

Tourists' information literacy self-efficacy: its role in their adaptation to the “new normal” in the hotel context

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TOURISTS' INFORMATION LITERACY SELF-EFFICACY: ITS ROLE IN THEIR ADAPTATION TO THE 'NEW NORMAL' IN THE HOTEL CONTEXT

Abstract

Purpose – This research aims to determine whether the consumer's information literacy self-efficacy plays a role in their intention to resume their consumption of tourist services—specifically, hotel accommodation—in the context of the 'new normal' brought about by the COVID-19 pandemic.

Design/methodology/approach – A quantitative empirical study is performed on hotel accommodation consumers, and a structural equation modeling (SEM) analysis is used to verify the proposed relationships.

Findings – The findings reveal that (i) the tourist's information literacy self-efficacy—their ability to find the information they need, use it efficiently, and discount fake news—positively influences their perception of hotel safety; and (ii) perceived hotel safety increases tourist intention to return to consuming hotel services.

Originality – This study represents an advance in the literature as it demonstrates—as a novelty—the vital role of consumer information literacy self-efficacy in encouraging people to begin visiting hotels again in the 'new normal'.

Practical implications – The results show how the consumer's intention to return to using hotel services can be enhanced thanks to their management of information, especially in a crisis context. Hotel firms must position the provision of safety information at the heart of their marketing and communications strategies, and adapt this information to the different processing capabilities of consumers.

Social implications – This study provides valuable insights into the hotel industry—a major contributor to GDP and employment worldwide that is being particularly hard-hit by the COVID-19 crisis.

Keywords COVID-19, information literacy self-efficacy, revisit intention, perceived safety, hotel firms

Paper type Research paper.

1. Introduction

In 2019, export earnings generated by the tourism sector topped US\$1.7 trillion (UNWTO, 2020). Furthermore, this sector accounts for more than 10% of global GDP and creates 10% of all jobs world-wide (WTTC, 2020). It is against this sectorial backdrop that the hotel industry stands out in particular, as it provides extensive economic and social benefits through job-creation and contributes significantly to the global economy (Suárez-Cebador *et al.*, 2018).

The COVID-19 pandemic constitutes a crisis on a global scale that has had grave consequences for the world economy (Foroudi *et al.*, 2020). As governments have been forced to take emergency measures to prevent the spread of the disease, including harsh restrictions and even bans on domestic and international travel, tourism is among the worst-affected industries of all (Pappas and Glyptou, 2020). Furthermore, COVID-19 has already shown itself to be different from previous health crises, not least because it is likely to cause significant *long-term* changes in consumer behavior, including a profound transformation in the tourism sector (Yacoub and ElHajjar, 2021).

Here, one of the subsectors suffering the greatest impact of the crisis is that of hotels (Shin and Kang., 2020), on two levels. First, COVID-19 is having, and will likely continue to have, a significant negative effect due to the sustained constraints imposed by the governments of many countries, which have forced hotels to close on a massive scale (Li *et al.*, 2020). Second, and no less important, many consumers are fearful of catching the virus if they resume tourism activities (Wen *et al.*, 2020). Hence, if we take 2020 as a whole, it can be observed that almost all the performance indicators of hotel firms worldwide decreased by 50% or more compared to 2019 (HotStats, 2021). For example, in the European market, the decrease in RevPAR in 2020 was approximately 70%, which was caused, among other factors, by a drop of approximately 63% in reservations (STR, 2021). In this sense, given that the restrictions are now gradually being lifted, the duration and intensity of the adverse effects of the COVID-19 crisis on the hotel industry depend, to a large extent, on consumer perceptions of safety, which is a key factor in the decision-making process in the tourism field (Hasan *et al.*, 2017).

Thus, the greater the consumer's concerns about safety, the greater the effect of epidemics on their behavior (Jiang and Wen, 2020), and hotel firms must take this into account in this type of crisis (Hasan *et al.*, 2017). In the specific context of the COVID-19 pandemic, if consumers do not perceive hotels to offer a safe environment, they will

simply avoid visiting them at all (Shin and Kang, 2020). This signals the need to progress toward understanding the factors that may contribute to, or hinder, consumers' return to the hotel industry in light of their perceived safety.

Hotel managers, in particular, will need to understand the mechanisms that favor perceived safety (Shin and Kang, 2020; Zou and Meng, 2020). Among other mechanisms, consumers assess safety based on the different sources of information to which they are exposed (Seabra, *et al.*, 2013; Xie *et al.*, 2021). Thus, news coverage plays a central role in times of crisis, where the public depends on the media to keep abreast of current events (Zheng *et al.*, 2020). One of the most widely-consulted sources when searching for information about risk levels is the Internet and, specifically, social media (Isaac, 2021).

However, the meteoric growth of social media raises two major problems: 1) information is generated and disseminated faster and easier than ever before, thus making it harder for consumers to select relevant information (Yan *et al.*, 2017); and 2) the difficulty of controlling the information communicated via social media has rendered them a target for certain individuals who deliberately create and distribute false information or 'fake news' (Di Domenico and Visentin, 2020). In the case of the COVID-19 crisis, the spread of the virus has brought with it a massive 'infodemic' of its own—an influx of information about the virus that makes it difficult for consumers to discern fact from fiction and select reliable sources, creating a sense of uncertainty, confusion, and even panic (Merchant and Lurie, 2020). This phenomenon has a negative effect on consumer perceived safety of tourism activities.

To address the problems generated by social media, the literature highlights the importance of consumers' effective management of the available information—in particular, information literacy self-efficacy. This term refers to individuals' ability to find useful data quickly in the midst of information overload (Lee *et al.*, 2020; Yan *et al.*, 2017). The present study incorporates consumers' capacity to manage fake news into this concept, as this is a key skill if they are to avoid receiving and sharing false information via social media (Chen and Cheng, 2019). To the best of our knowledge, no previous study has addressed the relationship between information literacy self-efficacy and perceived safety, either in general or in the tourism sector.

Given that the scholarship dealing with health crises in tourism is still limited (Novelli *et al.*, 2018), and particularly so in the context of COVID-19, research is needed to

identify the factors that may influence the degree to which consumers perceive hotels to be safe. This perception plays an essential role in individuals' decision to return to staying at hotels once again, even while the pandemic is not yet fully under control. It also constitutes the important research gap that the present work seeks to address.

The study therefore seeks to demonstrate the importance of information management in times of crisis—such as COVID-19—in the tourism sector. The work seeks to make advancements in the knowledge of how information literacy self-efficacy may help the individual become accustomed to the 'new normal'—characterized by prevailing health risks associated with the COVID-19 virus—and return to consuming hotel services (that is, to start using hotel accommodation once again) based on the perception that it is safe to do so. A model is proposed and validated to verify whether (a) the individual's perceived safety influences their intention to resume consumption of hotel services and (b) the information literacy self-efficacy of the consumer, contextualized in a social media environment in which the spread of fake news is common, influences that perceived safety.

2. Literature review

2.1. The role of information in increasing tourist perceived safety in the context of tourism crises

The intangible nature of tourism products, coupled with the unforeseen events that may derive from them—such as the potential for transport-related accidents, natural accidents, or terrorist attacks, or health-related problems including diseases—generates perceptions of high risk (Lo *et al.*, 2011). Against this backdrop, the unprecedented global health crisis triggered by COVID-19 (Denizci Guillet and Chu, 2020) is intensifying this context of risk and uncertainty, which consumers will have to assimilate if they wish to travel (Wen *et al.*, 2020). This requires them to find ways to regain a sense of security (Isaac, 2021) as perceived safety is a decisive factor in the decision-making process relating to tourism activities in general (Castaldo *et al.*, 2021) and accommodation services in particular (Pappas and Glyptou, 2020).

Indeed, due to the insecurity generated by the current pandemic, international tourism is not predicted to return to pre-COVID-19 levels until 2023 (Baum *et al.*, 2020).

Furthermore, tourists are now preferring to source alternative types of accommodation other than hotels (Naumov *et al.*, 2021), while research is indicating that they will not

return to hotels immediately even if the restrictions imposed on this industry are completely lifted (Gursoy *et al.*, 2020; Miao *et al.*, 2021). Therefore, for the future of the hotel industry, it is critical to understand the factors that can influence consumers' sense of safety, to encourage them to return to using hotel accommodation in the context of COVID-19 (Jiang and Wen, 2020).

There is broad scholarly consensus that information-search is among the most effective strategies employed by individuals to reduce their uncertainty in the decision-making process and attain a sense of security prior to travel (Jonas and Mansfeld, 2017; Liu and Hu, 2021). As consumers form their perceptions of safety out of the information they obtain, their perceived safety depends on how they evaluate that information (Xie *et al.*, 2021), and in this regard there are studies empirically demonstrating the effect of information on tourist perceived safety (e.g., Liu-Lastres *et al.*, 2019; Liu *et al.*, 2016a; Xie *et al.*, 2021; Zou and Meng, 2020). It is for this reason that information is of exceptional value for tourism during times of crisis (Liu-Lastres *et al.*, 2019) as a crucial factor that can influence consumers' perceptions of the severity of the threat (Liu *et al.*, 2016a).

Prior to taking any trip, consumers generally draw information from the news media that helps them interpret risks and shape their perceptions about any dangers to which they may be exposed if they decide to travel (Oh *et al.*, 2021; Yang and Nair, 2014). The high credibility of the mass media and their ability to reach large audiences quickly is known to influence consumer perceptions of epidemics or terrorism in particular (Zou and Meng, 2020). Furthermore, the media have been shown empirically to influence public perceptions of risk with their coverage of health crises such as swine flu or avian disease (Fung *et al.*, 2011; Oh *et al.*, 2015). Therefore, it can be said that the public's perceptions of safety can be formed directly as a result of information sourced in the media, which will carry significant weight in their final decisions (Zou and Meng, 2020).

However, in addition to traditional media sources, the public is also now exposed to online information, particularly via social media, that is generated and disseminated faster and more easily than ever before. Indeed, the volume of information is now greater than the capacity of individuals to process it, which presents consumers with the problem of how to identify the content that is truly relevant (Yan *et al.*, 2017). This gives rise to information overload, whereby an individual's efficiency at using

information is hampered by the sheer volume of relevant and potentially useful details available to them (Yan *et al.*, 2017). This phenomenon, which triggers uncertainty and confusion in the consumer (Isaac, 2021), is currently being witnessed in the COVID-19 epidemic as so much information is being generated about it that it is hard for consumers to manage and absorb (Merchant and Lurie, 2020). Yang and Han (2021) conducted an analysis of social networks in the context of the hotel industry and empirically demonstrated that they contain vast volumes of pandemic-related information. The information-overload itself is further compounded by the difficulty of controlling the content shared via social media, which lend themselves to being used by certain individuals to create and deliberately distribute fake news (Di Domenico and Visentin, 2020).

This complex situation calls for more efficient behavior in terms of consumers' search for relevant sources and selection of information about the risks they face. Given that consumers' personal capabilities play a major role in how they make decisions in scenarios characterized by risk and uncertainty (e.g., Cahyanto *et al.*, 2016), one factor to consider in this regard is the aforementioned variable of information literacy self-efficacy. This variable is considered essential for decision-making when dealing with information overload (Yan *et al.*, 2017) and the selection of accurate information vs. fake news (Chen and Cheng, 2019). The literature to date has found a negative relationship between information literacy self-efficacy and perceived information overload, as people who present this capacity tend to recognize useful information more readily (Lee *et al.*, 2020). Therefore, possessing greater information literacy self-efficacy may enable consumers to acquire more accurate knowledge about risk (Aliperti and Cruz, 2019); and this, in turn, will enable them to perceive that it is safer to travel (Jonas and Mansfeld, 2017).

This process is summarized in Figure 1.

[Figure 1 near here]

2.2. Consumer perceived safety as an antecedent of the intention to resume consumption of hotel services

Perceived safety in the tourism context refers to the traveler's sense of being free from danger or physical or mental stress due to the interference of external forces (Xie *et al.*, 2021). The safety perceived by a consumer prior to making a trip is a subjective

impression that relies on their assessment of the information available to them, coupled with their past experiences (Seabra *et al.*, 2013).

Perceived safety plays a key role in this context because safety is a priority concern among tourists planning a trip (Lai and Wong, 2020). Hence, tourists' perceptions of safety influence their decision-making, especially in the pre-trip stage (Sano and Sano, 2019), as they are more likely to be willing to visit those destinations they perceive to be safer (Hajibaba *et al.*, 2016). Furthermore, safety is increasingly important in the tourism sector because of the terrorist attacks, political instability, epidemics, and natural disasters that have occurred in recent times, all of which present a threat to business (Wang *et al.*, 2019). For this reason, tourism and safety are increasingly interrelated (Avraham, 2016; Zou and Meng, 2020).

A perceived lack of safety can also negatively influence consumer attitude, especially in the case of a physical threat (Avraham, 2016). Indeed, even if a destination is perceived to be safe, the sudden outbreak of a health-related crisis, such as an epidemic, can cause an equally sudden change in perceptions of safety, causing consumers to modify their choices (Liu *et al.*, 2013). For this reason, perceived safety plays a more important and decisive role in crisis situations (Hajibaba *et al.*, 2016), such as that being experienced in the case of COVID-19 (Shi *et al.*, 2021).

The literature recognizes that perceived safety is important for the success of firms associated with the tourism field, as it has been found to exert a major influence on the consumer decision-making process (Xie *et al.*, 2021), their satisfaction (Tasci and Boylu, 2010), their loyalty (Patwardhan *et al.*, 2020), and, above all, their visit intention. More specifically, the literature has demonstrated the positive effect of consumer perceived safety on their visit or revisit intention in light of the possibility of terrorist attacks on the destination (Liu *et al.*, 2016b; Reisinger and Mavondo, 2005) and other types of risk (Sönmez and Graefe, 1998). This relationship has also been demonstrated in other contexts, such as that of health crises on cruises (Liu *et al.*, 2016a; Liu-Lastres *et al.*, 2019) and that of COVID-19 with respect to business tourists (Liu-Lastres *et al.*, 2021).

With regard to the hotel industry in particular, Losada *et al.* (2017), and Spoerr (2021) empirically demonstrate that perceived safety is one of the most important factors for consumers when selecting a hotel, while Alnawas and Hemsley-Brown (2019) conclude that perceived safety is part of the quality of a consumer's experience, which influences

their perceived value, satisfaction, and loyalty. Therefore, those responsible for hotel firms must take into account the degree of safety consumers perceive prior to making their booking (Zou and Meng, 2020). However, to the best of our knowledge, the relationship between perceived safety and visit intention has never been studied in the hotel industry, and certainly not in the context of health crises or, specifically, that caused by COVID-19.

Liu *et al.* (2016b) proposed an exploration of the relationship between perceived safety and consumer intention in different contexts and vis-à-vis risks other than that of terrorist attacks. Responding to this future line of research, the present work seeks to analyze the influence of consumer perceived safety—in unprecedented situations of extraordinary risk, such as that relating to COVID-19 infection—on tourists' intention to return to consuming hotel accommodation.

In light of the aforementioned literature, then, we propose the following hypothesis:

H1. *Consumer perceived safety positively affects intention to resume the consumption of hotel services.*

2.3. The consumer's information literacy self-efficacy as an antecedent of perceived hotel safety

There are various theories and models that have highlighted the role played by consumers' personal characteristics when they find themselves having to make tourism-related decisions in contexts of risk or uncertainty. These approaches are summarized in Table I.

[Table I near here]

Drawing on the content of Table I, it is of interest to better understand which personal characteristics, in particular, are critical in consumers' response to the COVID-19 crisis. Although this crisis shares certain similarities with others that people may have experienced, it has a much greater reach (Yacoub and ElHajjar, 2021). Hence, given the exceptional nature of this health crisis and the proliferation of information that surrounds it, one of the personal characteristics that are important to take into account in the context of COVID-19 is information literacy self-efficacy.

Information literacy self-efficacy, which is defined as the perceptions and judgments of individuals regarding their ability to efficiently locate, evaluate, and use the information

they need (Yan *et al.*, 2017), is a variable that originates in Bandura's theory of self-efficacy (1977). It features heavily in various risk information-processing models the most relevant of which are shown in Table II. This table shows the theoretical models identified via a search of the Web of Science and Scopus databases, based on the keywords "self-efficacy", "literacy", and "information". This selection of works reflects the information-processing models regarding risk that were identified as being the most relevant to information literacy self-efficacy and its spheres of application.

[Table II near here]

It can be observed from Table II that the great majority of theoretical frameworks that include information literacy self-efficacy have been applied in the context of health risk-management and some epidemics. With the exception of the study by Aliperti and Cruz (2019), there is no published research dealing with risk information-processing applied to the tourism field that includes the information literacy self-efficacy variable. Aliperti and Cruz (2019) apply Risk Information Seeking and Processing (RISP) to information-search on the risk of a tsunami in Japan as a tourist destination and demonstrate the influence of information literacy self-efficacy on information-search intention and knowledge about the present risk of a tsunami and the associated emergency plan. Due to the scarcity of relevant literature, Aliperti and Cruz (2018) propose a future line of research to deepen the study of information literacy self-efficacy in the tourism field, while Aliperti and Cruz (2019) note the need for future studies on this variable in tourism that take into account types of risks other than those associated with natural disasters.

The present study continues in the direction proposed by these authors and draws on core ideas from the RISP model, which recognizes that, when it comes to searching for, and processing, information, individuals' ability plays an important role. This is because, although they may feel motivated to look for information about risks, they need to be able to evaluate the different sources to choose the most appropriate ones (Yang and Nair, 2014). That is, even when there is motivation to search for information about a risk, individuals must have the right skills to acquire and manage that information, coupled with self-confidence in their capacity to do so correctly (Yang *et al.*, 2014). This will ensure they acquire greater knowledge about a given risk (Aliperti and Cruz, 2019).

In short, information literacy self-efficacy is closely linked to the acquisition of information about risks and, therefore, to consumer perceived safety, because the latter is influenced by the information obtained (e.g., Zou and Meng, 2020). Hence, in alignment with the RISP model, it is logical to assume that information literacy self-efficacy will influence how safe consumers perceive hotels to be—and perhaps even more so in the new circumstances generated by the COVID-19 pandemic.

Individuals' information-management capacity is particularly important in the realm of social media, which play a crucial role in disseminating information during major crises related to health or infectious diseases. In such a difficult climate as that triggered by the COVID-19 pandemic, people use social media as channels through which to obtain first-hand information about the risks involved and exchange it with their family and acquaintances in real time (Oh *et al.*, 2021). The problem here is that, in many cases, social media have become a conduit for the deliberate spreading of rumors and misinformation, creating a sense of panic and confusion (Merchant and Lurie, 2020) in an online environment where facts are blended with non-verified information (Chen and Cheng, 2019). It is for this reason that the notion of 'fake news'—defined as “news articles that are intentionally and verifiably false, and could mislead readers” (Allcott and Gentzkow, 2017, p. 213)—is acquiring greater importance. One of the primary problems generated by fake news is its capacity to amplify the magnitude of crises, due to its negative influence on consumer behavior (Bermes, 2021).

Thus, the concept of information literacy self-efficacy can be applied to also take into account self-efficacy in relation to managing fake news, which can be defined as the consumer's perception of their own ability to identify false information and thus avoid receiving and sharing it (Chen and Cheng, 2019). This concept is yet to be studied extensively in the consumer field, its effect having only recently been demonstrated on brand trust (Chen and Cheng, 2019), on the intention to download software (Ormond *et al.*, 2016), and on the perceived influence of fake news on others (Cheng and Chen, 2020).

The literature has shown that, when consumers possess a high level of self-efficacy in managing fake news, this type of information will not negatively affect brand trust or credibility because they acquire enough knowledge to identify the deceptive intentions behind the message (Chen and Cheng, 2019). Similarly, self-efficacy in managing fake news increases the probability of forming intentions to follow the recommendations of

truthful safety messages (Ormond *et al.*, 2016) and renders perceptions of information credibility more accurate (Visentin *et al.*, 2019). However, there is no extant scholarship on this variable in the context of health crises, tourism, or the hotel industry, although the literature has highlighted the need for further study of self-efficacy to manage fake news in the context of large-scale crises (Cheng and Chen, 2019).

In the present study—considering the vast volumes of information disseminated on the health crisis caused by COVID-19—information literacy self-efficacy includes both (a) the ability of the consumer to efficiently search for, and use, the information they need (Yan *et al.*, 2017) and (b) their capacity to detect false information and avoid receiving and sharing it via social media (Chen and Cheng, 2019). Both aspects help the consumer to select and process information that is correct and accurate when they are assessing the risks associated with the possibility of catching COVID-19 during a hotel stay.

The literature has empirically demonstrated the positive effect of information literacy self-efficacy on decision-making success (Yan *et al.*, 2017), on health-related behaviors (Kim and Son, 2017), and on trust in websites (Lee *et al.*, 2020). Consumers with greater information literacy self-efficacy will therefore more successfully discern the information that *is* reliable and safe to digest (Yan *et al.*, 2017). Consequently, they will also trust more in the information they select (Lee *et al.*, 2020), whether it comes from official sources, social media, or hotel and online travel agency websites, which will lead them to perceive greater safety. They will also use information more efficiently in their purchase decision-making (Lee *et al.*, 2020). In the tourism context, this means they will experience less uncertainty and anxiety vis-à-vis their planned trip (Chang *et al.*, 2019) because, based on both positive and negative information, they will make more accurate and reliable decisions. In short, when tourists have trust in their own capacities of discernment, adverse events will not affect their travel intention negatively because they are confident about their ability to manage risk thanks to effective information-search (Castaldo and Penco, 2021).

On this basis, it is proposed that consumers with greater information literacy self-efficacy will have the appropriate tools to access the relevant information, coupled with the knowledge to distinguish between genuine and fake news and act accordingly, thus increasing the safety they perceive, prior to making their hotel booking, vis-à-vis potential COVID-19 infection at the hotel. Although the literature has highlighted the

need to study information literacy self-efficacy in the context of tourism crises in greater depth (Aliperti and Cruz, 2018; Aliperti and Cruz, 2019), it is yet to provide empirical evidence of its effects on consumer perceived safety or indeed examine it in relation how individuals manage fake news. We therefore propose the following hypothesis:

H2. *The consumer's information literacy self-efficacy positively affects their perceived safety with regard to hotels.*

The proposed research model is shown in Figure 2.

[Figure 2 near here]

3. Methods

3.1. Research population and sample

The target population of the study was composed of Spanish consumers who had stayed at a hotel in the previous year. This participant profile was selected for the study because: 1) the hotel industry is among the most severely affected by the pandemic and associated restrictions (Gursoy and Chi, 2020); 2) the hotel industry is one of the most important in the Spanish economy (Garrido-Moreno *et al.*, 2018); 3) Spain has suffered among the highest COVID-19 infection rates and also one of the severest restriction regimes, with the government imposing outright travel bans and hotel closures (Ribes-Noguera *et al.*, 2020); and 4) despite current moves toward lifting or reducing the restrictions on the industry, recovery remains a distant prospect due to continued new outbreaks and new waves of the virus (Hosteltur, 2020).

An external company, Survey Sampling Spain, S.L., was tasked with building the sample. This company has more than 300,000 users aged 18 or over in Spain, which ensured that we attained a representative sample of our target population. The fieldwork was conducted between June and July 2020. A total of 310 valid responses were gathered from Spaniards who had used hotel accommodation during the previous year (bearing in mind that, as the 4 months preceding the survey coincided with the pandemic, nobody from the sample had used hotel services during that period).

Regarding the socio-demographic characteristics of the sample (Table III), 57.4% of the respondents were male vs. 42.3% female, while 68.7% were university-educated and 88.4% were employed at the time of the survey. The majority of those surveyed had

traveled for leisure purposes (87.1%). These sample characteristics are very similar to the profile of the Spanish tourist (INE, 2020) and also to the samples used in other empirical studies conducted in the same geographical and business sphere as that of the present work (e.g., Martínez-García *et al.*, 2018; Šerić and Gil-Saura, 2019).

[Table III near here]

3.2. *Measurement scales*

Information literacy self-efficacy was measured using a) a scale based on the work of Yan *et al.* (2017) for the dimension of self-efficacy in acquiring information and b) a scale based on Chen and Cheng (2019) for the ‘self-efficacy in managing fake news’ dimension. Perceived safety was measured on a scale based on that developed by Liu-Lastres *et al.* (2019). Intention to resume consumption of hotel services, was measured using a scale based on Han *et al.* (2020). All items were measured using a 7-point Likert scale (see Appendix A).

4. Results

Figure 2 shows the relationships proposed in the present study. Specifically, we propose that information literacy self-efficacy, which is a second-order construct composed of the dimensions ‘self-efficacy in acquiring information’ and ‘self-efficacy in managing fake news’, positively influences consumer perceived safety, which, in turn, positively influences intention to resume consumption of hotel services, the latter two both being first-order constructs.

We used structural equation modeling with AMOS V.24 software to assess the psychometric properties of the model, to evaluate the measurement scales, and to test the proposed relationships between the variables.

To assess the psychometric properties of the model, given that the multivariate normality test of the variables was significant, the maximum likelihood model combined with bootstrapping was considered the most appropriate means of estimation, the latter methodology being sensitive to sample size (Yuan and Hayashi, 2003).

Regarding goodness-of-fit, the normed Chi-square was applied, presenting an adequate value (1.30); for overall fit, both the GFI and the RMSEA also presented adequate values (0.97 and 0.03, respectively). The CFI, IFI, and TLI—the incremental fit

measures—also presented adequate values (0.99). Therefore, the model fit was deemed adequate in relation to the values proposed in the literature (Hair *et al.*, 2018).

To evaluate the measurement model, we sought to verify that the chosen scales correctly measured the latent variables of information literacy self-efficacy, perceived safety, and intention to resume consumption of hotel services (Table IV). Firstly, it is important to take content validity into account (Hair *et al.*, 2018). In the case of our study, content validity was already proven because the measurement instruments we selected had already been used in other works (McCain *et al.*, 2019). It was also necessary to assess convergent validity (Hair *et al.*, 2018), first by determining whether the statistical significance of all the loads between the first-order dimensions and their items, and between the first- and second-order dimensions, were significant and greater than 0.7. Second, we evaluated the R^2 of each item, which needed to be significant and greater than 0.5. Both the loads and the R^2 presented adequate values according to thresholds recommended by the literature (Hair *et al.*, 2018).

As part of the evaluation of convergent validity, the internal consistency of the scales was also checked using composite reliability and variance extracted, which, according to the literature, must be greater than 0.7 and 0.5, respectively (Hair *et al.*, 2018). Both conditions were fulfilled. Finally, discriminant validity was evaluated. In this case, we demonstrated that there was discriminant validity, since all the correlations between the variables were lower than 0.6—a value beneath the threshold of 0.8 set by the literature (Bagozzi, 1994). Furthermore, the value ‘1’ did not form part of the confidence interval of the correlations (Anderson and Gerbin, 1988).

Taking all the above data into account, the scales used in the present study can be considered valid for measuring the variables analyzed in this study.

[Table IV near here]

The hypotheses were then tested, as follows (see Figure 3).

H1 hypothesized that consumer perceived safety has a positive effect on consumption intention. This hypothesis receives empirical support, as the results show a statistically-significant relationship between the two variables (p -value <0.01), with a direct effect of 0.52 and a confidence interval of 0.39–0.62.

H2 proposed that information literacy self-efficacy has a positive effect on consumer perceived safety with regard to hotels. The results show a statistically-significant relationship between the two variables (p -value <0.01), with a coefficient of 0.21 and a confidence interval of 0.08–0.35. Thus, there is also empirical support for H2.

It can therefore be affirmed that the consumer's information literacy self-efficacy has a positive and significant effect on their perceived safety with regard to hotels, which positively influences consumer intention to return to using hotel services (accommodation).

[Figure 3 near here]

5. Discussion of the results, conclusions, and business implications

5.1. Conclusions

The COVID-19 pandemic has led to an unprecedented situation characterized by challenges and uncertainty on a global scale (Foroudi *et al.*, 2020). This scenario is making a deep and far-reaching impact on the tourism sector (Yacoub and ElHajjar, 2021) and on its most important subsector, the hotel industry (Pappas and Glyptou, 2020). The latter has been brought to a virtual standstill due to government restrictions on travel and hotel operations, on the one hand, and consumer behavior driven by fear of infection by the virus, on the other (Jiang and Wen *et al.*, 2020).

Now that the highly restrictive measures imposed on tourists during the pandemic are gradually being lifted (Gursoy and Chi, 2020), it is important to take into account the consumer's perspective to understand the potential future implications of this crisis for the hotel industry (Foroudi *et al.*, 2020). Scholarly progress toward greater knowledge of the effects of the COVID-19 pandemic on consumer behavior is needed (Matiza, 2020) in order for hotel firms to make a rapid transition into the 'new normal' and adapt to its new demands (Foroudi *et al.*, 2020). This need may be considered even more pressing if we consider that, unlike previous public health crises, that of COVID-19 has the potential to leave behind a long-lasting psychological impact that is capable of altering consumer preferences and behavior (Yacoub and ElHajjar, 2021).

To address this concern, the present study seeks to better understand how tourists' information literacy self-efficacy may contribute to their capacity to adapt to the 'new normal' and return to consuming hotel services thanks to perceiving greater hotel safety.

To achieve this aim, a research model is proposed and validated that demonstrates (a) the effect of the individual's information literacy self-efficacy on their perceived safety and (b) the effect of perceived safety on their intention to resume consumption of hotel services.

5.2. Theoretical implications

The findings make various contributions to the literature. First, perceived safety has been shown to have a positive effect on consumer intention to resume consumption of hotel services. The results indicate that consumer perceived safety is an important antecedent variable for hotel firms to understand because, the greater the perceived safety, the greater consumers' intention to start using hotel accommodation again, which will help hotels to cope with the ongoing challenges generated by the pandemic. The demonstration of this relationship is in consonance with the results of other studies carried out in the context of tourist destinations and cruises (e.g., Liu *et al.*, 2016a; Reisinger and Mavondo, 2005), but, to the best of our knowledge, this is the first study to analyze this relationship in the hotel sphere and with regard to a health crisis. This contribution responds to the proposed future lines of research put forward by a) Liu *et al.* (2016b), who pointed to the need for greater knowledge about the relationship between perceived safety and tourist intention in contexts of risk; b) Chan *et al.* (2021), who highlight the need to investigate consumers' intention to return to hotel-consumption in the context of COVID-19; and c) Mohamed *et al.* (2020), who find that, in studies dealing with consumer behavior in the hotel context, it is necessary to take into account the heightened importance of perceived safety, due to COVID-19.

Second, the study has demonstrated the importance of the consumer's information literacy self-efficacy for their perceived safety in the context of widespread uncertainty that has been triggered by COVID-19. The results show that consumer information literacy self-efficacy exerts a positive effect on perceived safety. Therefore, the greater the consumer's belief in their ability to manage information about COVID-19, the safer they will perceive hotels to be. These findings align with the RISP model, the premise of which is that information literacy self-efficacy enables consumers to widen their knowledge about risk (Aliperti *et al.*, 2019) and that this, in turn, will generate greater perceived safety. However, the present study confirms this relationship for the first time, in the hotel industry–COVID-19 pandemic context. This aspect of the work responds to the calls for further research proposed by a) Aliperti and Cruz (2018) and

Aliperti and Cruz (2019), who highlight the need for investigation into the role of information literacy self-efficacy in the context of tourism crises; b) Bermes (2021), who proposes a more in-depth examination of consumer perceptions—specifically regarding consumer behavior vis-à-vis fake news; and c) Jones and Comfort (2020), who call for more research to understand how COVID-19 is affecting consumer behavior.

In short, this study makes a highly relevant contribution to the literature as it demonstrates the vital role of consumer information literacy self-efficacy in encouraging people to begin visiting hotels again in the ‘new normal’ brought about by the pandemic. This variable was found to increase perceived hotel safety, which leads to a greater intention among consumers to resume their consumption of hotel services.

5.3. Practical implications

Given the importance of the hotel industry and the detrimental effects that COVID-19 has caused, research is required on consumer behavior to help hotels deal with the ‘new normal’ caused by COVID-19. In this regard, the results of this study will enable firms operating in the tourism sector and, above all, hotels to better understand how consumers’ management of the information they receive can support their transition to the ‘new normal’, accelerating their return to hotel services even when the risk situation caused by COVID-19 is on-going.

Furthermore, the findings of the present study may also be useful not only for hotel firms but also for tourism firms in general in the years to come, for several reasons: (1) new outbreaks and strains of the virus may continue to cause disruptions for some time; (2) the level of control over the pandemic worldwide varies greatly from country to country (BBC, 2021); (3) in the future, it is likely that new crises comparable to COVID-19 will occur (Arévalo Ipanaqué, 2020); and (4) information literacy self-efficacy is a variable that can be important in consumer decision-making not only in the hotel industry but also in tourism in general (Aliperti and Cruz, 2019) and in other areas in which the individual has to make decisions under conditions of uncertainty.

The implications of the study that hotel managers are advised to take into account are that, for consumers to want to consume hotel services again, they must: (1) perceive greater safety—that is, they must perceive that the hotel will provide effective ways to prevent and eradicate any outbreaks of COVID-19 on the premises and that, provided

they (the consumers) follow the recommended guidelines, there will be less chance of catching the virus (Liu-Lastres *et al.*, 2019.); and (2) have a high level of information literacy self-efficacy—that is, they will have to be able to obtain the information they need (Yan *et al.*, 2017) and identify fake news, thus avoiding receiving and sharing it (Chen and Cheng, 2019).

Hotel managers, therefore, need to be mindful of the role that information plays and how it is processed by consumers, so that they perceive greater safety and decide to consume hotel services again. Given that the information provided by hotels via different media—both offline and, above all, online (website and social media)—constitutes a critical point of contact that will significantly influence the decisions made by consumers (Lin *et al.*, 2020; Matiza, 2020), hotel firms should encourage customers to acquire information about safety (Zou and Meng, 2020) and highlight, in the information they provide, how they are keeping their customers safe (Pappas and Glyptou, 2020).

However, it is not sufficient for hotels to simply communicate without giving thought to how the information is received. Crucially, to overcome any limitations that consumers may have in processing information—due to a lower level of information literacy self-efficacy—hotel firms must communicate safety information in a way that is appropriate to the capabilities of consumers, so as to generate perceptions of greater safety. In addition, the consumer needs to be able to identify the credibility of the information provided, which will facilitate the search and selection of the right information to meet their needs. By taking this approach, the communication actions of hotel firms will achieve a positive influence on the behavior of consumers, who will perceive that the information received from the hotel is reliable and symmetrical (Matiza, 2020).

More specifically, hotels must show, first of all, that they are conveying information on COVID-19-related issues that is helpful to consumers. They are therefore recommended to create a dedicated section on their websites where useful information about tourist safety measures can be regularly uploaded, and any relevant posts they publish on social networks can be highlighted or tagged. Those hotel firms wishing to develop this approach a stage further could create social media pages exclusively devoted to this topic. This would enable consumers to readily identify which hotel messages specifically deal with safety-related topics or provide guidance on adapting to the demands of the ‘new normal’. In addition, the firm should offer consumers online and

offline communication channels designed to enable them to communicate directly with the firm regarding any safety concerns or to make inquiries about the safety measures being taken. Through such channels, the firm can respond with the latest information and allay consumer fears. It is important to provide different types of channels, to ensure compatibility with the different levels of information literacy among consumers. For example, dedicated email addresses, call centers, and WhatsApp messaging would be formats well-suited to people with lower information literacy self-efficacy, while chatbots or virtual assistants would be more compatible with consumers who have higher levels of information literacy self-efficacy.

Second, hotels will need to make every effort to ensure that the information they convey is perceived as reliable and truthful by consumers. To achieve this, it would be useful to include elements in all COVID-19-related publications that enable their authenticity to be verified, such as official stamps, the date the message was updated, the name of the person who wrote the message and their position in the firm, the original source of the data or information they are providing, and so on. This type of initiative is doubly important in direct firm–customer communications, whether via online or offline media, where information needs to be personalized so that the customer knows at all times with whom they are interacting and the source of the information that is being transmitted to them. This personalization will help them perceive that the conversation is private and secure, especially if the personal interaction channel is encrypted.

Finally, to achieve the aforementioned communication goals, staff training in matters related to COVID-19 is essential, to support hotel employees in conveying customer information that, at all times, is useful, truthful, and reliable. This, too, will help consumers perceive that it is safe to return to staying at hotels.

In short, tourism firms—and hotel firms in particular—must position the provision of safety information at the heart of their marketing and communications strategies, and this information should be adapted to the different processing capabilities of consumers. This will make it easier for consumers to decide to trust hotels again, as they will perceive that such establishments are entirely transparent and are working hard to ensure guests enjoy their stay in a safe environment.

5.4. Limitations and future lines of research

This research presents certain limitations that can point to potential lines of research for the future. First, the target population of the study comprised exclusively Spanish consumers of hotel services. Therefore, it is not recommendable to generalize the present results to other profiles of companies or different markets. Second, when interviewees were asked about their intentions regarding a hypothetical hotel stay, we focused exclusively on the context of a holiday. Replicating the study in the context of different types of companies from the tourism sector, other countries, or other types of tourism, such as business tourism, could therefore be of interest and would contribute to the further possible generalization of the findings. Third, the study took into account only one personal characteristic of the consumer—information literacy self-efficacy—so other studies could examine different tourist characteristics that may be key in their decision-making in situations of uncertainty, such as personality traits, perceived control, or subjective norms. It would also be interesting to repeat the empirical study once widespread immunity to the COVID-19 virus has been reached.

Finally, it would be of interest to include different strategies in the research model that potentially generate a perception of greater safety among tourists and that may, therefore, encourage them to decide to return to using hotel accommodation. Such strategies might include online reputation-management, the communication of Corporate Social Responsibility (CSR), or Customer Relationship Management (CRM).

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TABLE I
Theories and models that highlight the role of tourists' personal characteristics
under conditions of uncertainty

Theory/model	Examples of empirical studies	Study context	Personal characteristics	Consequences
Health Belief Model	Cahyanto <i>et al.</i> (2016)	Ebola	Self-efficacy and subjective knowledge	Travel avoidance
Goal-Directed Behavior	Lee <i>et al.</i> (2012)	Influenza A	Subjective norms and perceived control	Desire to travel and behavioral intention
Cumulative Prospect Theory	Xu <i>et al.</i> (2011)	People forced to travel daily	Personality, cognition, and ability	Decision-making
Theory of Planned Behavior	Quintal <i>et al.</i> (2010); Seow <i>et al.</i> (2017); Wang <i>et al.</i> (2021)	Tourists visiting Australia, medical tourism in Malaysia and COVID-19	Subjective norms and perceived control	Visit intention
Model of International Tourism Decision-Making Process	Cao <i>et al.</i> (2016)	International trips carrying a risk of terrorism	Personality	Different stages of the tourist's decision-making process

Source: The authors

TABLE II
Information processing models regarding risk, which include the variable
‘information literacy self-efficacy’

Theoretical model	Examples of empirical studies	Type of risk	Common role of information literacy self-efficacy
Heuristic-systematic	Ryu and Kim, (2015); Trumbo (1999, 2002)	Industrial Nuclear disaster Health (epidemics)	Antecedent of way of processing information
Risk Information Seeking and Processing (RISP)	Aliperti and Cruz (2019); Yang <i>et al.</i> (2014)	Natural disasters Climate change	Mediates the relationship between knowledge and information-search and processing, on the one hand, and risk, on the other. Or it directly influences information-processing, information-search intention, or knowledge of risk.
Planned Risk Information Seeking Model (PRISM)	Kahlor (2010)	Health (in general)	Antecedent of perceived knowledge and information-search intention.
Comprehensive Model of Information Seeking (CMIS)	Bernadas and Jiang (2019)	Health (in general)	Antecedent of the utility of the information source (relationship not demonstrated).
Wilson’s model	Cao <i>et al.</i> (2016)	Health (epidemics)	Antecedent of online information-search.
Theory of Motivated Information Management	Hovick (2014)	Health (in general)	Mediates the relationship between expected results and information-search intention.
Risk Perception Attitude Framework (RPA)	Zhao and Cai (2009)	Health (cancer)	Antecedent of information-search (relationship not demonstrated).

Source: The authors

TABLE III
Sample characteristics

Consumer characteristics	N° of consumers	% of the sample (n=310)
Gender		
Female	131	42.30%
Male	178	57.40%
Other	1	0.30%
Age		
18–29 years	47	15.16%
30–44 years	150	48.39%
45–65 years	111	35.80%
Over 65 years	2	0.65%
Educational level		
Compulsory secondary education	14	4.52%
Post-compulsory education	83	26.77%
University	213	68.71%
Employment status		
Employed or self-employed	274	88.39%
Student	15	4.84%
Unemployed	12	3.87%
Retired or in pre-retirement	7	2.25%
Homemaker	2	0.65%
Monthly household income		
Up to €999	38	12.26%
€1,000–€1,499	105	33.87%
€1,500–€2,499	81	26.13%
€2,500–€3,499	50	16.13%
€3,500–€4,999	9	2.90%
€5,000 or above	27	8.71%

TABLE IV
Indicators for convergent validity and internal consistency of the scales

First-order dimensions		
Factor	Standardized loads and confidence interval	R² and confidence interval
Information literacy self-efficacy (ILSE)		
CR=0.84; AVE=0.63		
<i>Self-efficacy in acquiring information</i>		
ILSE1	0.81 (0.74; 0.86)**	0.65 (0.55; 0.74)**
ILSE2	0.83 (0.77; 0.88)**	0.69 (0.60; 0.77)**
ILSE3	0.76 (0.70; 0.81)**	0.57 (0.48; 0.65)**
<i>Self-efficacy in managing fake news</i>		
CR=0.87; AVE=0.69		
ILSE4	0.83 (0.77; 0.88)**	0.69 (0.59; 0.77)**
ILSE5	0.88 (0.83; 0.91)**	0.77 (0.69; 0.83)**
ILSE6	0.88 (0.72; 0.83)**	0.61 (0.51; 0.69)**
<i>Perceived safety (SAF)</i>		
CR=0.84; AVE=0.63		
SAF1	0.87 (0.80; 0.92)**	0.75 (0.65; 0.85)**
SAF2	0.82 (0.74; 0.88)**	0.67 (0.55; 0.78)**
SAF3	0.69 (0.60; 0.76)**	0.47 (0.36; 0.58)**
<i>Intention to resume consumption of hotel services</i>		
CR=0.95; AVE=0.87		
INT1	0.93 (0.89; 0.95)**	0.86 (0.80; 0.90)**
INT2	0.96 (0.94; 0.97)**	0.92 (0.88; 0.95)**
INT3	0.91 (0.86; 0.95)**	0.83 (0.74; 0.90)**
Second-order dimensions		
Factor	Standardized loads and confidence interval	R² and confidence interval
Information literacy self-efficacy		
CR= 0.81; AVE= 0.68		
<i>Self-efficacy in acquiring information</i>	0.69 (0.43; 0.92) **	0.47 (0.18; 0.85) **
<i>Self-efficacy in managing fake news</i>	0.95 (0.72; 1.50) **	0.90 (0.51; 2.26) **

CR: Composite reliability; AVE: Variance extracted; ** = p-value <0.01

FIGURE 1

Tourists' information-management and its role in increasing perceived safety in the context of tourism crises

1. Tourism products are, by their nature, high-risk (Lo et al., 2011)

- A. Unprecedented global health crisis triggered by COVID-19 (Denizci Guillet and Chu, 2020).
- B. Perceived safety is a decisive factor in consumer decision-making processes (Hasan et al., 2017).

2. Consumers must search for information to help them travel more safely (Jonas & Mansfield, 2017)

- A. The literature shows the effect of information on tourist perceived safety (e.g. Liu-Lastres et al., 2019; Liu et al., 2016a; Xie et al., 2020; Zou and Meng, 2020).
- B. Information is generated and disseminated faster and more easily than ever before (Yan et al., 2017). This leads to information overload, which heightens consumer uncertainty and confusion (Isaac, 2020), and opens the door to fake news (Chen and Cheng, 2019).

3. Individuals must manage the information to which they are exposed: information literacy self-efficacy

- A. This is a fundamental variable in consumers' decision-making, given the potential for information overload (Yan et al., 2017), because it enables them to quickly identify which information is valid and useful (Lee et al., 2020).
- B. Consumers with greater information literacy self-efficacy will have more knowledge and awareness of risk (Aliperti and Cruz, 2019), which will enable them to form perceptions of greater travel safety (Jonas and Mansfeld, 2017).

Source: The authors

FIGURE 2

Proposed research model

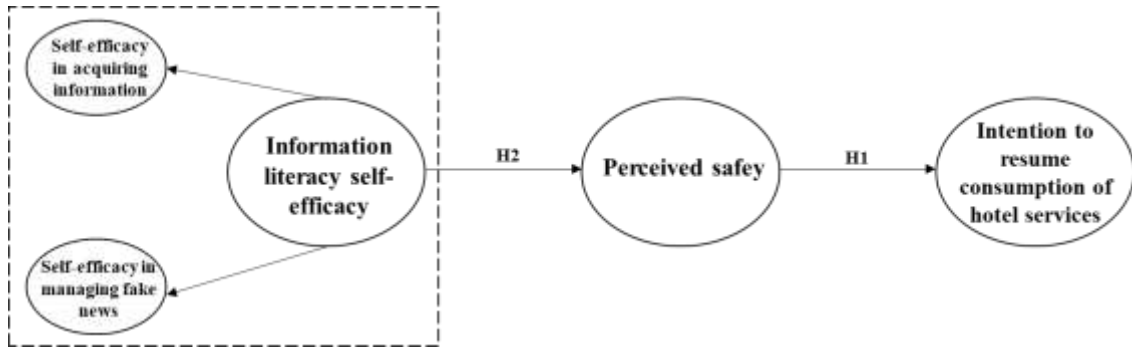
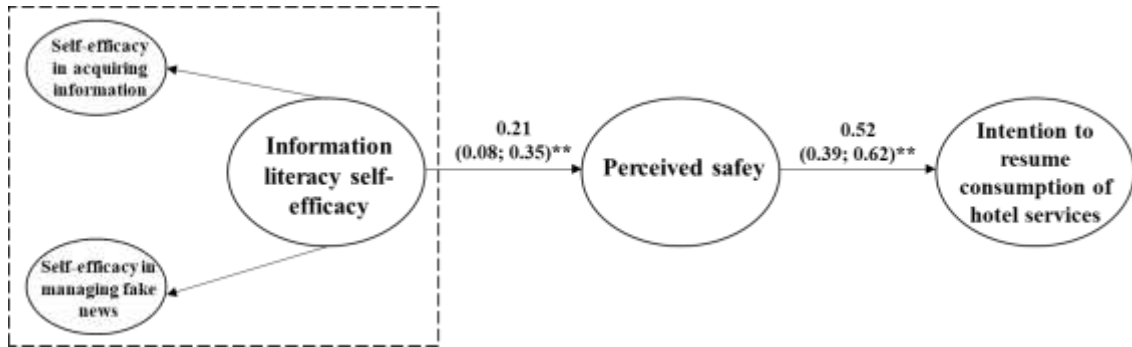


FIGURE 3

Results of hypotheses H1 and H2



CR: Composite reliability; AVE: Variance extracted; ** = p -value < 0.01

APPENDIX A.

Measurement scales for the variables

Construct/Item

Information literacy self-efficacy (ILSE)

Self-efficacy in acquiring information (Yan et al., 2017)

ILSE1. If I wanted to, I could find the useful information I need.

ILSE2. If I wanted to, I'm sure I could get hold of the useful information I need.

ILSE3. I'm sure I can acquire useful information, even if there is nobody available who can show me how to do it.

Self-efficacy in managing fake news (Chen and Cheng, 2019)

ILSE4. I think I'm capable of identifying false information of my own accord.

ILSE5. I think I'm capable of distinguishing between false information and facts when I publish or share content.

ILSE6. I think I'm capable of minimizing the probability of receiving or sharing false information.

Perceived safety (SAF) (Liu-Lastres et al., 2019)

If I were to stay at a hotel again on holiday and COVID-19 still existed:

SAF1. I think there will be effective ways of preventing COVID-19 outbreaks at the hotel.

SAF2. I think there will be effective ways of stemming any outbreaks of COVID-19 at the hotel.

SAF3. If I follow the recommended guidelines, I will be less likely to catch COVID-19 at the hotel.

Intention to resume consumption of hotel services (INT) (Han et al., 2020)

Thinking about my next holiday, in the case that COVID-19 still exists:

INT1. I would be prepared to stay at a hotel again.

INT2. I would opt for hotel accommodation.

INT3. I intend to start staying at hotels again.
