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**Polo-Pena, AI, Andrews, H ORCID logoORCID: <https://orcid.org/0000-0002-6160-8568> and Torrico-J odor, J (2023) The role of health and safety protocols and brand awareness for the recovery of hotel activity following a health crisis. Journal of Hospitality and Tourism Insights. ISSN 2514-9792**

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# **The role of health and safety protocols and brand awareness for the recovery of hotel activity following a health crisis**

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## **Abstract**

*Purpose* – This paper examines whether following a health crisis the use of health and safety protocols and hotel brand awareness influences hotel perceived value and intention to visit.

*Design/methodology/approach* – Using an experimental design, the study evaluates the effectiveness of the use of health and safety protocols and the moderating effect of brand awareness on perceived value and intention to visit. *Findings* – The results show that the hotels using health and safety protocols (compared to those that do not use them) will achieve a higher perceived value and intention to visit. In addition, the awareness of brand does not moderate the effect of the health and safety protocols on perceived value and intention to visit.

*Practical implications* – This research identifies mechanisms for future consideration by hotel companies to promote the recovery of their activity after a health crisis. Specifically, using health and safety protocols will result in the market evaluating the brand more highly and produce a greater intention to visit. At the same time, the research indicates that regardless of whether the brand is well-known or not, the use of a health and safety protocol is advantageous.

*Originality/value* – This study offers new insights that can be useful for developing a resilient hotel sector in the face of future health crises. Specifically, the results show progress in understanding the effects that the use of health and safety protocols and brand awareness have on key consumer variables for the recovery of the sector in a post-pandemic context.

**Keywords** Health and safety protocols, Brand awareness, Perceived value, Intention to visit, Health crisis, COVID-19

## **Introduction**

After the global pandemic generated by COVID-19, the tourism sector needs to rethink changes in its actions and strategies that will contribute to achieving a more resilient sector and make it better prepared to combat the effects that crises with similar characteristics may trigger (Kumar et al., 2022; Li et al., 2022). This is a position that also affects the hotel industry, given that it too must identify strategies and mechanisms that contribute to helping the sector recover activity (Sampaio et al., 2022).

Studies that show the evolution of the extensive literature specializing in the study of crises in the tourism and hospitality industry identify a need to understand more about the impacts on consumer behavior of market and brand oriented mechanisms and strategies which is then applied to companies (e.g. Berbekova et al., 2021; Li et al., 2022; Wut et al., 2021). In a crisis context, and from the

perspective of the consumer, the psychometric or “revealed preference approach” (Fischhoff et al., 1978; Slovic, 1987) is used to identify and test factors that help to mitigate tourists’ perceived risk and restimulate the desire to travel. For the recovery of tourist activity, the two key market variables are (1) the perceived value and (2) the intention to visit the hotels. The perceived value reflects the customer’s evaluation of the offer and is considered the greatest indicator of key variables of customer behavior (e.g. Ding et al., 2022; Polo-Pen˜a et al., 2012; Zeithaml, 1988). For its part, loyalty can be considered a strategic objective because this has been associated with visit intention (behavioral component). Based on the above, it is interesting to identify and understand what strategies or mechanisms a hotel can use to promote the generation of a greater perceived value and visit intention in the context of health crises.

Among the factors that may affect consumer behavior following a health crisis is the adoption of health and safety measures. This came to the fore during the COVID-19 pandemic when such measures were an initial response to the crisis. As restrictions eased and tourism markets reopened, understanding the importance of the use of health and safety measures to the positive positioning in the market became important for the tourism industry and related hotel sector (Kumar et al., 2022). And, from a market perspective, in looking to the future, understanding the role of health and safety mechanisms that can be maintained voluntarily by hotels, gives insight into ways that adopting such protocols, leads to a more positive evaluation of the hotel offer which is then converted into an intention to visit (Kement et al., 2022). This research considers how the use of health and safety protocols in a hotel contributes to it achieving a higher perceived value and intention to visit by customers.

At the same time, the use of a recognized brand is a key strategy for the hotel sector (Jeong and Kubickova, 2021). When a brand is recognized, it conveys a series of perceived benefits that are associated with it, such as greater competition, quality, safety, etc. It is argued that brand awareness can enhance the effects of the actions carried out by the company on consumer behavior (Graciola et al., 2020; Liu et al., 2017; Simonetti and Bigne, 2022; Ho et al., 2022), generating a higher perceived value (Kandampully and Hu, 2007) or choice of brand (Huang and Sarigollu, 2012). This type of influence on consumer decision making has been assessed in times that might be described as “normal.” The COVID-19 pandemic presented a situation of high uncertainty, and as such, provided an opportunity to assess whether high brand awareness and the associated enhancing effects were able to influence consumer behavior even at a time of crisis. Considering the gaps in the literature, the aim of this study therefore, is to analyze the effect that the adoption of response measures to health crises has on consumer behavior, with a view to offering insight into how to make the sector more resilient should a health crisis reoccur. The specific research objectives were (1) to demonstrate whether health and safety protocols constitute a valid market tool, checking whether their use contributes to the generation of a higher perceived value and intention to visit the hotel (compared to hotels that do not use a health and safety protocol) and (2) to assess the moderating role of the hotel brand awareness on the effects that the use of health and safety protocols on perceived value and the intention to stay at the hotel. To satisfy the objectives, the research used an experimental design that allowed the measurement of the perceived value and intention to visit the hotel (dependent variables) from the use, or non-use, of health and safety protocols and the hotel brand awareness (not well-known hotel brand vs. well-known hotel brand) to be manipulated.

## **Literature review**

### *Crisis management and recovery plans in the hotel industry*

Hospitality is inherently vulnerable to disaster and external crises, both natural and anthropogenic (Ritchie, 2004). Despite some recent studies of crisis management in tourism, the field lacks research

on both the impact of such events on specific organizations and responses to such events (Ritchie, 2004; Wut et al., 2021). A crisis is defined as any action or failure to act that interferes with an organization's ongoing functions, achievement of objectives, viability, or survival; or that has a detrimental personal effect on its main stakeholders (Ritchie, 2004).

As highlighted by Berbekova et al. (2021) and Zenker and Kock (2020), tourism and hospitality scholars have generated considerable crisis-related research. The COVID-19 pandemic crisis was characterized by high levels of uncertainty and unpredictability, which could be considered unique in nature, scale and complexity (Chen et al., 2022). Undoubtedly, future studies of the consequences of COVID-19 would benefit from an examination of existing crisis management models to inform their research and should focus on advancing theoretical knowledge and offering new managerial tactics (Chen et al., 2022; Zenker and Kock, 2020). To advance the study of the COVID-19 pandemic crisis literature, therefore, it is useful to start from work that offers a rigorous synthesis of the study of crises and disasters in the hospitality and tourism industry and which identifies future lines of enquiry. Table 1 summarizes the literature that systematically analyzes the progress of crisis research in tourism and hospitality. It includes material prior to and during the COVID-19 pandemic.

Firstly, in the work that analyzes the progress of literature in crises prior to that of COVID-19, Mair et al. (2016) reviewed post-crisis recovery in 64 articles published between 2000 and 2012. They discovered that some elements of crisis recovery management received little or no attention in the literature and many studies did not report any theoretical underpinnings in their research. Ritchie and Jiang (2019) reviewed 142 papers on tourism crisis and disaster management and identified three areas including crisis preparedness and planning; crisis response and recovery; and crisis resolution and reflection. They found that the papers, including the framework testing, lacked conceptual and theoretical foundation, which exhibited unbalanced research themes. A bibliometric study of citation networks was conducted by other researchers but only about crisis and disaster management (Jiang et al., 2019). Berbekova et al. (2021) offer an interesting systematic analysis of 206 papers published from 1986 to 2019 from which they then propose research directions in tourism and hospitality crisis management.

Secondly, there is work that analyzes the development of crisis literature prior to and during the COVID-19 pandemic. Chen et al. (2022) conducted a systematic review of the literature based on 63 research outputs published between 2000 and 2020. The research themes they identified to respond to these crisis situations were economic, consumer, government, industry and collaboration between industry and government levels. Wut et al.'s (2021) review of the crisis management literature in the hospitality and tourism industry which considered 512 papers published from 1985 to 2020, identified ten possible further research areas which focused on theories of crisis prevention and preparedness, risk communication, crisis management education and training, risk assessment and crisis events in the context of COVID-19. In addition, the material included data privacy in hospitality and tourism, politically induced crisis events, digital media and alternative analytical methods and approaches.

Thirdly, analysis of literature published about the COVID-19 pandemic was undertaken by Li et al. (2022). They analyzed 326 works published during 2020 and 2021 to assess the evolution of the COVID-19 research in tourism and hospitality. Their objective was to give definition and direction to research on the "new normal". The results were summarized based on changes in the attitude and behavior of tourists, residents and employees, responses of travel suppliers to the COVID-19 pandemic, economic impact and demand forecasting, social issues of rights and racism and reflections on tourism and transformation of the industry.

The review of the work focused on the study of crises and disasters in the hospitality and tourism industry (Table 1), allows us to identify lines of research and gaps to be addressed if we want to advance knowledge of strategies and their effects. Both, Li et al. (2022) and Wut et al. (2021) highlight the need to develop greater knowledge in the context of hospitality companies, the use of market-oriented strategies based on the use of the brand and the study of the effects on consumer behavior. Berbekova et al. (2021) demonstrated that the majority of current crisis management approaches lack an understanding of how people (including tourists and potential visitors) make sense of the event that occurred and react to the new situation. Finally, Chen et al. (2022) identify that although previous epidemic research has highlighted consumers' perceptions of risk and associated changes to their travel behavior, potential strategies for ameliorating such behavioral changes while maintaining safety and security have largely been ignored. Ideally, such strategies should be carefully measured in terms of their impacts on consumers' behavior.

It is this call to measure the impacts of crises response strategies that stimulated the research for this paper. In so doing, it identifies mechanisms that hotels can use to encourage consumers to use their services again in a safe way. For this, it is essential to consider the perspective of customers about the effect that measures adopted by hotels have on the recovery of tourist activity to understand the extent to which such procedures are successful (e.g. Peco-Torres et al., 2021).

Indeed, Gursoy and Chi (2020) emphasize the need for research that provides answers to critical questions such as for example: What are the factors that will influence consumers' intentions to resume their consumption of hotel services (Wang et al., 2020). In crises contexts, perceived risk is a key variable affecting the changes in consumer behavior. Perceived risk "refers to the combined measurement of 'perceived probability' and 'perceived consequences' of a certain event or activity" (Bubeck et al., 2012, p. 1483). The psychometric or "revealed preference approach" is the most influential paradigm in modeling and forecasting risk perceptions and acceptance (Fischhoff et al., 1978; Slovic, 1987). The psychometric model asserts that informed awareness of a risk and how prepared someone is can increase acceptance of the risk. In general, preparedness and awareness are usually associated with increased notions of control over the risk and increased trust in the managers of the risk (Fischhoff et al., 1978; Slovic, 1992).

One important method of increasing perceived control over health risks is the use of non-pharmaceutical interventions (NPIs), through the health and safety protocols (or so-called anti-COVID protocols) (e.g. AENOR, 2021). These health and safety protocols include a structured program of social distancing, hygiene and disinfection measures to ensure the level of safety among tourists in service (Anderson et al., 2020; Schneider et al., 2021). Examples of these health and safety protocols in the COVID-19 context are the Spain Travel Safety programs orientated to different kinds of service providers (Travel Safe, 2020) or the World Travel and Tourism Council programs (WTTC, World Travel and Tourism Council, 2020).

The experience of using the health and safety protocols by customers can translate into them perceiving that they assume less costs and health, social and emotional risks when consuming tourist services (Ministerio de sanidad del Gobierno de España, 2020). From a market perspective, understanding the positive role that the protocols did or did not have, and whether such mechanisms can be maintained by tourism providers on a voluntary basis to promote safer tourism consumption, is valuable for understanding what the sector needs in post-health crisis recovery situations (Kumar et al., 2022). In addition, considering the effects that the use of health and safety protocols can have on consumer behavior, it is of interest to know if their use proves to be a valid strategy to improve the chances of recovery for the hotel industry (Kement et al., 2022). Further, this understanding contributes to whether such measures achieve a more resilient sector (Kumar et al., 2022), through

their effect on key variables of consumer behavior, for example the perceived value and the intention to book the hotel. Of the work that exists, none has measured the effect of adopting means to alleviate the effects of a health crisis on consumer behavior.

Table 1 Studies that offer a rigorous synthesis of the scholarship about crises and disasters in the hospitality industry

Authors (year)	Topic	Main findings
<i>Crises prior to the COVID-19 pandemic</i>		
Mair <i>et al.</i> (2016)	destinations	<ul style="list-style-type: none"> <li>- This paper presents a review of the literature concerning post-disaster and post-crisis recovery for tourist destinations</li> <li>- A total of 64 articles on this topic published between January 2000 and June 2012 were included in the review</li> <li>- These articles were written about several different disaster contexts, including weather-related events (floods and hurricanes), natural disasters (earthquakes and tsunami) and other events (such as pandemics and terrorist attacks)</li> <li>- The key themes that emerged included: (1) a lack of communication between stakeholders, (2) media sensationalism, (3) the importance of selecting the most effective marketing messages, (4) lack of disaster-management plans, (5) damage to destination image and reputation, and (6) changes in tourist behavior following crises and disasters</li> <li>- The review identifies ways to improve the speed and effectiveness of responses to disasters, the importance of relationship marketing with loyal customers and the need to quickly repair destination image</li> </ul>
Jiang <i>et al.</i> (2019)	management	<ul style="list-style-type: none"> <li>- This article reviews 142 papers published between 1960 and 2018 on tourism risk, crisis and disaster management</li> <li>- The article suggests future research and methodological approaches to help progress the field</li> <li>- The article identifies several opportunities for future research: (1) future research should follow a more theoretical approach to investigate crises and disasters in the tourism industry rather than simply describing crisis or disaster impacts and response strategies; (2) hot topics</li> </ul>
Ritchie and Jiand (2019)	crisis/disaster planning strategies, influencing factors and predictors of tourism crisis planning, human resource development in crisis	<ul style="list-style-type: none"> <li>- This article reviews 142 papers published between 1960 and 2018 on tourism risk, crisis and disaster management</li> <li>- The article suggests future research and methodological approaches to help progress the field: (1) Preparedness and planning (proactive crisis management/response, disaster reaction to reduction, mitigation, and preparedness, crisis management plan and strategies, tourism</li> </ul>
Berbekova <i>et al.</i> (2021)	crisis management in hospitality and tourism	<ul style="list-style-type: none"> <li>- This work focuses on offering: (1) a comprehensive review of extant research on crisis management in hospitality and tourism; (2) future research suggestions based on identified themes and gaps; (3) a discussion based on other theoretical perspectives on crisis management in hospitality and tourism</li> <li>- This study presents the results of a qualitative thematic analysis of the literature concerning crisis management in hospitality and tourism</li> <li>- A total of 207 research publications from 1986 to 2019 were analyzed</li> <li>- The findings revealed eight major themes that emerged in the literature over time: (1) the travel and tourism industry's vulnerability and resilience to crises, (2) crises' and disasters' consequences, (3) tourists' risk perceptions and attitudes, (4) crisis management models and</li> </ul>
Chen <i>et al.</i> (2022)	to multinational epidemics through the lens of the triple helix model	<ul style="list-style-type: none"> <li>- This study aims to examine the past literature related to academic, industrial and governmental responses to multinational epidemics through the lens of the triple helix model</li> <li>- This paper conducts a systematic review of the literature published between 2000 and 2020 on five multinational epidemics that had significant impacts on the tourism industry: foot and mouth disease, severe acute respiratory syndrome, bird flu (novel influenza A and avian flu), Ebola and Middle East Respiratory Syndrome</li> <li>- The search process initially identified 2,910 articles. The authors screened the articles, the final list of studies eligible for analysis was 63</li> <li>- Themes from academic research identified: (1) Economic impacts and travel restrictions, (2) risk, fear and consumer behavior, (3) government responses: prevention, education and preparedness, incentives and subsidies, collaboration and coordination; (4) industry</li> </ul>
	reactions: physical environment enhancements, planning and business continuity, revenue diversification, human-resource modifications; (5) collaborations between industry and government	<ul style="list-style-type: none"> <li>- Moreover, although previous multinational epidemic/epidemic research has highlighted travelers' perceptions of risk and associated changes to their travel behavior, potential strategies for ameliorating such behavioral changes while maintaining safety and security have largely been ignored. Ideally, such strategies should not simply be implemented, but carefully measured by researchers in terms of their impacts on travelers' behavior and travel demand in the real world</li> </ul>

Wut et al. (2021)  
tourism industry

- This study offers an analysis of how crisis management practices have been adopted in the hospitality and tourism industry
- It reviewed 512 articles - including 79 papers on COVID-19 - spanning 36 years between 1985 and 2020
- The findings showed that mainstream crisis management research was dominated by a focus on crisis management, crisis impact and recovery, as well as risk management, risk perception and disaster management
- Reviewing the past decade (2010 to 2020) health-related crisis (including COVID-19) is one of the biggest trends
- Ten possible further research areas were suggested: the theories of crisis prevention and preparedness, risk communication, crisis management education and training, risk assessment, and crisis events in the context of COVID-19, data privacy in hospitality and tourism, political related crisis events, digital media, and alternative analytical methods and approaches
- In addition, specific questions for future research in these areas were posed. Among these was the need to develop a greater knowledge applied to hospitality companies, the use of market-oriented strategies based on the use of the brand, and study of the effects on consumer behavior

COVID-19 pandemic crisis

Li et al. (2022)

- This paper aims to bibliometrically analyze the current progress of research around the evolution of COVID-19 research in tourism and hospitality and encourages more conceptual, practical and futuristic studies of hospitality and tourism to define the research directions for the "new normal"
- This paper analyzed 326 articles regarding COVID-19 published in 2020 and 2021 by combining manual analysis and bibliometrics to reveal research topics and to gain insight into research structures
- The results of this paper summarized themes within the literature: (1) individuals' (tourists, employees and residents) attitudes and behavior, (2) responses of travel suppliers (the government and tourism enterprises) to the COVID-19 pandemic, (3) economic impact and demand forecasting, (4) social issues of rights and racism, (5) reflection on tourism and transformation of the industry
- More research is called for to focus on a better response to the crisis, including crisis management education and training and improving the resilience of small- and medium-sized enterprises

Source(s): Author's own creation/work

### *Perceived value: the effect of the use of health and safety protocols*

The conceptual proposal made by Zeithaml (1988, p. 14) defines perceived value as "the overall assessment of the utility of a product based on the perceptions of what is received and what is given". As the perceived value construct reflects a customer's evaluation of the offer, it is considered the greatest indicator of the key variables of customer behavior (e.g. Gallarza and Gil-Saura, 2006; Polo-Pen~a et al., 2012; Zeithaml, 1988). In the hotel context, perceived value is recognized as a key antecedent of satisfaction (e.g. Feng et al., 2021), behavioral intentions (e.g. K peli and  zer, 2020) and the intention to revisit a hotel (e.g. Zhao et al., 2022).

Given the relevance of perceived value for consumer behavior, it is of interest to identify mechanisms by which it can be increased in the context of health crises, such as that generated by a pandemic. The use of health and safety protocols is oriented towards the communication of a certain kind of information. There is broad scholarly consensus that having appropriate information is a crucial factor in times of crisis because it influences tourists' perceptions of security (e.g. Zou and Meng, 2020). The perceived value is conceptualized as a trade-off between "get" and "give" elements (Gallarza and Gil-Saura, 2006; Polo-Pen~a et al., 2012; Zeithaml, 1988). Health and safety protocols can help customers perceive that there will be fewer costs and fewer health, social and emotional risks (Ministry of Health of the Government of Spain, 2020).

Having a greater understanding of the effects that the use of health and safety protocols has on consumer behavior has been identified as an area in need of more research (e.g. Kement et al., 2022). Also, to date, no research about the use of health and safety protocols by hotels (associated with customers perceiving lower health, social or emotional risks and higher costs) has demonstrated that their use can help a brand achieve a higher perceived value, compared to the perceived value generated by hotels without the use of health and safety protocols. The research for this paper, therefore, proposes advancing knowledge of these issues, which according to Chen et al. (2022) and Li et al. (2022) is a gap in the literature. Thus, the following research question is posed:

RQ1. Will potential tourists show a significantly greater perceived brand value for a hotel that uses a health and safety protocol compared to a hotel that does not use one?

### *Intention to visit: the effect of the use of health and safety protocols*

Visit intention is a key variable in the success of tourism firms, as it directly relates to their performance and long-term survival (Alrawadieh et al., 2019; Ou et al., 2020). More specifically, hotel visit intention is arguably more critical than ever, given that demand for hotel services plummeted because of the COVID-19 pandemic (Yu et al., 2021). The pandemic is also attributed with generating profound changes in consumer behavior (Wen et al., 2020). Against this backdrop, it is necessary to think afresh about how to approach the study of the variables that may help explain the formation of hotel visit intention (Yu et al., 2021). It is helpful, therefore, to identify mechanisms and strategies that contribute to increasing the intention to visit hotels in situations of uncertainty (Pahrudin et al., 2021).

Liu-Lastres et al. (2019) state that relying on the dissemination of adequate information during situations of tourist uncertainty, such as through a health and safety protocol, positively affects the intention of tourists to make bookings. Although Kement et al. (2022) found no evidence that NPI measures influenced behavioral intentions, the dissemination of information transmitted through a health and safety protocol, could however, according to Jonas and Mansfeld (2017), Kement et al. (2022), Liu and Hu (2021), be an effective strategy to reduce uncertainty for customers in the decision-making process. Pahrudin et al. (2021) found empirical evidence that the use of NPIs influences the intention to visit a destination. Therefore, the development of greater knowledge is required about the effects of strategies implemented at hotel level – such as the use of health and safety protocols which could influence the intention to visit the hotels (Wut et al., 2021). In accordance with the knowledge gaps set out by Chen et al. (2022) and Li et al. (2022), and based on the potential for influence, research for this paper is aimed at advancing knowledge about whether the use of health and safety protocols by hotels contributes to achieving a greater intention to visit, compared to that achieved by hotels not using health and safety protocols. This leads to the second research question.

RQ2. Will potential tourists exhibit a significantly greater intention to visit a hotel that uses a health and safety protocol compared to a hotel that does not?

### *The moderating effect of the use of a well-known brand and the use of health and safety protocols on consumer behavior*

Another factor that may be relevant to the recovery of hotel activity is the brand. From the market point of view, the brand can be conceptualized as “... the differential effect of brand knowledge on customer response to the marketing of the brand” (Keller, 1993, p. 2). In addition, brand awareness represents the strength of the brand’s presence in the mind of the target audience (Aaker, 1996).

The use of a recognized brand has been shown, for example by Huang and Sarigollu (2012), to positively influence consumer behavior variables. In a study by Liu et al. (2017), brand awareness was a positive influence on customer reactions and a better brand performance. Brand awareness increases a brand’s probability of being considered by the customer according to a set of considerations (Graciola et al., 2020; Liu et al., 2017) and can increase brand trust (Chi et al., 2009). In addition, Kim and Kim (2012) indicated that positive brand awareness builds the customer’s positive attitude towards the brand. Lastly, when a product has very good brand awareness, it can win over customers’ preferences (Chi et al., 2009).

Brand awareness is associated also with the ability to enhance a higher perceived value (Kandampully and Hu, 2007). This may be due to the fact that a recognized brand transmits to the market a level of competence, credibility, reputation, etc (e.g. Kapferer, 2005), which in turn may generate a greater perception of security. This greater knowledge of the brand’s attributes can enhance consumers’ ideas about greater benefits at a functional, social and emotional level. Also, brand awareness plays an



important role in the customer's decision-making process and serves as a guide to decision-making at the time of purchase (Hutter et al., 2013). In general, a known brand has a much better chance of selection by consumers over an unknown brand, and the actions of the company's well-known brand is likely to perform better in the marketplace compared to a lesser-known brand (Huang and Sarigollu, 2012; Hoyer and Brown, 1990).

In addition, it has been suggested, by for example, Huang and Sarigollu (2012) that it is necessary to analyze the relationship between brand awareness and the results achieved with the actions of the company, because brand awareness will influence how the actions of the company are perceived by clients and thus impact the results achieved. Thus, the research for this paper seeks to advance the study of the impacts that brand awareness can have on the effects that the company's actions have in the context of a health crisis. Specifically, it asks if the use of a well-known brand is capable of enhancing (increasing) the effects that the use of a health and safety protocol exerts on the variables of perceived value and the intention to visit to the hotel, generates the following research questions.

RQ3. Will the effect of health and safety protocols on perceived value be significantly higher when the hotel is a well-known brand compared to a lesser known brand?

RQ4. Will brand awareness moderate the effect that the health and safety protocols have on the intention to visit to the hotel so that the intention to visit the hotel will be significantly higher when the hotel is using a well-known brand compared to when it is not?

## **Methodology**

### *Population and sample*

The research was conducted in Spain at a time when there was still heightened awareness and concern over the risks related to COVID-19, and therefore, potential tourists would be traveling in an environment created by the virus (Sánchez-Canizares et al., 2021). Following Sánchez-Canizares et al.'s example the population under study consists of potential tourists in Spain who may potentially be travelers in the short/medium term within the environment created by the pandemic (Sánchez-Canizares et al., 2021). This is as an example of a country particularly affected by the COVID-19 pandemic, but at a time when there was tourist activity and it was possible to travel through Spanish territory (de España, Gobierno, 2021). As in the cases of Liu et al. (2020) and Sánchez-Canizares et al. (2021) a convenience sample was obtained, with data collected for the empirical analysis by means of an online self-administered questionnaire.

The questionnaire had four parts. Part one, participation information about the study and guarantees that data would be treated anonymously and confidentially. Part two was the control variable based on intention to take a tourist trip in Spain in the next year. At this stage, the respondent was exposed for at least one minute – to one of the stimuli in the form of one of the four infographics (1) a well-known brand with a health and safety protocol; (2) an unknown brand with a health and safety protocol; (3) a well-known brand without a health and safety protocol; (4) an unknown brand without a health and safety protocol. Thirdly, the questionnaire included questions relating to the manipulation check and dependent variables. Part four consisted of questions to ascertain the sociodemographic and psychographic profile of the participants.

Prior to the distribution of the questionnaire it was piloted to ensure that the stimuli did not include errors and questions were clear to participants (DeVellis, 2003; Vila et al., 2000). The pilot consisted of five potential tourists for three of the stimuli created and four for the remaining stimulus. The results

of the pilot showed that the stimuli adequately conveyed the use, or not, of health and safety protocols and of a well-known or unknown brand, in addition to testing the clarity of the questions.

A total of 250 responses were received. When considering, however, the participants who met the control question (intention to take a tourist trip in Spain in the next year), the number of valid answers was 240. As the experimental design included exposing the participants to a stimulus with four levels, the 240 respondents were randomly divided into four groups of 60 members.

In general, it can be stated that the distribution of the sample is similar to the structure of the population of domestic tourists in Spain (e.g. INE, Instituto Nacional de Estadística, 2020; Sánchez-Canizares et al., 2021) in terms of gender (54.20% men and 45.80% women), and most had higher education qualifications (46.70%). In relation to occupation, 45.9% were employed, 18.43% unemployed and 35.8% students. In terms of age, the sample includes a greater number of participants in the younger age group (61.30% aged 18–25 years, 23.30% aged 26–50 years and 15.40% from 50 years) compared with the domestic tourist population (Table 2). In this respect, it is necessary to consider that older people may have more health concerns and therefore have been more risk adverse to traveling at the time. In contrast, younger people, known to be less vulnerable to serious illness/death from COVID-19, may have felt more encouraged to travel. In addition, older people may have less access to, or feel less comfortable with, social media compared to younger people. This may also be a factor in relation to the age distribution of participation, and it is a situation that could explain that in other works carried out in the post-COVID-19 context, high quotas of young people are also observed among the sample participants (e.g. Sánchez-Canizares et al., 2021 in a Spanish context, or Pahrudin et al., 2021 in an Indonesian context).

Table 2 Socio-demographic profile of the final sample

	Non-health and safety protocols version and unknown brand	Health and safety protocols version and unknown brand	Non-health and safety protocols version and well-known brand	Health and safety protocols version and well-known brand	n (%)
Valid subjects	60	60	60	60	240
Female	24	30	24	32	110 (45.80%)
Male	36	30	36	28	130 (54.20%)
Without higher education qualifications	29	35	31	33	128 (53.30%)
With higher education qualifications	31	25	29	27	112 (46.70%)
18–25 years old	41	41	34	31	147 (61.30%)
26–50 years old	14	13	15	14	56 (23.30%)
>50 years old	5	6	11	15	37 (15.40%)
Employed	33	25	27	25	110 (45.9%)
Unemployed	8	15	9	12	44 (18.3%)
Students	19	20	24	23	86 (35.8%)
Not living with or are caregivers of vulnerable people	24	30	23	30	107
Living with or are caregivers of vulnerable people	36	30	37	30	133

Source(s): Author's own creation/work

### *Experimental design and analysis*

An experimental design consists of manipulating one or several independent variables to obtain the variations produced in the dependent variables (Zikmund and Babin, 2007, p. 207). For this research, the use of in between-subjects experimental design is appropriate since one objective is to know what variation occurs in perceived value and the intention to visit (dependent variables) the hotel after a health crisis due to the use of health and safe protocols and whether the hotel is a well-known brand or not (independent variables). To achieve this objective, a MANCOVA analysis is adequate because it allows the isolation of the effect that the use, or not, of a health and safety protocol has, and to isolate the impact of a well-known or unknown brand, on the dependent variables (perceived value and intention to visit) (Hair et al., 2018, pp. 345-98). To do this, the independent variables of the tourist offer were manipulated (differentiating between a hotel with the use or not of a health and safety protocol and between a very well-known or unknown brand). To answer the research questions raised, it is necessary to measure the effect that the use, or not, of a health and safety protocol (nominal variable) has on two dependent variables – perceived value and intention to visit (metric variables), and the incremental effect of using a well-known brand versus an unknown brand (nominal variable).

Following the methodological guidelines of the applied experimental design (e.g. Frías-Jamilena et al., 2022; Zikmund and Babin, 2007, pp.222-229), the following steps were then enacted: (1) the independent, dependent and other variables were identified, such as the variables of control and manipulation check, the descriptions of the sample profile – variables included in the study – and the measurement scales used for each variable (2) to check the reliability and validity of the scales used – validation of measurement scales; (3) check whether the random assignment of the respondents was effective or not – sample selection bias; (4) check if the effect on the dependent variables is generated from the factors (independent variables) – confounding bias; (5) check if the manipulated factors produced the desired effects (that is, if the use or not of health and safe protocols and the well-known or unknown brand is perceived by the participants) – manipulation check.

### *Variables included in the study*

*Independent variables.* Use of a health and safety protocol. For the preparation of the stimuli, a review of some specialized tourism and hotel websites was undertaken to identify the most appropriate health and safety measures for hotels, and the best way to present the stimuli. This information resulted in the creation of two infographics depicting the services offered by the hotels including information about the hotel cleaning service, the use of shared spaces, digital services, restaurant service, customer service and commitment to hotel workers.

Brand awareness. The stimuli designed included two different versions, one for a very well-known hotel brand (Meli,a Hotel) and the other with an unknown hotel brand (Mil,an Hotel). To select a well-known hotel brand, the Hosteltur ranking (2021) was consulted, which includes the main hotel chains based on sales revenue in Spain. From this ranking, it was identified that the Meli,a Hotels International brand is the hotel chain that is in first place based on the number of sales (Hosteltur, 2021). For the unknown hotel brand, a fictitious brand was created. For each of the versions created, information and examples of the information provided in official hotel portals were used. Based on this review, two infographics in which the two different brands were included were produced.

A total of four different stimuli were designed with the following combinations: a well-known hotel brand with a health and safety protocol, an unknown hotel brand with a health and safety protocol, a well-known hotel brand without a health and safety protocol and an unknown hotel brand without a health and safety protocol.

*Dependent variables and other variables.* Dependent variables. This study was based on measurement scales validated in previous studies. The perceived value variable was measured following a three-item scale used by Boo et al. (2009) and Pike and Bianchi (2016). The intention to visit the hotel was measured using a three-item scale from Han et al. (2020). The items of the measurement scales included Likert-type items from 1 to 7 points, with 1 being “totally disagree” and 7 “totally agree” (Appendix 1).

Experimental manipulation check. To test that the exposure to a well-known hotel brand versus an unknown hotel brand and the exposure to stimulus with health and safety protocol versus no health and safety protocol, two-item Likert-type scales were included where the value 1 was “totally disagree” and 7 “totally agree”. These scales measured if the respondents recognized, or not, the hotel brand and the use, or not, of the health and safety protocol (Appendix 1).

*Control variables.* Information quality and brand image were used as control variables. The information quality variable was measured with a four-item scale by Bailey and Pearson (1983) and Hur (2017). The items of the measurement scales included Likert-type items from 1 to 7 points, with 1 being “totally disagree” and 7 “totally agree”. The brand image variable was measured adapting a four-item scale used by Drolet et al. (2007) and Keppel (1991) (Appendix 1).

*Sociodemographic variables.* The questionnaire included sociodemographic variables as age, gender, educational level and information about experience with COVID-19 (if, for example, they had suffered from the virus, knew someone who had suffered from it, and if they lived with or were caregivers of vulnerable people).

## **Results**

### *Validation of measurement scales*

The scales achieved an adequate level of validity and reliability (Appendix 2), then, the mean value of its items was used of each of these variables (Hair et al., 2018, pp. 126–7).

### *Sample selection bias*

Although the selection of participants for the different experimental groups based on the visualized stimulus was random, it was necessary to check whether this had been effective. To do this an analysis of the association using covariates as gender, age and whether the person surveyed lives with or has a dependent vulnerable to COVID-19 was conducted.

The results of the association tests for the different groups and the covariates (gender:  $\chi^2$  5 3.42, p-value 5 0.33; age:  $\chi^2$  5 19.94, p-value 5 0.17; lives with or is a caregiver for a vulnerable person:  $\chi^2$  5 2.88, p-value 5 0.41) no evidence was found of a significant level being reached and thus, the absence of subject selection bias was confirmed.

### *Confounding bias*

The effect of the factors on the dependent variables was controlled via the covariates “brand image” and “information quality”. Using covariates is justified, according to Kirk (1995), if (1) they are related to the dependent variables and (2) they are not related to the independent variables. To verify the first criterion, the Pearson correlation was calculated between each of the two covariates and the dependent variables (perceived value and intention to visit the hotel). There was a significant correlation in some cases – perceived value (brand image p-value  $\leq$  0.01; and “information quality” attitude p-value 5 0.08) and intention to visit the hotel (brand image p-value  $\leq$  0.01; and “information quality” p-value 5 0.60). Part of the covariates therefore met the first criterion (brand image) and part

did not (information quality), therefore, the information quality variable should not be included as a covariate.

To check the second criterion, a MANCOVA was performed for the brand image variable, using the covariate as the dependent variable and the four different groups of the experiment as the independent variables, thus: (1) well-known brand with health and safety protocol, (2) unknown brand with health and safety protocol, (3) well-known brand without health and safety protocol and (4) unknown brand without health and safety protocol. The result showed a significant relationship between the groups and the covariate ( $F = 65.50$ ,  $p\text{-value} = 0.00$ ), therefore they did not fulfill the second requirement for being included as covariates.

#### *Manipulation check*

To check that the manipulated factors produced the desired effects, we performed MANCOVA to compare the means for those factors. The mean differences for the incorporation or not of health and safety protocols ( $M_{\text{no health and safety protocol}} = 2.43$ ;  $M_{\text{health and safety protocol}} = 6.18$ ;  $p\text{-value} \leq 0.01$ ). It was verified that all the participants recognized the

well-known brand shown in the stimulus through the manipulation check of the variable “brand image” and the mean differences for the well-known brand were significant ( $M_{\text{unknown brand}} = 2.25$ ;  $M_{\text{well-known brand}} = 6.15$ ;  $p\text{-value} \leq 0.01$ ).

#### *Results answering the research questions*

In light of these results, the research questions were tested using MANCOVA, where perceived value and intention to visit the hotel were the dependent variables and “health and safety protocol” and “well-known brand” were independent variables.

The main effects of the use of a health and safety protocol on the dependent variables (Research Question 1 and Research Question 2) were significant, with the mean of the use of the health and safety protocol being greater than that when the health and safety protocol was not used (Table 3, Figure 1). In relation to the dependent variable of perceived value: individuals in the group for whom the stimulus includes the health and safety protocol presented higher values for perceived value ( $M_{\text{health and safety protocol}} = 5.35$ ), while individuals from the group for whom the stimulus does not include the health and safety protocol presented lower values for perceived value ( $M_{\text{no health and safety protocol}} = 4.49$ ). Regarding the dependent variable of intention to visit the hotel: individuals of the group for whom the stimulus includes the health and safety protocol presented higher values for intention to visit the hotel ( $M_{\text{health and safety protocol}} = 5.20$ ), while individuals from the group for whom the stimulus does not include the health and safety protocol presented lower values for intention to visit the hotel ( $M_{\text{no health and safety protocol}} = 3.47$ ). The difference between the two means, which compares the group for whom the stimulus includes the health and safety protocols to the group for whom the stimulus does not include the health and safety protocols is significant for perceived value ( $F = 30.61$ ,  $p\text{-value} \leq 0.01$ ) and intention to visit the hotel ( $F = 82.75$ ,  $p\text{-value} \leq 0.01$ ). These results indicate that for Research Question 1, potential tourists show a significantly greater perceived brand value for a hotel that uses a health and safety protocol compared to a hotel that does not use one. And, for Research Question 2, potential tourists exhibit a significantly greater intention to visit a hotel that uses a health and safety protocol compared to a hotel that does not.

Next, we proceeded to check whether there was an interaction effect between the health and safety measures and the brand awareness (Research Questions 3 and 4). To do this, the overlapping confidence intervals referring to the effect that the use of brand awareness and the health and safety

protocol exerts on each dependent variable (perceived value and intention to visit) were used (Table 4). The results show that the confidence intervals of the effect of the use of health and safety protocols based on brand awareness overlap for the perceived value variable: for an unknown brand with a health and safety protocol the confidence interval is 4.85–5.43; while for a well-known brand, with a health and safety protocol the confidence interval is 5.27–5.85. On the other hand, in relation to the variables of intention to visit for an unknown brand with a health and safety protocol the confidence interval is 4.63–5.31; while for a well-known brand with a health and safety protocol the confidence interval becomes 5.09–5.77. These results indicate that the brand awareness does not moderate the effect of the use of the health and safety protocol on perceived value and intention to visit. Hence, in response to Research Questions 3 and 4 it can be said that there is no difference from the effect of health and safety protocols on perceived value (Research Question 3) and intention to visit the hotel (Research Question 4) when the hotel is a well-known brand compared to a lesser-known brand.

Table 3. MANCOVA analysis results for research questions 1 and 2

Research questions	Dependent variable	<i>F</i>	<i>p</i> -value	Research questions: empirical support?
<i>Health and safety protocol</i>				
Research Question 1	Perceived value	30.61	0.03	Yes
Research Question 2	Intention to visit	82.75	0.00	Yes

Source(s): Author's own creation/work

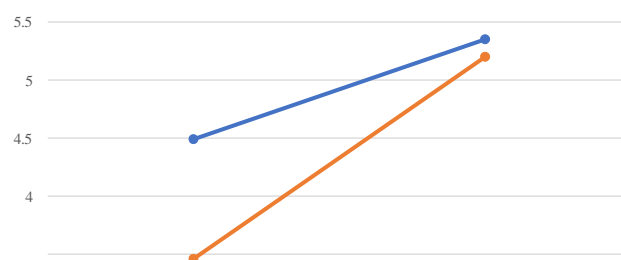


Figure 1.  
Main effects of health and safety protocol on perceived value and intention to visit

Source(s): Author's own creation/work

## Discussion and conclusions

### Conclusions

The COVID-19 global pandemic had far-reaching consequences for the travel and tourism industry. Similar, future scenarios cannot be ruled out (Ivanova et al., 2021; Li et al., 2022; Magno and Cassia, 2022). Also, the global COVID-19 pandemic generated a situation from which the sector can identify actions and strategies that will contribute to achieving a more resilient sector (Kumar et al., 2022; Li et al., 2022).

In this paper, we have considered the existing crisis management literature that analyzes the evolution of the study of this area prior to the COVID-19 pandemic and during it. The systematic reviews have made it possible to identify that there is an interest in achieving greater knowledge about the use of market and brand-oriented mechanisms and strategies, their effects on consumer behavior and

application to companies (e.g. Berbekova et al., 2021; Li et al., 2022; Wut et al., 2021). Chen et al. (2022) identify that, although previous epidemic research has highlighted consumers' perceptions of risk and associated changes to their travel behavior, potential strategies for ameliorating such behavioral changes while maintaining safety and security have largely been ignored (Ding et al., 2022; Ho et al., 2022; Simonetti and Bigne, 2022). This paper addresses this concern by offering an empirical study in which (1) it is shown that the use of health and safety protocols contributes to the generation of a higher perceived value and intention to visit the hotel (compared to hotels that do not use a health and safety protocol) and (2) evaluated the moderating role of the hotel brand awareness on the effects that the use of health and safety protocols on perceived value and the intention to stay at the hotel. Greater knowledge is required regarding the effect that the adoption of this type of action generates from the market point of view in key variables of consumer behavior (e.g. Volgger et al., 2021). From the "revealed preference approach" (Fischhoff et al., 1978; Slovic, 1987), this paper provides empirical evidence about the effect of factors that affect the risk perception and the perceived control tourists exert on perceived value and the intention to resume using hotels.

Table 4. Confidence intervals of the interaction effect

Variable	Brand awareness	Health and safety protocol	Mean	Confidence interval
Perceived value	Unknown brand	Non health and safety protocol	5.14	(4.85; 5.43)
	Well-known brand	Health and safety protocol	5.56	(5.27; 5.85)
Intention to visit	Unknown brand	Non health and safety protocol	4.97	(4.63; 5.31)
	Well-known brand	Health and safety protocol	5.43	(5.09; 5.77)

Source(s): Author's own creation/work

Thus, by collecting data during the pandemic, the research for this study provides original insights into whether the use of health and safety protocols and the brand awareness influences the perceived value and the intention to visit the hotel. It provides empirical evidence indicating that (1) the use of health and safety protocols positively contributes to generating a higher perceived value and the intention to visit the hotel versus the non-use of hotels; and (2) the use of a well-known brand does not moderate the effect that the health and safety protocols exerts on the perceived value and the intention to visit the hotel, so the use of a well-known brand is not enhancing the effect of the health and safety protocols on consumer behavior.

#### *Theoretical implications*

The findings of this study make various contributions to knowledge. Firstly, specialized literature on crisis management in the tourism and hospitality industry shows interest in learning more about the use of market-oriented actions and their effects on consumer behavior (e.g. Wut et al., 2021; Li et al., 2022). Further, Chen et al. (2022) recognize that it is necessary to develop a greater knowledge about consumers' perceptions of risk and associated changes to their travel behavior and how taking action can contribute to ameliorating the re-use and value of services when traveling while maintaining safety and security. Specifically, this paper proposes the use of health and safety protocols by the hotels as a mechanism through which consumers perceive a greater value of the hotel and show a greater intention to visit. The literature raises doubts, however, about the effects that the use of health and safety protocols exert on tourist behavior in the context of a crisis (e.g. Liu and Hu, 2021). This may be due to the use of health and safety protocols which are aimed at reducing perceived health risks, which, in turn, can help encourage tourists to use tourist services again. Simultaneously, however, they can generate a feeling of discomfort during the trip that can discourage travel (e.g. Volgger et al., 2021). This situation makes it necessary to empirically test the effect of the use of health and safety protocols

on consumer behavior. In fact, Chen et al. (2022) state that strategies must not only be implemented, but carefully measured by researchers in terms of their impacts on consumer behavior.

The findings of the current research demonstrate that the use of health and safety protocols have been a valuable tool for the recovery of the hotel industry from a market perspective. In a novel way, this research has verified that the hotel that uses health and safety protocols is related to a greater perceived value and intention to visit the hotel by tourists, over a hotel that does not use a protocol. The use of health and safety protocols offer information to promote safe consumption at the hotel, and as other studies (e.g. Liu and Hu, 2021; Volgger et al., 2021) have shown such information, following a health crisis, is valued by tourists. These aspects are, in turn, related to perceived value. In addition, tourists' perceptions of safety are related to their decision making processes (e.g. Fan et al., 2022; Peco-Torres et al., 2021), specifically influencing the intention to visit the hotel. Thus, we respond to the line of enquiry proposed by Chen et al. (2022) by identifying from the perspective of consumers, an action (the use of health and safety protocols by hotels) that contributes to changes in consumer behavior towards the use, and a more positive evaluation, of hotel services by consumers, while enhancing their perceived safety during their stay.

Secondly, the use of brand-based strategies (e.g. Wut et al., 2021) and the study of their effects from the perspective of consumers (Chen et al. 2022) are subjects of interest for literature specializing in crisis management in tourism and hospitality. Starting from the premise that a well-known brand can enhance the effects of a company's performance (e.g. Graciola et al., 2020; Liu et al., 2017), the moderating effect between the use of health and safety protocols and the brand awareness on perceived value and intention to visit the hotel has been raised. Evaluating this interaction effect provides original insights about whether the use of a well-known brand can enhance the effects of health and safety protocols on the perceived value and the intention to visit the hotel. The research shows that this moderating effect was not found. This result responds to questions previously raised in the literature, for example Huang and Sarigollu (2012), in relation to the need to test the effects that brand awareness may or may not have on the market depending on the application context. In this case, specifically, as a whole it can be identified that brand awareness turns out to be beneficial for the recovery of the hotel sector after a health crisis (due to its impact on the perceived value and intention to visit the hotel), but that it does not enhance the effect that the use of health and safety protocols have on the market. One explanation for this result is that the psychometric model of risk perceptions suggests that objective risk (or expert judgments of risk) and subjectively perceived risks may differ (Slovic, 1987). However, on average, people provide an acceptable assessment of real risks (Sjöberg, 2000). Consequently, recognizing the effectiveness of the use of well-known brands on a health crisis context, the perceived risk associated with the consumption of hotel services continues to be important for tourists when the hotel is using health and safety protocols.

### *Practical Implications*

The findings of this study are useful for managers within the hotel industry and other service providers in the sector about how to adopt strategies to encourage the recovery of hotel and tourist activity after a health crisis, considering that they offer information contextualized in the sample analyzed and in an experimental situation. Identifying strategies aimed at the recovery of the sector after a crisis is relevant and can contribute to the evolution of the sector towards a more resilient future (Berebkova et al., 2021). The data gives insights about the effect that the suitability of maintaining some health and safety measures – adopted during a health crisis – can have from a market perspective after the emergency has receded, and the use of brand awareness can have on the recovery of activity. Having this type of knowledge is advantageous since it can be used for hotels to guide their strategies and actions towards the market (Peco-Torres et al., 2021).



The effectiveness of the provision of health information through health and safety protocols was analyzed. The use of health and safety protocols not only tells the potential tourist something about the hotel offer and related matters of health and safety, but it also shows that communicating the health and safety protocol is associated with a higher perceived value offer while generating a greater intention to visit. These results show that the use of health and safety protocols, rather than being a hindrance to the recovery of the sector, can be an ally and suggests that hotels and related service providers maintain their use beyond the period dedicated to the control of the health crisis. Therefore, establishing and communicating the use of health and safety protocols based on (1) the cleaning and disinfection of facilities, (2) the management of social distancing, the use of technology and larger spaces, (3) the reduction of group size, (4) the use of masks, (5) the adaptation of services to reduce social contact, (6) the existence of a training and protection plan for employees and (7) the existence of a person responsible for compliance with the health and safety protocol, together helps potential tourists to better value the offer and shows increased intention to visit the hotel. Considering these results, it is suggested that in a health crisis context, hotels incorporate information related to the health and safety protocol implemented in the hotel as part of their material transmitted to the market.

Given the positive effects of the health and safety protocol on consumer behavior, its use can be an important mechanism in a crisis context, since, as acknowledged by Berbekova et al. (2021) and Li et al. (2022), obtaining a positive response from the market can help to (1) improve the industry's vulnerability and resilience in the face of new crises, (2) reduce the negative consequences of said crisis, (3) identify crisis management models and approaches and (4) Materials, including, for example posters, videos etc available to develop marketing and communication strategies aimed at the market.

On the other hand, previous literature specializing in crisis contexts (e.g. Berbekova et al., 2021; Li et al., 2022; Peco-Torres et al., 2021) encourages us to consider the advantages of using new technologies, online media and social media in crisis situations and at the same time, warn of problems that may arise from misinformation or fake news that may be generated in these media. These technologies provide an opportunity to communicate and interact with the market in a trustworthy and company-controlled manner. Thus, for example, following Peco-Torres et al. (2021), to effectively convey such information it is useful to use the hotel's official online channels, such as its website and social media, in addition to including this information in the offer transmitted to tourist intermediaries. To do this, specific sections can be included, creating clear, reliable and easy-to-understand messages for potential tourists.

Finally, this research demonstrates that the use of a well-known brand does not enhance the effects of health and safety protocols on perceived value and intention to visit the hotel. These results indicate that recognizing the use of a well-known brand is positive for hotels, but the use of health and safety protocols remains important for hotels with, or without, a recognized brand. Therefore, the use and communication of health and safety protocols by hotels is suggested regardless of the brand.

#### *Limitations and future research*

Like all empirical research, this work has limitations that must be thought through even though it remains possible to make recommendations for future research. The first limitation relates to the experimental methodology, study context and the sample used. The research was conducted in the immediate aftermath of the COVID-19 pandemic in the Spanish domestic market using an experimental design and a convenience sample. This implies that the results obtained must be interpreted with caution, since (1) they may not have external validity because the empirical study on "real life" conditions was not developed and (2) they may not be representative of the study

population. The first recommendation for further research is to replicate this study without an experimental design, but in “real life”. The second recommendation is to use a representative sample that includes the international market.

A second limitation is the choice of variables. Although variables relevant to consumer behavior were selected, only two were worked on (perceived value and the intention to visit a hotel). Future research should consider other relevant variables for consumer behavior, such as risk or perceived safety. Thus, a future line of enquiry should analyze the effect that providing health information through health and safety protocols and the brand can have on the variables of risk and perceived safety. Despite these limitations, the data provide some useful and interesting evidence about how tourists respond to information about a hotel during and in the immediate aftermath of a health crisis. If, as predicted, the world is to face further health emergencies, any knowledge about how the market can respond to support recovery is of value.

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Appendices Below

Table A1 Measurement Scales

Table A2 Composite Reliability and Average Variance Extracted from the Measurement Scales

#### Appendix 1

Variable	Items	Escale
Perceived Value	The information provided by the hotel has contributed to ... seems to offer adequate prices. Seems to be a good value deal Seems like a good buy	Boo <i>et al.</i> (2009), Pike and Bianchi (2016)
Intention to visit the hotel	I would like to book in a hotel like this I plan to use the services of a hotel like this You are likely to use the services of a hotel like this	Han <i>et al.</i> (2020)
Information quality	The hotel information shown previously is ... precise relevant complete consistent	Bailey and Pearson (1983), Hur (2017)
Brand image	In general, your opinion about the Meliá/Milán hotel brand is ... bad, good unfavorable, favorable negative, positive I don't like it, I like it	Drolet <i>et al.</i> (2007), Keppel (1991)
Manipulation check: brand awareness	The hotel brand in the information you have viewed has a good name and reputation The hotel brand in the information you have viewed is very famous	Boo <i>et al.</i> (2009)
Manipulation check: health and safety protocol	The hotel brand in the information you have viewed includes a health and safety protocol measures The hotel brand in the information you have viewed includes a health and safety protocol	The authors
Source(s): Author's own creation/work		

#### Appendix 2

Variable	Composite reliability	Average variance extracted
Perceived Value	0.88	0.72
Intention to book the hotel	0.93	0.82
Information quality	0.92	0.74
Brand image	0.96	0.87
Brand awareness (manipulative check)	0.98	0.96
Health and safety protocol (manipulative check)	0.98	0.97
Goodness-of-fit of the model: Global fit of the model: Normed chi-square = 2.67, RMSEA = 0.07; GFI: 0.89; Incremental fit: CFI = 0.96, IFI = 0.95, TLI = 0.96		
Source(s): Author's own creation/work		

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This work was supported by the Conserjería de Transformación Económica, Industria, Conocimiento y Universidades de la Junta de Andalucía (Spain) (Research Project A-SEJ-462-UGR20) and the Consejería de Economía, Innovación y Ciencia de la Junta de Andalucía (Spain) (Research Project CV20-09357).