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Assessing customer financial risk perception and attitude in the hotel industry: Exploring the role of protective measures against COVID-19

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1. Introduction

The COVID-19 pandemic has had a profound effect on the lives of communities and people across the globe. The tourism and hotel industry has been hit hard by the recent COVID-19 pandemic (Hao et al., 2020). China has experienced sluggish tourism demand in 2020 and the total yield per available room decreased by more than 85% year-over-year (Chan et al., 2021). The recovery is also expected to be very slow until the hotel industry achieves pre-COVID-19 occupancy, and revenue (Shin and Kang, 2020; Dobrosielski, 2020). The World Health Organization (WHO) has recommended a range of protective measures, including social distancing, use of hand sanitizer, self-isolation, and wearing masks to minimize COVID-19 infection and protect people’s health (World Health Organization (WHO), 2020a).

Accordingly, as people’s activities become more passive and external access reduced (Lu et al., 2020), the hotel industry naturally faces a phase in which the number of visitors decreases. Thus, these sudden changes are inevitably accompanied by instability in various areas of life, with health and financial instability most prominent (Tull et al., 2020). This anxiety reflects an individual’s perception of risk. Those who feel any potential risk to their personal matters (e.g., health or financial) by the COVID-19 might express critical concern during the pandemic (Steyn et al., 2021).

In order to attract customers, hotels should implement risk reduction strategies that focus on lowering customer risk perception, whether financially or health wise and to encourage positive attitudes toward the industry. While health and safety are important for travel and accommodation (Untaru and Han, 2021; Shin and Kang, 2020), it is the financial risk perception that directly influences purchasing behavior (Jeaheng et al., 2020; Maignan and Lukas, 1997). Staying in a hotel is a want rather than a need, hence, customers demand value for money (Yang et al., 2021). A study by Hakim et al. (2021) found that fair price perception is fundamental and directly affects visit intention during pandemic. Moreover, Khan et al. (2015) showed that Chinese consumers are value-oriented, eagerly looking for super deals to get good value for money, and religiously spend time looking for deals, looking for quality products and comparing prices. Moreover, Xu and Li (2016) found that hotel consumers tend to have different perceptions, expectations, and
preferences for certain types of hotels, which influence satisfaction and dissatisfaction. For example, economic consumers are primarily influenced by functional values such as price, while luxury consumers expect high-quality hotel amenities and focus more on the experiential and symbolic value of hotels (Jang and Moutinho, 2019). Further, people are becoming more passive in consumption, reducing travel and outdoor spending due to the economic uncertainty caused by the pandemic (Im et al., 2021). In summary, it can be seen that during the pandemic, customers are paying attention to the monetary value of whether or not the price they pay for a hotel is reasonable due to restrictions on the use of entertainment facilities. Therefore, hotels should focus on reducing customers’ perception of financial risk. For example, while maintaining social distancing, hotels try to provide customers with the same ambience of being served as they did before the COVID-19 outbreak. Second, it is necessary to provide a free cancellation and a free-date change service allowing guests the convenience to reschedule in the case of emergencies due to COVID-19. With the development of technology, it has become possible and convenient to provide contactless services. Third, hand sanitizer must be strategically placed for quick sanitization to prevent unnecessary additional payments in the hotel due to health problems, or to prevent infection by other customers. However, many studies revealed that during COVID-19 period the customer behavior have changed (Anderson et al., 2020; Zhang et al., 2021). The dilemma of COVID-19 has evolved into a global pandemic and crisis, together with the rapid coverage of major media that has negatively impacted the tourism industry and travel behavior of tourists around the world (Cahyanto et al., 2016). Therefore, travel behavior was affected accordingly (Moon et al., 2016), and increased awareness of financial risk reduces people’s travel behavior during the COVID-19 pandemic (Peric et al., 2021).

In addition, the element of customer attitude cannot be omitted from this study. Ajzen and Fishbein (1975) defined customer attitude as assessment of objects. Attitude is extensively important since it can trigger actual behavior (Ajzen, 1991) and significantly affects satisfaction (Untaru and Han, 2021). Moreover, customer attitude link with business performance (Bernhardt et al., 2000). Therefore, it can be predicted that, due to the impact of COVID-19, the above-mentioned protective measures implemented by hotels could have a positive effect on the attitudes and behavior of customers and could lead to positive business performance. In Ceylan et al. (2020) and Untaru and Han (2021) showed that during pandemic period, consumer attitudes toward purchase behavior has changed. During a pandemic that creates ambiguity, a fundamental understanding of what influences customer satisfaction is critical to the hotel industry. Additionally, customer satisfaction has become one of the most important things. It’s a high marketing priority as it is generally considered a valuable determinant of repeat visits, positive word of mouth and customer loyalty (Ryu and Han, 2010). At the time and after the SARS outbreak, limited physical movement and declining consumer trust led to significant declines in private consumption spending (Lu et al., 2020). However, although many hospitality industries have implemented under the government and WHO recommendation, few studies have investigated the impact of these protective measures on customer perception of financial risk and attitude, satisfaction and behavior intention. In particular, the perception of financial risk has a direct effect on behavior in many other research, but studies on this have been left behind.

Consequently, this empirical study aims to investigate the financial risk perception of customers regarding visiting hotels during the spread of the COVID-19 crisis with specific focus to the year of 2020. It also aims to examine how it influences customer attitude and behavior within the context of hotels located in China. Specifically, the study objectives are (1) to examine the change of financial risk perception, satisfaction and visitors’ behavior in accordance to hotels’ protective measures against COVID-19; (2) the change of hotel customer attitude, satisfaction and visitors’ behavior due to hotels’ protective measures against COVID-19; and (3) to test how efficient that protective measures against virus handled by hotels associated with guests’ satisfaction and behavioral intention.

2. Literature review

2.1. Protective measures for the COVID-19

Unprecedentedly, the impact of the COVID-19 pandemic was not an exclusive global crisis on human health but also on world business activities and markets (Everingham and Chassagne, 2020). Previous studies (Kaswengi and Diallo, 2015) have found that consumer attitudes and behaviors during recessions are more sensitive and critically high compared to regular economic development. Perceived risk refers to one of the essential theoretical constructs effecting customer decision process formation and behavior (Clow et al., 1997; Quintal et al., 2010; Laroche et al., 2004). The protection motivation theory identifies that an active tourist undertakes a proactive preventive response when the risk scale increases, the percentage of incidence is possibly high, there are some active alternatives to mitigate potential threats (Rogers, 1975). It declares that the adverse effects are slightly controllable by selecting either a healthier/safer destination or denied visiting a less safe destination (Dolnicar, 2007). It is assumed that these indicating elements have some relevance to the COVID-19 pandemic. According to a study by Nisa et al. (2020), increasing awareness of financial risk leads people to better compliance with protective measures toward virus infection. In other words, hotels’ active protective measures against virus lower people’s awareness of financial risk. Until a novel coronavirus vaccine is successfully developed, the level of health and financial threat is certainly high (World Health Organization (WHO), 2020b). Moreover, an acknowledgment by WHO officials reported time uncertainty for the global community to return to a pre-pandemic stage (World Health Organization (WHO), 2020c). Given the concern of the negative consequences of the pandemic, tourists would plan to make future traveling decisions accordingly (Neuburger and Egger, 2020). Likewise, there was no vaccine during the outbreak beginning periods of the novel influenza virus. Therefore, other non-medical protective actions to manage the uncontrollable spread of the disease crisis were essential, such as personal protection (face masks and hygiene), imposition of travel restrictions, and social distancing of potential cases of infection (Raude and Setbon, 2009). The willingness and potential intentions of the public and individuals to fulfill with such types of measures, as suggested by public health agencies, are critical to perfect manage/control of such events (Rubin et al., 2009). However, it is still uneasy to motivate the public to sufficiently implement the recommended precautions (Smith, 2006). A study by Untaru and Han (2021) found that retail stores' imposed protection measures have increased customer satisfaction and behavioral intentions through changes in customer attitude. Thereby, we might assume that the protective measures imposed strictly by hotels against the COVID-19 virus would have a significant impact on the constructs in the current study, which included the potential attitude/response toward the protective measures to avoid COVID-19 financial risk perception toward the measures, customer satisfaction, and behavior intentions. Hence, the following assumptions were proposed:

H1. Hotels’ protective measures have significant effects on financial risk perception.

H2. Hotels’ protective measures have significant effects on customer attitude toward these measures.

H3. Hotels’ protective measures have positive effects on customer satisfaction.

H4. Hotels’ protective measures have positive effects on customer behavioral intentions.
2.2. Financial risk perception

Tourist decision-making with regard to the product purchase activities is evidently influenced by risk perception (Fuchs and Reichel, 2006). Financial risk is the perception that a certain amount of money may be lost or needed for a product to function properly. Therefore, among risk perception factors, the financial risk perception is the most important factor in consumption. An online shopping study by Magnain and Lukas (1997) revealed that financial risk is the potential net loss as a major obstacle to purchasing and includes consumer anxiety. Similarly, Zielke and Dobbelstein (2007) also indicated financial risk as a potential loss of purchase, involving the prospect that a product or service may require repair, replacement, or refund. In a study by Nguyen et al. (2019), financial risk perception is reported as an investor’s beliefs, attitudes, judgments, and feelings about the risk properties of an investment product. Early researchers found decision-making theory variables such as the probability of loss, gain or loss outcome, and unstable income as the main factors influencing financial risk perception (Mellers and Chang, 1994; Konece et al., 2005). Financial risks in tourism include the possibility that the tourist does not get a substantial value for money, the possibility of unexpected expenses that may occur before a trip, during a trip, or at the destination, and the possibility that the travel negatively affects the financial situation of the tourist (Mowen and Minor, 1998). The factor of financial risk are highly correlated with personal satisfaction, loyalty, and willingness to pay (Casidy and Wymer, 2016). Olya and Al-ansi (2018) also confirmed the significant effect of financial risk on customer behavior. On the other hand, Mitchell (1998) clarified that financial risk is the risk that a product will have on its price is not in accordance with the consumer cost to get it. Financial risk is widely used in the previous literature due to it being tangible, realistic, relatively simple to be justified, and can be assessed in actual units. In general, there might be a potential risk by customers that a hotel service consumed or purchased is not worth the actual money paid. Boksberger et al. (2007) determined that perceived financial risk has the highest importance score, while social risk perception scored the lowest in a study of the commercial air travel. When a customer buys a product, taking financial risks is inevitable. Moreover, perceived financial risk still acts as a barrier factor to behavior intention (Styvén and Wallström, 2019). Therefore, one way to avoid such risks is to choose safety and benefits (DelVecchio, 2001). Amid the pandemic, risk, perception is largely a considerable predictor for tourists and customers. Chua et al. (2020) empirically explained the essential role of risk impact on traveler’s attitude and behaviors during the spread of COVID-19. Based on previous research, it is assumed that consumer perceptions of financial risk of the protective measures enforced by hotels for COVID-19 have a significant association with satisfaction and behavioral intention. Therefore, the following hypotheses were established:

H5. Financial risk perception toward hotels’ protective measures has a significant effect on customer satisfaction.

H6. Financial risk perception toward hotels’ protective measures has a significant effect on customer intentions.

2.3. Customer attitude

Attitude generally refers to the amount of how much customers/people either (preferred/like) or (unpreferred/dislike) a particular object (e.g., product or service) and is usually demonstrated as a total assessment of objects, and it has been studied extensively in terms of behavior (Ajzen and Fishbein, 1975; Priester et al., 2004). It has been seen as a prominent indicator of how an individual behaves in everyday life because it is generally a precursor to behavior and plays a focal role in impacting an individual’s behavioral tendencies (Han and Yoon, 2015; Perugini and Bagossi, 2001). Moreover, the consensus identified that attitude triggers the behavioral intentions of customers and thus generates an actual behavior (Ajzen, 1991). Attitude toward customer behavior refers to both a “positive” or “negative” tendency to constantly react to certain behaviors, such as product use, and product selection according to an investigation by Quintal et al. (2010). Identically, Eagly and Chaiken (1993) explained attitude as a psychological and intra-cognitive tendency expressed or produced by potential assessing a specific individual with an acceptable percentage of favor or disadvantage. Attitude is an independent predictor of behavioral intentions, which is defined as “the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavioral in question” (Ajzen, 1985, 1991). Beck et al. (2020) declared the serious global health crisis influenced by the pandemic which requires immediate actions and drastic protective measures. The present setting of the COVID-19 is express that outbreak risk attitude is a critical predictor of customer due to the individual is noticed that entering a public place increases the likelihood of infection (Cameron and Shah, 2015). Also, previous studies with economical orientation have highlighted how the COVID-19 crisis has revised customer dynamics reactions and consumption attitudes (Ceylan and Orsak, 2020). Thereby, attitudes in this study can be understood as the overall customer assessment of protective measures adopted by hotels against the COVID-19 outbreak. Additionally, numerous studies have been conducted focusing on attitude concepts and their impact on consumer satisfaction and behavioral intentions. In tourism science, according to Alegre and Juanedo (2006), a positive attitude increases the likelihood of revisits. In other words, positive attitudes of travelers are especially important in behavioral intentions. In addition, according to Untaru and Han (2021), in the retail store survey, customer attitudes toward protection measures have a great mediating association with customer satisfaction and behavior intentions, which increased customer satisfaction and revisit rate. Therefore, this study hypothesized that there is a possible significant connection among customer attitudes, satisfaction, and behavioral intentions toward the hotel’s protective measures. Thus, the next assumptions were developed:

H7. Attitude toward hotels’ protective measures has a positive effect on customer satisfaction.

H8. Attitude toward hotels’ protective measures has a positive effect on customer intentions.

2.4. Satisfaction and behavioral intentions

Although customer satisfaction is not a new concept, academic researchers are very interested in the factors that lead to behavioral intentions. Customer satisfaction, as defined by many researchers, is the cumulative acceptance of feelings that are formed through multiple interactions and connections with an overall company performance as well as the overall evaluation of a product or service by the customers after experience (San-Martin and Lopez-Catalan, 2013). According to research by Han and Hyun (2012) and Hampel (1977), customer satisfaction is an assessment process that compares the customer’s prior expected service to the real or exact services obtained. Gina (1989) deem that satisfaction is caused by the disparity between expectations and immediate experiences. Thus, satisfaction is the degree to which a customer’s needs and expectations are met in the use of a service or product, and there are many questions can be asked to assess customer satisfaction (Mohsan et al., 2011). In the hotel industry, customer satisfaction is paramount to managers as an operational strategy (O’Neill and Mattila, 2010). Therefore, achieving customer satisfaction is important to promote long-term relationships between businesses and customers (Darley and Luethge, 2019; Ji and Prentice, 2021). In addition, Han and Ryu (2009) described loyalty characteristics as behavior intentions, which contain several attributes (e.g., customer repurchase intentions, WoM, and future willingness). Several studies evidently clarified the direct relationship among satisfaction and repurchase intentions (Han and Hyun, 2017). Thus, the concepts of behavioral intentions have been used in marketing often due to the power of
predicting customers’ intentions. Ladhari and Michaud (2015) have shown that customers are willing to repurchase when they are satisfied in a service. This means that customer satisfaction and revisit are key factors affecting the profits of a company and organizational performance (Keisidou et al., 2013; Morgan and Rego, 2006). In conclusion, favorable behavioral intentions are more likely to make customers or hotel visitors revisit or spread positive word of mouth, which will contribute to the hotel’s profits. Thus, in the present study, the following research assumption was proposed:

H9. Customer satisfaction has a positive effect on behavioral intentions.

3. Methodology

3.1. The questionnaire items development

The questionnaire survey of this study is developed with five subsections that comprise (1) protective measures pertaining to fighting the COVID-19 by hotels, (2) financial risk perception, (3) Attitude of hotel’s customer toward the COVID-19 protection procedures, (4) customer satisfaction during their stay, and (5) customers’ behavioral intentions toward hotels. The study composition was rated on multiple items using a 7-point Likert’s scale ranging from (strongly disagree = 1) to (strongly agree = 7). Three protection measure items were estimated in the designed survey questionnaire that was extracted from the study of Untaru and Han (2021). For financial risk perception, two questions were employed to measure perception of risk financial, based on the study of Han et al. (2019). Thirdly, participants were requested to justify and express their attitudes toward the imposed protection measures and procedures to confront the outbreak of COVID-19 in hotels. According to efforts conducted by Untaru and Han (2021), Ajzen (1991) and Fishbein et al. (1980), a total of five survey measurement items were adopted for customers’ attitudes. In addition, four developed items measured customer satisfaction (Moon et. al, 2016). Lastly, four questions for behavioral intentions toward hotels to test participants’ responses were borrowed from (Han and Kim, 2010; Zeithaml et al., 1996).

3.2. Conceptual framework

The essential goal of this research is to determine whether protective procedures (i.e., practical measures) implemented by hotels to track the pandemic flow of COVID-19 effect on customers’ financial risk perception and satisfaction during hotel visits, and whether they affect customer behavioral intentions, which entails the recommend to others, customer revisit intentions and willingness to share experience with other people. The conceptual model proposed for this study is depicted in Fig. 1.

3.3. Data collection and population characteristics

The survey questionnaire (Table 1), contains questions about measurements of study composition, study descriptions, and demographic background. Initially, a pre-test was undertaken to ensure the statements were sufficiently clear and to avoid ambiguity with particular subjects on who had recently visited hotels. Using an online application (WeChat: China’s most powerful platform), the developed survey was sent to a total of 30 initial participants between January 2 and 14, 2021 to validate the readability and visibility of the questionnaire design. Thereby, minor improvements (e.g., grammatical) were conducted based on the feedback. Accordingly, the data gathering from local Chinese was then proceeded further via an online survey method: WJX (https://www.wjx.cn) from January 27 to February 16, 2021. This platform is actively used in academic research for its capacity, accessibility, usability, and strictly managed. In order to investigate people who have visited hotels during the COVID-19 period, participants kindly updated the name of the most recent or last visited hotel in the first question of the survey. The capability of the online database helped us to approach different perspectives of the people living in different

Table 1

Demographic characteristics of the population (n = 383).

|                | Frequency | Percent (%) |
|----------------|-----------|-------------|
| Gender         |           |             |
| Male           | 201       | 52.5        |
| Female         | 182       | 47.5        |
| Age            |           |             |
| Less than 20 years old | 3     | .8          |
| 20–29 years old       | 122     | 31.9        |
| 30–39 years old       | 154     | 40.2        |
| 40–49 years old       | 78      | 20.4        |
| 50–59 years old       | 19      | 5.0         |
| Over 60 years old    | 7       | 1.8         |
| Education        |           |             |
| High school degree or below | 25   | 6.5         |
| Three-year college education | 87 | 22.7      |
| Bachelor’s degree   | 190     | 49.6        |
| Master’s degree     | 64      | 16.7        |
| Doctorate degree or above | 17   | 4.4         |
| Income            |           |             |
| 3000 RMB or below   | 27      | 7.0         |
| 3000–5999 RMB       | 115     | 30.0        |
| 6000–9999 RMB       | 141     | 36.8        |
| 10,000–14,999 RMB   | 63      | 16.4        |
| 15,000–19,999 RMB   | 21      | 5.5         |
| 20,000–29,999 RMB   | 6       | 1.6         |
| 30,000 RMB or above | 10     | 2.6         |
| Marriage          |           |             |
| Single             | 104     | 27.2        |
| Married            | 261     | 68.1        |
| Others             | 18      | 4.7         |

Fig. 1. Research conceptual framework.
provinces and cities in China using a convenience sample technique method. Initial screen data was conducted (e.g., completed forms, outliers, normality). After removing/eliminating incomplete and inadequate questionnaires a total of 383 responses were successfully returned from the data collection process. Among the 383 participants (18 years of age or older) in the survey, (52.5%) were male and (47.5%) were female. The highest respondents’ age range was 30–39 years (40.2%), and that followed by the age range of 20–29 years (31.9%). (49.6%) of the respondents indicated that they had bachelor’s degree. 36.8% of respondents reported that their monthly income was about 6000–9999 RMB, and 30% of respondents reported their wage were about 3000–5999 RMB. More than half of participants reported they are married (68.1%).

3.4. Data analysis and results

In this research, the measurement model (Table 2) was generated by conducting confirmatory factor analysis (CFA) using AMOS 24. The result of the measurement model (Table 3) showed goodness-of-fit statistics. \( \chi^2 = 226.600, df = 125, \chi^2/df = 1.813, p < .001, \) RMSEA = 0.046, CFI = 0.973, IFI = 0.973, and TLI = 0.967. The standardized factor loading for each item ranged from 0.647 to 0.917 above the threshold of 0.5. The average variance extracted (AVE) values for all the constructs varied from 0.783 to 0.511, which is greater than 0.5, supporting convergent validity. Moreover, all of these AVE values for each dimension are greater than the square of the correlation between the variables, indicating clear discriminant validity.

| Factors | \( \beta \) | Mean | S.D |
|---------|-------------|------|-----|
| Protective measures against COVID-19 | | | |
| PMC1: In the hotel, disinfectant was prepared everywhere for guests to use. | .779 | 5.82 | .940 |
| PMC2: The number of people were limited to secure social distancing when using the hotel’s amusement facilities. | .722 | 5.84 | .946 |
| PMC3: The hotel offered free cancellation upon reservation or date change. | .839 | 5.82 | 1.013 |
| Perceived risk financially | | | |
| FRP1: Probability that the hotel would be worth the price of the payment. | .887 | 5.22 | 1.520 |
| FRP2: Probability that the payment of the hotel would be reasonably priced. | .752 | 5.41 | 1.549 |
| Customer attitude | | | |
| ATT1: For me, staying at the hotel would be bad or good. | .874 | 5.63 | 1.204 |
| ATT2: For me, staying at the hotel would be foolish or wise. | .809 | 5.59 | 1.229 |
| ATT3: For me, staying at the hotel would be unpleasant or pleasant. | .806 | 5.64 | 1.261 |
| ATT4: For me, staying at the hotel would be harmful or beneficial. | .779 | 5.58 | 1.186 |
| ATT5: For me, staying at the hotel would be unattractive or attractive. | .764 | 5.59 | 1.266 |
| Satisfaction | | | |
| SAT1: I felt satisfied while staying at the hotel. | .916 | 4.97 | 1.702 |
| SAT2: I was pleased with the response against the virus at the hotel. | .917 | 5.10 | 1.686 |
| SAT3: I was glad while staying at the hotel. | .884 | 4.95 | 1.711 |
| SAT4: I felt relaxed or tense while I was staying in the hotel. | .820 | 4.84 | 1.718 |
| Behavioral intention | | | |
| INT1: I will revisit the hotel next time. | .775 | 5.57 | 1.184 |
| INT2: I am willing to visit hotels in the future. | .647 | 5.56 | 1.211 |
| INT3: I will recommend the hotel to my friends. | .738 | 5.54 | 1.188 |
| INT4: I will share my experience at the hotel to my friends. | .692 | 5.57 | 1.153 |

Table 3

| Factors | \( \beta \) | Mean | S.D |
|---------|-------------|------|-----|
| SAT | .885 | | |
| PMC | .202 | .781 | | |
| FRP | .083 | .179 | .822 |
| ATT | .032 | .229 | .122 |
| INT | .310 | .444 | .368 |

Goodness-of-Fit Statistics: \( \chi^2 = 226.600, df = 125, \chi^2/df = 1.813, p < .001, \) RMSEA = 0.046, CFI = 0.973, IFI = 0.973, and TLI = 0.967.

Note: SAT – Satisfaction, PMC – Protective measures against COVID-19, FRP – Financial risk perception, ATT – Customer attitude, INT – Behavioral intention.

3.5. Assessment of structural model and the hypothesis testing

Structural equation modeling (SEM) was performed to test the proposed conceptual model. The result revealed that the developed structural model contained a proper level of the goodness-of-fit statistics. In this study, the results explained that imposed measures of protective anti the COVID-19 infection had a positive influence on financial risk perception (\( H1: \beta = .182, p > .001, \) customer attitude (\( H2: \beta = .232, p > .001, \) satisfaction (\( H3: \beta = .198, p > .001, \) and behavioral intention (\( H4: \beta = .302, p > .001. \) It is judged that the factors of protective measures considered as an essential element, play an important role in predicting the customers financial risk, attitude, satisfaction and behavior intention. Moreover, the factor of financial risk perception had no effect on visitor satisfaction (\( H5: \beta = .050, p < .05, \) while it had positive effects on behavior intention (\( H6: \beta = .268, p > .001. \) In addition, the factor of visitor attitude presented no effect on satisfaction (\( H7: \beta = .019, p < .05, \) while it had effects on behavioral intention (\( H8: \beta = .220, p > .001. \) Although, customer financial risk perception and customer attitude did not significantly affect customer satisfaction, both factors positively influence behavior intention, so they can be seen as important factors. According to Hypotheses 9, customer satisfaction improves behavior intention to visit a hotel during a pandemic (\( H9: \beta = .220, p > .001. \) In summary, out of a total of 9 hypotheses 1, 2, 3, 4, 6, 8 and 9 were supported, and 5 and 7 were not supported. Details of the hypothesis presented in Table 4 and Fig. 2. The proposed theoretical framework includes a satisfactory level of prediction power for behavioral intention as it accounts for about 36.5% of the total variance in intention (Hill et al., 2018). In addition, the model includes a satisfactory level of the goodness-of-fit statistics (\( \chi^2 = 228.540, df = 126, \chi^2/df = 1.814, p < .001, \) RMSEA = 0.046, CFI = 0.973, IFI = 0.973, and TLI = 0.967). Moreover, when assessing the alternative models by adding (financial risk perception to attitude: R² = 37.1%)/removing (Satisfaction to intention: R² = 32.5%) the alternative paths, the goodness-of-fit statistics and the explanatory ability of the model were not significantly increased. This evidenced the robustness of the model.
proposed theoretical framework.

3.6. Results of means comparisons

3.6.1. Gender with satisfaction and behavioral intention
The independent sample t-tests of participants reported no difference in customer satisfaction and behavioral intention across the male and female groups (satisfaction: $F = .362$, $p = .548$) and behavioral intention did not significantly vary by gender (behavioral intention: $F = 1.099$, $p = .295$) (Table 5, Fig. 3). Therefore, the gender comparison results differ from the study of Barke et al. (1997) in which women and men have different attitudes toward different types of risk.

3.6.2. Marital status with satisfaction and behavioral intention
The independent sample t-tests of participants generated no difference in customer satisfaction and behavioral intention across the marital status groups (satisfaction: $F = .477$, $p = .490$), while it has a significant difference with behavioral intention (behavioral intention: $F = 6.105$, $p = .014$). Additionally, mean scores revealed that the married group obtained higher scores than the single group (behavioral intention: $M_{\text{single}} = 5.31$ VS. $M_{\text{married}} = 5.72$). These findings determine that the married group was exposed a higher level of behavioral intention toward visiting hotels (Table 6, Fig. 4).

3.6.3. Age with satisfaction and behavioral intention
The independent sample t-tests of participants produced no difference in customer satisfaction and behavioral intention across the two age groups (satisfaction: $F = .039$, $p = .844$), while it has a significant difference with behavioral intention (behavioral intention: $F = 7.866$, $p = .005$). Furthermore, mean scores showed that the over-30 group age received higher scores than the under 30 group (behavioral intention: $M_{\text{less30years}} = 5.28$ VS. $M_{30\text{years}+} = 5.70$). These results indicated that the over 30 group was exposed to a higher level of behavioral intention toward visiting hotels (Table 7, Fig. 5).

3.6.4. Income with satisfaction and behavioral intention
The independent sample t-tests of participants shows no difference in customer satisfaction and behavioral intention (satisfaction: $F = 1.627$, $p = .254$), while it has a significant difference with behavioral intention (behavioral intention: $F = 3.62$, $p = .029$). Furthermore, mean scores showed that the high-income group obtained higher scores than the low-income group (behavioral intention: $M_{\text{lowincome}} = 5.31$ VS. $M_{\text{highincome}} = 5.72$). These results indicated that the high-income group was exposed to a higher level of behavioral intention toward visiting hotels (Table 8, Fig. 6).

Table 5
Results of t-test: gender differences in satisfaction and behavioral intention.

| Variables          | Gender | N  | Mean | SD    | F-Value | p-Value |
|--------------------|--------|----|------|-------|---------|---------|
| Satisfaction       | Male   | 201| 4.92 | 1.627 | .362    | .548    |
|                    | Female | 182| 5.01 | 1.480 |         |         |
| Behavioral intention| Male   | 201| 5.59 | .903  | 1.099   | .295    |
|                    | Female | 182| 5.52 | .982  |         |         |

Fig. 2. Results of hypotheses tests. Note, →: significant, ————: non-significant. *$p < .05$, **$p < .01$.

Fig. 3. Results of means comparison by demographics between Male and Female.

Table 6
T-test results: Marital status differences in satisfaction and behavioral intention.

| Variables          | Marital status | N  | Mean | SD    | F-Value | p-Value |
|--------------------|----------------|----|------|-------|---------|---------|
| Satisfaction       | Single         | 104| 4.82 | 1.404 | .477    | .490    |
|                    | Married        | 261| 5.05 | 1.626 |         |         |
| Behavioral intention| Single    | 104| 5.31 | 1.095 | 6.105   | .014    |
|                    | Married        | 261| 5.72 | .807  |         |         |

Fig. 4. Means comparison results by demographics of marital status.
30 years or above
6000 RMB or above

is highly important for the hotel success (Jani and Han, 2013). The paradigm that produces visitors showed that education levels did not have a significant role in satisfaction (F = .135, p = .270) (Table 8, Fig. 6). The figure showed that education levels did not have a significant role in satisfaction and behavioral intention (Table 10).

4. Discussion and implications

4.1. Conclusion

The notable competitive lodging market has created high responsibility for hotel scholars and developers to explore the logical paradigm that produces visitors’ appealing behavioral intentions, which is highly important for the hotel success (Jani and Han, 2013). The notable rapid growth of the hotel industry in China has entered an unprecedented period of development. The international hotel chains and global hotel branding expansion in China have rapidly increased, making competition fiercer than ever. However, the hotel industry has been facing unprecedented challenges and was the hardest hit among all industries because of the Novel Coronavirus. The main aim of this study was to identify (1) the possible influence of the role of hotels implemented procedures and measures (e.g., protective) anti the COVID-19 infection by on customers’ financial risk perception, customers’ attitude, satisfaction and behavioral intention. To examine the hypotheses, an SEM approach was applied, and we also performed mean comparisons to obtain demographic differences in satisfaction and behavior intention. Overall results show that protective measures against COVID-19 have a vital impact on perceived financial risk and customer attitude as well as satisfaction and behavior intention. Financial risk and attitude also play an important role in increasing behavior intention. In addition, this study highlights below future guidelines that can increase visiting rate in the hotel industry.

4.2. Theoretical implications

This study has presented several theoretical implications to enrich the research on protective measures implemented by hotels in terms of financial risk perception and attitude and to increase the understanding of satisfaction and behavior intention formation. Firstly, the results of this study confirmed that there was a significant positive relationship between protective measures, financial risk perception, attitude, satisfaction and behavior intention. Therefore, despite the restrictions on the use of many facilities in the Untact Era caused by the COVID-19, it can be seen that if protective measures are in place, the awareness of financial risks can be lowered, customer attitude can be promoted, increasing satisfaction and visiting rate in hotel industry. It showed that during COVID-19 pandemic, protective measures play a vital role to improve customer behavior intention in the hotel industry, consistent with previous studies (e.g., Unitar and Han, 2021; Rahmatiwati, 2015; Han and Hyun, 2017).

Second, however, financial risk perception and attitude have no significant effects on satisfaction. On the other hand, these factors positively affect behavior intention. This financial risk perception result

Table 7
Results of t-test: Age differences in satisfaction and behavioral intention.

| Variables          | Age       | N   | Mean  | SD   | F-Value | p-Value |
|--------------------|-----------|-----|-------|------|---------|---------|
| Satisfaction       | Less 30 years | 125 | 4.812 | 1.565| .039    | .844    |
|                    | 30 years or above | 258 | 5.039 | 1.552|         |         |
| Behavioral intention| Less 30 years | 125 | 5.28  | 1.128| 7.866   | .005    |
|                    | 30 years or above | 258 | 5.70  | .801 |         |         |

Fig. 5. Means comparison results by demographics of age.

customer satisfaction and behavioral intention across different income levels (satisfaction: F = .024, p = .876), and behavioral intention did not significantly vary by different age levels (behavioral intention: F = 1.293, p = .256) (Table 8, Fig. 6).

3.6.5. Education with satisfaction and behavioral intention

The ANOVA tests revealed no differences in satisfaction and behavioral intention across education groups (satisfaction: F = .135, p = .270; behavioral intention: F = 1.314, p = .270) (Table 9, Fig. 7). The figure showed that education levels did not have a significant role in satisfaction and behavioral intention (Table 10).

Table 8
Results of t-test: Income differences in satisfaction and behavioral intention.

| Variables          | Income level | N   | Mean  | SD   | F-Value | p-Value |
|--------------------|--------------|-----|-------|------|---------|---------|
| Satisfaction       | Under 6000 RMB | 142 | 4.83  | 1.502| .024    | .476    |
|                    | 6000 RMB above | 241 | 5.05  | 1.587|         |         |
| Behavioral intention| Under 6000 RMB | 142 | 5.40  | .979 | 1.293   | .256    |
|                    | 6000 RMB above | 241 | 5.66  | .905 |         |         |

Fig. 6. Means comparison results by demographics of income level.

Table 9
Results of ANOVA: Education differences in satisfaction and behavioral intention.

| Variables          | Education level | N   | Mean  | SD   | F-Value | p-Value |
|--------------------|-----------------|-----|-------|------|---------|---------|
| Satisfaction       | Under bachelor degree | 112 | 5.03  | 1.619| .135    | .874    |
|                    | Bachelor degree | 190 | 4.93  | 1.544|         |         |
| Behavioral intention| Under bachelor degree | 112 | 5.67  | 1.053| 1.314   | .270    |
|                    | Bachelor degree | 81  | 4.96  | 1.519|         |         |
|                    | Bachelor degree | 81  | 5.49  | .846 |         |         |
|                    | Bachelor degree above | 81  | 5.57  | .982 |         |         |

Table 7
Results of t-test: Age differences in satisfaction and behavioral intention.

| Variables          | Age       | N   | Mean  | SD   | F-Value | p-Value |
|--------------------|-----------|-----|-------|------|---------|---------|
| Satisfaction       | Less 30 years | 125 | 4.812 | 1.565| .039    | .844    |
|                    | 30 years or above | 258 | 5.039 | 1.552|         |         |
| Behavioral intention| Less 30 years | 125 | 5.28  | 1.128| 7.866   | .005    |
|                    | 30 years or above | 258 | 5.70  | .801 |         |         |
is consistent with the study of Styvén and Wallström (2019), that perceived the level of financial risk was the strongest predictor of behavior intention. Also, the results of customer attitude are consistent with the results of Untaru and Han (2021), and attitude has a positive effect on behavior intention. This implies that consumer perception of financial risk and attitude towards protective measures tend to have a significant effect on behavior intention during the pandemic, regardless of a causal relationship with satisfaction. Our findings showed that customers’ financial risk perceptions and attitude toward the COVID-19 protective procedures and measures had a significant impact on the proposed conceptual framework. In other words, stricter measures and protective procedures to mitigate the crisis of COVID-19 will contribute significantly to increasing customer behavioral intentions for hotels as their attitudes to feel safe during their stay and awareness of financial risks are alleviated. However, it is a new finding that financial risk perception and customer attitude do not affect satisfaction. Due to the special situation of the COVID-19 pandemic, hotel visitors experienced psychological anxiety due to insecurities on whether hotel preventative measures can actually protect them from being infected, leading to the perception that visitors cannot freely use hotel facilities as before the pandemic. Therefore, the level of financial risk perception and attitude do not seem to affect the satisfaction of hotel visitors.

Thirdly, our results also show that satisfaction and behavioral intentions have a direct positive effect on protective procedures against the COVID-19 outbreak, which is consistent with the results of previous research (Ladhari and Michaud, 2015; Han and Hyun, 2017). This means that strengthening hotels’ active protection approach and measures will significantly increase customer satisfaction and visit/ revisit rates within the context of COVID-19.

In addition, the results of means comparison demonstrated that the differences in gender (satisfaction: F = .362, p = .548; behavioral intention: F = 1.099, p = .295), income levels (satisfaction: F = .024, p = .876; behavioral intention: F = 1.293, p = .256), and educational background (satisfaction: F = .135, p = .874; behavioral intention: F = 1.314, p = .270) in demographics showed no difference in the relationship between satisfaction and behavioral intentions. However, the difference in age level (satisfaction: F = .039, p = .844; behavioral intention: F = 7.866, p = .005) and marital status (satisfaction: F = .477, p = .490; behavioral intention: F = 6.105, p = .014) did not differ in the relationship to the satisfaction but showed a difference to behavior intention. This result means that the 30 years or above group of people were exposed a higher level of behavioral intention toward visiting hotels. This result shows that the 30 years old or above group and married group reveal a higher level of intent to behave towards hotel visits.

Overall, this study has contributed to existing research by extending theoretical concepts of protective measures against COVID-19, financial risk perception of customers, attitude, satisfaction and behavior intention processes within the hotel industry (Untaru and Han, 2021; Rahmawati, 2013; Alegre and Juaneda, 2006). Especially, understanding the financial risk perceptions of customers visiting hotels during the pandemic is a critical issue in the hospitality industry academia.

4.3. Practical implications

In terms of practical implications, several suggestions can be recommended based on the present research. First, this study found that protective measures play an important role in increasing the number of hotel visitors. It implies that managers and workers in the hotel industry should actively promote protective measures to prevent the spread of the COVID-19 to increase the hotel visit rate. For example, change the image of hotel such as a clean zone or a green hotel, that people want to visit especially when environmental pollution is serious or an epidemic is spreading. Hotels should be transformed into a healing space by providing a comfortable space, a healthy image, a space to avoid infection, and a clean area. The ultimate goal of these changes is to provide a safe space for customers and easier access in hazardous situations.

Second, this study is a necessary study for current hotel industry as a model to measure the role of financial risk perception in increasing customer visits. Invisible hazards are perceived as more dangerous than visible hazards (Cori et al., 2020). Because invisible risk perception makes it difficult to guess the magnitude of a risk, individuals tend to make negative guesses. Also, financial risk perception directly affects behavior intention. It implies that hotel marketers should focus on lowering customer awareness of financial risk when formulating their marketing strategy. Customers are price sensitive (Jang and Moutinho, 2019). Customers will stop visiting if they think the price is not reasonable. Therefore, restrictions on the use of entertainment facilities due to social distancing, etc. should be avoided in order to reduce customer perception of financial risk. This is because, financial risk perception is an obstacle to behavior intention (Styvén and Wallström, 2019). It is clear that customers will feel that the prices are not reasonable without the use of the full facilities in the hotel. It is recommended that if there are any restrictions on the use of facilities or changes to operating hours, it would be wise to inform the customer in advance.

Third, developing favorable attitudes toward hotel visiting behavior can increase satisfaction and intention revisit. To create a positive
attitude and increase customer behavior intention, hotel managers should continue to reassure customers that the protective measures taken against the pandemic will keep them safe during their stay. Moreover, hotel managers should periodically evaluate customer attitude and satisfaction in the context of implementing protective measures against COVID-19, which in turn helps increase behavior intention.

Fourth, this study provides insightful data and benefits to the hotel sector that fosters communication approaches and tactics development after the COVID-19 period. When it comes to communication propositions, ideas, and strategies, hotel institutions and organizations primarily attempted to comply with the goals of government and healthcare agencies’ guidance to minimize the possible spread of viral infections in their communities. However, if the threat of COVID-19 decreases, the hotel industry will recover rapidly, so the focus should be on reducing the consequential awareness of the financial risks of hotel visitors. Therefore, hotels must quickly take protective measures to reduce infection, and to develop countermeasures and cope with the surge in visitors post travel restrictions. However, as Chua et al. (2020) pointed out that critical global health issues such as the spread of other virus expected to be cured within 4–5 years due to rapid environmental transformation, the results of this study can be utilized at any time in the future. This study not only offers practical implications for the hotel industry in China but can also lead hotel developers to consider more efficient marketing tools and strategies to increase customer visit/revisit and recommend to their friends and family.

Lastly, the findings of means comparisons based on visitors’ demographics will help the hotel industry to understand more about their customers and develop a customized marketing strategy for those who are more satisfied with or willing to visit hotels. The survey found that married groups and those aged 30 and over were more likely to visit hotels during the pandemic than single groups and other age groups. This allows the hotel industry to produce more family products and adult communities for married and aged 30 or over group. Moreover, in income level comparison, there was no significant difference between high-income (6000 RMB above) and the low-income (Less 6000 RMB) but the high-income group had higher satisfaction with the hotel and the intention to visit it. Therefore, it can be assumed that most visitors have stable salaries and aged 30 or over, and planning a marketing strategy, hotel managers should focus on product quality and reasonable price and offer a variety of customized products for adults.

5. Limitations and future research

This research entails several limitations that need to be addressed by future scholars. First, this study focused on financial risk perceptions, attitudes, satisfaction, and behavioral intentions towards hotels’ efforts to protect the health and financial risks of customers during their stay. Future scholars could broaden the proposed conceptual design by investigating additional possible outcomes related to hotels (such as, perceived value and health risk perception) that examine the impact of protective measures against COVID-19. Second, since the survey was conducted at hotels targeting Chinese locals, generalization cannot be ascertained. Thus, future studies are needed to validate the model globally. Third, the survey was conducted in January and February 2021, when the government strictly required restrictions on citizens due to the second wave of COVID-19, so people with high financial risk perception are likely to refrain from visiting hotels at all. Therefore, it is recommended to conduct another investigation on the group who visited hotels frequently before COVID-19 outbreak but did not visit any of hotels after COVID-19, whether there is a change in customers perception of financial risk and attitudes, and behavior intentions towards protective measures by hotels. Fourth, this study was found to have a significant positive effect between perception of financial risk and behavior intention. Future investigations could examine the impact of the pandemic on the tourism sector as a whole (restaurants, airlines, cruise industry and tourist attractions, etc.). Different sectors of the tourism industry might produce different results. Fifth, this study was conducted for traditional hotel users, and we are expecting that meaningful results can be obtained in future studies if conducted in green hotels that promote sustainable development, use co-friendly energy, and provide eco-friendly food etc.

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