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The repercussions and challenges of COVID-19 in the hotel industry: Potential strategies from a case study of Indonesia

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ARTICLE INFO

Keywords:
 COVID-19
 Challenges
 Strategy
 Crisis management
 Pandemic impact
 Tourism

ABSTRACT

The COVID-19 pandemic has hit the tourism and hospitality sector hard. Hotel managers face uncertainty in this environment in order to survive. This study explores the impact of COVID-19 on the hospitality industry, particularly hotels in Indonesia, one of the largest developing countries. It examines the challenges faced by hotel managers and the strategies used to survive. Through the lens of complexity theory, we discuss whether the strategies being deployed are beneficial, redundant, or detrimental for hospitality businesses. Based on semi-structured interviews with 13 hotel managers in Jakarta, Bandung, and Bali, the findings shed light on the various challenges to hotels. We also highlight which challenges could turn into opportunities. The findings show that the strategies that managers are deploying could be detrimental in the future. Potential future research directions are also discussed.

1. Introduction

Understanding a crisis (e.g., the COVID-19 pandemic) and immediate post-crisis response is essential for future crisis management (Ritchie and Jiang, 2019; Morrish and Jones, 2020). It is crucial to use the experiences during crises to recognize future challenges (Ritchie and Jiang, 2019). One recent crisis that has changed the world is the COVID-19 pandemic. The tourism and hospitality sector was impacted substantially when the COVID-19 pandemic went global (Gossling et al., 2020; Zenker and Kock, 2020). The ramifications of this pandemic, such as travel bans, border closures, and quarantine instructions, have resulted in many businesses in the tourism and hospitality industry either limiting or closing their operations. The industry has lost millions in revenue due to the unprecedented efforts to battle the pandemic; it is estimated that 75 million jobs and US\$2.1 trillion in turnover are at risk (WTTC, 2020; Zenker and Kock, 2020).

Previous studies have investigated the effects of epidemics on the tourism and hospitality sector, including the impact of swine flu in the United Kingdom (Page et al., 2011), SARS in China (Zeng et al., 2005), and the H1N1 pandemic in Mexico (Rassy and Smith, 2013). Several recent studies have also examined the effects of the COVID-19 pandemic. For example, Zheng et al. (2020) studied the effect of misleading media reports on Chinese tourists' mental health. Gossling

et al. (2020) explored how COVID-19 has changed society, the economy, and tourism compared with other pandemics. Wen et al. (2020) investigated the effects of COVID-19 on Chinese citizens' lifestyles and travel preferences. On the contrary, Higgins-Desbiolles (2020) discussed the issue of socializing tourism after COVID-19. Recently, Duarte Alonso et al. (2020) proposed a framework for building resilience to manage this unprecedented crisis drawing on the theory of resilience and investigating small hospitality businesses. Nevertheless, more studies are needed to understand the impact of the COVID-19 pandemic on the tourism and hospitality industry. Thus, the present study explores the effects of this pandemic on hotel management strategies.

Zenker and Kock (2020) found six main themes to consider for COVID-19 research aside from the obvious crisis-induced research areas: the level of complexity, change in destination image, change in tourist behavior, change in resident behavior, change in the tourism industry, and long-term and indirect effects. The present study combines two of these six themes (i.e., the level of complexity and long-term and indirect effects) during the response and recovery stage of a crisis (Ritchie and Jiang, 2019). The level of complexity faced due to the pandemic is high because it is a blend of several disaster and crisis typologies (Zenker and Kock, 2020). These authors noted the need to employ complexity theories to deal with this high complexity and interconnectedness. It has also been suggested that complexity theory may be useful to explore the

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complex nature of tourism crises and disasters at different scales (Ritchie and Jiang, 2019). Through the lens of complexity theory, the present study thus demonstrates that the strategies developed due to the impact of the COVID-19 pandemic could be meaningful but also harmful to the hotel industry. In particular, the questions addressed are as follows:

- (i) What repercussions and challenges are arising from the COVID-19 crisis for hotels?
- (ii) How are managers responding to these challenges? What are the long-term and indirect effects of these management strategies?

The present study is critical to increase our understanding of how to respond to this pandemic. This study describes the various challenges faced by hotel managers and how they are responding to these challenges. Nevertheless, an organization should be aware of the complex nature and interconnectedness of a crisis such as this pandemic as well as the long-term and indirect effects of the strategies used to respond to it (Zenker and Kock, 2020). Thus, this study also reviews the effectiveness of the strategies deployed to address those challenges. Running a business cannot be separated from other entities surrounding the business itself, whether directly or indirectly (i.e., high interconnectedness). It is thus imperative to prepare for the future to ensure the sustainability of the business. In this study, we explain the need to develop strategies, particularly during a crisis, with caution since they could backfire in the long run. However, we also show that such a challenge can provide a new opportunity for hotels.

The focus of this study is hotels in Indonesia, a developing country. The tourism and hospitality industry contributes significantly to the Indonesian economy since it creates multiple job opportunities, generates income, and spawns foreign exchange earnings (Situmorang et al., 2019). However, few of the studies of the impact of COVID-19 in developing countries focus on the tourism and hospitality industry. For example, Mamun and Griffiths (2020) examined the impact of COVID-19 on psychological disorders in Bangladesh and Nkengasong and Mankoula (2020) focused on the increase in unhealthy infections caused by COVID-19 in Africa. Hence, there is a scarcity of research on the impact of COVID-19 on the tourism and hospitality industry in developing countries. A developing country might respond to a crisis (e.g., a pandemic) in different ways than a developed country because of their substantial differences (e.g., infrastructure, income, readiness to face crises) (Rodriguez-Morales et al., 2020). Thus, it is important to study the impact of COVID-19 from the perspective of a developing country.

The study starts by describing the COVID-19 pandemic and its impact on the tourism and hospitality sector. Ritchie and Jiang (2019), in their review paper, noted that most previous studies have not disclosed the nature of the crisis. They argued that understanding the nature of crises and disasters can help identify management strategies. Then, the study presents the research method. Next, the repercussions and challenges faced by hotels as well as the strategies deployed are presented. The present study also explores the crisis management during the response and recovery stage (Ritchie and Jiang, 2019). It then discusses the effectiveness of those strategies through the lens of complexity theory. This study concludes with theoretical contributions and implications for hotels during the crisis.

2. Impact of COVID-19 on the hotel industry in Indonesia

COVID-19 was first detected as pneumonia with an unknown cause in Wuhan, China. In March 2020, the WHO declared the COVID-19 outbreak as a pandemic. Many countries put restrictions in place such as social distancing rules, border closures, and lockdowns. As a result, the world economy suffered, particularly the tourism and hospitality industry. For example, the Marriott group reported that the occupancy rate in China declined to 15 %, while that North America and Europe declined to below 25 % (from around 70 %) in March 2020

(PRNewswire, 2020). The Hilton group reported that it closed its 150 hotels and 33,000 rooms in China (Maake, 2020). Indeed, hotel operators globally are experiencing similar situations including Indonesia.

Similar to other countries, Indonesia is also experiencing a surge of confirmed cases. As of August 17, 2020, there were 141,370 confirmed cases and 6207 deaths (The Indonesian COVID-19 Task Force, n.d.). In March 2020, the Indonesian Travel Agents Association documented a drop in sales of up to 90 %, which amounted to a US\$245 million potential loss due to cancellations (The Jakarta Post, 2020). On 1 April 2020, only four international flights arrived and departed from the airport in Bali, indicating a drop of more than 95 % compared with the same day in 2019 (Wibawa, 2020). In addition, Indonesia's hotel occupancy rate fell to 20 % in March 2020 (The Jakarta Post, 2020). A hotel in Bali reported an occupancy rate of below 10 % and closed its doors in April 2020 (Wibawa, 2020). Similarly, the hotel occupancy rate in West Java plunged to 5–15 %, causing almost 25,000 hotel employees to be laid off (Permadi, 2020). In June 2020, the average hotel occupancy in Indonesia was only 19.7 % compared with 52.3 % for the same month last year (Aditya, 2020).

3. Literature review

3.1. Complexity theory

Several overarching theories have emerged to address tourism and hospitality issues, such as complexity theory, social exchange theory, the norm activation model, and value co-creation (Altinay and Taheri, 2019). The study of tourism and hospitality is dynamic since it relies on various elements and sources and is typically unstructured (Baggio et al., 2010). Tourism studies tend to examine chaotic situations because of the presence of unpredictable information and high complexity of stakeholders (i.e., multiple internal and external stakeholders) (Baggio et al., 2011). Moreover, tourism crises have been considered to be interconnected to multiple elements (i.e., travelers, travel agents, government, hotels, politics, policies, etc.) in a chaotic tourism system (McKercher, 1999).

In the present study, the complexity theory was chosen to explain the impact of COVID-19 on the hospitality industry since this theory supports the notion that there is no single predicament as the cause of an outcome of interest (Wu et al., 2014). Complexity theory posits that the world is interconnected; no single organism exists in isolation and no constant organized process exists in dynamic non-linear systems (Tsoukas and Chia, 2002; Burnes, 2005; Boulton et al., 2015). In non-linear systems, a single disturbance could lead to a drastic change to the whole system (Anderson, 1999) and similarly, the world of business is intertwined. Complexity theory has been used by researchers to understand organizations by reassessing leadership, strategy, and marketing (Deveraux et al., 2020). There is a view that chaos and complexity theories differ (Axelrod and Cohen, 1999). However, most researchers agree that chaos and complexity are complementary (e.g., McKercher, 1999; Russell and Faulkner, 2004) because chaos is a stage representing extremely complex information, which leads to a new and more complex order (Hayles, 1991; Faulkner and Russell, 2000). Complexity theory thus represents systems that have a chaotic dynamic because of a pattern of complications (Zahra and Ryan, 2007). Summarily, complexity theory has evolved from chaos theory (Pappas, 2018).

Researchers have advocated using complexity theory to understand crisis management. For example, Ritchie and Jiang (2019) suggested using it to explore the complex nature of tourism crises and disasters at different scales. Moreover, Zenker and Kock (2020) noted that complexity theory is needed to understand a highly complex crisis. Complexity theory could help interpret unpredictable situations by providing a language that explains complex social phenomena such as the current crisis (e.g., Zahra and Ryan, 2007). The language offers an understanding of the complex and connected typologies related to the nature of crises (Ritchie and Jiang, 2019). Through insights from

multiple stakeholders and situations (e.g., government, travelers, society, politics, and businesses), complexity theory assists in identifying the chaos that surrounds the crises (McKercher, 1999; Zahra and Ryan, 2007).

Several empirical studies have been conducted to provide a better understanding of crises and disasters in the tourism and hospitality industry (Kuo et al., 2008; Gurtner, 2016; Pappas and Brown, 2020). For example, Kuo et al. (2008) studied how SARS and avian flu affected international tourism in several countries in Asia, such as China, Hong Kong, Singapore, Taiwan, Indonesia, and Vietnam. They concluded that SARS, but not avian flu, damaged the demand for tourism significantly due to it being easily transmitted among humans. Similar to SARS, the human-to-human transmission of COVID-19 is rapid, resulting in a serious disruption to the tourism and hospitality industry. Moreover, previous studies have noted that the avian flu crisis could have been avoided with advanced planning and good management involving the various stakeholders (e.g., government, consumers, and companies) (Faulkner, 2001; Ritchie, 2004; Kuo et al., 2008). Previous researchers have also noted that the dynamic structure of consumer preference should be included to bolster the understanding of how epidemic and pandemic diseases affect tourism (Garin-Munoz, 2007; Kuo et al., 2008). This supports the notion that complexity theory is appropriate to study a crisis since it involves the dynamics of various stakeholders.

On another occasion, using triangulation of various research methods (i.e., combining a qualitative approach with multiple secondary data such as newspaper articles). Gurtner (2016) studied the vulnerability of tourism in Bali resulting from an act of terrorism. He concluded that effective crisis management involving various key stakeholders is crucial to any tourist destination facing such disaster. Effective changes depend on good governance, leadership, vision, political will, partnerships, mutual respect, and trust, where the government collaborates with tourism and hospitality businesses to improve knowledge (e.g., hazard awareness, preparedness capacity, and responses to potential tourism crisis), understanding (e.g., sensible communication with stakeholders), and commitment (e.g., dedication to developing local economics and communities). As tourism studies are complex, a non-linear system for thorough analysis is suggested (Baggio et al., 2010). A linear system-based research would only work to a certain extent (Baggio and Sainaghi, 2016). Complexity theory would expand and complement the data analysis by understanding its structures and dynamics, thus providing managers with an adaptive crisis management strategy for the long term (Baggio et al., 2011).

Complexity theory may thus provide essential insights from a strategic risk management perspective that influence the decisions made when tourism dynamics are significantly disturbed by unforeseen phenomena such as the COVID-19 pandemic (Pappas and Papatheodorou, 2017; Zenker and Kock, 2020). Zenker and Kock (2020) specified that the COVID-19 pandemic is unique since it blends multiple types of disaster (e.g., external incidents over which the company has no control) and crisis (e.g., disruptions that diminish the existence of the company). They noted that the COVID-19 pandemic carried unexpected and highly complex issues across different domains and has raised health issues as well as simultaneous economic, social, and political issues. One cannot focus only on health issues without warranting economic issues. For example, a country that implemented a total lockdown for an extended period to tackle the health issue would put a heavy strain on the economy. Hence, focusing on a single issue alone leads to a trade-off as other issues will surface. Thus, the pandemic presents complex non-linear problems to the tourism and hospitality industry. Applying complexity theory might help to solve these problematic situations (e.g., business disruptions, employee welfare, etc.) by seeking a holistic understanding of the dynamics between different issues and actors that may be in conflict with one another in responding to the disaster and crisis (Ritchie and Jiang, 2019).

3.1.1. Empirical research using complexity theory in the tourism and hospitality industry

Complexity theory has been applied in previous studies to explain several phenomena in the tourism and hospitality industry (e.g., Olya and Altinay, 2016; Pappas, 2018; Carvajal-Trujillo et al., 2020; Pappas and Brown, 2020). For example, Olya and Altinay (2016) investigated the complicated purchasing intentions of tourists. Complexity theory has also been applied to study the hardship of tourism and hospitality businesses. For example, Pappas (2019) used complexity theory to demonstrate the complexity of the attributes that influence tourism decisions regarding peer-to-peer accommodation and the sharing economy due to recession. Olya et al. (2018) evaluated the behavioral intentions of disabled tourists regarding peer-to-peer accommodation through the lens of complexity theory. Pappas (2018) examined the decision-making processes of accommodation providers during multiple crises in Greece. Recently, Carvajal-Trujillo et al. (2020) identified a combination of attributes that influences the intention to use advanced mobile applications in Spain and Pappas and Brown (2020) examined the entrepreneurial decision-making of tourism and hospitality businesses during economic crises. All these studies have combined complexity theory and configurational analysis using fuzzy-set qualitative comparative analysis as the basis of their approaches.

The tourism and hospitality industry is a dynamic and complex non-linear system (e.g., Russel and Faulkner, 2004; Baggio et al., 2010, 2011). Studies (e.g., Russel and Faulkner, 2004; Baggio et al., 2010, 2011) have used complexity theory in combination with network science for their analysis. For example, previous studies have examined the complex structure of tourism destinations using complexity theory (e.g., Baggio and Sainaghi, 2016; Sainaghi and Baggio, 2017). These authors have highlighted the relevance of non-linear models for analyzing the complex structure of tourism destinations in Italy.

In their study, Pappas and Papatheodorou (2017) used complexity theory to examine the complex situation of tourism in Greece caused by the refugee crisis. They argued that the complexity theory assists in providing a holistic view of complex associations. For example, rather than treating the refugee crisis as a threat, their findings showed that it should be treated as an opportunity to promote diversity in the hospitality culture. They also argued that the complexity theory helps decision makers by providing them with a better understanding of market transformation, changes in tourist perceptions and preferences, and destination image—building dynamism. Similarly, a study about entrepreneurial decision-making in the tourism and hospitality industry during a recession in Greece utilized the complexity theory (Pappas and Brown, 2020). They highlighted three different pathways (i.e., the crisis conditions, enterprising operations, and enterprising capabilities) for tourism and hospitality entrepreneurs to formulate decisions, which enhanced the understanding of the complex decision-making process required during a crisis.

Nevertheless, none of these previous studies have combined complexity theory with a qualitative approach (e.g., interviews). Gear et al. (2018) advocated the value of using complexity theory through the adoption of a complex adaptive system. The present study follows this approach to analyze the complex decision-making process of hospitality businesses in Indonesia during the COVID-19 pandemic.

4. Methodology

4.1. Design and approach

The present study follows an interpretive paradigm, which allows researchers to understand different subjective opinions and socially constructed meanings about the phenomenon (i.e., COVID-19 in this case) (Denzin and Lincoln, 2000). This research aims to understand how the phenomenon shapes hotel managers' beliefs, perceptions, and meanings, which is called *verstehen* (Bryman, 2012), to help researchers explore how such managers have handled the impact of COVID-19 in the

hospitality industry in Indonesia.

This study applied the “why” and “how” questions to prompt managers to share their experiences on the pandemic (Merriam, 2002). In particular, it used an inductive qualitative study with a case study approach to gather unique insights and stories from their respective companies in Indonesia (Creswell, 2014). The rationale for using the case study approach is to accommodate different types of key hotel players (e.g., various hotel managers and regional corporate officers) in different situations (e.g., different cities and hotels) to provide insights (Yin, 2009). The complex nature of the crisis and interconnectedness of decisions by multiple stakeholders should provide a deep understanding of crisis management (Zenker and Kock, 2020). The experiences and knowledge of the interviewed managers, who are from various types of hotels and cities (e.g., Jakarta is mainly considered for business, whereas Bandung and Bali are known as leisure destinations), offer insights into the challenges posed by the pandemic.

Applying complexity theory as a qualitative research methodology can explain in detail how system agents interact (Gear et al., 2018). This is because complexity theory provides the means to conceptualize the research problem as a complex adaptive system. Braithwaite et al. (2017) noted the importance of articulating how complexity theory is applied to support future concept development and use. Following Gear et al. (2018), the present study reconceptualizes the research problem as a complex adaptive system by focusing on the interactions between managers’ responses to the crisis under different regulations (e.g., government restrictions), risks (e.g., health and safety risks), and socioeconomic issues.

4.2. Data collection and participants

Brinkman and Kvale (2015) argued that conducting interviews in a qualitative research study allows researchers to obtain unique and fresh perspectives of the investigated subject. To explore the topic in depth, this study used semi-structured interviews to collect the data. The semi-structured interview format allows participants to elaborate on their responses and provide detailed insights (Creswell, 2014). Nevertheless, Gear et al. (2018) argued that the use of an interview guide with potential lines of inquiry is impractical. They advocated an unstructured conversational style using improvised probes to help elicit further complexity. Since the present study used complexity theory as its qualitative research methodology, the semi-structured interview was combined with improvising probes (e.g., “what influenced you to respond the way you did?”).

For interviews, it is important to select participants who have the appropriate knowledge and expertise for the situation of interest (Brinkmann and Kvale, 2015). Thus, purposive sampling was employed to identify the best respondents to answer the research questions and achieve the objectives of the study (Ames et al., 2019). Having dialog with multiple hotel managers from different hierarchical levels can provide rich insights into how hotels have managed the crisis.

The interview questions were related to hotel managers’ complex experiences of the COVID-19 pandemic environment, particularly the repercussions, challenges, and survival strategies deployed. The questions included “What kinds of challenges did you face during this pandemic?” and “What strategies did you use to deal with these challenges?” The follow-up probes contained questions on their responses to the challenges, such as “How did you come to such decisions?” and “Would you do anything differently?” These questions enabled participants to expand on their responses to a situation or event (e.g., salary, working schedule, image, and reputation) (Patton, 2002).

Insights were gathered from hotel managers in three prominent tourism places in Indonesia: Jakarta, Bandung (the capital of West Java), and Bali. The invitation to participate in the study was sent to a closed chat group consisting of hotel managers in Indonesia. Participants were approachable and welcoming to the invites since the researchers were active members of the professional hotel associations. Sixteen

Table 1
Participant Profile.

No.	Initial	Sex	Position	Property	Location
1	YI	Female	Middle Manager	Local	Jakarta
2	UB	Male	Middle Manager	MNC	Jakarta
3	RA	Male	Junior Manager	MNC	Bandung
4	WD	Male	Senior Manager	Local	Jakarta
5	RI	Male	Senior Manager	Local	Bali
6	PD	Male	Senior Manager	Local	Jakarta
7	YD	Female	Middle Manager	MNC	Jakarta
8	ME	Female	Middle Manager	MNC	Jakarta
9	WA	Female	Senior Manager	Local	Jakarta
10	UM	Female	Senior Manager	Local	Bali
11	AP	Male	Middle Manager	Local	Jakarta
12	ZR	Male	Senior Manager	MNC	Jakarta
13	TY	Male	Senior Manager	Local	Jakarta

Source: data interviews; Note: MNC = multinational company.

participants responded to the invitation. However, three participants canceled their interview appointments for personal reasons. Two participants informed the researchers that they had been furloughed; therefore, they believed they were ineligible to share their experiences. Another participant informed the researchers that he had been directed by his superior to decline interviews on COVID-19. The profile of participants was kept anonymous throughout the study (see Table 1).

Participants’ job functions were categorized into senior managers, middle managers, and junior managers. Senior managers, often known as top-level managers, were involved as participants because of their daily involvement in strategic management in the hotel (Situmorang and Japutra, 2019). Middle managers were involved because they act as the link to junior managers to execute the strategies from top management (Radaelli and Sitton-Kent, 2016). Finally, junior managers were involved since they supervise employees conducting daily operational activities as well as regularly deal with hotel customers (Schermerhorn and Bachrach, 2015). The combination of managers from different hierarchical levels was intentional. Interviewing the right mix of managers from different hierarchical levels can help provide better outcomes and perspectives based on complexity theory (Gear et al., 2018).

These managers have different weekly working statuses. Those participants who entirely work from home may still need to come to their business unit when required. Thus, the interviews were conducted either at their office or at home. Owing to social distancing regulations, all interviews were conducted and recorded using Zoom, with the exception of two participants who preferred to use other platforms (e.g., WhatsApp). The interviews lasted around 45 min and were conducted in Indonesian. Follow-up interviews were used to clarify dubious issues.

4.3. Data analysis procedure

The data analysis started by transcribing the interviews. Then, the transcriptions were translated into English. Next, the data analysis continued by organizing the patterns, becoming familiar with the content, and (re)ordering and recognizing the structure of the themes from the transcriptions (Miles and Huberman, 1994). The transcriptions were read continuously to understand the meanings and patterns from the emerging data. Keywords, sentences, and paragraphs relevant to the research questions were highlighted.

The initial data coding was carried out in accordance with how the text was interpreted to provide meaning to the data interpretation. The themes were identified, categorized (as main concepts), and sub-categorized (as sub-concepts) into descriptions, and included quotations from the participants as shown in Appendix A (Saldana, 2016). The main concepts were “repercussions,” “challenges,” and “strategies,” and the sub-concepts comprised elements such as “financial disruption,” “low occupancy,” “cost restriction and reduction,” “duality in decision-making,” “trade-off in service,” “brand management,” “increase health and safety measures,” “compromise the service,” “package transformation,”

“salary adjustment,” “contract negotiation,” “encouraging multi-tasking,” and “new normal preparation.” Subsequently, the transcriptions were coded using NVivo software. Finally, the transcripts were shared with the participants and their comments were added to enrich the understanding and interpretation (Denzin and Lincoln, 1994; Golafshani, 2003).

Because of the complexity of the crisis (Zenker and Kock, 2020), complexity theory was also used to inform the data analysis. According to Gear et al. (2018), an analysis that uses complexity theory should be adaptive and responsive to real-time findings as the researchers interact with the data. Thus, when analyzing the data, the researchers consulted recent developments (e.g., new policies deployed by the government, restrictions relaxed, agreements with unions) to delve deeper into each category and subcategory. This helped the researchers discuss the long-term and indirect effects of the strategies. They also reflected on the fact that the participants had diversified job responsibilities, work experience, and expertise.

5. Repercussions and challenges due to COVID-19

The COVID-19 pandemic has taken Indonesia to a new level of depression. Similar to other developing countries (e.g., Bangladesh, Brazil, Egypt, and South Africa), the pandemic has caused serious implications such as health issues, a stagnating economy, and psychological disorders (Mamun and Griffiths, 2020; Nkengasong and Mankoula, 2020; Rodriguez-Morales et al., 2020). The hospitality sector in Indonesia has been hit the hardest. Several of the participants even mentioned that this depression is worse than the Asian financial crisis and riot in 1998, which was considered as the worst in the nation's history.

Managers have exhausted all their options on how to survive. Many have decided to halt operations or shut hotels permanently. These two options have encouraged hotels to explore new opportunities (Wittenberg-Cox, 2020). The first is to open the property to medical teams (e.g., doctors, medical workers, government taskforce, hospital administration volunteers). The second opportunity is to open the hotel to individuals that have been ordered to quarantine by the government. These opportunities show that there are possibilities for stakeholders to seek a new market within their business network (Higgins-Desbiolles, 2020). These opportunities might not be a perfect solution, but this could raise some revenue. However, there are doubts about pursuing these opportunities, as discussed further in the next section.

The fastest way to reduce operating costs is to lay off employees. However, at the same time, hotels should consider employees as intangible assets (Walsh et al., 2010). The next section covers the issue of furloughing employees in detail. Another issue is related to the discord between the headquarters, regional office, and hotel management. The corporate direction is important for the identity and continuity of the company (King and So, 2015). A few of the participants described the difficulties they face in translating the corporate direction to overcome the impacts of the pandemic. The decision on whether to close the property, mainly related to MNC hotels, is also influenced by the dispute between subsidiaries and the headquarters. It seems to be difficult for the head office, regional office, and subsidiaries to reach an agreement. One participant shared his experience on handling the dispute.

“When we were considering closing our property, the head office (Spain) and regional office (China) understood the rationale because both countries were in a worse condition than this country. The regional office was also keen on that decision and it offered experiences and solutions since it had implemented a total lockdown for two months. However, the owning company in Jakarta was doubtful about making such a decision.” (UB/Middle Manager/MNC)

For chain hotels, decisions are bounded by the overall strategy of the parent company/brand. The corporate direction is perceived as

representing the company's brand and identity through its services to stakeholders (Abratt and Kleyn, 2012). Senior managers play an important role because they translate the message from the headquarters (Hodari and Sturman, 2014). Translating the corporate direction is difficult, particularly if there is discord between the headquarters, regional office, and hotel management. The directions from stakeholders (e.g., owner, headquarters) are crucial to determine where the business is heading. However, the directions from stakeholders may not be entirely correct (Zheng et al., 2020). For instance, most owners would like to keep the business up and running to generate revenue for the hotel.

A few participants mentioned that employees would not feel comfortable working in such circumstances because of the high health and safety risks. As a result, the services would not be optimal and could hamper the whole brand experience, which could disrupt the relationship between the customers and brands (Japutra and Molinillo, 2019). The impact could be more significant to the hotel than the decision to close the business (Page et al., 2011). It seems that for a large hotel, where corporate and regional offices exist, direction from the regional office is needed (Sutthijakra, 2011), as it should better understand the specific requirements of that region (e.g., sociocultural aspects). Future research should examine who should make the ultimate decision in a crisis, particularly when the hotel and headquarters are in different locations. At the moment, hotel management and the headquarters share their issues and experiences through an online platform (Wittenberg-Cox, 2020). However, there are several limitations to this type of communication (e.g., disruptions of knowledge transfer, insufficient absorption capability). An interesting future research avenue would be to further explore these limitations and assess how to minimize them.

A few of the participants were also worried about the business relations with vendors and suppliers. Payments to vendors/suppliers have been hampered by the low income and delayed payments from others. The repercussions of this pandemic thus involve multiple stakeholders (e.g., company, employees, customers, vendors, and suppliers) (Campiranon and Scott, 2014). The whole process is intertwined because one is dependent on the other. This tangled relationship is not exclusive to payments but also affects logistics. One participant mentioned that his hotel relied on a particular coffee plantation for its restaurants. Unfortunately, owing to the social distancing rules implemented by the government, the farmers were forced to stop operations.

Management teams are forced to balance generating revenue with making difficult decisions. From the complexity theory point of view, this predicament might have both advantages and disadvantages. The interconnected nature of stakeholders could result in disorientation for management operations (i.e., leadership, strategies, and marketing) (Deveraux et al., 2020). Thus, the magnitude of repercussions as well as challenges could be higher than expected. Hotels need to decide to handle these uncertainties and ensure that the damage can be contained.

6. Strategies to mitigate the crisis

6.1. Increasing health and safety measures

To sustain hotel operations, the participants believed that they should limit the spread of the virus in their hotels. The interactions between hotel employees and guests are pivotal to meet guests' needs during their stay. However, because of the pandemic, such interactions were hampered. Thus, managers enforced safety measures to improve health and safety. Some managers even went the extra mile to increase guests' perception of safety. One example that could lead to a detrimental effect is testing all hotel employees.

“Our owner thought of having compulsory rapid tests for all employees ... We produced a few arguments ... If we found someone who is tested positive, what would happen, psychologically, to that

person? Do we have to quarantine the whole property?" (YI, Middle Manager, Local)

The plan to conduct compulsory tests could backfire. Although it is an important protocol to ensure high levels of health and safety, it could create several issues. For example, it could result in distrust among employees, who could start accusing and blaming other employees, thus creating a poor work environment. This could also incur psychological strain for employees (e.g., anxiety toward the company) (Bordia et al., 2004).

The strategies implemented during the pandemic should be considered carefully to cater to the responses from stakeholders (Sigala, 2011; Gosling et al., 2020). A decision could produce advantages and disadvantages (Devereux et al., 2020). It could create anxiety for hotel guests as well as employees. For example, the decision to track guests' trip history, while understandable to minimize the risk of spreading the virus, could be intrusive to guests' privacy and change their perception of how the hotel protects their anonymity and confidentiality (Wen et al., 2020). Hence, further research should examine this issue about strategies that could relate to another issue (e.g., privacy and security issues).

6.2. Creation of new offering

Most of the participants revealed that they are compromising their offering to generate income. Several produced new product packages to raise revenues. Managers have also compromised the services offered. For example, they have reduced room cleaning to once every three days, thereby allowing them to offer discounted packages. One hotel has taken advantage of its brand reputation by offering and managing virtual talk-show events.

"To maximize our revenue, we have held digital talk-shows through social media platforms (e.g., YouTube, Instagram) because our brand is a lifestyle brand. We have turned our lifestyle brand into providing digital content on weekly topics. We have collaborated with an independent company as a sponsor and generated revenue from the post-production." (PD, Senior Manager, Local)

The hotel chain is a lifestyle brand ("art hotels") that presents various local arts (e.g., sculptures, paintings) within its hotels, creates events that revolve around art, and discusses the art artifacts in its hotels. To reach a broader audience, it also holds events closely related to arts. The media used the hotel as a place for discussion as well as its social media channel. The key factor here is the fit between the brand identity and new ways of generating revenue. The brand identity fit is important to the success of a new venture (e.g., co-branding) (Xiao and Lee, 2014). Hotel managers should always maintain the hotel brand identity when creating a new venture.

Similarly, some hotels were willing to compromise their brand to generate revenue. One manager of an MNC hotel shared the plan to sell frozen food to its customers.

"Starting next week, we will sell frozen food to our customers, mainly for takeaways...but, of course, this is not limited to hotel customers. I know this is not our standard and not ideal, but we have to figure out something to generate more revenue." (WD, Senior Manager, MNC)

This kind of compromise could harm the brand of the MNC hotel chain (e.g., reputation, image). Although it is a way to gain quick sales to generate revenue, it could damage the brand equity of the hotel in the long run. There are many negative perceptions of frozen food (e.g., unhealthy, cheap). Thus, selling frozen convenience food might generate similar negative perceptions of the hotel. Hotel image is an important predictor of customer loyalty (Kandampully and Hu, 2007; Jani and Han, 2014). Managers should thus be careful when deciding on their alternatives to generate revenue quickly.

The idea of offering the hotel as a place to quarantine to generate

revenue also mentioned. The decision to offer the property as a quarantine hotel could be a double-edged sword. It might help the hotel build its brand reputation and image (Martinez and Nishiyama, 2017). It could gain positive perceptions from people in general, which could increase its brand equity through favorable brand associations (e.g., helpful) and generate strong brand personalities (e.g., sincere, responsible). The hotel brand could then be perceived as a responsible brand, which could lead to many favorable outcomes (Heikkurinen, 2010; Japutra and Molinillo, 2019). However, at the same time, the decision could also dilute the brand equity (Lu et al., 2015). There might be the negative perception that the hotel is unsafe because it might carry the virus. Negative perceptions can buffer the effect of public perceptions on loyalty (Hsieh and Li, 2008). Hence, hotel management must calculate whether the benefits surpass the costs. This is an area for future research, namely, examining whether the benefits outweigh the detrimental effects.

6.3. Reduction of labor

As mentioned above, one way to handle this crisis is the difficult decision to furlough employees. Several factors should be considered before deciding to pursue this. The selection process is related to the effectiveness of the strategic human resources deployed by hotels (e.g., recruiting, training, developing, retaining) (Gannon et al., 2015). Some factors have to be considered before furloughing employees (Campiranon and Scott, 2014). First, it would be expensive for the company to restart its recruitment process. The cost of recruitment does not only include the money spent to invite potential candidates to apply; it is also associated with the time spent finding the right candidates.

The decision to lay off employees could also be problematic in developing countries (Saad and Elshaer, 2017). This is because the decision is closely related to several factors (e.g., unemployment rate), which could cause a long-term problem to hotels. More importantly, the decision could also lead to dysfunctional operations management within the organization. For example, hotel subsidiaries regularly face challenges recruiting because of the insufficient number of candidates in the local talent pool (Situmorang and Japutra, 2019). Looking through the lens of complexity theory, the decision to furlough employees is complicated. This decision could influence the effectiveness of management (Campiranon and Scott, 2014) as well as the affective commitment of survivors (Saad and Elshaer, 2017). In different circumstances, hotels could transfer their employees to other branches. However, in this pandemic, other branches are also affected and are having similar issues.

Another alternative is to provide the option of unpaid and paid leave to employees (Campiranon and Scott, 2014). Many managers have decided to pursue a temporary salary reduction to save jobs. Most hotels have decided to pursue this unpopular decision to minimize labor costs (Wibawa, 2020). However, the decision to proceed with the salary reduction has resulted in a mixture of consequences. First, this decision contradicted the government's direction. As a result, the government could prevent hotels from operating. That said, without reducing labor costs, hotels might end up closing anyway. The government should offer alternatives so that employees and hotels understand that this disruption would have a long-term impact (Gosling et al., 2020). As mentioned by previous studies (e.g., Leslie and Black, 2005; Ritchie and Jiang, 2019), governments play an imperative role in recovery strategies. They can create a stimulus program to help companies (e.g., tax relief). Certain subsidies for companies (e.g., garbage collection, electricity subscriptions) are pivotal to ensure the sustainability of the hotel industry.

Second, the salary reduction policy created confusion and frustration among employees. It also created tension among senior management. Most hotels ended up with a straightforward decision to reduce labor by a constant proportion (e.g., 10 %) at all levels. However, many employees saw this as unfair and some would have preferred a proportionate reduction. They perceived that senior management should bear

more responsibility to ensure the sustainability of the company. Even at the same level, an equivalent reduction could also be dangerous since employees might question the level of performance that they have delivered. This decision is complex. Management should start with voluntary actions by employees (e.g., senior management giving up 20 % of their salary, employees giving up their annual leave). Then, they should produce a framework (e.g., develop scenarios with clear metrics) for how the company will manage the dire situation. The senior management team should also conduct regular meetings to disseminate information of this framework. These sessions would provide a sense of openness, sincerity, and honesty, which would increase the clarity of the communications and thus avoid future disputes (Campiranon and Scott, 2014).

The other direction from the headquarters is to rethink and remap all the costs related to contractual agreements. One participant highlighted the decision to terminate contractual employees to reduce labor and maintenance costs.

“All our employees who were under contractual terms were terminated.” (YR, Middle Manager, Local)

According to Leslie and Black (2005), responses are needed during a crisis; however, these are not without consequences. Managers should think about the domino effect of their decisions by examining the “big picture” (Page et al., 2011). Although labor and maintenance costs are the most significant expenses, managers should think carefully before ceasing contractual agreements. The one-sided ceasing of a contract could dilute the brand equity of the company (Melewar et al., 2012). Employees, suppliers, and vendors could rethink working with the company in the future. Employees could also spread negative word-of-mouth about the company. A better alternative could be to negotiate the contractual agreements with third-party providers. The headquarters expects the hotel workforce to become more resilient and leaner, by reducing labor costs, to help the financial position of the company in the short run (Campiranon and Scott, 2014).

6.4. Translating messages from the government

According to complexity theory, the presence of various stakeholders complicates decisions. In Indonesia, the different provincial governments have different regulations that could affect the development of strategies. Hotel operations depend on many stakeholders (e.g., the government) to run smoothly. The government has the authority to set business policies. Many participants criticized the government for not taking action immediately.

“Our government should about think of how we can pay our business mortgages...(also) tax retribution, loan restructuring, holiday allowance (i.e., *Tunjangan Hari Raya*)¹, even our electricity costs (monthly subscription cost²).” (PD, Senior Manager, Local)

The government reacted to the pandemic by issuing an incentive program called the *Kartu Pra-Kerja* (pre-work card) for furloughed employees (Wibawa, 2020). This incentive consists of online upskill training and financial benefits. Although the program was first aimed at early graduates, the government redirected it to furloughed employees when the pandemic hit to stimulate the economy. Most furloughed employees hesitated to register because of the complicated process. One of the participants described his cynicism about this program.

“Instead of just providing a training package to these employees, it is better to ensure that they are able to fulfill their daily expenses. We need more than just a training program.” (PD, Senior Manager, Local)

The decision by the Indonesian government to provide non-cash incentives might be insufficient. However, these kinds of incentives might be beneficial. Many governments have decided to roll out cash incentives in this unprecedented time. However, cash incentives might be detrimental to the continuity of the economy in the long run. A combination of cash and non-cash incentives might be the best option during a crisis. The implementation of such incentives should receive substantial support from the workforce authorities throughout the process (Higgins-Desbiolles, 2020). It would thus be an interesting research avenue to explore the best combination of cash and non-cash incentives that should be used during crises.

In addition, this e-government incentive might only be applicable in developed countries because of their vast Internet infrastructure, superior public governance, and financial transparency compared with developing countries (Caba Perez et al., 2008). Developing nations might have insufficient Internet infrastructure and low technological understanding. Finally, the government might also need longer to initiate the process if public data are disorganized.

6.5. Moving forward

Disasters have significant effects on management operations because they affect multiple stakeholders (Loureiro and Jesus, 2019). The management team should be prepared to face crises: before, during, and after. Thus, they should prepare a recovery strategy and explore several possibilities for the future (Gosling et al., 2020; Wittenborg-Cox, 2020). All the participants agreed that training related to crisis management is pivotal for the tourism and hospitality industry (Ritchie and Jiang, 2019). However, at this point, employees are only given training related to natural disasters and standard safety issues.

“We only have crisis management training related to natural disasters and fire safety or food handling...we should have had training on the pandemic beforehand...” (RA, Junior Manager, MNC)

Thus, hotels must have a standard framework for how to handle crises. Such guidelines could come from various disciplines (e.g., marketing, psychology, business) to help the management team make responsive decisions and speed the recovery process (Sigala, 2011). For example, from a marketing perspective, the ways hotel guests perceive health and security issues will be different after the pandemic. Some of the participants believed that people would start to look at the requirements for hygiene and sanitation strongly and differently. In other words, a “new normal” standard for operations will emerge.

For the future, hotel management requires an ongoing review in light of the experiences, changes within the organization, and working environment during the crisis (Faulkner, 2001). The standard procedure and protocol for hygiene and sanitation has changed markedly during the pandemic. Hotels have introduced new safety standards for health and risk issues. For example, in Portugal, the government decided to roll out “clean and safe” certification. Other efforts (e.g., sterilization of the property) should also be made to ensure strong risk management and minimize the spread of the virus.

Hotel management should also consider guests’ perceptions. Thus, it is important to communicate that it has followed suitable safety procedures. Moreover, hotel management should also review the protocols that might not be acceptable in the future as well as prepare employees for similar crises in the future. Employees might need to receive training to support future hotel operations. This training process should also be communicated to the public. When new procedures are introduced, senior managers should produce different ideas to optimize working performance. This would be introducing a multi-tasking scheme among the

¹ The holiday allowance (i.e., *Tunjangan Hari Raya*) is a mandatory allowance given to employees up to seven days before a religious holiday.

² The monthly subscription electricity cost is a basic subscription cost included in monthly usage. Electricity in Indonesia is managed by a single state-owned company (i.e., PLN).

hotel workforces.

Managers could start by gradually delegating other tasks to employees. Alternatively, they could motivate employees to undertake additional tasks. Through this delegation and challenge, managers could exploit the potential of employees.

7. Conclusion and implications

The findings from this study highlighted the repercussions and challenges faced by hotels in Indonesia during the pandemic. The study also discussed the strategies deployed by hotels in response to this crisis. The key factor is to learn the best strategies that should be employed because we can find similar responses by looking at other pandemic experiences (e.g., Page et al., 2011; Rassy and Smith, 2013).

The present study reveals that the repercussions and challenges provide a complex situation to hospitality businesses because the tourism and hospitality industry cannot be separated from other issues (e.g., sociocultural, economic, and political) (Zenker and Kock, 2020). For example, neglecting health issues to pursue an economic objective would increase the risk of returning to a zero-sum game. The responses and strategies can be both beneficial and detrimental. Thus, the hospitality industry should work together with their stakeholders to find the best solution. There is a need to ensure that such strategies and policies support each other. It is also essential to ensure strong coordination between businesses, branch organizations (e.g., associations), and governments. Businesses and branch organizations should also be involved in the development of regulations and policies.

In developing countries, there is usually a gap between the establishment and execution of regulations and policies. This is particularly so in a complex country such as Indonesia, where there are 34 provincial governments. The central government and provincial governments should work together to monitor the execution of these regulations and policies. In addition, there is a gap in the dissemination of information about established regulations and policies. Many hotels in Indonesia are uncertain about the newly established fiscal incentives since the regulation changed quickly. In addition, some do not understand how to apply for these incentives.

The contribution of this study is threefold. First, various tourism and hospitality studies have used complexity theory to inform the decision-making process during such crises as refugee crises (Pappas and Papatheodorou, 2017), political and financial instability crises (Pappas, 2018), and economic crises (Pappas and Brown, 2020). These studies have acknowledged that using complexity theory during crises is suitable because of their complex nature (Ritchie and Jiang, 2019). However, the theory is still limited and mostly used in developed countries (Baggio and Sainaghi, 2011; Pappas and Papatheodorou, 2017; Pappas, 2018; Ritchie and Jiang, 2019). This study extends the use of complexity theory to better understand the complex situation that arises from crises and improve decision-making processes, particularly in developing countries. Thus, the study extends the body of knowledge on crisis management in the tourism and hospitality industry.

The present study finds that supply chain issues arise because of the closed borders. Even if a hotel would like to operate, its supply chain could be disrupted, preventing it from opening. Thus, it is important to manage supply chain issues effectively. Managers could adopt several strategies to deal with such issues. For example, they could phase out just-in-time strategies, encourage domestic and substitution sources for strategic goods, and accelerate the digitization of the supply chain. Moreover, supply chain relationships could be problematic because of financial issues. For example, a food vendor might be expecting payment from the hotel's procurement; however, the hotel has to delay the payment because of inadequate revenue. All the stakeholders in the supply chain need to develop new agreements to help increase the sustainability of their businesses. For example, hotels and suppliers could redesign their payment structures (Ivanov, 2020).

The next issue is related to the decision to furlough employees.

Hotels that did not decide to furlough instead pursued a salary reduction policy (e.g., a 10 % reduction across all employees). Our findings reveal that this policy created anxiety and tension among employees. They believed that the proportion of the salary reduction should not be equal across employees; in particular, the board and senior management should bear more responsibility. Campiranon and Scott (2014) emphasized that it is critical to openly discuss this kind of salary change to avoid tension. The difference between jobs with different responsibilities should be clear. Hence, management should develop a new salary structure to handle this situation equitably.

Previous studies have suggested that the decision-making process during a crisis needs collaboration by multiple stakeholders (e.g., companies, suppliers, tourism associations, and governments) (Pappas, 2018, 2020; Gossling et al., 2020). These stakeholders need to work collectively to develop suitable strategies to manage the crisis holistically. For example, the decision to lay off employees to minimize labor costs might be crucial in this type of tourism crisis. However, in developing countries such as Indonesia, this could lead to a more complex situation. Such a decision could lead to a dysfunctional management team in the organization. It is often difficult to find suitable candidates from the local talent pool because of hotels' high recruitment requirements (Situmorang and Japutra, 2019). Laying off employees could also increase the unemployment rate and disrupt the economy of the country, which in turn would affect hotels. Different from developed countries, developing countries have yet to establish strong social security systems (Rodriguez-Morales et al., 2020). Thus, hotels, labor unions, and the government should work together to find the best solution.

In a complex crisis such as this pandemic, the government must set recovery strategies. However, the present study shows that the government is considered to be slow and reactive in providing guidelines and solutions. Although the Indonesian government had set a fiscal policy (i.e., tax incentives for value added tax and income tax) to help hotels sustain their operations, the execution was sluggish. Some of the delays were due to the discord (e.g., discrepancy of data) between the central and provincial governments. To address this issue, the central government could have set up a main data center to match and share information with provincial governments. The regulations and policies set by the central and provincial governments are also misaligned. It is imperative that all levels of governments (central and provincial) increase their coordination and communication to reduce misinformation and confusion. The central government should put forward a strategy that provincial governments can adjust in accordance with the situations in their regions. Provincial governments should also be more proactive in supporting hotels with incentives and subsidies that fall under their authorities (e.g., property tax, hotel tax).

The government should also pay attention to developing a digital infrastructure to speed up digital services (Mamun and Griffiths, 2020; Rodriguez-Morales et al., 2020). The lockdowns have forced many people to move various tasks online (e.g., shopping, learning, entertainment, working). Simultaneously, hotels should also push the digitalization effort by, for example, enhancing supply chain visibility, offering digital learning experiences, and providing new channels to customers. Managers should start developing new work habits, such as embedding tighter health and safety protocols and using video-conferencing tools to support remote working.

The findings also reveal the lack of training on facing such an unprecedented crisis. Although few countries have encountered a similar pandemic (e.g., swine flu), employees should be trained using theoretical and practical exercises. Within the tourism disaster management framework, there are two necessary steps to handle such a pandemic in the future (Faulkner, 2001; Law, 2006; Sigala, 2011): (1) assessing the risk and (2) preparing a contingency plan for any tourism crisis. In the hotel industry, it is necessary to involve the various stakeholders in building a framework using these two steps. Past experiences should guide the contingency plan. This plan should then be disseminated to all

stakeholders, but mainly hotels, to ensure their readiness to face future crises (Faulkner, 2001). Likewise, tourism and hospitality educators are expected to change their teaching approach (e.g., curricula). First, they should embed crisis management into their curricula. Second, they need to start researching the post-pandemic era of consumer behavior. It is recommended that they set their programs by looking at these “new normal” behaviors. Third, they should pay more attention to the unconventional tourism teaching approach. Topics such as touchless interactions (e.g., digitalizing, big data), self-tourism (e.g., independent travelers), minimum contact (e.g., social distancing), and niche tourism (i.e., personal preferences) are future directions of tourism education (Sigala, 2020).

Second, this study also contributes to the brand management literature. Most studies that have examined brand management during crises have focused on product crises and service failures (e.g., Ma et al., 2010; Yannopoulou et al., 2011). Only a few researchers have examined financial crises (Raithel et al., 2010) and volcanic eruptions (Grundy and Moxon, 2013). The present study extends these studies by discussing crisis brand management in a large health crisis (e.g., the COVID-19 pandemic). In particular, this study shows that brand management during a crisis is complex. The decision to generate quick revenue for the hotel could dilute brand equity. For example, the decision to sell convenience food might harm the hotel’s brand (Tanford et al., 2012). It is thus important for hotels to stay true to their core brand values (Grundy and Moxon, 2013). Rather than creating new offerings that stray from their brands’ promises, they should stick to their brand identity when thinking of new offerings. For example, a five-star hotel could use its fitness area and trainers for online classes to improve health and wellness. Another option would be to offer customized home catering. Other hotels could offer self-isolation packages (e.g., room packages for 7–14 days with a COVID-19 medical test) or provide deep cleaning services from homes using their housekeeping departments. The key factor is to manage the reputation of the brand wisely since this intangible asset could be the answer to surviving the crisis (Raithel et al., 2010).

Previous tourism and hospitality studies that have employed complexity theory mostly use a quantitative approach (i.e., fuzzy-set qualitative comparative analysis combined with configurational analysis) (e.g., Carvajal-Trujillo et al., 2020; Pappas and Brown, 2020). Other studies have employed complexity theory with network science (e.g., Baggio and Sainaghi, 2011). These two methods show the dynamic and highly complex nature of information in multiple respects (Faulkner and Russell, 2000; Faulkner and Russel, 2004). Hence, the third contribution of this study is to include complexity theory into a qualitative approach. Following Gear et al. (2018), this study applied complexity theory using a complex adaptive system. It focused on the interconnectedness of stakeholders and decisions to support hotel strategies in the face of the pandemic (Braithwaite et al., 2017). Complexity theory also offers flexibility to react to the data (Gear et al., 2018). When analyzing the data, the researchers were informed by the recent development of the crisis, and this updated information helped them provide a better discussion.

8. Limitations and future research

This research is not without its limitations. First, our study is based on hotel managers from limited hospitality brands in Indonesia. Although Indonesia is one of the strongest economies in Southeast Asia, it is only a part of the region and may not be representative. Similarly, the present study attempted to gather hotel managers from different locations in Indonesia. Although the chosen cities are large cities in Indonesia, this is a vast country geographically. Hence, these choices limited the generalizability of our findings.

Second, this study is based only on the perceptions of hotel managers as the industry stakeholder. Other stakeholders need to be taken into account, such as customers, the government, and industry associations. Their views should enrich and complement the findings of this study.

Table A1
Concept Descriptions and Participant Quotations.

Main Concept	Sub-Concept	Description	Participant quotation
Repercussions	Financial disruption	Crisis faced by the hotel industry	“This pandemic is worse than the financial crisis in 1998, The whole economy has stopped and hotel operations have halted because there are no guests and no revenue coming in. At least at that time the tourism industry (e.g., airlines, hotels, destinations) was only interrupted for two to three weeks and a few regions were still able to run their businesses.” (RA, Junior Manager, MNC)
	Low occupancy	Steep decline in hotel occupancy	“We are continuing to slide from 90 % average occupancy to about 20 %, then it falls to just 1–5%.” (PE, Owner/Senior Manager, Local)
Challenges	Cost restriction and reduction	Limiting and reducing the hotel’s expenditure	“First, we did not want to lay off our employees, but we had to reduce their take home pay...all job levels are impacted, starting from the senior management level, who received the highest cut (50–75 %), until the lowest position (e.g., admin), who received a cut (up to 50 %), but basically, they all received a salary reduction.” (YI, Middle Manager, Local)
	Duality in decision-making	Different viewpoints in pursuing a single-matter decision	“We have to be selective to make the decisions and we have to treat our properties differently (in each region).” (PD, Senior Manager, Local)
	Trade-off in service	Balancing the ideal delivery of service with health and safety measures	“We (managers) wanted to close the hotel operations for the sake of safety and security, but our owner is unique. He prefers to run business as usual.” (ZR, Senior Manager, MNC) “For instance, we wear masks and gloves to welcome our guests...not ideal but it is necessary, even our housekeeping employees wear personal protective equipment when making the beds.”

(continued on next page)

Table A1 (continued)

Main Concept	Sub-Concept	Description	Participant quotation
	Brand management	Maintaining the hotel's brand reputation and image	(UB, Middle Manager, MNC) "We offered two of our properties to the government as quarantine hotels for doctors and medical officers. However, we had a debate about this beforehand since we don't want this to backfire on us. There are two sides to this; one, we can generate revenue and increase our brand awareness to the public about our CSR [corporate social responsibility]. However, on the other side, we don't want to degrade our brand because the public may think that it is not safe to stay in our property." (PD, Senior Manager, Local)
Strategies	Increase health and safety measures	The enforcement of health and safety protocols within the hotel	"We control the health (and safety risk) of whoever comes to the property. We check everyone's body temperature and track their trip history." (ME, Middle Manager, MNC)
	Compromise the service	Adjusting the service level and delivery	"Our five-star restaurant is willing to go below our standard by selling our food online, offering a delivery service with a compromised price, quality, and selection of food (e.g., pizza and convenience healthy foods). This type of service is not our way, but we have to do it to survive. We have to lower our food inventory before it gets spoiled" (YD, Middle Manager, MNC)
	Package transformation	Altering current offers and creating new offers	"We have (created a new) package called WFH (work from the hotel). It is a relatively affordable room package that consists of staying for a minimum of one to two weeks, with Internet connection, and two to three meals per day included." (WD, Senior Manager, MNC)
	Salary adjustment	Reducing salaries and creating salary schemes	"At the beginning, employees were not willing to have their salary reduced. They knew that our government stated

Table A1 (continued)

Main Concept	Sub-Concept	Description	Participant quotation
			that there should not be a salary deduction without consent from the employees and the owner, but our company still wants to do it anyway ... Finally, after a long discussion, we came to an agreement that every employee has to have eight days of unpaid leave each month." (YD, Middle Manager, MNC)
	Contract re-negotiation	Re-negotiating contracts with third-party providers	"We have furloughed around 70 % of our employees; the rest are still working but with various salary schemes." (YR, Middle Manager, Local) "We re-negotiated our contracts with our vendors, for instance, our TV cable, computer software, and the Internet." (YI, Middle Manager, Local)
	Encouraging multi-tasking	Motivating employees to work on different tasks that can be performed at the same time	"We are now requiring our employees to multi-task, this is not new... few hotels have done this before, particularly low budget hotels ... First, we can save labor costs, and if another similar pandemic arises, we will not have to lay off many employees. Second, those employees, who have multiple skills, are diligent and the most reliable ones" (ZR, Senior Manager, MNC)
	New normal preparation	Adapting procedures and protocols to a new normal	"People who are financially strong might be the next in line for holidays. I am sure they would demand hygiene and sanitation highly." (RI/Senior Manager/Local)

Third, this study is based on a single crisis (i.e., the COVID-19 pandemic). Although the magnitude of this crisis is huge, it is still a health-related crisis. Other similar health-related crises (e.g., swine flu) as well as other sources of crises should thus also be considered. Finally, the present study collects data in the early to middle stages of the crisis, namely, the response stage (Ritchie and Jiang, 2019). Future research should examine the recovery stage as part of a longitudinal study to better understand on how the tourism industry can survive this crisis (Morrish and Jones, 2020). More studies are also needed to understand the "new normal" situation (e.g., government regulations, consumer behavior). These studies are needed to help all stakeholders (e.g., government, hotels, vendors, and suppliers) understand how to survive in

this type of crisis (Israeli et al., 2011).

Declaration of Competing Interest

None.

Acknowledgements

This research is supported by Universitas Multimedia Nusantara, Tangerang, Indonesia. We would also thank the editors and the review team for their insightful comments during the reviewing process which help us to improve our manuscript.

Appendix A

Table A1

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