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The hotel industry's responses to COVID-19: Insight from hybrid thematic analysis and experimental research

1. Introduction

COVID-19 as an unprecedented global crisis (UN, 2020) has had a devastating impact on the tourism industry. As a key sector of the tourism domain, the hotel industry is especially vulnerable to disasters, the consequences of which can be socially and economically detrimental to hotel operations (Möller et al., 2018). However, few empirical studies have systematically examined the typology and effectiveness of their responses. Furthermore, the current literature lacks empirical examination of the effectiveness of key industry response strategies in generating consumer confidence, conveying tourism providers' response efficacy, and engendering positive booking intentions. To capture response strategies within the hotel industry and assess their effectiveness, two studies were conducted. Study 1 adopted a hybrid approach involving deductive and inductive thematic analyses to evaluate 4,211 news articles. Five broad themes emerged: (1) revenue management, (2) crisis communication, (3) alternative approaches to service delivery, (4) human resource management, and (5) corporate social responsibility. Drawing upon protection motivation theory, Study 2 examined the effectiveness of several response strategies. Results showed that reassuring crisis communication and contactless services can foster consumer confidence and response efficacy, leading to positive booking intentions. Crisis communication and price discount were found to influence booking intentions directly. Taken together, these two studies generated empirical findings that enrich the theoretical understanding of hotels' post-crisis response strategies and provide recommendations regarding how the tourism industry should implement response strategies.

2. Literature Review

A “crisis” is defined as “disruption that physically affects a system as a whole and threatens its basic assumptions, its subjective sense of self, its existential core” (Pauchant & Mitroff, 1992, p. 15). Crises such as the 2003 outbreak of severe acute respiratory syndrome (SARS) (McKercher & Chon, 2004) and the current COVID-19 pandemic (Zhang et al., 2020) have resulted in a significant body of work focused on devising tourism crisis management plans (e.g., Rittichainuwat, 2013). Ritchie and Jiang’s (2019) extensive review of the literature on crisis management highlighted the importance of tourism response and recovery. Given its focus on response strategies, this study refers to Ritchie’s (2004) widely accepted post-crisis response framework as the primary coding scheme: (1) strategy evaluation and strategic control, (2) crisis communication and control, (3) resource management, and (4) understanding and collaborating with stakeholders.

3. Study 1

3.1. Research design

Guiding by a deductive approach, Ritchie’s post-crisis response framework (2004) was adopted as an initial categorization matrix for data coding. Next, inductive thematic analysis was conducted to refine a framework of post-crisis response strategies in the hotel industry. Data were drawn from COVID-19 news articles published via LexisNexis, one of the world’s biggest news databases (Stepchenkova & Eales, 2011) and the national association American Hotel and Lodging Association using the keywords “COVID-19,” “Coronavirus,” and “hotel”; these terms could appear anywhere in the documents. Our data triangulation using two different data sources was intended to promote a comprehensive understanding of the phenomena of interest (Patton,

1999) and to test the credibility of data through different sources, thereby enhancing the validity of identified outcomes (Rolfe, 2006) and the representativeness of information.

Source documents were published between April 16, 2020, when the CDC announced a phased approach to reopening the economy and social activities, and August 13, 2020, when most governments had moved into a response and recovery phase (see Deloitte, 2020). Our full dataset contained 16,872 articles. After examining 4,211 articles from across the two data sources, no new information emerged, indicating data saturation (Glaser & Strauss, 1967). Ultimately, we analyzed 24.9% of all articles collected, echoing the approach recommended by Kim et al. (2020) and Mayring (2004).

3.2. Data analysis

Data were manually analyzed to extract various meanings (Matthes & Kohring, 2008). NVivo 12 was used to facilitate coding organization. Following Moeller et al. (2013), our analysis involved five steps: familiarizing ourselves with the news articles, coding the articles' content, classifying codes, contrasting codes/categorizations, and additional analysis. Thus, five response strategies emerged.

3.3. Results

The first theme was revenue management, entailing optimizing product availability and price to maximize revenue growth. Sample articles (35%) presented pricing strategies, flexible policies, and alternative uses. First, some articles highlighted pricing strategies, such as price discounts and bundling, to increase hotel occupancy and revenue. Second, the selected articles emphasized flexible hotel policies, such as waiving cancellation fees and maintaining customers'

membership and points. Third, the articles summarized alternative uses of hotels. As remote work has skyrocketed during the pandemic, some hotels have converted unused space into sanitary remote workstations for homebound workers.

The second theme was crisis communication, which is designed to protect an organization's reputation in the face of crisis. Sample articles (32%) discussed diverse crisis communication strategies, including internal/external communication and lobbying for governmental assistance. First, some large hotel chains have offered guests 24/7 medical care and presented guests with insurance services to foster trust and confidence. Second, some articles highlighted the importance of effective communication with hotel staff. Unified messaging is essential to helping hotels alleviate employees' confusion. Third, hotels have also communicated with governments to seek pandemic-related assistance, although such measures appear less common than customer- and staff-centric initiatives.

The third theme represents a major response strategy for hotels. About 17% of the chosen articles reported new findings that previous crisis frameworks did not capture. First, more hotels have adopted facial scan check-in and -out and robot concierge assistants to minimize human contact. Second, some hotels have worked together with delivery companies like Uber Eats to increase revenue from drinks and food deliveries. Third, our dataset reflected the importance of hotel hygiene and cleanliness. Hotels are now adhering to particular safety protocols.

The fourth theme relates to strategic approaches to the effective management of individuals within an organization. Sample articles (16%) reported several human resource management strategies, including layoffs and support for employees and the unemployed. First, hotels have called for a substantial reduction in their workforce due to extreme business-related effects from COVID-19. Some hotels have also notified the creation of job centers with retailers

in other industries to help employees find temporary jobs. Furthermore, certain hotels have partnered with leading companies (e.g., Amazon and Walgreens) to support staff suspended from their hotel positions.

Another theme was corporate social responsibility (CSR), which represents a form of self-regulation to keep businesses socially accountable. About 18% of the sample articles mentioned hotels implementing social responsibility initiatives, motivated by a potential return on investment and a genuine desire to positively influence society. From donations and support for charity partner relief efforts to providing free hotel rooms to frontline workers and society's most vulnerable, hotels have leveraged their core competencies when creating opportunities for shared value to demonstrate CSR.

3.4. Discussion

Study 1 established a post-crisis response framework through a hybrid approach. Our findings contribute to the literature by enriching the theoretical understanding of crisis response strategies and empirically testing the effectiveness of response strategies from hotels. In light of our overarching aim to uncover effective ways to build consumer confidence and response efficacy in the face of crisis, Study 2 was intended to extend the findings of Study 1. Specifically, Study 2 explored the impacts of hotels' customer-oriented response strategies (i.e., crisis communication, service delivery, and a price discount) on coping appraisal (i.e., consumer confidence and response efficacy) and related effects on customers' booking intentions.

4. Study 2

4.1. Theoretical background

4.1.1. Protection motivation theory (PMT). PMT posits that, when contemplating information sources in terms of response measures to diminish the consequences of crises, consumers execute one of two cognitive mediating processes—threat appraisal and coping appraisal—that inspire behavioral intentions (Milne et al., 2000). Wang et al. (2019) suggested that coping appraisal significantly influences individuals' protective intentions. Moreover, Zheng et al. (2021) demonstrated that coping appraisal can increase consumers' psychological resilience, building public confidence. Accordingly, based on PMT, Study 2 sought to examine the effects of hotels' post-crisis response strategies on consumers' coping appraisal (i.e., consumer confidence and response efficacy) and corresponding effects on booking intentions. While the results of Study 1 underscored revenue management as the predominant theme of hotels' response strategies, crisis communication and service delivery are theoretically related to preventive measures concerning coping strategies, which could build consumer confidence and response efficacy. As such, hotels' crisis communication and service delivery were paid closer attention in Study 2

4.1.2. Crises communication. Crisis communication refers to strategic messages employed to diminish the consequences of a crisis (Coombs, 2007). Hotels strive to communicate response strategies to consumers effectively to protect patrons from various crises, thereby enhancing consumer confidence and response efficacy (Möller et al., 2018). Furthermore, strategic crisis communication has been found to help tourists perceive hotels as safe during crises and thus boost their booking intentions (Ritchie & Jiang, 2019). As such, we hypothesize that:

Hypothesis 1: (a) consumer confidence, (b) response efficacy, (c) booking intention are higher when a hotel clearly communicates its COVID-19 preventive measures than when it provides limited information about its COVID-19 measures.

4.1.3. Service delivery. The pandemic has compelled hotels to confirm they are safe by employing alternative approaches to service delivery, such as innovative automated technologies for physical distancing (Shin & Kang, 2020). One of the most well-known technologies is self-service technologies (SSTs) (Rust & Espinoza, 2006). SSTs are technological interfaces which allow customers to make use of a service without interacting with employees (Wang et al., 2013). Given that social distancing is important to curbing the spread of COVID-19, new technologies such as self-service kiosks can enhance guests' confidence and response efficacy vis-à-vis the hotel industry and hence improve their booking intentions (Shin & Kang, 2020). Therefore, we hypothesize that:

Hypothesis 2: (a) consumer confidence, (b) response efficacy, and (c) booking intention are higher when a hotel provides contactless services than when it provides human services.

4.1.4. Price discounts. Price discounts, a common revenue-boosting strategy among service-oriented companies, can raise hotels' revenue: discounting services and/or products during challenging times can appeal to consumers (Narasimhan, 1984). Although customers tend to calculate the potential value of products by evaluating the trade-off between perceived benefits and costs (Zeithaml, 1988), the actual impact of price discounts during a pandemic of such magnitude is unclear. While some marketing studies have suggested that price discounts could

diminish customers' brand preferences and quality perceptions (DelVecchio et al., 2006), as well as compromise brand equity by leading customers to focus on cost (Aaker (1996), short-term price reductions have been adopted to encourage travel following an epidemic, such as SARS in Southeast Asia (Wang, 2009). Thus, hotels adjust their room prices to sell more rooms at substantially discounted rates in low demand periods (Denizci & Chu, 2021). Correspondingly, we hypothesize that:

Hypothesis 3: Customers' booking intentions are higher when a hotel offers a price discount than when it does not.

4.1.5. Coping appraisal. PMT (Roger, 1975) holds that coping appraisal (i.e., consumer confidence and response efficacy) mediates the effects of information sources on behavioral outcomes. Consumer confidence refers to an individual's cognition-based assessment, representing one's degree of certainty about the appropriateness of decision making (Keh & Sun, 2018). Customers' confidence in hotel safety during the pandemic depends on their perceptions of a hotel's competence in performing protective tasks and the hotel's fiduciary responsibility to protect its guests (Storopoli & Mesch, 2020). Additionally, response efficacy represents an individual's expectation to adopt a behavior, which increases one's possibility of engaging in protective behavior (Bandura, 2010). In this study, crisis communication and alternative service delivery are responses that hotels can implement to communicate with and protect their guests; price discounts contribute to a hotel's revenue management. Thus, these two response strategies are assumed to influence customers' booking intentions directly as well as indirectly. The following hypotheses are proposed and Figure 1 presents the conceptual model.

Hypothesis 4: Consumer confidence mediates the effects of a hotel's (a) crisis communication or (b) service delivery on customers' booking intentions.

Hypothesis 5: Response efficacy mediates the effects of a hotel's (a) crisis communication or (b) service delivery on customers' booking intentions.

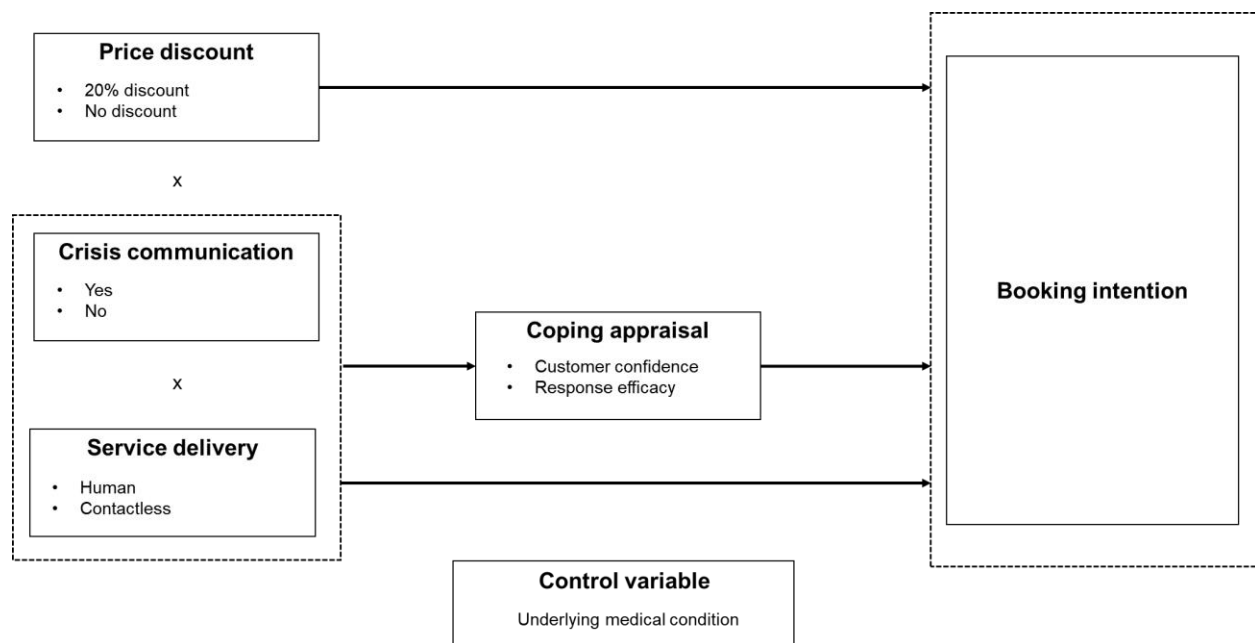


Figure 1. Proposed conceptual model

4.2. Methodology

An experimental design was adopted to investigate the effects of two preventive measures (i.e., crisis communication and service delivery) on two coping strategies (i.e., consumer confidence and response efficacy) and to further examine the impacts of three customer-oriented response strategies (i.e., crisis communication, service delivery, and price discount) on customers' booking intentions. Given the COVID-19 situation, underlying medical conditions, which refer

to conditions that could increase an individual's risk of experiencing severe illness upon contracting COVID-19, were taken as a control variable. A pre-test and pilot study were conducted to check manipulation and established the experimental foundation for the main study.

4.4. Main study

To ensure the validity and reliability of measurement instruments, all measurement items were adapted from prior studies and modified slightly to suit the current research context. 219 completed responses were retained from MTurk. The number of responses to each scenario ranged from 27 to 29, which exceeded the minimum required sample size of 25 subjects per cell for a factorial design (Cohen 1977). Among the sample, 53.7% of participants were men and 46.3% were women. About half (45.8%) were between 20 and 35 years old, followed by 30.9% aged between 36 and 50 and 21% above 50 years old. Overall, participants perceived the manipulations of the independent variables as intended and found the simulated task realistic.

4.5. Results

A series of three-way analyses of covariance (ANCOVAs) were conducted with respondents' underlying medical conditions as a covariate. Results revealed that consumer confidence [$M_{\text{yes}} = 5.43$, $M_{\text{no}} = 4.39$, $F(1, 211) = 33.61$, $p = .00$] was significantly higher in the crisis communication condition than in the no crisis communication condition, supporting H1a. Consumer confidence [$M_{\text{human}} = 5.14$, $M_{\text{contactless}} = 4.73$, $F(1, 211) = 5.14$, $p = .02$] was found to be significantly higher in the contactless service delivery condition compared with the human service condition, providing support for H2a. In addition, response efficacy [$M_{\text{yes}} = 5.51$, $M_{\text{no}} = 5.05$, $F(1, 211) = 9.95$, $p = .00$] was significantly higher in the crisis communication condition

than in the no crisis communication condition, substantiating H1b. However, response efficacy was not significantly different between the two crisis communication conditions [$F(1, 211) = 2.43, p = .12$]; H2b was therefore not supported.

A significant main effect was associated with a price discount [$M_{\text{no}} = 4.68, M_{20\%} = 5.09, F(1,211) = 4.63, p = .03$] and crisis communication [$M_{\text{yes}} = 5.37, M_{\text{no}} = 4.36, F(1,211) = 25.95, p = .00$] on customers' booking intentions. Particularly, scores on booking intention were higher in the 20% discount and crisis communication conditions than in the no discount and no crisis communication conditions. H1c and H3 were accordingly supported. No main effect was observed for service delivery ($p = .07$), failing to support H2c. The covariate effect of underlying medical condition was not significant ($F = 1.97, p = .16$).

To test the mediation role of consumer confidence, Hayes' (2013) PROCESS Model 4 with bootstrapping with 5,000 samples was used. Consumer confidence fully mediated the effect of crisis communication on booking intention ($b = .96, 95\%$ bootstrap interval: .43, .84), lending support to H4a. In addition, consumer confidence fully mediated the effect of service delivery on booking intention ($b = .38, 95\%$ bootstrap interval: .04, .73), supporting H4b. Similarly, response efficacy partially mediated the effect of crisis communication on booking intention ($b = .38, 95\%$ bootstrap interval: .15, .64), providing support for H5a. However, response efficacy did not mediate the effect of service delivery on booking intention ($b = .20, 95\%$ bootstrap interval: -.04, .47), causing H5b to be rejected.

Our findings demonstrated that delivering effective crisis communication and providing contactless service can enhance consumers' confidence in a hotel, leading to more positive booking intentions. This study indicated that consumer confidence mediated the effects of crisis communication and service delivery on customers' booking intentions. The mediation role of

response efficacy between crisis communication and booking intentions was also supported. Furthermore, a price discount and crisis communication were found to influence booking intentions directly.

5. Conclusion and Discussion

Our findings suggest several theoretical implications. First, our findings extend the work on response strategies (e.g., Ritchie, 2004) by capturing a new theme, alternative approaches to service delivery and CSR, and suggesting empirical response strategies in the hotel sector. Second, this study indicates that a price discount could lead to greater booking intentions. Also, results highlight crisis communication as an effective means of inducing consumer confidence and response efficacy. Third, this study provides a deeper understanding of coping strategies by examining the roles of crisis communication and coping strategies in underlying psychological processes of human behavior. Fourth, this research adds robust evidence to the literature on the role of service delivery during a pandemic. Notably, contactless service has dramatically enhanced consumer confidence. Lastly, consistent with PMT (Roger, 1975), response efficacy can partially mediate the effects of hotels' crisis communication on consumers' booking intentions, respectively. Additionally, consumer confidence appears to partially mediate the impacts of crisis communication and service delivery on customer outcomes.

This study has practical implications. First, this research's conceptual framework provides a useful response model by highlighting five response strategies that hotels can follow during and after COVID-19. Second, the results of Study 2 point to price discounts as a primary survival strategy for hotels. Brands could consider various revenue management strategies, such as extending customers' membership status and points and providing bundled services. Third,

this study provides evidence of the effectiveness of hotels' crisis communication in fostering customers' safety perceptions. Therefore, Hotels could leverage their multiple channels to announce their protective measures against COVID-19. Lastly, contactless service delivery is highly recommended in the service sector to maintain physical distancing and promote consumer confidence.

Despite its meaningful findings, several limitations need to be acknowledged. First, this work was conducted using a scenario-based survey, limiting the generalizability of our findings to the real world. Future research could involve field studies to investigate customers' real-time feelings and attitudes toward hotels. Second, based on the various revenue management strategies observed in Study 1, future research should explore whether other strategies (e.g., extending customers' membership status and points) affect consumers' subsequent behavior.

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