

Review Paper

COVID-19 and Hotels: Perceived Risks, Self-Protective Intention, and Intention to Stay

Halimin Herjanto*
University of the Incarnate Word, USA

Muslim Amin
University of South Florida, USA

Yasser Mahfooz
King Saud University, Saudi Arabia

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Abstract: This research investigates the effect of perceived cleanliness, perceived susceptibility, and perceived severity on self-protective intention and intention to stay in the context of hospitality. A total of 252 usable online surveys were statistically analysed using Smart-PLS software to reveal three important findings. First, the relationship between self-protective intention and intention to stay is not significant. Second, perceived cleanliness and perceived severity positively influence self-protective intention, and perceived cleanliness is the only type of perception that is accountable for the intention to stay. Third, perceived susceptibility does not affect self-protective intention or intention to stay. Additionally, this study presents future research directions and offers managerial suggestions.

Keywords: COVID-19, hotel, perceived risks, self-protective intention, intention to stay

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Correspondence: Halimin Herjanto, University of the Incarnate Word, USA.
Email: herjanto@uiwtx.edu

Introduction

With the declining number of COVID-19 cases worldwide in recent months, the US, European Union (The Associated Press, 2022), Australia (McGuirk, 2022), Indonesia (Schulz, 2022), Saudi Arabia (Wego Travel, 2022), and many other destinations have reopened their borders and welcomed tourists back. The hotel industry has warmly welcomed this policy, and this new development is expected to improve global hotel occupancy significantly (Travel's theme, 2022).

To take advantage of this momentum and to recoup past losses, scholars suggest that hotels attempt to attract guests by adjusting their prices (Wu et al., 2020), improving information transparency, empowering their staff to deal with COVID-19 locally (Yacoub & ElHajjar, 2021), offering better quality amenities and services (Guo et al., 2021), refocusing their strategy to the local market (Yacoub & ElHajjar, 2021), improving health and safety facilities, strictly following authorities' guidelines, and training hotel staff to manage the new normal of the post-pandemic world (Wen, 2021). Accordingly, these efforts are expected to lower hotel guests' perceived risk (Guo et al., 2021).

Perceived risk is regarded as one of the essential cognitive factors in determining hotel guest behaviour (Yu, Lee & Hyun, 2021). It refers to an individual's belief and expectation regarding self-awareness and knowledge about a condition and situation in which unfavourable consequences can occur (Van et al., 2020). Thus, perceived risk relates to an individual's perceptions of uncertainty (Herjanto, Gaur, et al., 2017). Lee and Deale (2021) contended that understanding hotel guests' perceived risk during the COVID-19 pandemic is imperative because this contributes to business sustainability. Accordingly, researchers have utilised the theory of planned behaviour (Yi et al., 2020), customer experience value theory (Chen et al., 2020), and protection motivation theory (PMT) (Peric et al., 2021) for studying the impacts of perceived risk. These studies show that perceived risk is found to affect desire (Yi et al., 2020), thoughts (Yu, Seo & Hyun, 2021), perceived value, and intention (Sadiq et al., 2021).

Despite the invaluable insights produced from these studies, the following limitations of the current research framework are noteworthy and offer the motivation for the present study. First, Conner and Norman (2005) suggested that the PMT theory is one of the most widely used frameworks to explain a hotel guest's health-related behaviour. This theory explains that a hotel guest's behaviour is determined by the accuracy and quality of their evaluation of potential threats (Britton et al., 2011). Ruan et al. (2020) suggested that various factors affect this evaluation process, and among these factors, the cognitive factor is considered one of the most critical factors. According to Floyd et al. (2000), the health belief model (HBM) framework is specifically designed to investigate health-related studies and catalogue cognitive

variables. The focus of the present study is to examine the effect of cognitive threat appraisals, and therefore, the HBM framework may be more suitable (Ibuka et al., 2010). Accordingly, the present study incorporates HBM to investigate such a phenomenon. Furthermore, while recent studies on the perceived risk in the context of hospitality have offered some support for the critical role of intention, what is missing in their studies is a detailed discussion on how this perceived risk affects self-protection intention and other intentions, including intention to stay (Yasami, 2020). Scholars suggest that human intention is complex and multifaceted (Macauley, 2012), and that these different intentions offer different functions and outcomes (Searle, 1983). According to Pacherie (2006), one of the main reasons the extant literature is concentrated on a single intention is that the existing studies built their research based on the simplistic view of the causal theory of action (CTA). This theory claims that beliefs or attitude usually generates individual activities without full awareness and actual reasoning of which intentions guide their actions. Pacherie (2008) goes on to argue that such simple intentional views result in partial understanding. Motivated by the aforementioned research gap, this study aims to extend the existing literature by simultaneously investigating self-protective intention (proximal intention) and intention to stay (distal intention).

Theoretical Background and Hypotheses

Health belief model (HBM)

Ibuka et al. (2010) suggested that HBM is an effective model in explaining different cognitive appraisals that estimate, affect, and justify a hotel guest's health-related behavioural intention. This model suggests that when hotel guests deal with a health-related pandemic, they are inclined to evaluate whether they are susceptible to the virus and how severely it will affect them. According to Gabriel et al. (2019), the assessment of such a situation would be based on general and specific health cues. The public health cues assess a hotel guest's awareness of the pandemic consequences in the hotel context. More specifically, the health cues estimate whether a hotel guest knows what hotels do to maintain their cleanliness and hygiene to mitigate COVID-19. Based on this description, the present study included perceived susceptibility, and perceived severity as general health cues, and perceived cleanliness as specific health cues.

Intention

Intention refers to subjective thought that indicates the degree of willingness and effort passengers spend on performing a specific behaviour (Koe et al., 2012). According to Vinding et al. (2013), intention is a complex construct that has two dimensions, proximal and distal. Proximal intention refers to the "immediate performance of

action” while distal intention refers to “actions to be executed at a later point in time” (Vinding et al., 2013, p. 811). To Mele (2019), proximal intention includes the tendency to continue doing something that he/she is currently performing. In addition, proximal intention represents a specific tendency (Vinding et al., 2014). In the context of COVID-19, this action could be continued protection of health by wearing a facial mask or exercising social distancing. Based on this argument, therefore, in our study, proximal intention is represented by self-protective intention. In contrast, Vinding et al. (2014) suggested that distal intention is broader and less specific in its content. Thus, in our study, distal intention is characterised as the intention to stay.

Self-protective Intention — Intention to Stay

Following Ruan et al.’s (2020) definition, self-protective intention refers to a hotel guest’s immediate inclination to follow general and external health cues as a protective response to ensure his/her safety from the COVID-19 virus. This definition suggests that self-protection intention urges an individual to take immediate action. In the context of the COVID-19 pandemic, the degree of self-protective intention is complex and determined by various factors. It includes demographic (Papageorge et al., 2021), emotional and situational factors (Mo et al., 2021), government transparency in communication and interventions (Dawi et al., 2021), cleanliness (Pillai et al., 2021), and duration (Zickfeld et al., 2020). The combination of such predictors determines the level of the hotel guest’s perceived risk and self-protection intention (Lagges et al., 2021) and these are responsible for hotel sustainability (Jafari et al., 2021).

In contrast, intention to stay refers to a hotel guest’s intention to remain at the same hotel after they have experienced a positive and memorable stay (Ali & Omar, 2014; Tsaour et al., 2021). This definition confirms that revisit intention signifies future commitment and goals. Intuitively, in the context of COVID-19, a hotel guest’s self-protection intention reflects the heightened perceived risk that may come from the hotel’s inability to eliminate their wariness and fear of getting infected or to satisfy a hotel guest’s hygiene expectations. When a hotel can meet such guest expectations, it thereby produces a higher level of comfort and satisfaction. At the same time, it increases the hotel guest’s intention to stay. Thus, the following hypothesis is presented:

H1: The degree of self-protection intention affects the intention to stay.

Perceived Risk Dimensions: Self-protective Intention — Intention to Stay

Perceived cleanliness refers to a hotel guest’s evaluation of the hotel’s efforts in maintaining hotel cleanliness and hygiene (Pillai et al., 2021). Maintaining cleanliness

is believed to be one of the key factors in reducing the risk of infection threatening a hotel guest's health and life (Yu, Seo & Hyun, 2021). Further, Herjanto, Chillicki, Anantamongkul and McGuinness (2020) suggested that cleanliness is a "MUST" element because cleanliness is something that hotel guests notice and experience immediately. According to Magnini and Zehrer (2021), overall hotel cleanliness is determined by several factors, including bedroom, courtyard, and cleaning staff availability. In the context of COVID-19, cleanliness becomes more critical because hotel cleanliness provides peace of mind and a safer feeling (Delea et al., 2020). Failure to present a satisfactory level of cleanliness will create discomfort, dissatisfaction (Herjanto, Chillicki, Anantamongkul & McGuinness, 2020), and an elevated self-protection intention (Delea et al., 2020).

Past studies have found that cleanliness is strongly associated with customer satisfaction (Herjanto, Erickson & Calleja, 2017). In their study, Syaquirah and Faizurrahman (2013) noted that the degree of hotel cleanliness determines consumer consumption emotions. These authors suggest that cleanliness provides a feeling of being pampered and relaxed, and accordingly, a hotel guest is more than willing to pay higher prices. In contrast, Herjanto, Byrnes, Rivas, and Kasuma (2020) noted that failure to maintain cleanliness produces ill feelings and, more importantly, creates disgust. As a result, this unpleasant feeling increases hotel guests' intention to protect themselves by staying away from or rejecting the stimuli. To hotel guests, such conditions threaten their well-being and survival and subsequently, create repulsion and increased discomfort. As a result, it tends to reduce the intention to stay. Hence, the following hypothesis:

H2: The degree of perceived cleanliness affects (a) self-protective intention and (b) intention to stay.

Perceived susceptibility refers to a hotel guest's subjective view of vulnerability to the pandemic or illness. The unfamiliarity of the pandemic situation, the general condition of the pandemic, and personal non-compliance with health (hygiene) behaviour (Janz & Becker, 1984) determine the degree of perceived susceptibility. A hotel guest with a highly perceived vulnerability is concerned and worries about getting sick. Therefore, they evaluate the risk and carefully estimate their possibility of becoming infected (Bish & Michie, 2010). In the context of the COVID-19 pandemic, the role of perceived susceptibility is vital because the pandemic is not yet over, and nobody knows when it will conclude. This uncertainty makes hotel guests feel threatened, hopeless and stressed (Kim, 2021), and consequently, it activates their intention to protect themselves (Lajunen & Rasanen, 2004).

At the same time, such a high level of perceived susceptibility relates to similar previous experiences (Deroche et al., 2007) and social information trust (Liao et al.,

2011). In the past two decades, our world has experienced several deadly pandemics. For example, the H1N1-2009 pandemic claimed nearly 600 thousand lives (Centers for Disease Control and Prevention [CDC], 2019), and 1 million people lost their lives during the 1968 H3N2 virus pandemic (CDC, 2018). These statistics show that each of the significant virus outbreaks cost a substantial number of lives and tremendous difficulty in containing these pandemics. Accordingly, hotel guests may compare these previous experiences to the COVID-19 pandemic, thereby generating a higher degree of perceived susceptibility. In addition, the World Health Organization (WHO) (2021) acknowledged that between January and March 2020, around 800 people lost their lives due to hoaxes or COVID-19 misinformation. The combination of such situations promotes avoidance behaviour amongst hotel guests by reducing their intention to stay (Chua et al., 2021). Based on these arguments, we hypothesise:

H3: The degree of perceived susceptibility affects (a) self-protective intention and (b) intention to stay.

Next, perceived severity refers to hotel guest concerns with the seriousness and impact of COVID-19 on health risks (Bish & Michie, 2010). Hotel guests who perceive that a pandemic is more severe than previous illnesses tend to have a higher perceived severity. Accordingly, it produces the negative emotion of fear (Witte & Allen, 2000) and a negative attitude towards the pandemic (Puspitasari & Firdauzy, 2019). In the context of the COVID-19 pandemic, the role of perceived severity becomes more pronounced because at the time of writing, scientists have not been able to find a cure, and the efficacy of existing vaccines is still unknown. Therefore, this situation is viewed as a matter of life or death (Morrison & Yandley, 2009), and thus, it increases an individual's intention to protect oneself (Huang et al., 2020).

Literature shows that the negative effect of perceived severity on future engagement is well established (Yasami, 2020). According to Yasami (2020), the degree of perceived severity symbolises threats that must be addressed immediately. To address such threats, Chakraborty et al. (2016) argued that individuals develop proactive coping mechanisms to increase their security. In the context of the COVID-19 pandemic, the hotel guest may attempt to avoid the repercussion of COVID-19 by monitoring the pandemic situation closely, following CDC's health recommendations to wear masks, practice social distancing and hand sanitising, as well as conforming to local authority recommendations to postpone their travel plans and stay at home. Accordingly, such a proactive mechanism will reduce their willingness and intention to stay. Hence, the following hypothesis is presented:

H4: The degree of perceived severity affects (a) self-protective intention positively and (b) intention to stay negatively.

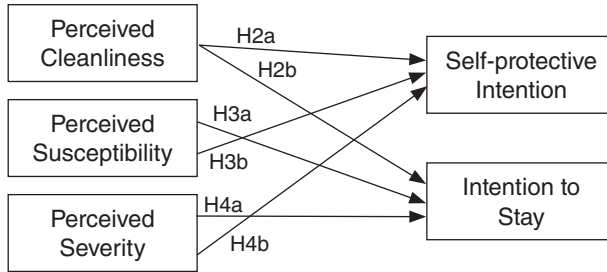


Figure 1. The self-protective intention and intention to stay model

Methods

Data Collection

A Qualtrics web-based survey was conducted, and the link was posted through social media platforms including Facebook, LinkedIn, and Instagram from January 2021 to February 2021. This method refers to a data collection app where a questionnaire is sent online to a sample of respondents, and they can respond to this survey online as well. Respondents were selected based on the convenient sampling method. The rationale, procedure, and aim of this research were explained to respondents at the beginning through an invitation letter. To ensure the accuracy of collected data, a screening question was added to the survey: “Have you stayed at any hotel at least once in the past 18 months?” and if the respondent answered “no”, his/her data was automatically dropped, and the respondent was thanked. Those who answered “yes” were asked for their demographic details such as gender, age, marital status, employment status, education, and present country of residence.

A pilot test was conducted with 50 respondents to test the initial reliability of the measurement to ensure the quality of the questionnaire. The pilot test data however, was not used for further data analysis. A total of 259 respondents participated in this study, however, 8 of the respondents were excluded due to either submitting incomplete answers, or they had not stayed at any hotel in the past 18 months. Data collection was conducted during the pandemic. Two possible explanations for this issue were that (1) participants did not read the initial screening question carefully or (2) they experienced fatigue or lost interest while answering this online survey. Hence, a total of 251 usable responses were included for further analysis. Table 1 shows a quick overview of the respondents’ profile.

Questionnaire Design

Suitable measurements from existing literature were borrowed and adjusted for this study. For example, five items to measure perceived susceptibility and four items to measure perceived severity were borrowed and transformed from Champion

(1984), while four items to measure perceived cleanliness were adopted and adjusted from Wakefield and Blodget (1996). The construct of self-protection intention was measured using four items from Ruan et al. (2020). Further, four Durna et al. (2015) items to measure intention to stay were modified and adopted. All constructs were measured using a 5-point Likert-type scale with responses ranging from 1–5, where 1 point represented “Strongly disagree” and 5 specified “Strongly agree.”

Table 1. Demographic profiles

Age	n	%	Location of residence	n	%
18–24	44	17.52	America	28	11.16
25–34	70	27.89	Europe	9	3.59
35–44	96	38.25	Asia	212	84.45
45–54	30	11.95	Africa	1	0.4
55–64	9	3.59	Oceania	1	0.4
> 65	2	0.8			
Marital status	n	%	Traveling frequency	n	%
Single	102	40.63	1	40	15.94
Married	146	58.17	2-5	140	55.77
Others	3	1.2	6-10	43	17.13
			> 10	28	11.16
Employment Status	n	%	Duration to stay	n	%
Full-time	182	72.51	1 night	12	4.78
Part-time	10	3.98	2 nights	78	31.07
Student	33	13.15	3 nights	70	27.89
Unemployed	18	7.17	4 nights	38	15.14
Others	8	3.19	> 4 nights	53	21.12
Education	n	%	Purpose of travel	n	%
< High school diploma	9	3.59	Business	140	55.78
Undergraduate degree	110	43.82	Leisure	22	8.76
Graduate degree	104	41.43	Both	89	35.46
Doctorate	28	11.16			

Data Analysis

Following recommendations from Amin et al. (2021), Hair et al. (2019), Herjanto and Amin (2020), as well as Herjanto et al. (2021), measurement and structural modelling were performed to test the hypotheses using the Smart-PLS software version 3.0 developed by Ringle et al. (2005). Under the measurement model, three types of validity were assessed: internal consistency reliability, convergent validity, and discriminant validity (Hair et al., 2019). For consistency reliability, Cronbach’s alpha was calculated. As suggested by Anderson and Gerbing (1988), the standardised factor loadings, the composite reliability (CR), and the average variance extracted (AVE) were calculated to

assess convergent validity. Table 2 presents the indicators' loadings, Cronbach's alpha, the CR, and the AVE of the constructs, and all values which exceed the recommended value of 0.50 (Anderson & Gerbing, 1988). To assess discriminant validity, the Fornell-Larcker procedure (Fornell & Larcker, 1981) and the heterotrait-monotrait (HTMT) method (Henseler et al., 2016) were performed. The results are shown in Table 3. The results of the Fornell-Larcker criteria indicate that the square root of AVE between each pair of factors was more significant than the correlation estimated between constructs, thus demonstrating that discriminant validity was established (Fornell & Larcker, 1981). The heterotrait-monotrait (HTMT) ratio of correlations clarified that all values of HTMT were lower than the recommended level of 0.85, thus confirming that all constructs are empirically distinct (Hair et al., 2019).

Table 2. Construct validity

Construct	Items	Loadings	α	CR	AVE
Perceived Cleanliness	PC1: My most visited hotel maintains clean rooms	0.778	0.844	0.894	0.678
	PC2: This hotel maintains clean food service areas	0.856			
	PC3: This hotel maintains clean walkways and exits	0.835			
	PC4: Overall my most visited hotel is kept clean	0.822			
Perceived Susceptibility	PS1: My chances of getting COVID-19 are high	0.657	0.813	0.818	0.480
	PS2: My physical health makes it more likely that I will get COVID-19	0.669			
	PS3: I worry a lot about getting COVID-19	0.859			
	PS4: There is a good possibility that I will get COVID-19	0.508			
	PS5: I am more likely than others to get COVID-19	0.725			
Perceived Severity	PSV1: The thought of COVID-19 scares me	0.838	0.840	0.891	0.673
	PSV2: When I think about COVID-19, my heart beats faster	0.890			
	PSV3: COVID-19 is a deadly disease	0.742			
	PSV4: I am afraid to even think about COVID-19	0.806			

Table 2. (con't)

Construct	Items	Loadings	α	CR	AVE
Self-protective Intention	RPI1: How likely are you to seek advice before staying at a hotel in future	0.726	0.554	0.770	0.527
	RPI2: How likely are you to seek health advice (for precautions, medicines, vaccinations, etc.) before traveling in future	0.734			
	RPI3: How likely are you to take a travel health insurance for future travel (if not offered from employer)	0.717			
Intention to stay	IS1: I would stay this hotel in future	0.813	0.874	0.914	0.726
	IS2: If had to decide again, then I would choose this hotel again	0.895			
	IS3: I would more frequently visit this hotel	0.828			
	IS4: This hotel would be my first choice over other hotels	0.870			

Table 3. Discriminant validity

Fornell-Larcker Criterion	1	2	3	4	5
1. Perceived Cleanliness	0.823				
2. Perceived Severity	0.010	0.820			
3. Perceived Susceptibility	0.076	0.672	0.693		
4. Intention to Stay	0.388	0.060	0.005	0.852	
5. Self-protective Intention	0.254	0.283	0.267	0.169	0.726
Heterotrait-Monotrait Ratio (HTMT)					
1. Perceived Cleanliness					
2. Perceived Severity	0.057				
3. Perceived Susceptibility	0.153	0.705			
4. Intention to Stay	0.437	0.080	0.089		
5. Self-protective Intention	0.352	0.400	0.263	0.239	

The next analysis is the assessment of the structural model. As suggested by Hair et al. (2019), three procedures for reporting the structural model include path coefficient (β), coefficient of determination (R^2), and effect size (f^2). Table 4 illustrates the results of the structural assessment, and a bootstrapping procedure was employed for the hypotheses testing. The results reveal that self-protective intention does not significantly correlate with the intention to stay ($\beta = 0.063, p > 0.05$). Thus, H1 is not supported. Perceived cleanliness ($\beta = 0.269, p < 0.05; \beta = 0.371, p < 0.05$) is significantly related to self-protective intention and intention to stay. Thus, H2a and H2b are supported. Perceived susceptibility does not significantly affect self-protective intention and intention to stay ($\beta = 0.028, p > 0.05; \beta = 0.173, p > 0.05$). Thus, H3a and H3b are not supported. Although, perceived severity has a significant relationship with self-protective intention ($\beta = 0.170, p < 0.05$), perceived severity does not have a significant relationship with intention to stay ($\beta = 0.065, p > 0.05$). Thus, H4a is supported, and H4b is not supported.

Because PLS does not assess the overall model fit, the explained variance (R^2) was examined. The value for the coefficient of determination (R^2) was 0.163 and 0.158. This suggests that perceived cleanliness, perceived severity, and perceived susceptibility explain 16.3% of self-protective intention and explain 15.8% of intention to stay. Table 4 presents the effect size (f^2). The guidelines of Cohen (1988) were followed: values for small (0.02), medium (0.15), and large effect sizes (0.35). Those values and their labels are treated as meaningfully different. The results establish that perceived severity and perceived susceptibility have a small effect on self-protective intention. However, perceived cleanliness has a medium impact on self-protective intention and intention to stay.

Table 4. Structural model

Hypothesis	Beta	STDEV	t-statistics	p-values	R ²	f ²	Confidence Intervals Bias Corrected	Decision
H1. Self-protective Intention → Intention to stay	0.063	0.069	0.915	0.360	0.158	0.004	{0.069, 0.204}	Not Supported
H2a. Perceived Cleanliness → Self-protective Intention	0.269	0.067	4.041	0.000	0.163	0.086	{0.118, 0.384}	Supported
H2b. Perceived Cleanliness → Intention to stay	0.371	0.083	4.479	0.000	0.158	0.149	{0.190, 0.517}	Supported
H3a. Perceived Susceptibility → Self-protective Intention	0.173	0.111	1.563	0.118	0.163	0.019	{0.270, 0.345}	Not Supported

Table 4. (cont)

Hypothesis	Beta	STDEV	t-statistics	p-values	R ²	f ²	Confidence Intervals Bias Corrected	Decision
H3b. Perceived Susceptibility → Intention to stay	0.028	0.112	0.248	0.804	0.158	0.000	{0.257, 0.178}	Not Supported
H4a. Perceived Severity → Self-protective Intention	0.170	0.078	2.178	0.029	0.163	0.019	{0.009, 0.311}	Supported
H4b. Perceived Severity → Intention to stay	0.065	0.091	0.712	0.477	0.158	0.003	{0.109, 0.248}	Not Supported

Discussion

The results reveal that self-protective intention does not influence the intention to stay. Self-protective intention reflects a hotel guest's tendency to take preventive actions to protect oneself. Thus, a hotel guest with such motivations may comply with CDC's recommendations such as wearing a facemask, social distancing and getting vaccinated. In addition to efforts to protect himself/herself, the hotel guest would reasonably expect that a hotel's mitigation efforts to support the effectiveness of their efforts. However, there is no way for a hotel guest to understand and control the hotel's containment or protective measures completely. In addition, hospitality establishments' failure to comply with CDC's recommendations has been evident. For example, New York's authorities closed 9 restaurants and fined nearly 40 more (Tan, 2020) because they ignored COVID-19 mitigation regulations and the renowned Hilton Hotel's COVID-19 health protocol itself was also criticised (Oliver, 2020). A combination of these factors perhaps increases the hotel guest's level of doubt towards hotels and, consequently, may lower their intention to revisit hotels. Thus, in this situation, the self-protective intention is not strong enough to encourage or improve the intention to stay at hotels.

Our findings also found that three types of perceptions affect self-protective intention and intention to stay differently. Perceived cleanliness was found to negatively influence self-protective intention, and positively influence intention to stay. The results for perceived cleanliness demonstrate that the cleaner the hotel, the less the hotel guest's intention to take self-protection action, and the higher intention to revisit. Perceived cleanliness reflects a higher level of hygiene that provides a better and more positive experience (Herjanto, Byrnes, Rivas, & Kasuma, 2020).

In essence, a high level of perceived cleanliness enhances hotel credibility (Tamaki et al., 2005) and reduces the severity of moral judgment (Johnson et al., 2014). Thus,

perceived cleanliness is likely to improve the hotel guest's level of comfort and trust (Vilnai-Yavetz & Gilboa, 2010). For example, during the COVID-19 pandemic, hotels intensified their cleanliness by conducting deep cleaning and sanitisation of rooms before guests occupied them. In addition, they implemented the use of tightly sealed single-use items (i.e., minibar drinks, glassware, and utensils). These initiatives are viewed as the hotel industry's seriousness in mitigating the pandemic, and accordingly, these measures increase the trustworthiness of a hotel. When the hotel guest experiences a high level of trust, they feel relaxed and safe, and therefore, hotel guest may not need to perform additional self-protection actions. Simultaneously, this positive experience will create a memorable positive experience (Herjanto & Gaur, 2015) that encourages a future revisit intention. To some extent, our findings confirm research by Yu, Seo and Hyun (2021), who also confirmed the positive impact of perceived cleanliness on hotel revisit intention.

Interestingly, our analysis indicates that perceived susceptibility does not affect self-protective intention and intention to stay. The rationale behind this finding can be explained by Yerkes and Dodson's inverted U-shaped theory. According to Salehi et al. (2010), this theory illustrates the ability of a hotel guest to maintain the balance between pressure and performance. This theory explains that when a hotel guest reaches a maximum threshold to tolerate stress, he or she feels that the forces are too much and is no longer motivated to deal with such pressures. Consequently, the guest starts ignoring the pressures, and his/her performance in dealing with such pressure declines. In the context of COVID-19, Jiang and Wen (2020) suggested that a hotel guest with a high perceived susceptibility experiences a high level of fear and anxiety. In the same way, Bratu (2020) indicated that a hotel guest's fear and anxiety is determined by his/her exposure and ability to evaluate available information in society. For example, during the COVID-19 pandemic, hotel guests were exposed to a deluge of COVID-19 information, and thus, they may not be able to distinguish between genuine information and hoaxes. This situation makes them more vulnerable and confused, increasing their fear and anxiety, and resulting in distrust of the data. As a result, the hotel guest may ignore CDC's recommendations to stay home and choose to stay in public spaces like hotels.

Finally, our findings establish that perceived severity influences self-protective intentions but not the intention to stay. As Bish and Michie (2010) explained, perceived severity serves as a hotel guest's barometer to tolerate the risk of COVID-19 impact. When hotel guests perceive COVID-19 as a deadly pandemic, this increases the need to avoid it and protect themselves. For example, every day, national TV stations and other media report on COVID-19 infection and death rate. This information provides shocking information and serves as a reminder to take good care of themselves. As a consequence, hotel guests are compelled to protect themselves by complying with CDC recommendations. Despite this understanding,

however, perceived severity does not affect the hotel guest's intention to stay. The rationale behind these findings includes: (1) perhaps the hotel guest is strongly influenced by online (positive) opinion. As Saleh (2019) reported, nearly 90% of potential guests read an online review before deciding. This factor may improve a hotel's trustworthiness, so they feel safer revisiting the hotel. (2) Perhaps, for a variety of reasons (i.e., business trips, unavoidable personal trips, etc.) the hotel guest has had no choice but to travel, and therefore, they decided to revisit the same hotel.

Conclusion

Our model highlights the importance of hotel guests' perceived risk in determining their intention to stay. Thus, it is necessary and imperative that hoteliers continue to eliminate or maintain their hotel guests' perceived risk at a minimum level as much as possible by improving their perceived cleanliness, and reducing perceived susceptibility and perceived severity.

Theoretical Implications

Based on the HBM framework, our model proposes that perceived cleanliness, perceived susceptibility, and perceived severity affects self-protective intention and intention to stay differently. The results show that self-protective intention is positively affected by perceived cleanliness and perceived severity, while the intention to stay is solely influenced by perceived cleanliness. The findings also show that self-protective intention does not affect the intention to stay. The authors believe these findings expand upon existing perception studies and provide new insights by integrating two different intentions into perception models.

The findings of this study offer several theoretical implications. First, extant studies have focused on a single construct of intention (Yu, Seo & Hyun, 2021), and the present study extends the scope of empirical research by employing a dual construct of intentions on the perceived risk model, especially in the hotel context. These two types of intentions are generated by different perceived risks, and therefore, understanding the relationship between these two constructs extends our theoretical understanding of such phenomenon. Second, the HBM framework has been extensively employed in the tourism and hospitality context. However, the integration of the HBM framework in the relationships between perceived risks and the dual intention model is absent. This model shows that perceived susceptibility is the only element of a perceived risk that does not affect self-protective intention. In contrast, perceived susceptibility and perceived severity do not influence the intention to stay. The findings demonstrate the importance of continued investigations into risk perceptions influencing various hotel guest intentions.

Managerial Implications

Regarding managerial implications, our findings demonstrate that each hotel guest evaluates the COVID-19 situation differently. A hotel guest with higher perceived cleanliness is more likely to have a lower self-protective intention and a higher revisit intention. This understanding may offer a fundamental idea for improving hotel cleanliness and hygiene. Taking cognisance of this, hoteliers should adjust, maintain, and improve their level of cleanliness accordingly. For example, in addition to common cleaning practices such as providing the necessary sanitising items (alcohol, hand sanitisers, face masks, and an air purifier device in guest rooms) as a safeguard against the COVID-19 virus, hoteliers can post information on sanitisation everywhere in the hotel, conduct deep room cleaning and third-party room inspection, as well as install a “personal hygiene station” at the entrance, where hotel guests/staffs have sanitise themselves before entering the hotel premises. At this station, guests are requested to wash their hands, apply hand sanitiser, and have their body cleaned by an air blower. These initiatives may improve the hotel guests’ perceived cleanliness and trustworthiness. As Delea et al. (2020) pointed out, hotel guests’ peace of mind is paramount and plays an important role in determining their intention to stay. Therefore, to maintain, if not to enhance this peace of mind, hoteliers should always have self-administered COVID-19 antigen test kits available to guests for free, collaborate with a local test centres to administer rapid PCR COVID-19 tests, as well as work with local hospitals to provide free COVID-19 vaccinations on the spot and doctors on duty 24/7. These efforts can help assure hotel guests with peace of mind and comfort. Finally, hotels are recommended to only accept pre-paid hotel guests. By following these recommendations, hoteliers can avoid unnecessary gatherings in the common spaces of the hotel.

Limitations and Future Research

This research has some limitations. First, the data was collected through an online survey distributed on social media sites such as Facebook, Linked In, and Instagram between January 2021 and February 2021. Therefore, our respondents might have been fully aware of the essence and seriousness of COVID-19, and accordingly, their level of perceived risk could have been much lower and could not be fully generalised. Hence, future researchers may duplicate our study by using data post-global pandemic declaration. Second, the context of this study was limited to the hotel industry. The expansion of this study to diverse contexts such as restaurants, airlines, or theme parks may offer a different perspective on the perceived risk phenomenon. Third, our model focuses on three types of perceived risks and two other intentions, and thus, there is a possibility that our model may have oversimplified. Future researchers could integrate different variables such as trust, information content, and quality as potential moderators.

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