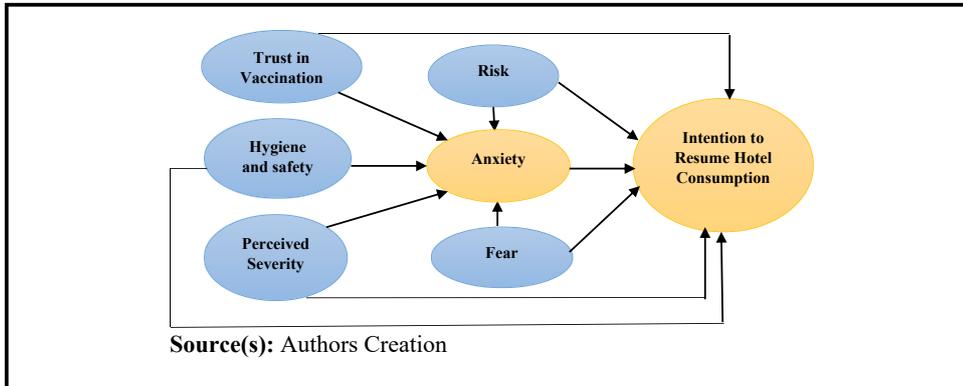
The question of whether consumers' intention to resume hotel consumption during a pandemic is disaster preparation is still being debated. According to the theories, consumers with a strong BIS emotion system are more likely to get apprehensive when confronted with negative stimuli such as perceived threat, perceived risk and fear. As a result, their fear of catastrophic repercussions causes individuals not to stay in the hotel to avoid anxiety-inducing circumstances. Furthermore, we believe that the fear of transmission of Covid-19, the trust in vaccination, and the severity of infection with the COVID-19 virus may cause consumers to perceive a lack of control over a situation, leading them not to resume hotel consumption.

2.1 Research model and hypotheses development

This work provides a conceptual model (Figure 1) based on existing empirical and theoretical assessments.

2.1.1 Trust in COVID-19 vaccination, anxiety and intention to resume hotel consumption. Malik *et al.* (2020) argued that a vaccination program's breadth and acceptance, as well as public trust in the program, are important to its effectiveness. Trust in vaccination for Covid-19 refers to the belief in the Covid-19 vaccine's competence rather than its reasons or goals. Covid-19 vaccines may or

Figure 1 Conceptual framework



may not protect against the disease. Few companies have been able to develop Covid-19 vaccines in such a short period, raising public worries about their efficacy. Not all vaccine manufacturers claim that their vaccines provide 100% protection against Covid-19 infections.

Medical and health personnel compared to the other groups examined, law enforcement organizations and medical professionals reported feeling more secure after immunisation (Moccia *et al.*, 2021). This is probably because of a larger perceived danger of infection, especially during the first wave when they were at the frontline, as well as a sense of professional obligation to the population for whom they provide both safety and health services. The pandemic's widespread anxiety and psychological effects have influenced health perception and vaccination variables (Chou and Budenz, 2020; Bener *et al.*, 2020). This is probably due to the plethora of information obtained, which can be a double-edged sword: for some, the knowledge alleviated anxiety and stigma associated with vaccination, but it also created many negative attitudes about vaccination in the community (Cohen and Bodner, 2019). According to a review report by Visschers and Siegrist (2015) based on 45 articles, trust and risk perception differed significantly among studies. In instances where people are uninformed of the dangers, trust is crucial. Thus, the following hypotheses are presented:

- H1a. Trust in Covid-19 vaccination has a positive influence on intention to resume hotel consumption.
- H1b. In the setting of intending to resume hotel consumption, trust in the Covid-19 vaccine negatively affects anxiety.

2.1.2 Hygiene and safety, anxiety and intention to resume hotel consumption. International travel should resume post-COVID-19 levels by 2024 (UNWTO, 2021). For this to occur, tourists must feel at ease when travelling. Currently, health-related safety issues are holding back a significant portion of travel demand (Hoque *et al.*, 2020; Sengel *et al.*, 2020). As long as the COVID-19 outbreak continues, foreign visitors will be cautious about health-related challenges when visiting or taking part in hospitality-related activities (Gursoy *et al.*, 2021).

The Covid-19 epidemic has heightened public awareness of the need for sanitation and safety. People worry about their personal safety and hygiene requirements in hotels, public transportation and other settings (Sigala, 2020). Face masks can help reduce the symptoms of patients who have been exposed to Covid-19 outbreaks (Wen *et al.*, 2020; Esposito and Principi, 2020). Visitors' travel plans, health and cleanliness have all been harmfully affected by the COVID-19 outbreak (Wen *et al.*, 2020). To put it another way, safety and sanitation have a role in visitors' views of travel risk and management. Due to safety and hygiene problems, including health concerns, the bulk of the risk. According to Wen *et al.* (2020), the COVID-19 pandemic puts a premium on places that

provide visitors with a sense of security, cleanliness, a dependable infrastructure and access to high-quality medical care. Therefore, this research postulated that:

H2a. Hygiene and safety have a positive influence on the intention to resume hotel consumption.

H2b. Hygiene and safety have a negative influence on anxiety in the context of the intention to resume hotel consumption

2.1.3 Perceived severity, anxiety and intention to resume hotel consumption. The term “perceived severity” describes a situation in which people believe there is a danger of negative repercussions if they engage in or avoid certain conduct (Yuen *et al.*, 2020). Qian *et al.* (2020) highlighted individuals’ insights into their severity can raise anxiety levels, and it’s one of the best factors that affect change of behaviour. This is because when people are exposed to danger or uncertainty, they prefer to focus on the intensity of the risk. According to consumer behaviour studies, perceived fear may boost people’s purchase decisions to alleviate negative emotions such as lesser security, discomfort, worry and anxiety (Kennett-Hensel *et al.*, 2012).

According to the (Reiss, 1991) expectancy theory, people are motivated to avoid a feared object/situation by predicting the intensity of the occurrence and anticipating the negative consequences of the feared object/situation (expectation). The threat to one’s life or property posed by a pandemic may heighten one’s dread and, as a result, anxiety (Liren *et al.*, 2012). Unplanned purchases, such as compulsive shopping and huge spending, have been linked to mood, anxiety and other personality disorders (Gallagher *et al.*, 2017), as well as contextual factors (Gallagher *et al.*, 2017). Taylor (2019) highlighted that numerous persons have linked the coronavirus pandemic to the previous terrible Spanish flu outbreak in 1918, in which 50 million people were killed in the world and people are becoming fearful. People react to such sensations by engaging in irrational conduct, such as avoiding shopping mall visits. However, the following four hypotheses have been formed:

H3a. Perceived severity of a pandemic outbreak has a positive relationship with consumers’ anxiety

H3b. Perceived severity of a pandemic outbreak has a negative relationship with the intention to resume hotel consumption.

2.1.4 Fear, anxiety and intention to resume hotel consumption. Fear can be seen as an adaptive reaction to threat, and it might encourage people to engage in preventive and protective behaviour in order to avoid getting sick and adhere to pandemic-related health recommendations. On the other side, people who have a lot of fear may have a higher risk perception. As a result, this adaptive when these emotional reactions are unable to adequately convey information, the fear response becomes maladaptive. One of the most prevalent responses to pandemics is fear of contracting the disease or spreading it to loved ones (Kubb and Foran, 2020; Mahmud *et al.*, 2021), which can lead to health anxiety, anxieties, psychological distress and particular phobias (Kubb and Foran, 2020; Mahmud *et al.*, 2021; Arpaci *et al.*, 2020; Feng *et al.*, 2020). Furthermore, people commonly experience other sorts of psychological discomforts, such as fear, during a pandemic. Therefore, since the COVID-19 epidemic, consumers have been warned to stay away from crowded areas and, if possible, keep their distance from other people in public, and avoid touching public surfaces. In terms of appealing to customers, these “new normal” behaviours work against the decision to stay in the hotel. Accordingly, we proposed the following hypothesis:

H4a. Fear of the outbreak of a pandemic has a positive association with consumers’ anxiety.

H4b. Fear of the outbreak of a pandemic has a negative association with the intention to resume hotel consumption.

2.1.5 *Risk, anxiety and intention to resume hotel consumption.* Bauer (1967) established the notion of perceived risk, which has subsequently gotten a lot of attention from academics in a variety of domains. Consumer behaviour was studied by Axelsen and Swan (2010), who defined “risk as customers’ sense of insecurity and the magnitude of potential negative worries”. The COVID-19 pandemic has inflicted havoc, notably in the hospitality sector. Employees and visitors commonly cross paths at hotels and other lodging facilities. These elements – guest housing, the services that this requires (activity organization, cleaning, beverage and food, and so on) – as well as the interactions unique to these businesses (staff-staff, guest-staff and guest-guest). As a result, there is a chance that susceptible individuals (customers or employees) will become infected (Budd *et al.*, 2021). According to Simione and Gnagnarella (2020) and Chen *et al.* (2020), an infection risk is the possibility of contracting a condition that puts one’s health at risk physically, especially for people who exhibit symptoms or are in close contact with people who are afflicted or fear they are infected. Lau *et al.* (2008) highlighted that with the advent of a new virus, there are significant scientific ambiguities concerning disease qualities, so possible infection risk may cause widespread public concern, which can lead to psychological discomfort and anxiety. Accordingly, the following hypotheses are proposed:

- H5a. The risk of the outbreak of a pandemic has a positive association with consumers’ anxiety.
- H5b. The risk of the outbreak of a pandemic has a negative association with the intention to resume hotel consumption.

2.1.6 *Anxiety and intention to resume hotel consumption.* Anxiety, according to Epstein (1985), poses “threats to future enjoyment, self-esteem and the individual’s ability to make sense of the data of his experience.” Anxiety and nervousness influence everyone in society. Recent research reveals that persons who are quarantined suffer from high levels of stress, worry and other negative emotions (Brooks *et al.*, 2020) Travel anxiety is a sort of tourist self-anxiety. The desire to travel lessens, anxiety increases and travellers’ perceptions of safety deteriorate (Gudykunst and Hammer, 1988). Travel inclinations are influenced by perceived security and travel anxiety levels (Reisinger and Mavondo, 2005). Accordingly, we propose the following hypothesis:

- H6. Anxiety has a negative relationship with the intention to resume hotel consumption.

2.1.7 *Mediating effect of anxiety.* Nima *et al.* (2013) study has shown that anxiety acts as an intermediary between depression and stress. Lee *et al.* (2011) have done an experimental study which revealed that anxiety modulates the association between stereotype threat and the purchase intention of individuals in the setting of vehicle maintenance. Another study by Bakioğlu *et al.* (2021) showed that an individual’s tolerance for ambiguity, fear of contracting the Covid-19 infection and positive feelings are all mediated by anxiety. Furthermore, anxiety was proven to be a mediator of the materialistic impact (e.g. success and importance) on customers’ compulsive buying behaviour found by the research of Otero-Lopez and Villardefrancos (2013). Sim *et al.* (2020) and Yuen *et al.* (2020) studies also point out that people may feel restless as a result of their anxiety about the pandemic, the risk of a lack of necessities and their worry that the supply chain will be disrupted. In other words, our research suggests that the unexpected emergence of the COVID-19 pandemic may have influenced consumers’ worry levels, which in turn may have negatively affected their intention to restart hotel consumption. The following hypotheses have been formed:

- H7a. Anxiety mediates the association between perceived severity and intention to resume hotel consumption.
- H7b. Anxiety mediates the association between risk and intention to resume hotel consumption.
- H7c. Anxiety mediates the association between fear and intention to resume hotel consumption.

3. Research methodology

3.1 Research design, sample and data collection

In this research, we examined the association between travellers' perceived severity, fear, risk, hygiene and safety, anxiety, trust in vaccination and intention to resume hotel consumption. In this study, we tested anxiety as mediating construct. In this study, we specifically targeted frequent leisure travellers as a prospective sample after the pandemic starts. By frequent travellers we mean those who at least travel twice a year or travel when getting the occasion to explore new things (Kristine, 2022). Data were gathered from Peninsular Malaysia's four cities namely Klang, Kula Lumpur, Putrajaya and Shah Alam. These four cities were chosen for their convenience and as those are relatively tourist-attracted areas. The questionnaire was appropriately developed, including the sequence of the questions, the appearance and the choice of words, to ensure the representativeness of the participants according to Babin *et al.* (2019). To obtain data from the respondents, we used the online snowball sampling method. The data was obtained via getting in touch with a small group of people who were known to live in those four cities, had gone through the initial lockdown and were then subject to travel bans from almost every nation in the globe. The qualified individuals were then invited to share invitations with others who had comparable experiences, which could offer accurate information about the psychological aspects that drove their travel behaviours during the COVID-19 outbreak (Dusek *et al.*, 2015). Online snowball sampling was utilized to reach the desired demographic as a result of a government ban on travel at the time; the first subject on the network served as the starting subject (Atkinson and Flint, 2001).

We were able to grasp a big number of respondents thanks to the online data collection approach. To reach potential responders, several media platforms such as Viber, WhatsApp, Messenger and other apps were used. We avoided making direct contact with potential respondents, which was necessary when the movement control order (MCO) was in effect, by using social media to send them a link to the survey. The questionnaire included two filtering questions to confirm respondents' qualifications before they could participate in the study. In addition, questions on the participants' other characteristics, such as their email addresses and frequency of travel to domestic and overseas before and after the lockdown, were included. The researchers were able to have some control over the initial individuals who accepted the offer to participate in the study because of the defined targeted sampling approach. The researchers could also use recruitment methods and tools to maintain certain controls to guarantee that the samples genuinely represent the intended demographic.

Using a cross-sectional survey methodology, we collected 470 responses online. For the sample size adequacy test, the study applied the G*power software tool (Faul *et al.*, 2009). According to the result, the sample size of 153 (priority test calculated using $f^2 = 0.15$ for effect size, $\beta = 0.05$ for error type 1 and $\beta = 0.20$ for error 2) was found sufficient for seven independent constructs or predictors based on the recommendation of Cohen (1988). The survey in this study was online to ensure accessibility and to enhance the number of replies (Richman *et al.*, 1999).

An online questionnaire was created such that responders were required to answer all of the questions to limit the number of unanswered questions. Additionally, the questionnaire was made to be modest and easy to understand so that respondents could quickly read and finish it without feeling discouraged from taking part in the research (Frazer and Lawley, 2000). We also made it clear that participation in the survey would be voluntary and anonymous in an effort to increase the response rate. The respondents for this study mostly were male (53.19%) and the rests are female (46.81%). The majority of the respondents (46.17) are under the age group of 40–50 years which is followed by the 30–40 years (32.76%). The least percentage of respondents was in the age of below 30 years (7.50%). The old age group (greater than 50 years) constitutes around 13.57% of the respondents.

The structural equation modeling (SEM) technique was utilized in conjunction with the AMOS software version 26 to evaluate the data. SEM is widely accepted as the best approach for

evaluating the overall model fit, individual parameter estimates, regression coefficients, averages and variances within and across groups (Hair *et al.* 2010).

3.2 Measurement of instruments

The scales' measuring items were designed to be reflective and were adapted from prior studies with minor modifications for this study (Appendix). After creating the questionnaire, we evaluated eight responders by asking them to review the questions and offer commentary on the wording. We made some modest changes in response to their suggestions. The constructs in this were measured using a five-point Likert scale ranging from "strongly disagree" to "strongly agree." All of the study's constructs were operationalized as reflecting constructs and modified from previous research. The construct perceived severity was measured by adapting three items from Xiao *et al.* (2014). The constructs of fear and risk were adapted from the study of Babcicky and Seebauer (2019). Hygiene and safety constructs were adapted from the study of Amin *et al.* (2020), and Rahman *et al.* (2021). Three items of intention to resume hotel consumption were adapted from the study of Amin *et al.* (2020). Trust in vaccination items was gathered items from Sarathchandra *et al.* (2018) and anxiety was adapted and modified from the study of Omar *et al.* (2021). For further analysis using Statistical Package for the Social Sciences (SPSS) version 26 demographic variables were conducted.

4. Results

4.1 Common method bias and non-response bias

Harman's one-factor test was used to look at prevalent method bias (Podsakoff and Organ, 1986). A common method variance arises if one component can explain the bulk of the covariance between the dependent and independent variables (usually greater than 50%). A single factor accounted for around 37.64% of the variance (lower than 50%) based on the exploratory factor analysis (EFA) results. In addition, as per Kock (2017), to be free from CMB, the variance inflation factor (VIF) value must be lower than 3.3, which is confirmed by this study's outcomes (Table 3). Therefore, CMB is not an issue in this study.

Non-response bias, also known as late-response bias, is when non-respondents from a sample deviate significantly from early responders. To avoid non-response bias, we adopted two precautions based on the suggestions by Turk *et al.* (2019). First, the study used a mandatory option for the Google form questions. Second, to enhance the response rate, researchers monitored the survey from time to time by providing frequent reminders. Thus, non-response bias is not an issue in this study.

4.2 Measure model

4.2.1 *Reliability.* This data was tested for reliability by calculating the Cronbach Alpha (CA) value (see Table 1). For each construct, reliability coefficients representing the resume intention are more than 0.7 (between 0.753 and 0.854), which adequately highlights the reliability suggested by Nunnally and Bernstein (1994).

4.2.2 *Validity and multi-collenertity.* To determine the validity and reliability of the concept, the assessment of the measurement model was carried out. The composite reliability and average variance extracted (AVE) were used to examine the construct validity. Table 1 and Figure 2 shows all constructs' convergent validity as AVE values greater than 0.5 (Barclay *et al.*, 1995; Fornell and Larcker, 1981). Because AVE's square root is higher than other components off-diagonal (Fornell and Larcker, 1981). MaxR(H) should be more than 0.80, according to Hancock and Mueller (2001), in order to show discriminant validity. The cutoff values for MaxR(H) (between 0.84 and 0.93) are higher than their corresponding cutoff values. Maximum shared variance (MSV) values for all constructs are less than AVE values, according to a comparison of MSV and AVE. There were no

Table 1		Factor loadings and reliability statistics											
Construct	Items	PS	Fear	Risk	HS	Int	Trust	ANX	Mean	SD	Skew	Kurt	α
Perceived Severity (PS)	PS1	0.807							2.42	1.17	0.657	-0.530	0.753
	PS2	0.814											
	PS3	0.827											
Fear	Fear1		0.807						2.42	0.905	0.554	-0.006	0.819
	Fear2		0.872										
	Fear3		0.865										
Risk	Risk1			0.808					3.27	1.007	-0.657	-0.626	0.764
	Risk2			0.797									
	Risk3			0.850									
Hygiene and Safety (HS)	HS1				0.892				2.19	0.938	0.711	0.021	0.830
	HS2				0.830								
	HS3				0.858								
Intention to resume hotel consumption	Intention1					0.862			1.89	0.795	1.103	0.484	0.842
	Intention2					0.834							
	Intention3					0.805							
Trust in Vaccination	Trust1						0.870		1.63	0.767	1.462	2.706	0.854
	Trust2						0.900						
	Trust3						0.848						
Anxiety (ANX)	Anxiety 2							0.862	3.54	1.071	-0.513	-0.524	0.794
	Anxiety 3							0.834					
	Anxiety 4							0.805					

Source(s): Analysis Output

associations equal to or larger than the square root of the AVE, as shown in Table 2, these results confirming discriminant validity.

A decent model has a composite reliability (CR) score of at least 0.7, which is considered adequate for use in basic research (Hair et al., 2017). The study's constructs are deemed statistically acceptable by the predetermined standards. This investigation also examined the resilience of the Heterotrait-Monotrait (HTMT) value due to its superiority over Fornell-Larcker in several scenarios (Henseler et al., 2015), higher than 0.85/0.90 HTMT values indicate discriminant validity (Henseler et al., 2015). The cutoff value is met in this research (Table 3). Validity and reliability were found to be high in these studies. For normalcy, the results were satisfactory because there was no significant deviation from normality. Kurtosis was less than 10 and skewness was below 3 (Kline, 2011) (Table 1).

Following Kleinbaum et al. (1988) evaluation of the VIF and tolerance test, two standard methods were employed to look into the existence of multi-collinearity among independent variables. According to Table 3, which summarizes the results of the multi-collinearity statistics, every construct has a tolerance value of more than 0.1 and a VIF value lower than 10. The analysis's findings thus demonstrate that multi-collinearity issues did not prevent independent variables from being used.

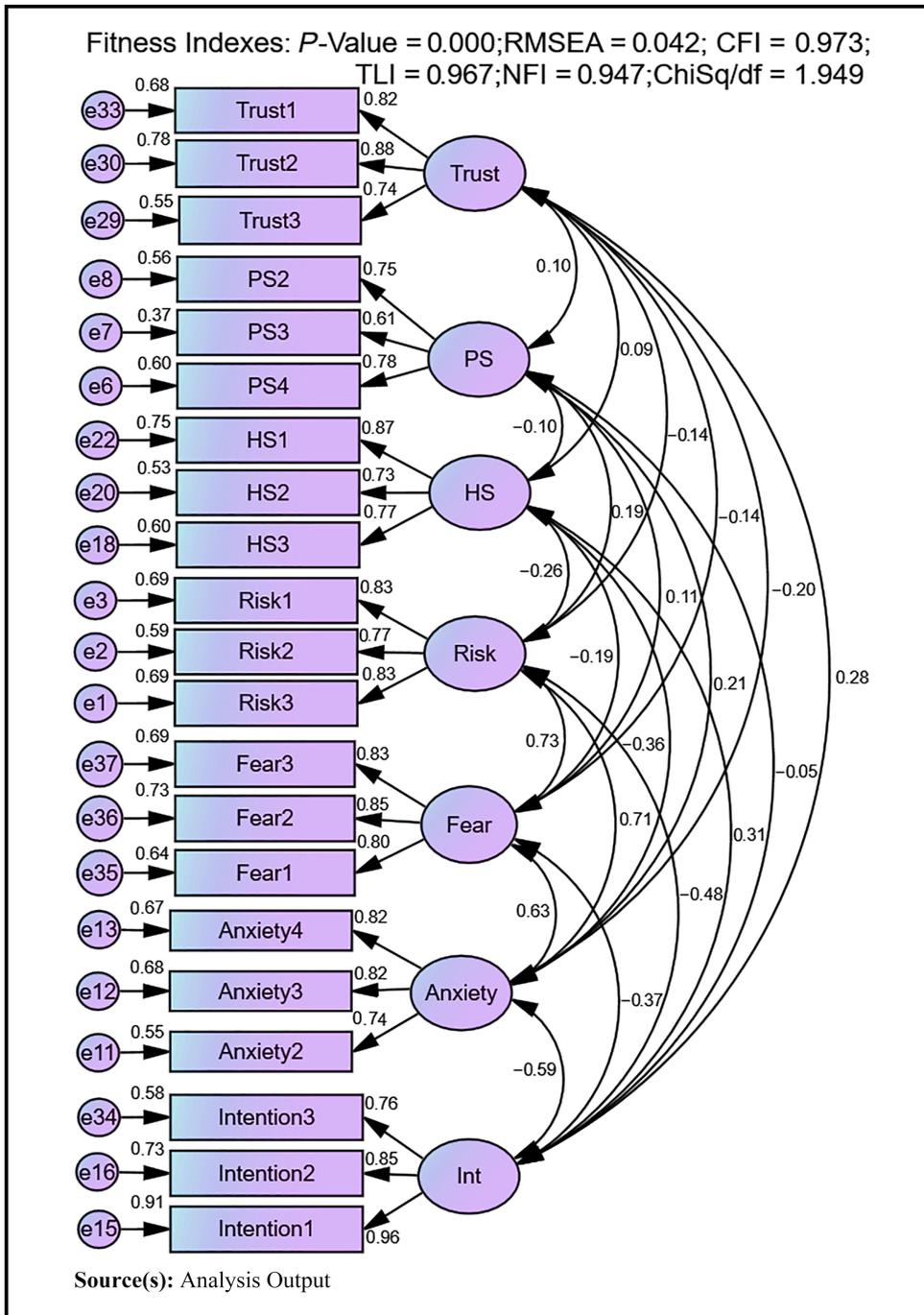
4.3 Structural model

Figure 3 and Table 4 show the structural model of our study. The structural model's validation evaluated the proposed model's goodness of fit indices after the confirmatory factor analysis (CFA) test on the measurement model. An excellent data fit was demonstrated by the SEM results ($2/df = 2.165$). To be sure, the root mean square error of approximation (RMSEA) cut-off value of less than 0.08 was met, since the actual value was 0.042 (Browne and Cudeck, 1992). There were several fit indices that satisfied the criteria of 0.9 or higher: comparative fit index (CFI); goodness of fit index (GFI); incremental fit index (IFI); Tucker Lewis index (TLI) (Bagozzi and Yi, 1988).

4.4 Hypotheses results and discussion

In this study, we have tested the direct association between trust in vaccination, threat severity, hygiene & safety, fear, risk and anxiety, and intention to resume hotel consumption in the new

Figure 2 Measurement model



normal situation. We also tested the mediation effect of anxiety among psychological constructs: perceived threat, fear and risk with the intention to resume hotel consumption. The significance of the path coefficient, t -value, p -value, and R^2 (the variance explained) was utilized in this study to analyse the structural model and the hypotheses. At a 5% level of significance, the critical value for the two tests was set at 1.96. The study's findings show that the R^2 for intention to repeat hotel use is 0.400 and the R^2 for anxiety is 0.580, both of which are regarded as significant (Hair et al., 2017).

Table 2 Reliability, validity and Fornell-Larcker test

	CR	AVE	MSV	MaxR(H)	Risk	PS	Anxiety	HS	Int	Trust	Fear
Risk	0.851	0.656	0.534	0.855	0.810						
PS	0.756	0.511	0.045	0.871	0.192***	0.715					
Anxiety	0.837	0.632	0.510	0.842	0.714***	0.212***	0.795				
HS	0.833	0.626	0.130	0.849	-0.264***	-0.103†	-0.360***	0.791			
Int	0.895	0.741	0.348	0.936	-0.480***	-0.053	-0.590***	0.314***	0.861		
Trust	0.857	0.668	0.076	0.873	-0.141**	0.104*	-0.197**	0.087†	0.276***	0.818	
Fear	0.868	0.687	0.534	0.870	0.731***	0.106*	0.630***	-0.188***	-0.372***	-0.138**	0.829

Note(s): Significance of Correlations: † $p < 0.100$, * $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$
 Source(s): Analysis Output

Table 3 Heterotrait-Monotrait (HTMT) and multi-collinearity analysis

	Risk	PS	Anx	HS	Int	Trust	Fear	Collinearity statistics	
								R ²	Tolerance
Risk	-							0.500	2.000
PS	0.187	-						0.956	1.046
Anxiety	0.716	0.201	-					0.580	1.792
HS	0.274	0.127	0.363	-				0.901	1.110
Int	0.490	0.066	0.598	0.309	-			0.400	
Trust	0.155	0.076	0.195	0.071	0.284	-		0.961	1.040
Fear	0.730	0.093	0.629	0.181	0.360	0.153	-	0.565	1.770

Source(s): Analysis Output

Figure 3 Structural model

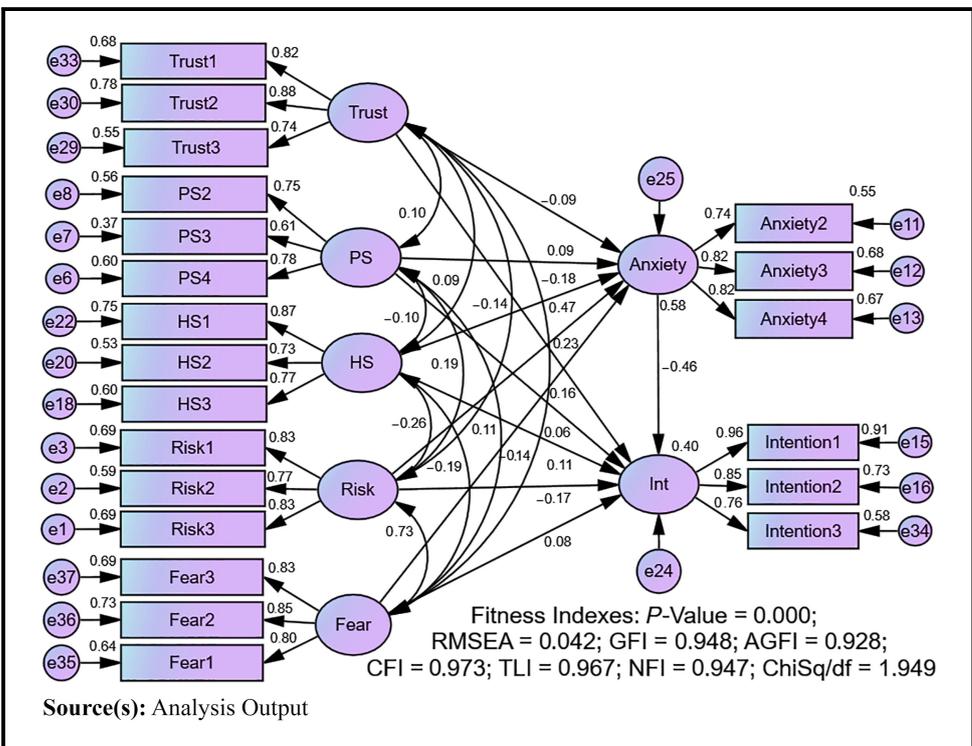


Table 4 Structural model and hypothesis testing result

Hypothesis	STD beta	STD error	t-values	p-values	Significance ($p < 0.05$)
H1a: Trust→ Intention	0.155	0.058	3.803***	0.000	Sig.
H1b: Trust→ Anxiety	-0.093	0.046	-2.415**	0.016	Sig.
H2a: Hygiene and Safety → Intention	0.111	0.047	2.556**	0.011	Sig.
H2b: Hygiene and Safety → Anxiety	-0.175	0.036	-4.352***	0.000	Sig.
H3a: Perceived Severity → Anxiety	0.089	0.035	2.150**	0.032	Sig.
H3b: Perceived Severity → Intention	0.064	0.044	1.468	0.142	Not Sig.
H4a: Fear→ Anxiety	0.233	0.060	3.643***	0.000	Sig.
H4b: Fear→ Intention	0.076	0.075	1.126	0.260	Not Sig.
H5a: Risk→ Anxiety	0.468	0.070	6.795***	0.000	Sig.
H5b: Risk→ Intention	-0.166	0.096	-2.102**	0.036	Sig.
H6: Anxiety → Intention	-0.463	0.087	-6.366***	0.000	Sig.
H7a: Perceived Severity→Anxiety →Intention	-0.091	0.018	-2.294**	0.022	Sig.
H7b: Fear→ Anxiety →Intention	-0.374	0.041	-2.656***	0.007	Sig.
H7c: Risk→Anxiety→Intention	-0.422	0.052	-4.164	0.000	Sig.

Note(s): *** Significant at the 0.01 level (2-tailed). ** Significant at the 0.05 level (2-tailed)
Source(s): Analysis Output

The link between the hypothetical indirect and direct constructs is seen in Table 4. The findings indicate that risk ($\beta = 0.468$; $t = 6.795$) plays the most important role in influencing travellers' anxiety, followed by hygiene and safety ($\beta = -0.175$; $t = -4.352$), fear ($\beta = 0.233$; $t = 3.643$), trust in vaccination ($\beta = -0.093$; $t = -2.415$) and perceived severity ($\beta = 0.0898$; $t = 2.150$). All are in line with the hypothetical direction. These findings further support hypotheses H1b, H2b, H3a, H4a and H5a. Results in Table 4 show that trust in vaccination ($\beta = 0.155$; $t = 3.803$), hygiene & safety ($\beta = 0.111$; $t = 2.556$), risk ($\beta = -0.166$; $t = -2.102$) and anxiety ($\beta = -0.463$; $t = -6.366$) exhibits the strong effect on the intention to resume hotel consumption, supporting H1a, H2a, H5b and H6. However, this investigation revealed no connection between perceived severity ($\beta = -0.064$; $t = -1.468$) and fear ($\beta = -0.076$; $t = -1.126$) with the intention to resume hotel consumption. Consequently, hypotheses 3b and 4b are not supported.

In this study, in our final three hypotheses, we expected that the relationship between psychological characteristics and intention to restart hotel use might be mediated by a person's level of anxiety. The results are shown in Table 4 that anxiety fully mediates the association between perceived severity and intention to resume hotel consumption and fear and intention to resume hotel consumption. In this study indirect association was shown between constructs for perceived severity ($\beta = -0.091$; $t = -2.294$), fear ($\beta = 0.374$; $t = 2.656$) and intention to consume hotel consumption. This study results also confirmed that there is a partial mediation between risk ($\beta = -0.422$; $t = -4.164$) and intention to resume hotel consumption. The findings further support hypotheses 7a, 7b and 7c correspondingly, that there is a full mediation effect between perceived severity, fear and intention to resume hotel consumption and partially mediate the association between risk and intention to resume hotel consumption.

Overall, our study suggests that perceived severity, risk and fear influence travellers' anxiety levels and thus their intention to resume hotel consumption. This study adds to the expanding body of proof that trust in the hotelier's assurances of vaccination, hygiene and safety lowers anxiety levels. This study confirms that anxiety is one of the most important predictors of intention to resume hotel consumption, which additionally mediates the connection between various psychological factors: perceived severity, risk, fear and intention to resume hotel consumption. This study further supports earlier studies by Yuen *et al.* (2020) and Omar *et al.* (2021) that the direct and indirect effects of anxiety, trust in vaccination, hygiene and safety, perceived severity, risk, and fear are the important predictors of intention to resume hotel consumption.

This study also supports the notion that the Covid-19 pandemic outbreak's perceived severity and associated fear did not influence travellers' intentions to resume their hotel stays. Rather, these constructs had an indirect impact on traveller intention to resume hotel consumption. Anxiety is known to play a significant influence in these structures. Consistent with the previous studies by [Ngunjiri \(2020\)](#) and [Yuen et al. \(2020\)](#) these research results confirm that perceived severity, risk and fear significantly increase the anxiety levels of travellers. It can be argued that although psychological factors increase the anxiety level if the hotel management provides a hygiene & safety facility at the hotel then it will reduce the anxiety level of individuals. There is a chance that vaccinations may save lives. Immunization with COVID-19 provides a great defence against serious disease, hospitalization and death. Getting vaccinated may also help prevent the illness from spreading to others.

Additionally, [Ahmad and Murad \(2020\)](#) claim that social media may have played a significant role in the COVID-19 pandemic panic spreading. According to [Bashirian et al. \(2020\)](#), COVID-19 is a highly contagious illness; however, it isn't as hazardous as Middle East respiratory syndrome (MERS) or SARS. Malaysia has a far lower rate of COVID-19 infection and mortality than many other countries. In addition, "consumers tend to preserve a sense of immunity, believing that they and those in their immediate vicinity will have a lesser likelihood of suffering a certain incident than others," ([Hutjens, 2014](#)). As a result, we think that the respondents may not have thought the illness to be severe, lowering their worry levels, because the Malaysian government, newspapers and social media have supplied appropriate information about how people should take precautions to prevent the spread of COVID-19.

5. Implications

5.1 Theoretical implications

This research is ground-breaking because it attempts to construct a concept that has received little attention in the literature. *First*, we look into whether travellers' negative and positive perceptions of trust in vaccination, hygiene and safety, threat severity, anxiety, fear, and risk influence their decision to return to hotels during the new normal Covid-19 pandemic situation. The mediating effect of anxiety on the connection between perceived severity, risk, fear and intention to repeat hotel consumption adds to the body of knowledge suggesting that these factors may influence travellers' desire to stay in hotels. Some research has attempted to uncover the psychological and behavioural elements that influence hoarding and the panic purchasing environment. However, empirical research is scarce in this area, particularly in terms of intention to resume hotel consumption. As a result, a major contribution of consumer behaviour research is the empirical investigation of the direct and indirect effects of these dimensions on the intention to resume hotel consumption.

Second, the finding that anxiety acts as a "mediator" between travellers' psychological components and their intentions to return to hotel consumption suggests that when negative stimuli make people feel anxious, it can make them less likely to try to deal with the situation. As [Hagopian and Ollendick \(1994\)](#) BIS theory holds that unpleasant stimuli limit people's usual behaviour, leading to anxiety, as the data support. The research shows that consumers who experience anxiety or panic due to negative psychological actors may have a dominating BIS emotion system. As a result, it expands the BIS Hypothesis in the literature on consumer behaviour.

Third, this study demonstrates that there is no clear link between perceived severity, fear and the intention to continue hotel use. Anxiety, on the other hand, plays a critical function in mediating between these variables. We add to our collective understanding of the connection and the factors analysed by demonstrating how anxiety has a mediating influence, while also reacting to previous findings of [Yuen et al. \(2020\)](#) that emphasized discovering crucial mediating aspects. By showing how psychological components affect consumer anxiety levels, particularly in the hotel consumption context, this study seeks to give a holistic understanding of how hotel consumption occurs after the pandemic.

Fourth, the lack of a substantial direct association between psychological characteristics and hotel consumption refutes Brock's (1968) RT, which asserted that people are motivated to restore their freedom when they feel a danger to it. Although earlier researchers have found support for RT in a variety of circumstances (Quick *et al.*, 2013), this is not the case with resuming hotel consumption.

5.2 Practical implications

Both policymakers and hoteliers can benefit from our research, according to our findings. *First*, the study indicates that resuming hotel consumption during a pandemic is a possibility. When negative and positive elements influence the anxiety levels of customers, it might lead to a decrease in hotel utilization. By stressing the mediating role of anxiety, this study gives light on how psychological factors indirectly influence hotel consumption. Our research suggests that during pandemic, policymakers and marketers can address the issue of hotel usage by giving useful information. This research also shows that governments and healthcare providers should concentrate on implementing regulations and techniques that after a pandemic, effectively reduce consumers' perceived anxiety.

Second, this study demonstrates that psychological elements such as perceived severity, risk and fear have no direct link with hotel usage. All of these psychological elements do not affect visitors' hotel usage or catastrophe preparation behaviour, according to the data. However, psychological factors must influence customers' anxiety; otherwise, there will be no negative intention. According to the findings, governments should take prompt, decisive actions to reduce consumer anxiety in order to ensure business continuity and future risk management. Thereby, to avoid negative individual feelings, good communication tactics and extensive planning are essential.

Third, as the pandemic is still going on, it is very important that tourist spots and places have the right safety measures and facilities and follow standard operating procedures (SOP) instructed by the government. So, it is essential to get tourists to trust the destination again by improving safety and cleanliness. The industry had to use new technologies, like contact tracing, to make the experience safer and meet national safety standards. Tourism companies now offer health screenings, good sanitation and ways to keep people from getting too close. As a result, people are more likely to travel, which is good for the travel industry as a whole in the long run. Because of important health and safety concerns about face-to-face interactions and hygiene, tourism services are likely to become more and more digital. This includes using automation, contactless payments and services, virtual experiences and real-time information delivery. The people in charge of tourism should do everything they can to make the "Malaysia Smart Tourism 4.0" plan. And to make the most of the expected growth in domestic travel, it will be important to use digital booking tools, social media and influencers, as well as have the technology (artificial intelligence, virtual reality and augmented reality technology) available and easy to use at tourist spots. So, the number of digital platforms that connect people to cheap places to stay is likely to grow. This could pave the way for Airbnb and other similar online platforms to become legal in Malaysia.

6. Conclusion, limitations and future research directions

By offering and testing a hypothesis for the direct and indirect effects of adverse and favourable antecedents on the intention to continue using hotels, this study makes a significant contribution to the field. The findings show that both positive and negative factors have a considerable impact on anxiety, as well as anxiety's mediation function in the connection. The function of anxiety in modulating hotel usage gives light on how psychological factors influence hotel usage indirectly. Malaysia's tourism has reached new heights as a tourist destination both within the national boundary and beyond (Balasubramanian and Hanafiah, 2022). Therefore, it also advances knowledge of consumers' psychological factors and hotel consumption in emerging markets, persuading the government to implement a number of measures that can effectively lower travellers' perceived anxiety during a pandemic.

While our research adds to theory and practice, it also has significant limitations. To begin, our investigation gathered data from Malaysia's lifted data MCO. Although it gives useful information about the factors that influence hotel usage, it would be preferable if data could be acquired directly from hotel guests. However, due to striker rules, data from the respondents could not be collected while they were in the hotel. The study's findings should be treated with caution. We feel it is critical to generalize the findings and replicate the study in multiple circumstances, such as different service categories and cultures. The relationship between these characteristics in the different settings should be the subject of future research.

Last but not least, this study relied on a cross-sectional self-reported data-gathering approach, which might have influenced the findings. As a result, future studies should concentrate on experimental investigations to better understand the correlation of the variables. For the findings to be generalized, the study must be replicated in another country. Third, just a few negative and positive characteristics were explored as antecedents to the intention to continue hotel use in this study. As a result, future studies should focus on identifying the social elements that influence the decision to resume hotel use in a new normal environment. In this situation, a mixed-method approach might be employed.

References

- Ahmad, A.R. and Murad, H.R. (2020), "The impact of social media on panic during the COVID-19 pandemic in Iraqi Kurdistan: online questionnaire study", *Journal of Medical Internet Research*, Vol. 22 No. 5, e19556, doi: [10.2196/19556](https://doi.org/10.2196/19556).
- Akhtar, N., Nadeem Akhtar, M., Usman, M., Ali, M. and Iqbal Siddiqi, U. (2020), "COVID-19 restrictions and consumers' psychological reactance toward offline shopping freedom restoration", *The Service Industries Journal*, Vol. 40 Nos 13-14, pp. 891-913, doi: [10.1080/02642069.2020.1790535](https://doi.org/10.1080/02642069.2020.1790535).
- Alvarez, M., Campo, S. and Fuchs, G. (2020), "Tourism in conflict zones: animosity and risk perceptions", *International Journal of Culture, Tourism and Hospitality Research*, Vol. 14 No. 2, pp. 189-204, doi: [10.1108/IJCTHR-08-2019-0136](https://doi.org/10.1108/IJCTHR-08-2019-0136).
- Amin, M., Ryu, K., Cobanoglu, C., Rezaei, S. and Wulan, M.M. (2020), "Examining the effect of shopping mall Attributes in predicting tourist shopping satisfaction and behavioral intentions: variation across generation X and Y", *Journal of Quality Assurance in Hospitality & Tourism*, Vol. 22 No. 3, pp. 367-394, doi: [10.1080/1528008X.2020.1818667](https://doi.org/10.1080/1528008X.2020.1818667).
- Arpaci, I., Karataş, K. and Baloğlu, M. (2020), "The development and initial tests for the psychometric properties of the COVID-19 Phobia Scale (C19P-S)", *Personality and Individual Differences*, Vol. 164, 110108, doi: [10.1016/j.paid.2020.110108](https://doi.org/10.1016/j.paid.2020.110108).
- Arumugam, T. (2020), "Caring for your mental health during MCO", *News Straits Times*, available at: <https://www.nst.com.my/news/nation/2020/03/578414/caring-your-mental-health-during-mco>.
- Atkinson, R. and Flint, J. (2001), "Accessing hidden and hard-to-reach populations: snowball research strategies", *Social Research Update*, Vol. 33 No. 1, pp. 1-4, available at: <http://citizenresearchnetwork.pbworks.com/f/accessing+hard+to+reach+populations+for+research.doc>.
- Axelsen, M. and Swan, T. (2010), "Designing festival experiences to influence visitor perceptions: the case of a wine and food festival", *Journal of Travel Research*, Vol. 49 No. 4, pp. 436-450, doi: [10.1177/004728750934679](https://doi.org/10.1177/004728750934679).
- Babcicky, P. and Seebauer, S. (2019), "Unpacking Protection Motivation Theory: evidence for separate protective and non-protective route in private flood mitigation behaviour", *Journal of Risk Research*, Vol. 22 No. 12, pp. 1503-1521, doi: [10.1080/13669877.2018.1485175](https://doi.org/10.1080/13669877.2018.1485175).
- Babin, B., Carr, J., Griffin, M., Zikmund, W. and Quinlan, C. (2019), *Business Research Methods*, 2nd ed., Cengage Learning EMEA, Andover, Hampshire.
- Backhaus, C., Heussler, T. and Croce, V. (2023), "Planning horizon in international travel decision-making: the role of individual and cultural determinants", *Journal of Travel Research*, Vol. 62 No. 2, pp. 432-447, doi: [10.1177/00472875211066112](https://doi.org/10.1177/00472875211066112).
- Bagozzi, R.P. and Yi, Y. (1988), "On the evaluation of structural equation models", *Journal of the Academy of Marketing Science*, Vol. 16, pp. 74-94, doi: [10.1007/BF02723327](https://doi.org/10.1007/BF02723327).
- Bakioğlu, F., Korkmaz, O. and Ercan, H. (2021), "Fear of COVID-19 and positivity: mediating role of intolerance of uncertainty, depression, anxiety, and stress", *International Journal of Mental Health and Addiction*, Vol. 19, pp. 2369-2382, doi: [10.1007/s11469-020-00331-y](https://doi.org/10.1007/s11469-020-00331-y).

- Balasubramanian, K. and Hanafiah, M.H. (2022), "What innovations would enable the tourism and hospitality industry in Malaysia to rebuild?", *Worldwide Hospitality and Tourism Themes*, Vol. 14 No. 6, pp. 596-603, doi: [10.1108/WHATT-05-2022-0057](https://doi.org/10.1108/WHATT-05-2022-0057).
- Barclay, M.J., Smith, C.W. and Watts, R.L. (1995), "The determinants of corporate leverage and dividend policies", *Journal of Applied Corporate Finance*, Vol. 7 No. 4, pp. 4-19, doi: [10.1111/j.1745-6622.1995.tb00259.x](https://doi.org/10.1111/j.1745-6622.1995.tb00259.x).
- Bashirian, S., Jenabi, E., Khazaei, S., Barati, M., Karimi-Shahanjarini, A., Zareian, S., Rezapur-Shahkolai, F. and Moeini, B. (2020), "Factors associated with preventive behaviours of COVID-19 among hospital staff in Iran in 2020: an application of the Protection Motivation Theory", *Journal of Hospital Infection*, Vol. 105 No. 3, pp. 430-433, doi: [10.1016/j.jhin.2020.04.035](https://doi.org/10.1016/j.jhin.2020.04.035).
- Bauer, R.A. (1967), "Consumer behavior as risk-taking", in Cox, D.F. (Ed.), *Risk-taking and Information Handling in Consumer Behavior*, Harvard University Press, Cambridge, MA, pp. 23-33.
- Bener, A., Morgul, E., Atak, M. and Barışık, C.C. (2020), "The impact of COVID-19 pandemic disease exposed with mental health in Turkey", *International Journal*, Vol. 8, p. 17, doi: [10.12970/2310-8231.2020.08.04](https://doi.org/10.12970/2310-8231.2020.08.04).
- Brehm, J.W. (1966), *A Theory of Psychological Reactance*, Academic Press, Cambridge, MA.
- Brehm, S.S. and Brehm, J.W. (1981), *Psychological Reactance: A Theory of Freedom and Control*, Academic Press, New York, doi: [10.1016/B978-0-12-129840-1.50022-3](https://doi.org/10.1016/B978-0-12-129840-1.50022-3).
- Brinson, N.H., Eastin, M.S. and Cicchirillo, V.J. (2018), "Reactance to personalization: understanding the drivers behind the growth of ad blocking", *Journal of Interactive Advertising*, Vol. 18 No. 2, pp. 136-147, doi: [10.1080/15252019.2018.1491350](https://doi.org/10.1080/15252019.2018.1491350).
- Brock, T.C. (1968), "Implications of commodity theory for value change", in *Psychological Foundations of Attitudes*, Academic Press, Cambridge, MA, pp. 243-275.
- Brooks, S.K., Webster, R.K., Smith, L.E., Woodland, L., Wessely, S., Greenberg, N. and Rubin, G.J. (2020), "The psychological impact of quarantine and how to reduce it: rapid review of the evidence", *The Lancet*, Vol. 395 No. 10227, pp. 912-920, doi: [10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8).
- Browne, M.W. and Cudeck, R. (1992), "Alternative ways of assessing model fit", *Sociological Methods & Research*, Vol. 21 No. 2, pp. 230-258, doi: [10.1177/0049124192021002005](https://doi.org/10.1177/0049124192021002005).
- Budd, C., Calvert, K., Johnson, S. and Tickle, S.O. (2021), "Assessing risk in the retail environment during the COVID-19 pandemic", *Royal Society Open Science*, Vol. 8 No. 5, 210344, doi: [10.1098/rsos.210344](https://doi.org/10.1098/rsos.210344).
- Cahyanto, I., Wiblishauser, M., Pennington-Gray, L. and Schroeder, A. (2016), "The dynamics of travel avoidance: the case of Ebola in the US", *Tourism Management Perspectives*, Vol. 20, pp. 195-203, doi: [10.1016/j.tmp.2016.09.004](https://doi.org/10.1016/j.tmp.2016.09.004).
- Canady, V.A. (2020), "Mental health groups providing support, education in wake of COVID-19", *Mental Health Weekly*, Vol. 30 No. 11, pp. 1-3, doi: [10.1002/mhw.32272](https://doi.org/10.1002/mhw.32272).
- Chen, Y., Zhou, H., Zhou, Y. and Zhou, F. (2020), "Prevalence of self-reported depression and anxiety among pediatric medical staff members during the COVID-19 outbreak in Guiyang, China", *Psychiatry Research*, Vol. 288, 113005, doi: [10.1016/j.psychres.2020.113005](https://doi.org/10.1016/j.psychres.2020.113005).
- Chen, S., Law, R. and Zhang, M. (2021), "Review of research on tourism-related diseases", *Asia Pacific Journal of Tourism Research*, Vol. 26 No. 1, pp. 44-58, doi: [10.1080/10941665.2020.1805478](https://doi.org/10.1080/10941665.2020.1805478).
- Chou, W.Y.S. and Budenz, A. (2020), "Considering emotion in COVID-19 vaccine communication: addressing vaccine hesitancy and fostering vaccine confidence", *Health Communication*, Vol. 35 No. 14, pp. 1718-1722, doi: [10.1080/10410236.2020.1838096](https://doi.org/10.1080/10410236.2020.1838096).
- Clayton, R.B., Leshner, G., Sanders-Jackson, A. and Hendrickse, J. (2020), "When counterarguing becomes the primary task: examination of dogmatic anti-vaping messages on psychological reactance, available cognitive resources, and memory", *Journal of Communication*, Vol. 70 No. 4, pp. 522-547, doi: [10.1093/joc/jqaa010](https://doi.org/10.1093/joc/jqaa010).
- Cohen, J. (1988), *Statistical Power Analysis for the Behavioral Sciences*, Lawrence Erlbaum Associates, Hillsdale, NJ, pp. 20-26.
- Cohen, S. and Bodner, E. (2019), "The relationship between flow and music performance anxiety amongst professional classical orchestral musicians", *Psychology of Music*, Vol. 47 No. 3, pp. 420-435, doi: [10.1177/0305735618754689](https://doi.org/10.1177/0305735618754689).
- Donthu, N. and Gustafsson, A. (2020), "Effects of COVID-19 on business and research", *Journal of Business Research*, Vol. 117, pp. 284-289, doi: [10.1016/j.jbusres.2020.06.008](https://doi.org/10.1016/j.jbusres.2020.06.008).

- Dusek, G., Yurova, Y. and Ruppel, C.P. (2015), "Using social media and targeted snowball sampling to survey a hard-to-reach population: a case study", *International Journal of Doctoral Studies*, Vol. 10, p. 279, available at: <http://ijds.org/Volume10/JDSv10p279-299Dusek0717.pdf> (accessed 26 January 2023).
- Epstein, S. (1985), "Anxiety, arousal, and the self-concept", *Issues in Mental Health Nursing*, Vol. 7 Nos 1-4, pp. 265-305, doi: [10.3109/01612848509009458](https://doi.org/10.3109/01612848509009458).
- Esposito, S. and Principi, N. (2020), "To mask or not to mask children to overcome COVID-19", *European Journal of Paediatrics*, Vol. 179 No. 8, pp. 1267-1270, doi: [10.1007/s00431-020-03674-9](https://doi.org/10.1007/s00431-020-03674-9), PMID: 32388722.
- Faul, F., Erdfelder, E., Buchner, A. and Lang, A.G. (2009), "Statistical power analyses using G* Power 3.1: tests for correlation and regression analyses", *Behavior Research Methods*, Vol. 41 No. 4, pp. 1149-1160, doi: [10.3758/BRM.41.4.1149](https://doi.org/10.3758/BRM.41.4.1149).
- Feng, L.S., Dong, Z.J., Yan, R.Y., Wu, X.Q., Zhang, L., Ma, J. and Zeng, Y. (2020), "Psychological distress in the shadow of the COVID-19 pandemic: preliminary development of an assessment scale", *Psychiatry Research*, Vol. 291, 113202, doi: [10.1016/j.psychres.2020.113202](https://doi.org/10.1016/j.psychres.2020.113202).
- Font, X. and Hindley, A. (2017), "Understanding tourists' reactance to the threat of a loss of freedom to travel due to climate change: a new alternative approach to encouraging nuanced behavioural change", *Journal of Sustainable Tourism*, Vol. 25 No. 1, pp. 26-42, doi: [10.1080/09669582.2016.1165235](https://doi.org/10.1080/09669582.2016.1165235).
- Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, p. 39, doi: [10.2307/3151312](https://doi.org/10.2307/3151312).
- Frazer, L. and Lawley, M. (2000), *Questionnaire Design & Administration: A Practical Guide*, Wiley, New York.
- Gallagher, C.E., Watt, M.C., Weaver, A.D. and Murphy, K.A. (2017), "I fear, therefore, I shop!" exploring anxiety sensitivity in relation to compulsive buying", *Personality and Individual Differences*, Vol. 104, pp. 37-42, doi: [10.1016/j.paid.2016.07.023](https://doi.org/10.1016/j.paid.2016.07.023).
- Gallego, I., Font, X. and González-Rodríguez, M.R. (2022a), "The impact of COVID-19 on European tourists' attitudes to air travel and the consequences for tourist destination evoked set formation", *Tourism Management Perspectives*, Vol. 41, 100945, doi: [10.1016/j.tmp.2022.100945](https://doi.org/10.1016/j.tmp.2022.100945).
- Gallego, I., González-Rodríguez, M.R. and Font, X. (2022b), "International air travel attitude and travel planning lead times across 45 countries in response to the COVID-19 pandemic", *Tourism Management Perspectives*, Vol. 44, 101037, doi: [10.1016/j.tmp.2022.100945](https://doi.org/10.1016/j.tmp.2022.100945).
- Golets, A., Farias, J., Pilati, R. and Costa, H. (2021), "COVID-19 pandemic and tourism: the impact of health risk perception and intolerance of uncertainty on travel intentions", *Current Psychology*, Vol. 42, pp. 1-14, doi: [10.1007/s12144-021-02282-6](https://doi.org/10.1007/s12144-021-02282-6).
- Gray, D. (1975), "Morphologic classification of crenulation cleavage", *Journal of Geology*, Vol. 85 No. 2, pp. 229-235.
- Gudykunst, W. and Hammer, M. (1988), "Strangers and hosts: an uncertainty reduction base theory of intercultural adaptation", in Kim, Y. and Gudykunst, W. (Eds), *Cross-Cultural Adaptation: Current Approaches*, Sage, Newbury Park, CA, pp. 106-139.
- Gursoy, D. and Chi, C.G. (2020), "Effects of COVID-19 pandemic on hospitality industry: review of the current situations and a research agenda", *Journal of Hospitality Marketing and Management*, Vol. 29 No. 5, pp. 527-529, doi: [10.1080/19368623.2020.1788231](https://doi.org/10.1080/19368623.2020.1788231).
- Gursoy, D., Chi, C.G. and Chi, O.H. (2020), *COVID-19 Study 2 Report: Restaurant and Hotel Industry: Restaurant and Hotel Customers' Sentiment Analysis*, (Would they come back? If they would, WHEN? (Working paper)) Carson College of Business, Washington State University, Alvarez, available at: <http://www.htmacademy.com/wp-content/uploads/2020/07/Covid-19-July-5-11-study-summary-report.pdf> (accessed 26 January 2023).
- Gursoy, D., Can, A.S., Williams, N. and Ekinci, Y. (2021), "Evolving impacts of COVID-19 vaccination intentions on travel intentions", *The Service Industries Journal*, Vol. 41 Nos 11-12, pp. 719-733, doi: [10.1080/02642069.2021.1938555](https://doi.org/10.1080/02642069.2021.1938555).
- Hagopian, L.P. and Ollendick, T.H. (1994), "Behavioral inhibition and test anxiety: an empirical investigation of Gray's theory", *Personality and Individual Differences*, Vol. 16 No. 4, pp. 597-604, doi: [10.1016/0191-8869\(94\)90187-2](https://doi.org/10.1016/0191-8869(94)90187-2).
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010), *Multivariate Data Analysis: A Global Perspective*, Pearson Education, Upper Saddle River, NJ.

- Hair, J.F., Jr, Sarstedt, M., Ringle, C.M. and Gudergan, S.P. (2017), *Advanced Issues in Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 1st ed., Sage Publications, Thousand Oaks.
- Hall, M.C., Prayag, G., Fieger, P. and Dyason, D. (2021), "Beyond panic buying: consumption displacement and COVID-19", *Journal of Service Management*, Vol. 32 No. 1, pp. 113-128, doi: [10.1108/JOSM-05-2020-0151](https://doi.org/10.1108/JOSM-05-2020-0151).
- Hancock, G.R. and Mueller, R.O. (2001), "Rethinking construct reliability within latent variable systems", *Structural Equation Modeling: Present and Future*, Vol. 195, p. 216, available at: https://www.researchgate.net/profile/Gregory-Hancock-2/publication/312447691_Rethinking_construct_reliability_within_latent_variable_systems/links/5f845c66a6fdccfd7b5adb55/Rethinking-construct-reliability-within-latent-variable-systems.pdf (accessed 26 January 2023).
- Hasmuk, K., Sallehuddin, H., Tan, M.P., Cheah, W.K., Ibrahim, R. and Chai, S.T. (2020), "The long-term care COVID-19 situation in Malaysia", *International Long-Term Care Policy Network*, available at: <http://myageing.upm.edu.my/upload/dokumen/20200603185524Malaysia-LTC-COVID-situation-report-30-May-1.pdf>.
- Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43, pp. 115-135, doi: [10.1007/s11747-014-0403-8](https://doi.org/10.1007/s11747-014-0403-8).
- Hoque, A., Shikha, F.A., Hasanat, M.W., Arif, I. and Hamid, A.B.A. (2020), "The effect of Coronavirus (COVID-19) in the tourism industry in China", *Asian Journal of Multidisciplinary Studies*, Vol. 3 No. 1, pp. 52-58, available at: <https://www.asianjournal.org/online/index.php/ajms/article/download/213/96>.
- Hutjens, M. (2014), *The Influence of Fear on the Buying Behaviour of Consumers in Case of an Animal Disease Outbreak*, Wageningen University, Wageningen, The Netherlands.
- Jiang, Y. and Wen, J. (2020), "Effects of COVID-19 on hotel marketing and management: a perspective article", *Management*, Vol. 32 No. 8, pp. 2563-2573, doi: [10.1108/IJCHM-03-2020-0237](https://doi.org/10.1108/IJCHM-03-2020-0237).
- Jones, M.A., Taylor, V.A. and Reynolds, K.E. (2014), "The effect of requests for positive evaluations on customer satisfaction ratings", *Psychology & Marketing*, Vol. 31 No. 3, pp. 161-170, doi: [10.1002/mar.20684](https://doi.org/10.1002/mar.20684).
- Kang, G.W., Piao, Z.Z. and Ko, J.Y. (2021), "Descriptive or injunctive: how do restaurant customers react to the guidelines of COVID-19 prevention measures? The role of psychological reactance", *International Journal of Hospitality Management*, Vol. 95, 102934, doi: [10.1016/j.ijhm.2021.102934](https://doi.org/10.1016/j.ijhm.2021.102934).
- Kavouris, C., Chrysochou, P. and Thøgersen, J. (2020), "Be careful what you say": the role of psychological reactance on the impact of pro-environmental normative appeals", *Journal of Business Research*, Vol. 113, pp. 257-265, doi: [10.1016/j.jbusres.2019.10.018](https://doi.org/10.1016/j.jbusres.2019.10.018).
- Kennett-Hensel, P.A., Sneath, J.Z. and Lacey, R. (2012), "Liminality and consumption in the aftermath of a natural disaster", *Journal of Consumer Marketing*, Vol. 29 No. 1, pp. 52-63, doi: [10.1108/07363761211193046](https://doi.org/10.1108/07363761211193046).
- Kim, M.J., Bonn, M. and Hall, C.M. (2022), "What influences COVID-19 biosecurity behaviour for tourism?", *Current issues in Tourism*, Vol. 25 No. 1, pp. 21-27, doi: [10.1080/13683500.2021.1883558](https://doi.org/10.1080/13683500.2021.1883558).
- Kirsch, I. (1997), "Response expectancy theory and application: a decennial review", *Applied and Preventive Psychology*, Vol. 6 No. 2, pp. 69-79, doi: [10.1016/S0962-1849\(05\)80012-5](https://doi.org/10.1016/S0962-1849(05)80012-5).
- Kleinbaum, D.G., Kupper, L.L. and Muller, K.E. (1988), *Applied Regression Analysis and Other Multivariable Methods*, PWS Publishing Co., USA, Boston, MA.
- Kline, R.B. (2011), *Principles and Practice of Structural Equation Modeling*, Guilford Press, New York.
- Kock, N. (2017), "Common method bias: a full collinearity assessment method for PLS-SEM", in Latan, H. and Noonan, R. (Eds), *Partial Least Squares Path Modeling*, Springer, Cham, doi: [10.1007/978-3-319-64069-3_11](https://doi.org/10.1007/978-3-319-64069-3_11).
- Kristine (2022), "Types of travelers: which one are you? Wanderlust Designers", available at: <https://www.wanderlustdesigners.com/types-of-travellers/#:~:text=Frequent%20travellers%20are%20the%20types,to%20go%20on%20some%20trips> (accessed 20 January 2023).
- Kubb, C. and Foran, H.M. (2020), "Measuring COVID-19 related anxiety in parents: psychometric comparison of four different inventories", *JMIR Mental Health*, Vol. 7 No. 12, e24507, doi: [10.2196/24507](https://doi.org/10.2196/24507).
- Lau, A.L., Chi, I., Cummins, R.A., Lee, T.M., Chou, K.L. and Chung, L.W. (2008), "The SARS (severe acute respiratory syndrome) pandemic in Hong Kong: effects on the subjective wellbeing of elderly and younger people", *Aging and Mental Health*, Vol. 12, pp. 746-760, doi: [10.1080/13607860802380607](https://doi.org/10.1080/13607860802380607).

- Lee, K., Kim, H. and Vohs, K.D. (2011), "Stereotype threat in the marketplace: consumer anxiety and purchase intentions", *Journal of Consumer Research*, Vol. 38 No. 2, pp. 343-357, doi: [10.1086/659315](https://doi.org/10.1086/659315).
- Lee, C.K., Song, H.J., Bendle, L.J., Kim, M.J. and Han, H. (2012), "The impact of non-pharmaceutical interventions for 2009 H1N1 influenza on travel intentions: a model of goal-directed behavior", *Tourism Management*, Vol. 33 No. 1, pp. 89-99, doi: [10.1016/j.tourman.2011.02.006](https://doi.org/10.1016/j.tourman.2011.02.006).
- Liren, X., Junmei, C. and Mingqin, Z. (2012), "Research on panic purchase's behavior mechanism", *Innovation and Management*, available at: https://www.academia.edu/download/48435334/Proceedings_of_the_9th_international_conference_on_innovation_and_management.pdf#page=1353 (accessed 26 January 2023).
- MacAndrew, C. and Steele, T. (1991), "Gray's behavioral inhibition system: a psychometric examination", *Personality and Individual Differences*, Vol. 12 No. 2, pp. 157-171, doi: [10.1016/0191-8869\(91\)90099-W](https://doi.org/10.1016/0191-8869(91)90099-W).
- Mahmud, M.S., Talukder, M.U. and Rahman, S.M. (2021), "Does 'Fear of COVID-19' trigger future career anxiety? An empirical investigation considering depression from COVID-19 as a mediator", *International Journal of Social Psychiatry*, Vol. 67 No. 1, pp. 35-45, doi: [10.1177/0020764020935488](https://doi.org/10.1177/0020764020935488).
- Malaysian Association of Hotels (MAH) report (2021), Available at: <https://www.hotels.org.my/resources>.
- Malik, A.A., McFadden, S.M., Elharake, J. and Omer, S.B. (2020), "Determinants of COVID-19 vaccine acceptance in the US", *EClinicalMedicine*, Vol. 26, 100495, doi: [10.1016/j.eclinm.2020.100495](https://doi.org/10.1016/j.eclinm.2020.100495).
- Moccia, G., Carpinelli, L., Savarese, G., Borrelli, A., Boccia, G., Motta, O., Capunzo, M., De Caro, F. (2021), "Perception of health, mistrust, anxiety, and indecision in a group of Italians vaccinated against COVID-19", *Vaccines*, Vol. 9 No. 6, p. 612, doi: [10.3390/vaccines9060612](https://doi.org/10.3390/vaccines9060612).
- Moreno-González, A.A., León, C.J. and Fernández-Hernández, C. (2020), "Health destination image: the influence of public health management and well-being conditions", *Journal of Destination Marketing and Management*, Vol. 16, 100430, doi: [10.1016/j.jdmm.2020.100430](https://doi.org/10.1016/j.jdmm.2020.100430).
- Neuburger, L. and Egger, R. (2021), "Travel risk perception and travel behaviour during the COVID-19 pandemic 2020: a case study of the DACH region", *Current Issues in Tourism*, Vol. 24 No. 7, pp. 1003-1016, doi: [10.1080/13683500.2020.1803807](https://doi.org/10.1080/13683500.2020.1803807).
- Ngunjiri, F. (2020), "The challenge of inclusion in the ethics classroom", *Intersections*, No. 51, p. 24, available at: <https://digitalcommons.augustana.edu/cgi/viewcontent.cgi?article=1520&context=intersections>.
- Nima, A.A., Rosenberg, P., Archer, T. and Garcia, D. (2013), "Anxiety, affect, self-esteem, and stress: mediation and moderation effects on depression", *PloS One*, Vol. 8 No. 9, pp. e73265-e73265, doi: [10.1371/annotation/49e2c5c8-e8a8-4011-80fc-02c6724b2acc](https://doi.org/10.1371/annotation/49e2c5c8-e8a8-4011-80fc-02c6724b2acc).
- Novelli, M., Burgess, L.G., Jones, A. and Ritchie, B.W. (2018), "'No Ebola... still doomed'—The Ebola-induced tourism crisis", *Annals of Tourism Research*, Vol. 70, pp. 76-87, doi: [10.1016/j.annals.2018.03.006](https://doi.org/10.1016/j.annals.2018.03.006).
- Nunnally, J.C. and Bernstein, I.H. (1994), *Psychological Theory*, MacGraw-Hill, New York, NY.
- Omar, N.A., Nazri, M.A., Ali, M.H. and Alam, S.S. (2021), "The panic buying behavior of consumers during the COVID-19 pandemic: examining the influences of uncertainty, perceptions of severity, perceptions of scarcity, and anxiety", *Journal of Retailing and Consumer Services*, Vol. 62, 102600, doi: [10.1016/j.jretconser.2021.102600](https://doi.org/10.1016/j.jretconser.2021.102600).
- Otero-López, J.M. and Villardefrancos, E. (2013), "Materialism and addictive buying in women: the mediating role of anxiety and depression", *Psychological Reports*, Vol. 113 No. 1, pp. 328-344, available at: https://journals.sagepub.com/doi/pdf/10.2466/18.02.PR0.113x11z9?casa_token=EtQtUYsamtcAAAAA:yu9e7Y_scXWtvvgmawHHqwayl8ZE5Eb9MgYettlmtZp5F6zXkuk7JmGmBpP2WVGQpkOH1VPGynhYJ.
- Otoo, F.E. and Kim, S. (2018), "Is there stability underneath health risk resilience in Hong Kong inbound tourism?", *Asia Pacific Journal of Tourism Research*, Vol. 23 No. 4, pp. 344-358, doi: [10.1080/10941665.2018.1433700](https://doi.org/10.1080/10941665.2018.1433700).
- Podsakoff, P.M. and Organ, D.W. (1986), "Self-reports in organizational research: problems and prospects", *Journal of Management*, Vol. 12 No. 4, pp. 531-544, doi: [10.1177/014920638601200408](https://doi.org/10.1177/014920638601200408).
- Qian, M., Wu, Q., Wu, P., Hou, Z., Liang, Y., Cowling, B.J. and Yu, H. (2020), "Psychological responses, behavioral changes and public perceptions during the early phase of the COVID-19 outbreak in China: a population based cross-sectional survey", *MedRxiv*, 2020-02, doi: [10.1136/bmjopen-2020-040910](https://doi.org/10.1136/bmjopen-2020-040910).
- Quick, B.L., Shen, L. and Dillard, J.P. (2013), "Reactance theory and persuasion. The SAGE handbook of persuasion", *Developments in Theory and Practice*, Vol. 2, pp. 167-183.

- Rahman, M.K., Gazi, M.A.I., Bhuiyan, M.A. and Rahaman, M.A. (2021), "Effect of Covid-19 pandemic on tourist travel risk and management perceptions", *PLoS ONE*, Vol. 16 No. 9, e0256486, doi: [10.1371/journal.pone.0256486](https://doi.org/10.1371/journal.pone.0256486).
- Ramos-Real, F.J. and Martín-Azami, D. (2019), "The importance of perceived risk in destination image and its effects on behavioral intention. PASOS", *Revista de Turismo y Patrimonio Cultural*, Vol. 17 No. 5, pp. 915-928, available at: <https://www.redalyc.org/journal/881/88165933004/88165933004.pdf>.
- 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, available at: https://journals.sagepub.com/doi/pdf/10.1177/0047287504272017?casa_token=5T7ErHGsmPEAAAA:lni7PqW6K8Db2gn5ybIBQrES Ery4KVePu5KTjCSdwh9jsomSL_2N55UTNj6QIMhcGjrZcfDONK.
- Reiss, S. (1991), "Expectancy model of fear, anxiety, and panic", *Clinical Psychology Review*, Vol. 11 No. 2, pp. 141-153, doi: [10.1016/0272-7358\(91\)90092-9](https://doi.org/10.1016/0272-7358(91)90092-9).
- Reiss, S. and McNally, R.J. (1985), "Expectancy model of fear", in Reiss, S. and Bootzin, R.R. (Eds), *Theoretical Issues in Behavior Therapy inside*, Academic Press, San Diego, CA, pp. 107-121.
- Richman, W.L., Kiesler, S., Weisband, S. and Drasgow, F. (1999), "A meta-analytic study of social desirability distortion in computer-administered questionnaires, traditional questionnaires, and interviews", *Journal of Applied Psychology*, Vol. 84 No. 5, p. 754, available at: http://www.cs.cmu.edu/afs/cs.cmu.edu/Web/People/kiesler/publications/1999pdfs/1999_Meta-Analytic-Soc-Desirability.pdf.
- Sánchez-Cañizares, S.M., Cabeza-Ramírez, L.J., Muñoz-Fernández, G. and Fuentes-García, F.J. (2021), "Impact of the perceived risk from Covid-19 on intention to travel", *Current Issues in Tourism*, Vol. 24 No. 7, pp. 970-984, doi: [10.1080/13683500.2020.1829571](https://doi.org/10.1080/13683500.2020.1829571).
- Sarathchandra, D., Navin, M.C., Largent, M.A. and McCright, A.M. (2018), "A survey instrument for measuring vaccine acceptance", *Preventive Medicine*, Vol. 109 No. 2018, pp. 1-7, doi: [10.1016/j.ypmed.2018.01.006](https://doi.org/10.1016/j.ypmed.2018.01.006).
- Senbeto, D.L. and Hon, A.H. (2019), "A dualistic model of tourism seasonality: approach-avoidance and regulatory focus theories", *Journal of Hospitality and Tourism Research*, Vol. 43 No. 5, pp. 734-753, 2019, available at: https://journals.sagepub.com/doi/pdf/10.1177/1096348019828446?casa_token=zGI_sVrs5FMAAAAA:S5YtTDhZV4_ZOr7aYXQqf5Xlx3ZC8UoE6wnBvoqd9bzOMBnXbENewx6doyYz9KIm s9Ftv5TfBQF7.
- Senbeto, D.L. and Hon, A.H. (2020), "The impacts of social and economic crises on tourist behaviour and expenditure: an evolutionary approach", *Current Issues in Tourism*, Vol. 23 No. 6, pp. 740-755, doi: [10.1080/13683500.2018.1546674](https://doi.org/10.1080/13683500.2018.1546674).
- Şengel, Ü., Çevrimkaya, M., Genç, G., Işkın, M., Zengin, B. and Sarışık, M. (2020), "An assessment on the news about the tourism industry during the COVID-19 pandemic", *Journal of Hospitality and Tourism Insights*, Vol. 5 No. 1, pp. 15-31, doi: [10.1108/JHTI-05-2020-0072](https://doi.org/10.1108/JHTI-05-2020-0072).
- Shen, L. (2015), "Antecedents to psychological reactance: the impact of threat, message frame, and choice", *Health Communication*, Vol. 30 No. 10, pp. 975-985, doi: [10.1080/10410236.2014.910882](https://doi.org/10.1080/10410236.2014.910882).
- Shin, H. and Kang, J. (2020), "Reducing perceived health risk to attract hotel customers in the COVID-19 pandemic era: focused on technology innovation for social distancing and cleanliness", *International Journal of Hospitality Management*, Vol. 91, 102664, doi: [10.1016/j.ijhm.2020.102664](https://doi.org/10.1016/j.ijhm.2020.102664).
- Sigala, M. (2020), "Tourism and COVID-19: impacts and implications for advancing and resetting industry and research", *Journal of Business Research*, Vol. 117, pp. 312-321, doi: [10.1016/j.jbusres.2020.06.015](https://doi.org/10.1016/j.jbusres.2020.06.015).
- Sim, K., Chua, H.C., Vieta, E. and Fernandez, G. (2020), "The anatomy of panic buying related to the current COVID-19 pandemic", *Psychiatry Research*, Vol. 288, 113015, doi: [10.1016/j.psychres.2020.113015](https://doi.org/10.1016/j.psychres.2020.113015).
- Simione, L. and Gnagnarella, C. (2020), "Differences between health workers and general population in risk perception, behaviors, and psychological distress related to COVID-19 spread in Italy", *Frontiers in Psychology*, Vol. 11, p. 2166, doi: [10.3389/fpsyg.2020.02166](https://doi.org/10.3389/fpsyg.2020.02166).
- Škare, M., Soriano, D.R. and Porada-Rochoń, M. (2021), "Impact of COVID-19 on the travel and tourism industry", *Technological Forecasting and Social Change*, Vol. 163, 120469, doi: [10.1016/j.techfore.2020.120469](https://doi.org/10.1016/j.techfore.2020.120469).
- Song, L., Zhang, Q., Hu, B. and Mou, J. (2022), "To resist or to purchase: the causal mechanism of binge-watching and program purchase", *Journal of Retailing and Consumer Services*, Vol. 68, 103021, doi: [10.1016/j.jretconser.2022.103021](https://doi.org/10.1016/j.jretconser.2022.103021).

- Sönmez, S.F. and Graefe, A.R. (1998), "Determining future travel behavior from past travel experience and perceptions of risk and safety", *Journal of Travel Research*, Vol. 37 No. 2, pp. 171-177, available at: <https://www.academia.edu/download/36815394/Sonmez-DeterminingFutureTravelBehavior-JTR-1998.pdf>.
- Taylor, S. (2019), *The Psychology of Pandemics: Preparing for the Next Global Outbreak of Infectious Disease*, Cambridge Scholars Publishing, 99 Rubens Strasse, Berlin, Germany, available at: <https://www.cambridgescholars.com/resources/pdfs/978-1-5275-3959-4-sample.pdf>.
- Turk, A., Heneghan, C. and Nunan, D. (2019), "Non-response bias", in *Catalogue of Bias*, available at: <https://catalogofbias.org/biases/non-response-bias/> (accessed 19 January 2023).
- UNWTO (2021), "International travel largely on hold despite uptick in may", available at: <https://www.unwto.org/taxonomy/term/347> (accessed 21 August 2021).
- Visschers, V.H. and Siegrist, M. (2015), "Does better for the environment mean less tasty? Offering more climate-friendly meals is good for the environment and customer satisfaction", *Appetite*, Vol. 95, pp. 475-483, doi: [10.1016/j.appet.2015.08.013](https://doi.org/10.1016/j.appet.2015.08.013).
- Wang, F., Xue, T., Wang, T. and Wu, B. (2020), "The mechanism of tourism risk perception in severe epidemic—the antecedent effect of place image depicted in anti-epidemic music videos and the moderating effect of visiting history", *Sustainability*, Vol. 12 No. 13, p. 5454, doi: [10.3390/su12135454](https://doi.org/10.3390/su12135454).
- Wang, M., Jin, Z., Fan, S., Ju, X. and Xiao, X. (2021a), "Chinese residents' preferences and consuming intentions for hotels after COVID-19 pandemic: a theory of planned behaviour approach", *Anatolia*, Vol. 32 No. 1, pp. 132-135, doi: [10.1080/13032917.2020.1795894](https://doi.org/10.1080/13032917.2020.1795894).
- Wang, M., Kunasekaran, P. and Rasoolimanesh, S.M. (2021b), "What influences people's willingness to receive the COVID-19 vaccine for international travel?", *Current Issues in Tourism*, Vol. 25 No. 2, pp. 1-6, doi: [10.1080/13683500.2021.1929874](https://doi.org/10.1080/13683500.2021.1929874).
- Wen, J., Kozak, M., Yang, S. and Liu, F. (2020), "COVID-19: potential effects on Chinese citizens' lifestyle and travel", *Tourism Review*, Vol. 76 No. 1, pp. 74-87, doi: [10.1108/TR-03-2020-0110](https://doi.org/10.1108/TR-03-2020-0110).
- Williams, N.L., Nguyen, T.H.H., Del Chiappa, G., Fedeli, G. and Wassler, P. (2022), "COVID-19 vaccine confidence and tourism at the early stage of a voluntary mass vaccination campaign: a PMT segmentation analysis", *Current Issues in Tourism*, Vol. 25 No. 3, pp. 475-489, doi: [10.1080/13683500.2021.1963216](https://doi.org/10.1080/13683500.2021.1963216).
- World Health Organization (2020), "Coronavirus disease 2019 (COVID-19): situation report", p. 72, available at: <https://apps.who.int/iris/bitstream/handle/10665/331686/nCoVsitrep02Apr2020-eng.pdf> (accessed 26 January 2023).
- Wu, Y., Ho, W., Huang, Y., Jin, D.-Y., Li, S., Liu, S.-L., Liu, X., Qiu, J., Sang, Y., Wang, Q., Yuen, K.-Y. and Zheng, Z.-M. (2020), "SARS-CoV-2 is an appropriate name for the new coronavirus", *The Lancet*, Vol. 395 No. 10228, pp. 949-950, doi: [10.1016/S0140-6736\(20\)30557-2](https://doi.org/10.1016/S0140-6736(20)30557-2).
- Xiao, H., Li, S., Chen, X., Yu, B., Gao, M., Yan, H. and Okafor, C.N. (2014), "Protection motivation theory in predicting intention to engage in protective behaviors against schistosomiasis among middle school students in rural China", *PLoS Neglected Tropical Diseases*, Vol. 8 No. 10, doi: [10.1371/journal.pntd.0003246](https://doi.org/10.1371/journal.pntd.0003246).
- Xu, H., Zhou, J. and Xu, W. (2011), "A decision-making rule for modeling travelers' route choice behavior based on cumulative prospect theory", *Transportation Research Part C: Emerging Technologies*, Vol. 19 No. 2, pp. 218-228, doi: [10.1016/j.trc.2010.05.009](https://doi.org/10.1016/j.trc.2010.05.009).
- Youn, S. and Kim, S. (2019), "Understanding ad avoidance on Facebook: antecedents and outcomes of psychological reactance", *Computers in Human Behavior*, Vol. 98, pp. 232-244, doi: [10.1016/j.chb.2019.04.025](https://doi.org/10.1016/j.chb.2019.04.025).
- Yuen, K.F., Wang, X., Ma, F. and Li, K.X. (2020), "The psychological causes of panic buying following a health crisis", *International Journal of Environmental Research and Public Health*, Vol. 17 No. 10, p. 3513, doi: [10.3390/ijerph17103513](https://doi.org/10.3390/ijerph17103513).
- Zhang, I.Y., Powell, D.M. and Bonaccio, S. (2022), "The role of fear of negative evaluation in interview anxiety and social-evaluative workplace anxiety", *International Journal of Selection and Assessment*, Vol. 30 No. 2, pp. 302-310, doi: [10.1111/ijsa.12365](https://doi.org/10.1111/ijsa.12365).

Appendix

Table A1		Questionnaire
Constructs	Items	Source
Perceived Severity	TS1: Staying in a hotel during this pandemic is dangerous TS2: I will suffer my whole life if I stay in the hotel TS3: I will become hopeless for the rest of my life if I lose anybody of my family due to the COVID-19 pandemic	Xiao et al. (2014)
Fear	FR1: I am afraid of potential loss if I am staying in the hotel FR2: I am very worried about the potential threat if I stay at the hotel FR3: I am worried about the transmission of COVID-19 during staying at the hotel	Babcicky and Seebauer (2019)
Risk	PR1: I feel risky if I stay at the hotel PR2: Without taking precaution, the chances of getting affected is high PR3: I feel risky although I am fully vaccinated	Babcicky and Seebauer (2019)
Hygiene and safety	HS1: The hotel looks clean and tidy now HS2: I prefer hotels' hygiene and cleanliness HS3: It feels like a safe place to stay in the hotel	Amin et al. (2020) , Rahman et al. (2021)
Intention to resume hotel consumption	PI1: I will stay in the hotel in the near future PI2: I would not enjoy staying in the hotel due to the COVID-19 threat PI3: Staying in the hotel is worth my time	Amin et al. (2020)
Trust in Vaccination	TT1: COVID-19 vaccines are safe TT2: COVID-19 vaccines are effective at preventing disease TT3: The timing of the current COVID-19 vaccination schedule is appropriate	Sarathchandra et al. (2018)
Anxiety (AN)	AN1: When staying in the hotel, I get in a state of tension or turmoil as I think over my recent concerns and interest AN2: When staying in the hotel, some unimportant thoughts run through my mind and bother me AN3: When staying in the hotel, I feel that difficulties are piling up so that I cannot overcome them AN4: When staying in the hotel, I take disappointments so keenly that I can't put them out of my mind	Omar et al. (2021)
Source(s): Authors Creation		

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