



Evaluating Hotel Resilience: Understanding Effective Disaster Management of Hotels in China

Yue Zhang

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Abstract

While the concept of hotel resilience has attracted some attention from researchers, few have considered the concept with the specific focus on the contribution of human factors to hotel resilience. The human agency plays a critically important role in effectively interpreting disasters and making preparedness to reduce negative disastrous impacts (Eiser et al 2012). Meanwhile, the organisational structure can underpin and influence human agency. The omission of human factors in relation to the study of hotel resilience is significant, especially in the context of the human-centred nature of hotel disaster management. To address this research gap, this thesis refines the focus on human factors to investigate if hotel resilience can be effectively improved by examining two elements: (i) the evaluation of entrepreneurial resilience of hotel agents and (ii) the level and provision of effective human resource management operating within and available to respective hotel establishments. More importantly, by examining the relationship between these two elements, this thesis seeks to further understand how human factors in hotel resilience can be strengthened to effectively enhance hotel disaster management.

This research utilises deep, open semi-structured interviews to collect qualitative data from hotel managers in two cities in China to provide a deeper perception of how the entrepreneurial resilience of hotel managers and human resource management significantly enhance hotel resilience. A conceptual framework was produced that identified the key elements of the human factors in hotel resilience and how these interact and add value together to maximise practices of implementing hotel disaster management. This study makes contributions to the academic field by 1) responding to the call for extending resilience research into organisations and has subsequently linked hotels to the concept of disaster resilience in a specific way 2) adding great value to developing disaster management literature in the hotel industry and specifying the scope of hotel resilience to disasters and 3) explicitly identifying where value is added in building hotel resilience by synergising entrepreneurial resilience and human resource management. This study also makes contributions to the practical field by identifying key elements to build hotel resilience, which provides recommendations for hotel managers and practitioners in China and the global hotel industry for effective disaster management.

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Declaration

I declare that:

- 1) While registered as a candidate for the Bournemouth University's research award, I have not been a registered candidate or enrolled as a student for an award from any other academic or professional institution.
- 2) The material in this thesis is my original work.
- 3) This thesis has not been used in any other submission for an academic award.
- 4) I acknowledge the support and help of my supervisory team: Professor Lee Miles and Dr Anya Chapman.
- 5) This thesis was developed in adherence to Bournemouth University rules.

Acronyms and Abbreviations

COVID-19..... Coronavirus Disease 2019

CNTA..... Ministry of Culture and Tourism of the People's Republic of China

DM..... Disaster Management

DRM.....Disaster Risk Management

ER.....Entrepreneurial Resilience

GDP Gross Domestic Product

HR.....Human Resources

HRD.....Human Resource Development

HRM.....Human Resource Management

HRP Human Resource Planning

TCDM.....Tourism Crisis and Disaster Management

UNISDR.....United Nations International Strategy for Disaster Reduction

UNDRR.....United Nations Office for Disaster Risk Reduction

Chapter 1 Introduction

1.1 The research background and significance

The tourism industry has proved to be one of the most globally important economic sectors (UNWTO 2019). Nevertheless, owing to its dependence upon secure access to natural resources and national infrastructure the industry continually finds itself challenged by its vulnerability to natural and man-made disasters (Jiang and Ritchie 2017, Brown et al 2017). In recent years, many tourism destinations around the world have been affected by man-made and natural disasters. For example, the terrorist attack in Paris in 2015, resulted in the loss of €800 million to European tourism (Liu and Pratt 2017, Bremner, 2015). In 2015, a 7.8 magnitude earthquake struck near Kathmandu, Nepal resulting in the deaths of over 8000 people and the destruction of many unique world heritage sites and tourism infrastructure (Becken and Khazai 2017). Similarly, in 2017, an earthquake struck Jiuzhaigou in China's Sichuan province destroying one of China's top scenic tourism attractions (Dailymail 2017). This was the third earthquake of 7.0 magnitude or above that Sichuan suffered since 2008 (UNISDR 2018). The Australian bushfires in 2019 have also caused a severe loss in fire-affected regions including tourism since the tourists cancelled holidays (Schweinsberg et al 2020). Yet, the pandemic has shocked the world and has devastated the global tourism industry (Kaushai and Srivastava 2021). The sudden outbreak of COVID-19 (Coronavirus disease 2019) has caused a halt in global tourism, which also highlights the importance of the tourism industry to both economic development and individual livelihoods (UNWTO 2022).

China is one of the top destinations in the world by international tourist arrivals (UNWTO 2020). The tourism industry in China is growing rapidly becoming an important economic contributor to the Chinese economy and helping to improve the livelihood of local people. According to CNTA (Ministry of Culture and Tourism

of the People's Republic of China, 2020), tourism has contributed as much as 11.05% to the Gross domestic product (GDP) of China in 2019. Unfortunately, China is also a nation that is highly vulnerable to the threat of various kinds of natural disasters (UNISDR 2018). Between 2005 and 2014, a total of 286 natural disaster events occurred in China, causing damage worth \$ 265 billion. Perhaps the industry most affected by these events was Chinese tourism (Hall et al 2017).

The hotel industry plays a crucial role in contributing significant tourism revenue to China's economy (Li and Sun 2013). By the end of 2019, there were 10003 star-rated hotels in mainland China including both international chain hotels and domestic hotels (CNTA 2020). The more famous and attractive tourism destinations, the more investments are in the hotel industry. Within the tourism industry, hotels are one of the most important yet highly vulnerable sectors (Santana 2004, UNWTO 2016). Hotels are threatened frequently by natural and man-made disasters that cause business interruption and financial loss (Tsai and LinLiu 2017). Recent examples show how hotels have been adversely affected by natural disasters. Earthquakes that struck Canterbury, New Zealand in 2010 and 2011, resulted in two-thirds of hotel stock being destroyed (Prayag and Orchiston 2016). In Nepal, 80% of hotel bookings were cancelled after the Kathmandu earthquake in 2015 (Misrahi 2015, Becken and Khazai 2017). In addition, the devastating COVID-19 has made the hotel industry one of the most affected industries, which also exposed serious vulnerabilities of hotels in their preparedness and response to such disasters (Knight et al 2020). Therefore, significant work should be considered to effectively manage disasters that hotels may face to achieve sustainable development.

1.2 Rationale for the study

Today, however, many hotels still lack effective mechanisms to enhance their resilience and prepare for disasters (UNISDR 2015). The hotels in China can be seen as a vulnerable sector because of their building structure, China's

geographic position as well as incomplete disaster management (DM) system. Especially, many hotels in China have even experienced adverse disasters such as earthquakes and fires and have been affected negatively yet have a significant lack of disaster planning and preparation. Liu (2007) has highlighted that China still lacks sufficient policies and plans to help hotels adequately respond to the specific needs of tourists and the tourism profession when faced with disasters and crises. Meanwhile, no sufficient data is proving the level of preparedness for disasters in hotels in China so far. Therefore, it is fundamentally crucial to understand how hotels in China deal with disasters and assess the level of preparedness for disasters. More importantly, by understanding these responses, strategies can be proposed accordingly that can improve the abilities of hotels to deal with disasters. Furthermore, this will contribute to research in the field of disaster management in the hotel industry of China.

The hotel managers are responsible for daily business management and operation management. Hotel managers need to have the appropriate management skills to ensure that the hotel can be operated in a positive and normal way. However, the researchers such as Yin et al (2015) and Cao (2009) highlighted that hotel managers in China do not fully take into account disaster management in daily operations and they still lack comprehensive disaster management training and awareness. Meanwhile, the attributes that hotel managers should possess in the context of a hotel dealing with a disaster have only been explored in limited research. The role that hotel managers can play in dealing with disasters and their responsibilities in preparing for them - in other words, how to develop their agency in dealing with disasters - is a topic that is well worth being explored.

Given the uncertainty and changes that disasters can bring and the severe impact they can have on hotels, hotel managers should be proactive in adopting effective disaster management strategies to effectively prepare for and respond to

disasters to mitigate such severe negative impacts. The concept of resilience has come to be associated with disaster management which continues to attract the attention of many researchers such as Jiang et al (2021), Ghaderi et al (2021), Melián-Alzola et al (2020), and Brown et al (2019). Simultaneously, studies have additionally linked the development of resilience with the need for greater preparedness and proactive planning for future disasters (Henderson and Ng 2004), such as the need for effective leadership and coordination (Kapucu and Khosa 2013), shared knowledge management (Mistilis and Sheldon 2006) and frequent staff training (Wang and Ritchie 2012). Resilience is a dynamic concept (Rutter 2012) with different meanings in various circumstances. For this reason, and as Becken (2013) argues, resilience at least in operational terms needs to be rooted and considered in a particular context. Meanwhile, resilience is an operational strategy in preparedness for disasters, which will also contribute to mitigating vulnerability and minimising the negative impacts of disasters. Therefore, this study is primarily concerned with understanding resilience to disasters within a specific context -- hotels, which can be simply named 'hotel resilience'.

However, the concept of hotel resilience is still underdeveloped. Most of the current literature on resilience in tourism mainly focuses on general elements of the tourism system, while the literature in detail on the resilience of specific sectors such as hotels is highly limited. From the current literature, hotel resilience can be considered as the sub-field of resilience study and tourism crisis and disaster management (Hystad and Keller 2008, Sawalha et al 2013, Malhotra and Venkatesh 2009, Orchiston 2013, Ritchie et al 2014). Brown et al (2017, p.365; 2018, p.69) define the disaster resilience of hotels as the dynamic capacities of hotels along with their stakeholders including their employees, customers and even relevant communities to evaluate, adjust to change, prepare and overcome potential disturbance caused by disasters. Hotel resilience in the research of Brown et al (2017) is defined broadly as an outcome and lacks an

explicit evaluation from a deep and specific perspective. In other words, the specific scopes or boundaries of hotel resilience have not been properly established. Indeed, hotel resilience can be understood from various perspectives, but at the same time, too broad a definition of hotel resilience to a lack of effective utility in terms of operationalisation.

To further refine the understanding of hotel resilience in a disaster context, it is necessary to interpret the concept of hotel resilience from a human perspective fundamentally. It is well known that hotels are people-centred organisations that rely heavily on people whether it is to provide services for customers or the sustainable operation of the hotels. More importantly, hotel agents are expected to exercise their agency in managing the hotels and to have the appropriate disaster management abilities and skills to effectively manage the potential disasters that hotels may face. Therefore, this study chooses to deeply explore hotel resilience to disasters from the perspective of the most basic and important aspect of hotels--- human factors, which is also a lack of sufficient knowledge and research in this regard at this stage.

The need for greater emphasis on the human factors is because it may be one of the keys to progress in disaster management in hotels. Hotels are not only organisational structures but also communities of humans. The committed and well-positioned individuals in hotels such as hotel managers can be change agents to drive significant innovation in helping hotels achieve sustainable development, even at the policy level and in the construction and improvement of organisational structures. Hotel managers can cross the boundaries within the hotels, they have a mission and responsibility for well preparing the hotel for disasters, and more importantly, they should have the time to think about and be aware of the impacts that disasters can bring to the hotels and take strategic action to minimise them. Meanwhile, hotel managers play a crucial role in bridging the gap between policy and operational practice in managing disasters. Therefore,

one of the human factors that should be considered when researching hotel resilience is to analyse the characteristics of hotel managers in dealing with disasters at the individual level, and how the hotel managers' abilities and skills can affect the improvement of hotel disaster management.

Duchek (2018) defines entrepreneurial resilience (ER) as a complex process of dynamically developing and enhancing the ability of managers to prepare for potential threats, respond effectively to crises, and adapt to change. Entrepreneurial resilience can be influenced by individual and structural factors and connected with the leadership, governance structure, skills and dedication of agents (Bullough and Renko 2013, Crick and Crick 2016, Duchek 2018, Santoro et al 2020). However, it has not been well-developed in defining hotel resilience to disasters in the current literature. This study, therefore, is underpinned by the concept of entrepreneurial resilience of hotel managers, on one hand, to explore how it can contribute to improving hotel resilience to disasters.

Another aspect of the hotel that is closely linked to human factors is the management of the human resources of hotels. The organisational structure can refer to how individuals within an organisation are assigned tasks and authority (Mintzberg 2009, Greenberg 2011). It is not only the organisational structure of the hotel that is centred on the management of 'humans', but more importantly, these appropriate management actions are what will support the building of hotel resilience to disasters through proper and effective policies and practices, both for the hotel managers and the hotel staff. However, among the existing studies, there is a lack of research on the role and impact of human resource management (HRM) systems in building hotel resilience. This provides an opportunity for this study to explore hotel resilience in terms of hotel organisational structure which can be seen as an additional human factor, which also aims to address the research gap of lacking relevant knowledge in this area.

1.3 Aim and objectives, research questions

Therefore, this thesis sets out the aim and objectives as follows.

1.3.1 Aim of thesis:

To evaluate hotel resilience from a human factor perspective and understand effective disaster management by exploring the complex relationship between the entrepreneurial resilience of hotel managers and the HRM of hotels in China.

1.3.2 Objectives of thesis:

- 1) To critically analyse the level of entrepreneurial resilience of hotel managers to disasters in China and how it contributes to hotel resilience.
- 2) To evaluate the importance and degree of human resource practices and policies of hotels in China in relation to respective hotel resilience to disasters.
- 3) To assess the relationship between entrepreneurial resilience and HRM elements of hotels in China in the delivery of existing and improved levels of hotel resilience to disasters.
- 4) To propose feasible recommendations to enhance human factors in hotel resilience to disasters in China.

Based on the objectives mentioned above, three research questions are proposed.

1.3.3 Research questions

Research question 1: How hotel resilience can be understood in dealing with disasters?

This question aims to examine if hotel resilience can be appropriately understood

from a human factor perspective. It can also explore the status of hotel disaster preparedness from human agency perspectives and investigate to what extent hotel managers perceive disasters and hotel resilience building.

Research question 2: What are the key actions and processes that hotel managers in China undertake to build hotel resilience?

This question seeks to explore how hotel managers can use their agency to improve the structure of hotels and how hotel organisational structure can help hotel managers maximise their agency if hotel resilience building and disaster management are perceived and understood adequately. This question can also identify if hotel managers realise and effectively embed disaster management and resilience building into the hotel HRM system including policies and practices such as recruitment and staff selection, relevant disaster training, and learning development.

Research question 3: What future changes or reforms do hotel managers in China need to undertake to better improve hotel resilience?

This question aims to propose overall feasible recommendations for hotel disaster management, specifically, providing suggestions for improving the entrepreneurial abilities and skills of hotel managers and hotel HRM elements and policies to achieve better hotel resilience from human factor perspectives.

1.4 Thesis structure

This thesis starts with **Chapter one** introducing the research background and the main focus of this thesis. It provides a brief context to hotel resilience and the rationale for the development of this study. It also sets out the main focus of each chapter of this thesis.

Chapter two critically reviews the concepts of crisis and disaster, tourism system and hotels to set up the background and to get a better understanding that hotels are also vulnerable to disasters. The chapter also addresses the concept of resilience and reviews resilience theory in different contexts related to tourism and hotels. The chapter then highlights why the notion of hotel resilience should be explored and identifies the research gap between the mainstream literature including resilience and crisis and disaster management and the research focusing on hotel resilience. After that, the chapter clearly outlines the main elements of building hotel resilience and sets the scene for conceptualising hotel resilience. The chapter ends by reviewing relevant literature regarding hotel disaster management and resilience in the context of China.

Chapter three presents the conceptual framework of this thesis. It discusses the need to highlight human factors in hotel resilience and proposes the main components of the conceptual framework and their relevance to building hotel resilience. These components include entrepreneurial resilience, human resource policies and human resource practices. The primary standpoints and the specific elements outlined in this chapter also inform the following empirical investigations of the thesis.

Chapter four discusses the methodology and the research procedures adopted to collect data for this thesis. It presents the philosophical underpinning of this study--interpretivism paradigm and explains the reasons for choosing an inductive approach and qualitative methodology. The rationale for choosing semi-structured interviews as the most appropriate method to collect primary data is then explained in this chapter. It also presents how the qualitative data is analysed.

Chapter five presents and analyses the key findings on entrepreneurial resilience gathered from qualitative interviews. It also provides clear identification of the attributes of entrepreneurial resilience of hotel agents that are responsible

for building hotel resilience and as one of the most important drivers of effective hotel disaster management. This chapter also addresses the first objective of this thesis.

Chapter six presents key findings on how hotel HRM contributes to hotel resilience. It also demonstrates the findings on human resource policies of hotels for building hotel resilience and examines the importance of human resource planning (HRP) for improving hotel resilience, especially regarding the demand for employees with disaster dealing skills. Meanwhile, it presents the relationship between HRM elements and the entrepreneurial resilience of hotel managers and examines how these two elements together contribute to building hotel resilience to disasters. The second and third objectives of this study are addressed in this chapter.

Chapter seven discusses the main findings on hotel resilience towards disasters and subsequently produces a revised conceptual framework on human factors in hotel resilience based on the outputs presented in each of the findings chapters. Meanwhile, it sheds light on the current status of hotel resilience to disasters in China by providing a detailed version of the conceptual framework and accordingly addresses the third and fourth objectives.

Chapter eight concludes the main findings of this thesis by reviewing each research question. It also elaborates on the main contribution of this study to knowledge and practical implications. It then presents the limitations of this study and recommendations for future research. It lastly provides recommendations for practitioners and policymakers to better improve hotel resilience extensively.

Chapter 2 Literature Review

2.1 Introduction

This literature review sets out first what is meant by the term 'disaster and crisis'. A concept for understanding the tourism industry is developed and a definition of tourism is introduced. The systems and structures of the tourism industry are clarified and the role of tourism in crises and disasters is explored. The discussion then moves on to examine the term 'tourism disaster management' and sets this within a wider examination of meanings such as disaster, crisis and resilience before placing these concepts within a general understanding of resilience. Along with this, the concept of resilience within the tourism context is understood and the resilience of hotels is conceptualised by focusing on the human factor. Finally, hotel resilience and disaster management in China are reviewed by applying a range of studies.

2.2 Crisis and disaster

Regarding the term disaster, many definitions have been provided in research so far. Lindell (2013) proposes that disaster can be defined from two perspectives, which are scale and social impacts. From a viewpoint of scale, disaster is referred to the strikes of unusual natural or man-made hazards, which result in a massive range of disruption, casualties, damage and unexpected change to the environment (Nguyen et al 2017). Several mainstream scholars of disaster management or disaster risk management (DRM) also agree and highlight that the sequence of events is related to the development of disasters (Alexander 1993, Alexander 2000, Vatsa 2004, Hunter 2005, Robert et al 2009, Coppola 2015). While conceptualising disaster from a social aspect, it can be considered as social impacts and the response to these impacts, which focuses on the destruction of disasters to social life and is associated with social change such as human and institutional adaptability (Perry and Quarantelli 2005, Perry 2007,

Lindell 2013). Therefore, the United Nations International Strategy for Disaster Reduction (UNISDR 2018) provides an integrated definition of disaster, synthetically describing a disaster as “a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its resources”. In brief, the attributes of disaster can be considered sudden, catastrophic and complex to cope with (Faulkner 2001).

While in many ways another term ‘crisis’ is used for representing disaster. Shaluf et al (2003) and Kim and Lee (1998) propose that the two terms are applied interchangeably because many characteristics of a crisis can be similarly used for describing a disaster (Faulkner 2001). Shaluf et al (2003) propose that a crisis is a situation, which threatens normal business and needs to be carefully managed. McCool (2012) agrees and demonstrates that a crisis can be considered an unstable or dangerous situation or event that may have diversely negative impacts on individuals, organisations, communities and even nations. But Ritchie et al (2014) point out there is confusion in the mind of researchers because of the common overlaps between crisis and disaster, in which a crisis may directly result in a disaster or a disaster can be an agent of a crisis. The differences between crisis and disaster can be summarised that the former is self-inflicted to some extent whereas the latter is caused by external factors (Ritchie 2014).

Yet, Shaluf et al (2003), and Turner and Pedgeon (1997), highlight that, there is no generally accepted definition of disaster and crisis as it varies according to the discipline when applying the term. Delving deeper, this is particularly pertinent in relation to scholars focusing specifically on the tourism crisis and disaster management. In the context of tourism, Faulkner (2001, p.136) distinguishes and defines a crisis as “any action or failure to act that interferes with an organisation’s

ongoing functions, the acceptable attainment of its objectives, its viability or survival, or that has a detrimental personal effect as perceived by the majority of its employees, clients or constituents". This definition evaluates crisis from the organisational level and encompasses the intractable situations caused by organisations themselves such as inefficient management structures or inability to adapt to change (Ritchie et al 2014, Faulkner 2001). The notion of crisis in tourism can be understood as the difficulties and problems that tourism stakeholders need to face (Ross 2005). The impacts of the crisis can be debated widely on tourism sectors (Niininen and Gatsou 2007, Henderson, 2008) and tourism destinations (Gunlu and Aktas, 2006). Equally, a disaster can be conceptualised as sudden catastrophic events such as earthquakes or fires that lead to unexpected disastrous changes and which organisations, enterprises or communities in tourism destinations are challenged and affected and are hard to control (Faulkner 2001, Scott and Law 2006, Prideaux et al 2003). This definition of tourism disaster is comprehensively evaluated from both the scale and social impacts mentioned above.

2.2.1 Disaster management cycle

To deal with disasters, effective disaster management practices including various actions, measures, plans and policies should be implemented before, during and after a disaster (Asghar et al 2006, Khan et al 2008, Sawalha 2020). In the current literature, the most widely used disaster management framework is the DM cycle which includes four phases: mitigation, preparedness, response and recovery (Coppola 2015) as Figure 1 shows.



Figure 1: Disaster Management Cycle (Coppola 2015)

Mitigation and preparedness activities can be seen as the proactive disaster risk reduction approach before and after a disaster to reduce the losses and minimise the negative impact caused by disasters (Coppola 2015). These activities can involve a series of measures such as establishing early warning systems, conducting risk assessment, and making disaster plans to build the ability to mitigate the impact and prepare for responding to disasters (Raikes et al 2019, Piciullo et al 2018, Goldschmidt and Kumar 2016). It is almost impossible for humans to prevent most natural disasters from occurring. For some natural disasters, such as floods, it is possible to reduce their frequency (Bullock et al 2013). However, it is possible to change the outcome of disasters through mitigation actions, for example, by establishing building codes for earthquakes. Meanwhile, mitigation actions can significantly help to reduce the likelihood of man-made disasters and their serious consequences (Alexander 2018, Bullock et al 2013).

Preparedness is always connected with mitigation and is highlighted as a fundamental part of the disaster management cycle (Coppola 2015). Disaster preparedness can be described as a state of preparation in place before a disaster, which comprises those actions, procedures, plans and programmes that are implemented to facilitate and improve disaster response and recovery

(Sawalha 2020). It is argued that disaster preparedness is more about planning for responding to disasters, for example, developing and improving evacuation plans and recovery plans (Sawalha 2020, Castillo 2005). This is not only about preparing for a potential disaster, but also about validating all the actions and plans that people have developed (Alexander 2000). However, there are often problems with the development of disaster plans, such as the failure to keep disaster preparedness plans up to date. There is a gap in disaster awareness between developers and implementers of disaster plans, which leads to a lack of operability in the actual implementation of the disaster plans (Fischbacher-Smith 2014). This also leads to the fact that people are not well prepared for disasters. Preparedness and mitigation play a significant role in reducing the negative impacts of disasters at different levels, including organisations, communities and even nations. As Coppola (2015) highlights that disaster preparedness can be enhanced by effectively developing planning, training, conducting exercises and education to improve disaster awareness. With the awareness that disasters can happen, people need to take continuous mitigation and preparedness measures to reduce their vulnerability to disasters to increase their disaster resilience (Bullock et al 2013, Sawalha 2020).

Disaster response is a complex phase in the disaster management cycle, which requires multiple agencies to involve effectively in order to limit the damage within the restricted time in the stressful situation (Rana et al 2021). Once a disaster strikes, people and property are put at risk immediately (Goldschmidt and Kumar 2016). Effective disaster response should make use of all available resources and implement emergency procedures with the priority of saving lives and protecting property and the environment. Meanwhile, the social, economic and political aspects of the community that is impacted by the disaster can also be preserved if there is an effective disaster response in place (Goldschmidt and Kumar 2016, Altay and Green 2006). Disaster response activities often require coordination and joint efforts of individuals, organisations, local communities and

governments (Tippong et al 2022, Coppola 2015, Merin et al 2014, Teich et al 2002). To ensure effective response practice in disaster management, coordination, cooperation, communication and information sharing are crucial (Goldschmidt and Kumar 2016). However, it is difficult to achieve these elements between various stakeholders since there are different motivations, drivers, barriers and backgrounds when they respond to disasters (Sawalha 2020). Meanwhile, the capacities of people play a significant role to coordinate disaster response, which is also the concept of resilience as Kuhlicke (2010), and MacAskill and Guthrie (2014) advocate. As Sawalha (2020) explains, if the frontline responders are not resilient enough to disasters, they may respond inappropriately and ineffectively under the adverse conditions of the disasters.

Disaster recovery includes the actions of implementing measures and policies after a disaster to not only go back to the pre-disaster condition but also rebuild and restore systems to achieve a new stable function (Chang 2010). This is a process to provide a long-term response to the impact of a disaster including physical, psychological, social and economic aspects. In addition to rebuilding and returning, it is crucial to building back better for improving the resilience of individuals, organisations and communities in order to mitigate future disasters and well prepare for them (Terumoto et al 2021, Goldschmidt and Kumar 2016, Chang 2010).

The notion of resilience is highlighted many times in the Sendai Framework for Disaster Risk Reduction 2015-2030 (UNDRR 2015). It indicates that the public and private sectors should focus more on disaster preparedness and mitigation to ensure effective response and recovery so as to enhance the resilience of relevant stakeholders (UNDRR 2015). On the contrary, the notion of resilience can fit into every phase of the disaster management cycle. As Huq et al (2021) conclude, resilience is a comprehensive concept and can be seen as a supportive approach to the function of disaster management. Building resilience to disasters

can contribute to constructing an effective disaster management system (Huq et al 2021).

Faulkner (2001) and Ritchie (2004) have developed the specific framework of tourism disaster management based on this wider used DM cycle to provide suggestions and principles of effectively managing disasters for tourism organisations (see Section 2.6). As Bimal (2011) proposes disasters have adverse impacts on the life of people as well as resources. In particular, tourism development not only depends on resources but also highly relies on people (Elliott 2002). Preparing sufficiently and managing a disaster effectively is significant for tourism and its related sectors including hotels, which not only can mitigate negative impacts but also help them make decisions as soon as possible when facing disasters (Hystad and Keller 2008) or innovatively move forward after disasters (Paton and Johnson 2006).

The following sections provide opportunities to understand what the tourism system is and how the hotel industry fits into it. Section 2.4 provides a deep discussion regarding the concept of resilience and how the hotel industry fits into the concept to deal with disasters.

2.3 Tourism and hotels

2.3.1 Tourism system

The UNWTO described the 21st Century as the 'century of travel'. Scholars have sought to illustrate the growth of tourism as a phenomenon in modern society. In this regard, tourism can be perceived as a way for people to access new vistas and lifestyles, away from their normal places of living and working (Cohen 1972, Pearce 1991, Glaesser 2003, Poria et al 2003, Hjalager 2010, Sharpley 2018) as well as a process of improving knowledge about the world in which they live (Franklin 2006, Mathieson and Wall 1982). Typically, this stream of literature treats tourism as a set of activities and movements irrespective of what the

original purpose of travelling might have been (business, leisure, work etc.). Tourism is one of the most significant and profitable industries within the global economy (UNWTO 2016). Goeldner and Ritchie (2012) have studied tourism as comprising several distinct industries or businesses including hotels and hospitality, air and sea travel and sports and entertainment events. It is a well-documented fact (Buhalis 2005, Mowforth and Munt 2015) that globalisation has helped to accelerate this rapid growth in tourism enterprises and activities by triggering a growing demand for new and imaginative travelling experiences and opportunities to exchange cultures. As a result, studies (Oh 2005, Jackson 2006) have been conducted into the nature and structure of tourism, and in particular its relationship to the wider global economy (Seetanah 2011, Narayan 2004, Narayan et al 2010, Sugiyarti et al 2003).

Another branch of researchers has sought to describe tourism as an integrated system involving numerous disciplines (Papadopoulos 1986, Leiper 1990, Page and Connell 2014) including sociology, politics, economics and even psychology. Mill and Morrison (2012) propose a tourism system model consisting of four parts destination, marketing, demand and travel. They highlight that the tourism system model is a simple model but the situation in tourism is quite complex actually. The four parts of the tourism system are interdependent and interactive. Page and Connell (2014) indicate that thinking about tourism as a system allows researchers to describe something of its complexity and the interconnectedness of the various issues and factors that affect tourism. In other words, tourism activities can be seen as taking place across different sectors or industries within an overall tourism system. For example, a large number of tourists visiting a destination at the same time will facilitate an increase in hotel reservations. Put simply, scholars generally prefer to use the term 'tourism industry' and employ it to represent the 'tourism system' to better understand the scope and economic effects of tourism (Seton and Bennett 1996, Ritchie 2009). Nevertheless, Mill and Morrison (2012), and Ritchie et al (2014) further demonstrate that tourism is a

dynamic open system that is easily affected by external disasters. Therefore, this research attempts to apply the tourism system model proposed by Mill and Morrison (2012), to understand how the hospitality industry, particularly hotels, fit into the tourism system, to further evaluate resilience within the tourism context in general, and particularly demonstrate the resilience of hotels, to understand how disaster management works effectively in hotels.

According to the tourism system model of Mill and Morrison (2012), a tourism destination is composed of attractions, facilities, infrastructure, transportation and hospitality. Put simply, hospitality as one of the five elements of a tourism destination can be defined as the way in which visitor services are delivered by service providers in a destination (Mill and Morrison 2012). Meanwhile, this tourism system model also highlights that the hospitality industry (lodging, food and beverages) is one of the most fundamental elements of attractions in a tourist destination. The level of services can be considered as a reference for choosing a destination by tourists. On one hand, it contributes to drawing tourists to a tourism destination by ensuring they have a great tourism experience. More importantly, contribution to the tourist experience can be achieved by the hospitality industry in the way of providing accommodations, food and beverages, transport, tourism attractions, shops and retail outlets etc. (Davidson et al 2010, Medlik and Ingram 2000, Walker and Walker 2004, Nadiri and Hussain 2005). In other words, the hospitality industry can be seen as an important enabler, facilitating both the business of travel and the business of tourism destinations within the tourism system. Indeed, the accommodation sector ranging from hotels to campgrounds is an important part of the hospitality industry, but also can be one of the most vital determinants of destination attractiveness in the tourism system (Mill and Morrison 2012).

2.3.2 The Hotel sector within the tourism industry

Hotels represent a primary form of accommodation within the hospitality industry, which not only provide tourists with fundamental facilities, food and beverages to meet their basic needs but also offer intangible products (services) (Medlik and Ingram 2000, Walker and Walker 2004, Nadiri and Hussain 2005). On the other hand, increasing travel and business trade has made hotels become one of the most necessary and popular sectors. In many ways, hotels also play a significant role in improving destination attractiveness by supplying facilities to conduct numerous conferences and meetings, recreation, business and entertainment activities (Ingram 2007, Tribe 2011, Middleton et al 2009, Lafferty and van Fossen 2001). Compared with other types of accommodation, hotels are the most widely recognised and accepted form of accommodation within the hospitality industry, which can provide tourists with quality service (Saleem and Raja 2012). Besides, Mill and Morrison (2012) point out that tourism has developed globally, which provides hotel companies with opportunities to expand their businesses. Up to 2020 and the COVID-19 pandemic, the number of hotels continued to increase globally. Table 1 illustrates the top five largest hotel chain groups by the number of guestrooms up to 2020. However, the examples such as the Tunisia hotel attack in 2015 and the Mumbai hotel attack in 2008 have reflected that hotels are risky targets for man-made disasters, meanwhile, hotels have also been exposed are vulnerable to natural disasters such as the Jiuzhaigou (Sichuan province, China) earthquake in 2017. Therefore, based on the aim and objectives of this research, hotels are selected from other types of accommodation to further discuss resilience and disaster management in the following sections.

**Table 1: The Top Five Largest Hotel Groups by the Number of Guestrooms
(Annual Reports of respective hotel groups 2020)**

Rank	Hotel group	Country	Total number of properties (Franchise, owned and managed)	Total number of guestrooms
1	Marriott International	USA	7349	1380921
2	InterContinental Hotel Group (IHG)	UK	5903	883563
3	Shanghai Jinjiang International Group	USA	8606	873594
4	Hilton Worldwide	USA	6110	856115
5	Wyndham Worldwide Corporation	USA	9300	831025

In order to better understand hotel resilience later, it is important to clarify the hotel's organisational structure and management system. By far, classifying a hotel is a complex task because it can be differently categorised at the same time depending on various programmes in different countries (Minazzi 2010, Cser and Ohuchi 2008). Hotels can be categorized into small hotels and large hotels based on the scale of investment, the number of rooms and staff (Ingram 2007). Many scholars (Peacock 1993, Morrison and Thomas 1999, Blankson and Stokes 2002, Buick 2003, Avcikurt et al 2011) observe that there is no exact definition of small hotels accepted universally. However, a definition of small hotels is applied consistently, which refers to a hotel that has 50 rooms or less and less than 50 staff (Buhalis and Main 1998, Ingram et al. 2000, Nolan 2002, Sharma and Upneja 2005, Avcikurt et al 2011). Large hotels are likely to have more

departments, employment and responsibilities, meanwhile, more vertical levels, rules and regulations than small hotels (Wang and Ritchie 2010). In addition, a series of researchers prefer to define hotel type more specifically according to price as economy, midscale without food and beverage (F&B), midscale with F&B, upscale, upper-upscale, luxury and brand affiliation (Smith Travel Research 2017, O'Neill and Xiao 2006). While many researchers prefer to classify hotels according to the star rating system, in which hotels can be ranked range from 5-star to 1-star (Minazzi 2010, Cser and Ohuchi 2008, Gu et al 2012). Since the classifications of hotels are various and complex, this research divides hotels into small hotels and large hotels because this is a basic as well as the most common way to understand the classification of hotels. This approach provides a fundamental comprehension to better understand the operation mode and management system next so that hotel resilience can be further discussed.

Currently, three main streams of research literature examine hotel operation and management modes. First of all, small hotels are generally managed and operated by independent owners or managers who can be family members. In a small hotel, a manager or owner can be the same person and is normally responsible for retaining control of his or her properties (Turner and Guilding 2010, Dev et al 2010) including general operation management, investment and financial management, making planning decisions and policies, human resources and managing organisation (Medlik and Ingram 2000). However, some scholars argue that a small hotel is operated by an owner or manager who lacks professional marketing expertise and decision-making as well as the limitation of management ability and skills (Gilmore et al 2001, Moriarty et al 2008, Mohammad 2016, Ajibade and Khayundi 2017). Subsequently, Wood (2017) demonstrates that a generally known hotel operating structure in larger hotels would be an investor who may have owned a hotel and nominated and contracted a hotel management company on his or her behalf to be responsible for operating it. Hotel management companies normally can get some percentages of gross

revenue or profit as a management fee and then provide hotel owners with operational expertise and marketing (Schlup 2004, Walker and Walker 2013). Alternatively, a franchise agreement may have been conducted to join a well-known brand. If a hotel is managed by a brand under a management agreement, the brand will have a considerable level of control whether it is the product or service quality delivery, so that the reputation of the brand can be protected (Ginneken 2018). Such operating structures tend to be more and more popular in the hotel industry, yet, it has been evaluated there are several disadvantages such as Hodari et al (2018), and Butler and Braun (2014) mentioned that the involvement and control of franchisees in decision-making might be limited, and the freedom of franchisees might be restricted because they need to operate their hotel within their franchise agreement and follow the brand standards and safeguard the brand reputation.

Nevertheless, a hotel of any type or size is vulnerable to disasters since it operates throughout the year and is easily affected by internal and external changes that can disorganize its ongoing operation (Malhotra and Venkatesh 2009). In particular, hotels are about people. They are operated by human factors and the services are provided also by a human. Understanding the types of hotels and their operation modes not only can help analyse the structures of hotels but also can better evaluate the resilience of hotels on human factors at managerial and operational levels.

A variety of examples including natural and man-made disasters such as the tsunami in South Asia in 2004, the earthquake and flood in China in 2008, earthquake and tsunami in Japan in 2011 have had significant impacts on each dimension of the tourism system. Furthermore, numerous man-made disasters have had wider impacts on the tourism system (Pforr 2006) such as terrorist attacks in the USA in 2001, Paris in 2015, and Madrid in 2004. Some scholars such as Santana (2004), Kuto and Groves (2004) and Tarlow (2011) also highlight

the impacts of man-made disasters on tourism after the 9/11 event and the important way to manage man-made crises and disasters. These events have shed light on the experience that tourism is vulnerable, not only within the destinations where disasters occur but also globally. What's more, the sudden outbreak of the covid-19 has hit the global tourism and hospitality industry severely (Knight et al 2020).

More importantly, the tourism system is understood and exploited in the context of resilience, in general, and may provide a useful focus for future research (Becken et al 2015, Orchiston and Higham 2016, Jiang et al 2019), and resilience in tourism-related sector in particular. The discussion provided above not only identifies the complexity of the tourism system and hotel structures but also sets the scene for the following illustration of the relationship between resilience and the tourism-related sector.

2.4 Resilience

2.4.1 Resilience from crisis and disaster

The definition of resilience has been examined over the past decades across a variety of disciplines, ranging from engineering to medicine and environmental science, and mostly has been discussed in the field of social science according to the results gathered from Scopus by taking resilience as keywords, abstracts and article titles. The term resilience originates from the Latin word 'resilio', which original meaning is to skip back (Klein et al 2003). The theory of resilience was first proposed by the ecologist Holling in the field of environment and ecology in 1973. Initially, this term was mainly applied in the area of engineering and material science to demonstrate the ability of a system to endure physical change and go back to its previous status after disturbance and change. Tilman and Downing (1994), Gunderson (2000), and Walker et al (2004) also present the viewpoints of resilience in the context of ecological systems. Since then, resilience has experienced a journey from an obscure conception to extensive application

across various disciplines. Walker et al (2002) examine the concept of resilience within the context of socio-ecological systems, which highlights the ability to continue the function of a system when it is disturbed. Resilience is also applied by Carpenter et al (2001) to analyse issues of socio-ecological systems, which emphasises the extent to which a system can withstand disturbance before it transfers to a new status controlled by another different procedure. In addition, Bruneau et al (2003) define resilience in the discipline of disaster management to describe the ability of social elements to mitigate the effects of disasters. Yet, resilience can be also defined as the individual ability at the psychological level to deal with disasters (Paton et al 2000). Reviewing current literature about resilience, common characteristics emerge. Namely, the ability to endure disasters and bounce back to the previous state (Klein et al 2003, Smith et al 2008), the capacity to adapt to disturbance and changes (Cicchetti 2010), and the ability to prepare and plan for adverse events (Sharifi and Yamagata 2016).

Predominately, resilience can be broadly organised into three general elements including preparedness and readiness, response and transformation, and recovery. Specifically, resilience may be implemented to issues in relation to a system that might be affected by a set of disasters (Folke et al 2010). Moreover, a range of authors demonstrates that resilience is more related to the capacity to make preparedness and respond or to bounce forward and move on to future disasters rather than bounce back to prior status (Ruiz-Ballesteros 2011, Paton and Johnson 2006). Indeed, from a negative perspective to look at this world, is unpredictable and full of uncertainty, chaos and complexity. More specifically, the environment surrounding us seems to like stable status but actually can be changed unexpectedly and cannot be returned to its *primaeval* state. Therefore, evolutionary resilience is embraced, which is a theory that Davoudi et al (2012) suggest. A small change in the system can be magnified into a considerable conversion. Bouncing back has its limitation because past states and behaviours of the system might also be vulnerable and not be a safe benchmark anymore. If

it is desirable to bounce back, it means back to the same vulnerable conditions (Manyena et al 2011). Therefore, resilience is seen as a capability to shape changes, adopt innovative solutions to respond to changes and make transformations from vulnerable conditions to cope with future disasters. In brief, resilience is an alternative way to formulate a concept of change (Miles and Petridou 2015).

The attributes of disasters are diverse and complex, which has resulted in scholars formulating a more integrated concept of resilience. Many scholars argue that resilience refers to the overall ability and functions of a system rather than the equilibrium of its elements (Adger 2000). As Walker and Cooper (2011) highlight, resilience can be seen as an approach and science as well as an operational strategy for preparing for potential disasters. Walker et al (2002) elaborate that resilience is the potential capability of a system to survive in a specific structure as well as to continue its functions during the disturbance and includes the capacity to resolve future complex disasters. Becken and Khazai (2017) highlight that resilience and vulnerability are interrelated and both are about operational viewpoints of disaster management. Vulnerability is a concept applied originally in the studies such as geography and ecology (Fussel 2007), which refers to the degree to which a system cannot handle adverse effects of changes (McCarthy et al 2001) and also the reflection of the sensitivity and exposure of that system to unpredictable and devastating situations (Gallopini 2006, Smit and Wandel 2006). In other words, resilience is considered the contribution to vulnerability reduction (Klein et al 2003). As identified by Rutter (2012), resilience is a dynamic concept and specifically can represent different meanings in various circumstances, and in operational terms should be considered in a particular context (Becken 2013). Understanding the concept and the implication of resilience is difficult, in particular, for complex tourism-related sectors such as hotels. The following sections provide insight into resilience within the tourism context to further conceptualise hotel resilience specifically.

2.4.2 Tourism and Resilience

According to the result of searching the keyword 'tourism' on Scopus within recent 20 years, the existing literature related to tourism is mainly focused on the following domains: tourism destinations (Gardiner and Scott 2018) particularly in a specific location (Karthik et al 2018, Momeni et al 2018, Klein and Kantor 2018), tourism sustainability (Zhang and Zhang 2018, Ivanov et al 2018), tourism behaviours (Wu and Li 2017, Kim et al 2018), tourism attractions (Liu et al 2017), tourism demand (Schubert et al 2018) and tourism economy (Saayman and Botha 2017, Aratuo and Etienne 2019). However, limited research has been carried out on the resilience of tourism.

The tourism industry can be affected severely by diverse disasters whether they are natural or man-made including earthquakes, tsunamis, flooding, terrorist attacks and wars etc. (Becken and Khazai 2017). In particular, many tourists prefer to choose tourism destinations that have abundant natural resources to visit such as coastlines on remote islands in tropical countries or mountainous fields (Thanawood et al 2006). Yet, these destinations generate a large amount of revenue from tourism, but at the same time are often threatened by potential natural disasters and also affected by a variety of environmental and human factors as they may be located in disaster-prone areas. In recent two decades, a series of disasters took place which had a devastating impact on the tourism industry, such as the 2015 Nepal earthquake, the 2002 Bali bombings and the latest 2018 Indonesia Sulawesi earthquake and tsunami. The research related to the negative impacts of natural disasters on the tourism industry has grown since the 2004 Boxing day tsunami and debate that such events have potential effects on tourism demands (Ichinosawa 2006, Johnston et al 2007, Sharpley 2005, Narayan et al 2005, Wang 2009) and provide suggestions on how to mitigate the impacts (Meheux and Parker 2006).

There is an explosion of literature on the tourism crisis and disaster over the last two decades in particular after the outbreak of COVID-19 such as Ritchie and Jiang (2019), Filimonau and De Coteau (2020), Ioannides and Gyimóthy (2020), Jiang et al (2021), Le and Phi (2021), Zhong et al (2021). The current scholarship has primarily concentrated on the impact of disasters and crises on tourism (Wang 2009, Hystad and Keller 2006), characterised the typology of disasters and crises in tourism (Laws and Prideaux 2006), and discussed and developed the framework of disaster and crisis management for tourism (Faulkner 2001, Hystad and Keller 2008, Tsai and Chen 2010, Ritchie 2004) as well as focused on the strategic management of tourism disaster planning, response and post-disaster recovery (Ritchie 2008, Robinson and Jarvie 2008). According to the research conducted by Jiang et al (2017) about bibliometric visualisation applied to tourism crisis and disaster management study, the attention tends to move to more specific topics such as resilience, vulnerability and destination issues. Research on tourism resilience is an important progress (Gall et al 2015) to provide insights and fill the gap between tourism-related issues and disaster management. To some extent, the concept of resilience related to tourism came quite late and had significant growth since 2010 based on the use of tourism and resilience as keywords, abstracts and titles of journal articles (Ritchie and Jiang 2021). What is more, the majority of such published papers focus on the field of environmental science at the beginning. Subsequently, there is more research related to tourism and resilience developed both in social science and business management studies so far. However, a few scholars (Moore and Lakha 2004, Khodarahmi 2009, Unlu et al 2010, Coppola 2011, Tew et al 2008) discussed that there is no unitary and generic approach to disaster management which can be adopted and suitable for all organisations (hotels) and nations, Hall (2010) also points out that tourism disaster management issues have not been well combined with resilience literature and still expected more studies to contribute to this area (Prayag 2018), which reflects the importance of tourism resilience to the academic world.

Resilience is a difficult concept and popular to be applied in a complex system. Exactly, applying the resilience concept to the tourism industry is significant and is likely to help evaluate the determinants that influenced vulnerable tourism provision along with the factors that can improve its ability to withstand disasters (Cochrane 2010). However, Prayag (2018) proposes when examining the resilience of the tourism system, it is necessary to identify which characteristics of the tourism system are more important such as its vulnerability, amount of change, adaptive capacity and others to avoid normative and conceptual difficulties caused by re-applying the concepts of ecological resilience to socio-ecological systems. Adaptive capacity is similar to or highly related to the concept of resilience (Smit and Wandel 2006), which is defined as the ability of a system to expand to adjust to changes or threats (Gallopín 2006). The resilience of the tourism system has come out in recent years as an alternative way to achieve tourism sustainable development and provide innovative views to adapt to a changing environment (Lew 2014). It seems there is a tendency to connect resilience with sustainable development discipline in tourism literature because a series of literature focuses on understanding the interaction between tourism sustainable planning and the importance of resilience (Tyrrell and Johnston 2008, Folke et al 2002, Lew et al 2016).

Yet, there is no clear definition of the resilience of the tourism system itself currently, but it seems the ability of the tourism system to respond to long-term impacts of disasters and crises (Biggs 2011) and how other parts of tourism systems such as business organisations to handle disastrous events (Farrell and Twining-Ward 2004). According to a range of literature on resilience related to the tourism industry, resilience in the tourism system can be evaluated at different scopes, across multiple sectors and concentrate on all tourism stakeholders (Hillmer-Pegram 2014). What is more, the level of analysis of tourism-related resilience in such literature is relatively general. The main parts of tourism-related resilience have been framed as resilience in individuals, entrepreneurs,

organisations and destinations. Many works of literature additionally pay attention to community resilience by utilizing the models (e.g., adaptive capacity model) and frameworks (Bec et al 2016, Ruiz-Ballesteros 2011, Zautra et al 2008, Lew 2014) and business resilience in the tourism system. As discussed, tourism is a complex system with each part interrelated and needs to work on enhancing or building integral resilience rather than only a single part (Hall et al 2017).

2.4.2.1 Entrepreneurial resilience in tourism

Individual resilience is a general definition as it can be conceptualised from different perspectives such as psychology, ecology and socio-ecology and others. Reich (2006) proposed a principle of individual resilience (also called human resilience), which is composed of personal control, coherence and social connectedness. This principle embraces in people need more space to set their goals, motivate themselves, make their own decisions and rebuild their control during disastrous events (De Vries and Shields 2006, Bullough and Renko 2013). In addition, people need to be guided and removed from uncertainty and establish relationships with other people to further support each other during such events. Put individual into an organisational context, it is simpler to understand its meaning and better to be named employee resilience. A high level of employee resilience is beneficial for building and enhancing organisational resilience. However, employee resilience in the tourism industry has not been explored so far by either scholars or practitioners (Brown et al 2015, Hall et al 2018). Besides, Ayala and Manzano (2014) also illustrate that individual resilience is a key to go for small-medium business success by examining the resilience of entrepreneurs and managers at an individual level.

Subsequently, most enterprises within the tourism industry are small and medium-sized, which makes tourism distinguished from other industries (Morrison et al 2010). While, according to Ritchie and Crouch (2003), managers as stakeholders of tourism have been contributing to destination development

and competitiveness. Also, Duchek (2018) highlights that entrepreneurs play a central role to drive innovation and change as they can transform new knowledge and skills into practical actions (Hekkert et al 2007, Santoro et al 2020). In the context of disasters, hotel managers can be the actors who act as hotel change agents to propose and implement actions so as to make preparedness and plan for disasters, minimise adverse consequences, as well as further, adapt innovative strategies to manage and withstand disasters. Hence, entrepreneurial resilience as an extended concept of resilience needs to be discussed to demonstrate the ability of entrepreneurs or managers to minimise the risk of failure in terms of managing crises and disasters (Crick and Crick 2016).

It is suggested that psychological traits are important to develop individual resilience (Nakaya et al 2006, Fayombo 2010). Haddoud et al (2022) also reveal that individual or personality traits can influence entrepreneurial resilience, particularly at the psychological level. Personality traits are described as individual characteristics of a person including the style of behaving, thinking and feeling which grow from the person and can remain in this person's life (Schacter et al 2009, Sarubin et al 2015). The big five personality traits are widely used to understand patterns of personality from a psychological perspective (Haddoud et al 2022, Oshio et al 2018). These traits include openness, extraversion, agreeableness, conscientiousness and neuroticism (Fayombo 2010, Oshio et al 2018). Thus, there is also research using the big five personality traits as the framework to examine the relationship between personality traits and resilience.

Resilience and personality traits are interactional (Annalakshmi 2008). Personality traits such as openness, conscientiousness, and extraversion can contribute to enhancing resilience, on the contrary, being resilient can also help improve personality traits (Annalakshmi 2008). Abdelrahman (2020) investigates how conscientiousness can positively influence the risk perception of individuals during the pandemic. Risk perception can improve the likelihood of implementing

mitigation and preparedness measures, help individuals better respond to pandemic disasters and thus reduce vulnerability and enhance resilience to disasters (Knuth et al 2014). Extraversion in several studies has been considered a mediator that contributes to enhancing resilience because of its positive influence (McDonnell and Semkovska 2020, Tse et al 2018). Individuals with high extroversion have more potential to use social support to get through difficulties, which also helps build entrepreneurial resilience (Ercan 2017). People with the trait of openness are more likely to embrace new ideas, be exposed to new things and be able to recognise potential opportunities (Matricano 2016). This personality trait allows managers to adapt quickly to change when faced with new situations and also promotes entrepreneurial resilience (Haddoud et al 2022). Fayombo (2010) suggests that healthy personality traits can make individuals more resilient. However, personality traits like neuroticism can negatively influence individual resilience at the psychological level. According to Haddoud et al (2022), managers with neuroticism can negatively influence employees and relevant stakeholders, which can lead to a lack of support from others during crises or disasters and thus undermine entrepreneurial resilience.

However, personality traits are not the focus of this study in relation to hotel resilience as they are complex concepts in which traits also contain many subdivisions and each trait does not independently influence the behaviour of a person. In other words, they can together be considered as the influential factors that can contribute to building resilience, but a single personality trait is not sufficient for building resilience (Haddoud et al 2022). Hedner et al (2011) also highlight that entrepreneurial resilience may not only be counted on individual or internal traits but also on external, environmental and structural determinants.

More importantly, entrepreneurial resilience can be understood as a dynamic process that arises from experience and as the ability of managers that can be developed over time and influenced by various factors, rather than only act as

nature personality traits (Duchek 2018). In other words, entrepreneurial resilience can be nurtured gradually, rather than only by nature. For this reason, entrepreneurial resilience can be placed in the class of learnable skills and abilities (Leys et al 2020, Duchek 2018), rather than inborn personality traits. Therefore, this study follows the assertion that entrepreneurial resilience can be taught effectively through appropriate education and learning since it is defined from the perspective of a dynamic process, abilities and skills. As Bullogh and Renko (2013) suggest, entrepreneurial resilience can be built and enhanced through appropriate education and training. Duchek (2018) also emphasises that entrepreneurial resilience can be gradually improved through a continuous learning process. In particular, individuals who continue to learn and accumulate experience can continuously improve their skills and abilities thereby enhancing entrepreneurial resilience. For example, appropriate leadership can be an important attribute of entrepreneurial resilience (Santoro et al 2020) and it can be promoted and built through nurturing junior leaders by providing education and training (Turner and Tsang 2023).

As Aguirre (2006) highlights, managers must be resilient in order to further make their organisations more resilient to the negative impacts of disasters and more adaptive for successful recovery. This is because hotel managers and employees are essentially vital in building holistic hotel resilience and play major roles in managing disasters and are responsible for the normal operations of the hotel. Lee and Wang (2017) also identified that managers can be considered to be exposed to managing disasters and uncertainties, and resilience is a priority in their efforts and achievement. Within hotels, hotel general managers can be compared to the captain of a cruise, who guides and leads different line managers and controls the direction of hotel development.

However, literature about the key role of entrepreneurial resilience of hotel managers before, during and after a disaster is not sufficiently developed. In

limited research, the role of hotel managers during a disaster can be concluded as disaster management leaders (Rousaki and Alcott 2006) and communicators (Stafford et al 2002). As disaster leaders and managers, at the same time, as decision-makers and operational controllers, hotel managers need to allocate resources and make decisions in order to respond to disasters quickly and effectively (O'Fallon and Rutherford 2011). In addition, hotel managers are communicators who need to communicate with both internal and external agencies. During a disaster, they need to provide their staff and guests information, but also communicate with the media, and public and coordinate with other external agencies such as police and hotel associations (Stafford et al 2002, Bednář et al 2021). Their entrepreneurial resilience to deal with disasters, therefore, is vital to helping hotels build hotel resilience in terms of disaster preparedness, response and recovery.

The role of developing entrepreneurial resilience is to build up the flexibility in changing conditions (Carson et al 1995, Crick and Crick 2016). Davidson (2000) highlights entrepreneurial resilience can be improved by strengthening a trained network of coaches and advisers, and believing changes and crises are surmountable. Some researchers also examine that entrepreneurs need to take advantage of resources and add value (Bins et al 2014, Hayward et al 2010, Agarwal and Helfat 2009) by developing their social capital (e.g. social networks) and learning from others (Moore and Westley 2011, Cope 2011, Pittaway and Cope 2007) in order to respond to business pressures caused by disasters. As Miles and Petridou (2015) highlight, the entrepreneurial skills of personnel and related disaster managers as part of best practices make a great contribution to enabling change in managing disasters and utilising their existing resources in innovative ways. In addition, Miles and Petridou (2015) demonstrate that entrepreneurial resilience plays an important role to make an organisation more flexible and adaptive, as the skills of entrepreneurial resilience that are also employees of the organisation need to be improved in terms of adapting to

changes and enhancing flexibility.

Many researchers (Bullough and Renko 2013, Reinmoeller and Van Baardwijk 2005, Moore and Westley 2011, Morris et al 2013, Burgess 2013) explain entrepreneurial resilience can be gathered and improved by building up entrepreneurial skills through education, training, and knowledge enrichment. Hotel managers need to take on many responsibilities of management from setting up strategies, motivating, evaluating and reporting etc., which requires them to apply their knowledge and experience (Jayawardena 2000, Ali et al 2020). A wide range of disciplines provides fundamental thinking that education can be considered as a significantly influential determinant of managing disasters particularly applied to the entrepreneurial aspect.

Education as one of the hard skills that entrepreneurs should acquire plays a decisive role in making decision choices and entrepreneurial outcomes (Dickson et al 2008, Van der Sluis et al., 2004). It is proven that education can be positively linked to entrepreneurial performance and behaviour as well as skills development. Research on entrepreneurship education has identified skills and abilities related to resilience such as flexibility. Innovation can also be taught and applied through education in order to achieve successful human resources (Welsh et al 2016, Welsh 2014). More importantly, education has an influence on the awareness of individuals targeting long-term sustainable development (Matlay 2008) and awareness of the need for disaster preparedness and planning (Hasan et al., 2020, Ghaderi et al 2014) on different levels whether they are organisations or destinations. Some hotel agents have not built disaster awareness adequately because they are convinced that disasters would not be easy to occur to them or under their control (Caponigro 2000, AlBattat and Mat Som 2013). As Peerbolte and Collins (2013) examined, disaster managers with higher education levels tend to think critically and accordingly manage disasters effectively.

However, in the hotel sector, it is well-known that the education level requirement is relatively lower than previous experience in hotel recruitment (Robinson and Dale 2001). Yucedag et al (2018) argue that education level is a significant indicator affecting the awareness of hotel employees to face changing environmental issues. Entrepreneurial resilience can also be influenced by education level because more educated people will acquire more knowledge and skills, meanwhile, will perceive more complicated and broader situations and information (Veskaisri et al 2007). Indeed, as Prayag et al (2020) have highlighted, resilient managers always try to continually optimise their tacit knowledge, experience and available resources through continuous learning (Frank et al 2012, Wang et al 2015, Dimitriades 2005). In other words, entrepreneurial resilience is also a process of continuous education to better adapt to the changing environment.

In addition, entrepreneurial resilience can be closely linked to the leadership of managers in dealing with disasters. Leadership can be accepted in different ways, as an attribute, behavioural activity or as an essential 'soft' skill that can be obtained and developed through experience and learning (Henley et al 2017, Fayolle 2005, Kuratko 2005). Simultaneously, studies have explicitly linked the development of hotel resilience with the need for greater preparedness and proactive planning for future disasters (Henderson and Ng 2004), including the need for effective leadership (Kapucu and Khosa 2013). The leaders of hotels who are also the centre of management figures and are normally called managers play an important role in implementing overall operational strategies and being a behavioural model for the whole management team (O'Fallon and Rutherford 2011). Generally speaking, hotel managers have their routine procedures for hotels in their daily operations, but disaster strikes are not covered by the procedures. In this circumstance, hotel managers need to handle the disruptions and make decisions adequately and quickly in order to play an effective managerial role.

As Miles and Petridou (2015) mentioned, the resilient decision-making of managers is a crucial part of disaster management, which can reflect strong leadership. Abebe (2009) also highlights that effective leadership plays a significant role in decision-making. In addition, hotel managers perform their leadership in terms of deciding which operational issue is more important and needs to focus on (O'Fallon and Rutherford 2011). In this case, we can assume that the resilience of hotels mostly depends on leadership. As Akrivos et al (2007) highlight, a hotel manager is significantly important to the success of a hotel organisation, and leadership is the main characteristic and ability of a successful and resilient hotel manager. Indeed, Župerkienė et al (2021) also identified that leadership can be perceived as an essential attribute of entrepreneurial resilience of managers to address difficulties.

However, in some urgent situations, hotel managers cannot perceive the disruptions caused by disasters because they are beyond their scope of experience or power. This reflects the limitation of hierarchy within hotel organisations. The level of hotel managers who can be free to act as they want may depend on different structures of the organisation (Kater 1977, Tomlinson et al 2013). The relationship with employees needs to be established by managers, in other words, applying a hierarchical or collective approach decided by the leadership of a hotel manager. Studies identify that the participation and involvement of employees can make a great contribution to the success of hotel change (Presbittero and Teng-Calleja 2017, Dunphy and Griffiths 2002) and resilience building (Brown et al 2017). Elsubbaugh et al. (2004) illustrate that bureaucratic procedures of organisational structure are a considerable barrier as well as a facilitator to the growth of effective disaster response systems within organisations. Sheaffer and Mano-Negrin (2003) also emphasised the significance of balancing and establishing the flexible structure of organisations, which highly aids in disaster preparedness, production and integration.

Resilient hotel managers should coherently express the importance of disaster planning by integrating it into operation strategies and involving it as a core competency and key performance indicator of managers (Wang and Ritchie 2012). But hotel resilience not only relies on how well disaster management planning can be applied but also requires managers of hotels to establish explicit leadership and act on shared knowledge and priorities during a disaster (Mistilis and Sheldon 2006). Put simply, flexible leadership can be seen as an adaptive strategy that is implemented in the vulnerable hotel sector to make quicker decisions in order to enhance hotel resilience (Comfort 1994, Lee et al 2013, Brown et al 2017). A general manager is a general leader of a hotel, who should possess effective and transformational leadership to influence their subordinate managers and workers in terms of building hotel resilience. Thus, managers with entrepreneurial resilience can also possess flexible and effective leadership of their staff for quick decision-making (Celik and Corbacioglu 2013). They are change agents who systematically develop and improve themselves to grow in a dynamic environment (Tesone 2012).

In addition, the entrepreneurial resilience of policymakers of hotels also needs to be considered in managing disasters. The hotel managers are mainly responsible for the operations of hotels, but as section 2.3.2 illustrates, in recent decades most hotels are managed or franchised under management contracts. The hotel managers should follow and implement operational standards and procedures proposed by their parent hotel management companies (O'Neill and Mattila 2010, O'Neill and Xiao 2006). In this regard, hotel resilience is not only related to leadership but also connected to the operational standards of leaders. In other words, whether hotel disaster management is embedded into the operating standards and procedures of hotel management companies, may also influence hotel resilience. However, there is still a lack of research to examine the role of managers who make policies and standards for large chain hotels.

Entrepreneurial resilience not only requires a comprehensive understanding of innovative actions and abilities but also needs to evaluate the awareness of agents on managing disasters (Hedner et al 2011). Hotel managers should be responsible for understanding their vulnerability to disasters and enhancing human abilities in terms of disaster management (Barrows and Powers 2008, Rutherford and O'Fallon 2007, Henderson 2007). Furthermore, hotel managers must supervise the development of disaster planning and provide training and enough resources for implementing satisfactorily the plans (Ridley 2008, Hassanain 2009). More importantly, the allocation of roles and responsibilities of hotel staff is an important task that should be done by hotel managers to enable clear and effective communication among them (Hassanain 2009).

As discussed in Section 1.1, the hotel industry plays a crucial role in contributing significant tourism revenue to China's economy (Li and Sun 2013). There is increasing evidence, from the literature, as to the significance of recent crises and disasters on the sustainability of the hotel industry. Effective disaster management, it is argued, should be treated as a crucial framework upon which countries, communities and individuals can focus on the real meaning and benefit of sustainable resilience (Zebrowski 2016).

The researchers (Yin et al 2015, Cao 2009) argue that hotel managers in China do not take into account disaster management in operation management and they still lack a comprehensive disaster management system and awareness. The hotel managers are responsible for daily business management and operation management. More importantly, Gu et al (2012) illustrate hotels in China still face the challenges of managing human resources. What is more, Zhang and Wu (2004) proved that the tourism and hotel industry also confront shortages of qualified managers. Lenno (2002) also highlights the insufficient training of tourism employee in developing countries lead to being fundamentally unskilled. Moreover, Medlik and Ingram (2000) point out that for developing or

less developed countries, management skills and expertise brought by international hotel companies are not available locally. However, research in terms of disaster management and resilience in hotels in China especially from a human agency perspective is largely absent. Thus, this research will contribute to knowledge and fill the gap in the tourism crisis and disaster management in hotels in China.

2.4.2.2 Other relevant forms of resilience in tourism

Meanwhile, the entrepreneurial resilience of managers can play an important role in building organisational resilience and influencing the performance of organisations (Oberoi et al 2021) and supporting enhancing community resilience (Gur et al 2020). The notion of organisational resilience relates to the survival ability of organisations from severe events or disasters (Davoudi et al 2012, Conz and Magnani, 2020). But Nilakant et al (2016) propose that organisational resilience can be compared to a continuum that includes actions from bouncing back to bouncing forward, put it simply, ranging from handling a disaster to adapting to the new difficult environment and preparing for the next disaster. In addition, DesJardine et al (2019), Buyl et al (2019), and Williams et al (2017) argued that organisational resilience should be built in time to allow organisations to develop effective action plans in order to prepare for and respond to disasters. Lee et al (2013) highlight the interrelationship between the resilience of organisations and the community and point out that organisational resilience is a crucial element of community resilience. What is more, Hall et al (2018) observe that organisational and community resilience supplies each other, and both play an important role to enhance the resilience of the tourism system. In the context of disaster management, organisational resilience is applied to strategies for mitigating the impacts of disasters on organisations and recovering quickly from disasters. Organisational resilience is a concept with a range of understandings as shown in Table 2 according to several researchers.

Annsrelli and Nonino (2016) propose that a resilient organisation that can successfully cope with disruptions and unexpected disasters depends on strategic awareness and operational management. Building more resilient organisations is an imperative component to achieving community resilience as organisations provide basic functions and employment opportunities for most of the community (Dalziell and McManus 2004).

Table 2: Summary of Organisation Resilience (Author's own)

Sources	Understanding of organisational resilience
Orchiston et al (2016)	Recoverability and adaptive ability
Denyer (2017)	Preventative control, mindful action, performance optimisation, adaptive innovation, defensive and progressive behaviours, consistent and flexible behaviours, paradoxical thinking
Ruiz-Martin et al (2018)	Continuous adaptation and enhancement of the challenging conditions faced by the organisation
Triatmanto and Wahyuni (2020)	A function of all vulnerabilities, awareness of the situation and adaptive capacity of an organisation in a complex, dynamic and interdependent system
Duchek (2020)	Meta-capability and decompose the construct into its individual parts to anticipate, withstand, respond to and recover from natural disasters or financial uncertainties that can undermine organisational stabilities

In the context of community, the original meaning of resilience does not work well. It is better understood as its ability to prepare itself to overcome the difficulties brought by disasters and recover from them (Sharifi and Yamagata 2016). Berkes and Ross (2013) suggest that community resilience also has a close linkage with economic and social aspects when enforced in an uncontrollable scope. Hence, in order to achieve a higher level of resilience, there is a need to transform gradually and make progress to take coordinated collective actions by finding a

positive way and building partnerships between public and private sectors (Cutter et al 2008, Plough et al 2013). However, Baggio (2008) reminds us that there are barriers to building resilience within communities that rely on the tourism industry because of the complexities of the tourism system. As Moreno and Torres (2019) highlighted, community resilience plays a significant role in response to disasters, especially in conditions where external help is lacking.

With regards to destination resilience, the literature seeks to take tourism destination as a complex system with a range of dimensions to analyse its ability to address different kinds of disasters (Baggio et al 2010, Scuttari and Corradini 2018). Also, the impact of disasters on tourism destinations and post-disaster recovery has drawn the attention of researchers such as Ghaderi et al (2015), Orchiston and Higham (2016), Ryu et al (2013), and Avraham (2015). In order to enhance destination management, improve strategies and better understand tourism destination resilience, it is fundamental to comprehend many dimensions of resilience (Hall et al 2018) including individuals, entrepreneurs, organisations and communities of the tourism system.

In many ways, tourism is vulnerable because of the interrelationship within the tourism system (Gladwell, 2006). This also increases the degree of difficulty for tourism recovery after disasters. What is more, the tourists and local communities are also influenced by disasters, especially in neighbouring countries and areas such as the 2004 Indian Ocean earthquake and tsunami many countries are involved including Maldives, Indonesia, Thailand and Sri Lanka (UNISDR 2015). Disasters do not only cause harm to the lives of tourists and tourism employees' lives but also significantly impact nations and communities that rely on the tourism industry to generate income (Strickland-Munro et al 2010). Once a disastrous event occurs in a place, there are instantaneous consequences to the whole tourism system. For instance, the earthquake that occurred in Nepal in 2015 led to an increasing number of hotel and flight cancellations and tourist attractions

were closed and could not be visited due to damage caused by such event (Misrahi 2015, Becken and Khazai 2017). Moreover, it may take the tourism system a long time to bounce back, and some tourism resources may be lost forever. In today's environment, man-made disasters and crises are also becoming more unexpected and frequent, and strike many locations (Coppola 2011, Wagner and Neshat 2010, Waugh 2015).

Most of the current literature on resilience in tourism mainly focuses on the general elements of the tourism system. The literature in detail on the resilience of specific sectors such as hotels is highly limited. Yet, exploring some of the different types of resilience in tourism can build up a valuable opportunity to look at how resilience can be applied in the context of hotels. Hotels as part of the tourism system, are closely connected with other elements of tourism. Individual and entrepreneurial resilience can affect organisations like hotels. Similarly, organisation resilience can influence tourism communities because they are interactional and interdependent. For different circumstances, the definition of resilience can be conceptualised in different ways.

Current developments of resilience studies in the tourism context are still relatively scarce, and the majority of these studies are focused on tourism organisations and destinations. The more surprising is that research on entrepreneurial resilience in the field of tourism disaster management is still underdeveloped, particularly in the context of hotels and the understanding of how entrepreneurial resilience helps with building hotel resilience is still at an introductory stage. Excepting entrepreneurial resilience, other types of resilience of tourism mentioned above can be considered as influencing factors which can have significant impacts on the human dimension of hotel resilience or may be enhanced by building hotel resilience.

For an organisation such as a hotel to be able to remain resilient when dealing with a disaster, it is crucial to manage the core valuable agents of the hotel, that

is, the people. Human resource management in organisations is about the process of the management of using people, developing their skills, utilising, retaining and rewarding them in accordance with the mission and authority premise (Mirzapour et al 2019).

2.5 Human resource management

Human resource management particularly human resource practices play a significant role in contributing to building resilience (Bardoel et al 2014, Gerçek and Börekçi 2021, Khan et al 2019, Ngoc Su et al 2021, Bouaziz and Hachicha 2018, Al-Ayed 2019). According to Lengnick-Hall et al. (2011) and Ho et al. (2014), Al-Ayed (2019), organisational resilience can be decided by human resources and managerial practices applied to HRM. Human resources can be defined as the skills, knowledge and human capacity of an organisation (Bosma et al 2004). Within an organisation, human resources concentrate on the quality of people (managers and employees) including their skills, knowledge and experience (Cahyanto and Penningtin-Gray 2017).

High levels of human resources are required by hotels to provide high-quality services and resilient operations, which are adapted and prepared according to their needs of facing disasters (Hall 2009, Kaplan 2004, Smith 2005). In the context of hotels, HRM is highly important because it should be responsible for controlling the quality of employees through various practices such as staffing, training, participation, and performance evaluation, and influences the performance of hotels by developing and improving the competencies (Kehoe and Wright, 2013). In general, the higher level of training and education hotel staff receive, the more effective their response to various disaster disruptions the staff make (McCool 2012). Lagadec and Rosenthal (2003) and Nankervis (2009) also demonstrate that prepared leaders can be considered relatively stronger for total shocks. Managers and leaders of hotels need to be trained to increase their skills and abilities to face disasters. Managers are entrepreneurs with regard to

gathering information, making full use of resources, and developing and implementing operational plans and strategies (O'Fallon and Rutherford 2011). Additionally, they are change agents of hotels and organisational resilience depends on individual resilience (Youssef and Luthans 2007, Hall et al 2018). Bouaziz and Hachicha (2018) also suggest that facilitating the implementation of strategic human resource management is necessary for managers of organisations to improve their organisational resilience and handle strikes of disasters.

While human resource practitioners are responsible for developing and integrating HRP and forming the human resource development (HRD) process, simultaneously, they have to make sure that human resource policies and programmes are applicable to their hotels and suggest to managers when and how to implement their training and development (Lengnick-Hall et al. 2011). The value of human resource policies is to guide the behaviour and performance of employees and to underpin the building of resilience (Youndt and Snell 2004, Lengnick-Hall et al. 2011). As Liang and Cao (2021) highlighted that human resource policies and practices should aim to enhance employee capabilities and disaster and crisis response strategies, thereby increasing the resilience of the organisation as a whole to cope with disasters. Appropriate human resource policies can provide a coherent and integrated approach to behaviours that effectively guide the development of employees, while also making an important contribution to improving organisational performance (Xing and Liu 2016). Chuang and Liao (2010) also highlighted that human resource policies can play a significant role in motivating employees to contribute to organisations, particularly in the service industry. In short, human resource policies are closely linked with operating behaviours, which will help organisations such as hotels to facilitate resilience building (Lengnick-Hall et al. 2011).

Human resource practices have been highlighted as facilitators in terms of making organisations and employees more competent by researchers such as Khan et al (2019), Ngoc Su et al (2021), Bardoel et al (2014), Mitsakis (2020), Khan et al (2020), and Al-Ayed (2019), Otoo and Mishra (2018). Human resource practices can be discussed from two aspects: HRP and HRD. According to Kinikci and Williams (2006), HRP is the process of identifying the human resource needs of organisations and forecasting their future needs by developing appropriate human resource initiatives in line with the strategic needs of the organisations. It is also considered an important input to and consistent with the strategic planning process (Greer and Plunkett 2007).

As Al-Qudah et al (2020) highlighted, HRP can help organisations achieve a range of benefits. HRP and its effective implementation can enhance the capabilities of people in the organisation, in other words, it can also be an approach to enhance the entrepreneurial resilience of managers. Abdallah and Phan (2007), and AlFrijawy (2019) also explained this is because a positive and significant link has been examined between HRP and organisational performance, which can be also seen as a contributor to enhancing the resilience of organisations. HRP can help organisations to improve their adaptability to environmental changes and provide the manpower for their sustainable development. In particular, environmental changes brought about by disasters may also lead to constant changes in the organisation's human resource requirements. It is therefore essential to make appropriate forecasts and prepare in advance for the human resources required at each stage of the organisation's development (Stone 2008, Wilton 2016), so as to avoid shortages of personnel that help organisations deal with disasters. More importantly, HRP plays an important role in appropriately allocating human resources to the organisation's activities (Khera and Gulati 2012), especially during disasters (Ngoc Su et al 2021) and controlling costs. Daft (2008) also suggested that HRP can also establish the basis for relevant human resource plans and strategies, which can involve

relevant human resources practices such as recruitment and selection.

However, there are still many difficulties with HRP in the hospitality industry. A series of studies have shown that the poor reputation of working in the hospitality industry has caused difficulties in recruitment and job motivation, resulting in real challenges for the hospitality industry to attract and retain talent. This includes perceptions of job insecurity in the hospitality industry (Robinson et al 2019), low pay (King et al 2021), lack of perceived social value and respect (Dreier et al 2018), high reliance on youth (Mooney 2016, Robinson et al 2019), and valuing working experience over training and educational levels (Dale and Robinson 2001). At the same time, the hospitality industry is at present in competition with other service industries for hospitality-trained talent (Kaur and Kaur 2020). Many hospitality-trained talents are more interested in other service sectors, such as finance and banking, due to the poor reputation of working in the hospitality sector (Brien et al 2017). This is because such talents are more interested in seeking a more stable and respectful job with a better life and work balance (King et al 2021). In addition, the lack of promotion opportunities in the hospitality industry can have a significant impact on job motivation and satisfaction (Marinakou and Giousmpasoglou 2019, Ann and Blum 2019). Limited opportunities for advancement have also become a factor contributing to high staff turnover in the hospitality industry (Koo et al 2020, Marinakou and Giousmpasoglou 2019, Ann and Blum 2019, Stoyanova-Bozhkova et al 2022). This has undoubtedly caused the hospitality industry to face a shortage of talent, particularly at the highly skilled management level (Langford et al 2019).

HRD can be understood as a tool that aims at developing and improving intellectual capital and underpinning the transformation of organisations, which is beneficial for both individuals and organisations at the same time (Swanson and Holton 2001, Gilley and Maycunich 2003, McLean and McLean 2001, Lee-Ross and Pryce 2010). Hutchins and Wang (2008) summarised that HRD can play a

significant role in defining and solving problems that exist in organisations with the mission of ultimately improving. Hotel managers have to identify the issues or hazards in a proactive way that is possible to cause disasters or seriously negative impacts. Many researchers such as Alketbi et al (2020), Nizamidou et al (2019), Germain (2010), Wang et al (2009), Hutchins and Wang (2008), Pforr and Hosie (2008) also suggested that human resource development should be closely linked with and applied to crisis and disaster management. Alhazaimah and Alzoubi (2020) highlighted that human resource practices especially HRD training can help and enhance the abilities of employees to manage crises. Indeed, Human resources professionals in hotels play an important role to undertake all the work of training, supervising, hiring, and evaluating the performance (O'Fallon and Rutherford 2011, Bahrami et al 2013, Chen and Huang 2009) of the people who work in a hotel. It is common knowledge that nowadays human resources managers have been placed in the position of senior management within an organisation, which can directly have an effect on the strategic thinking and planning of organisations (Tesone 2012). They construct the processes of job analysis to decide the managerial structure of hotels and create an ability to be resilient. Their strategic management such as training regularly, recruitment and selection of high-quality human capital have a significant influence on the required ability of resilient hotels (Ho et al 2014, Bouaziz and Hachicha 2018).

At the same time, setting up programmes crucial that are aimed at enhancing the skills in the areas of developing leadership and disaster management (Tesone 2012). If they can select a person with highly qualified knowledge skills and experience as a disaster manager, build disaster management teams and allocate duties clearly, and keep tracking pieces of training that are well developed, the resilience of hotels might be improved solidly. In other words, human resources are a fundamental part of the management tool of hotels through developing abilities and capacities (Wang et al 2012, Rasmussen et al

2011, Ho et al 2014). Additionally, staff of hotels are necessarily cross-trained and aimed to make up for staffing shortages in order to maintain business continuity in times of disasters (Lamanna et al 2012, McCool 2012).

2.5.1 The role of HRM in building resilience

The importance of hotels prioritising planning for disaster management has been emphasised in section 2.4.2, but there are many difficulties faced by hotels if they are going to be resilient. Building resilience is a nonstop procedure because it requires continual learning, training, adaptability and evaluation (Cutter et al 2010, Norris et al 2008, Brown et al 2018). As Racheria and Hu (2009) observe, even though proactive strategies and plans are established and appropriate for disasters, people within an organisation still lack the ability to make correct and effective decisions in practice when they are faced with disasters because they are poorly trained in terms of disaster management (Okumus et al 2005, Chien and Law 2003). Indeed, proactive strategies involve preparation actions such as plans, skills and knowledge training in disaster management (Xu and Grunewald 2009).

Yet, many studies related to the human resources of hotels are focused on how human resource management practices can influence hotel performance such as labour productivity and return on assets (Cho et al 2006, Sun et al 2007, Alleyne et al 2006, Ngoc Su et al 2021). Furthermore, essential indicators (such as response capacity, resource distribution, innovation and learning, training etc.) can be applied to judge and assess the performance (Burkle and Greenough 2006, Phillips and Louvieris 2005, Haynes and Fryer 2000) of hotel managers in disaster management. The emphasis on training in disaster management is relatively few. A range of studies argues that not enough budget is invested in the training of disaster management in hotels (Brown et al 2018, Wang and Ritchie 2012, MacFarlane et al 2006, Paton and Jackson 2002) due to the gap between what will happen and what is planned and what can be returned (McCool 2012).

However, Brown et al (2018) prove that even if a small amount is invested in planning, training and exercise across departments of hotels in terms of dealing with disasters, the adaptive capacity of staff might be improved and the knowledge and skills of leaders, managers and staff could be enhanced. The expenditure spent on human capital may not get a return immediately but may be the most valuable and significant investment from a long-term perspective.

HRD can be linked to support to foster an organisational culture in the context of disasters. As Bardoel et al (2014) suggested that supportive organisational culture can be fostered by appropriate HRD. While Wang et al (2009) noted that perception of crisis and disaster can be influenced by organisational culture, at the same time, HRD can make a great contribution to fostering an organisational culture of full disaster preparedness. Organisational culture can be considered as the precondition of employee attitude and performance (Lau and Ngo 2004), on the contrary, it can also be affected by HRM practices by encouraging innovative behaviours (Martin and Terblanche 2003). Indeed, in order to improve resilience, organisations have needs of introducing and building cultural transformations and improvement procedures in order to create a significant culture of crisis and disaster preparedness which is considered to be an essential element in terms of implementing crisis and disaster management within organisations in the best practice (Hofstede 1991, Kimbrough and Compton 2009, Udayangani 2010). In the context of hotels, cultural factors of crisis and disaster management are applied to daily operations, which can improve hotel resilience toward disasters (Kulatunga 2010, Sawalha 2013). This is also closely related to the entrepreneurial resilience of managers and HRM. Managers perform their leadership in their daily operations to influence their employees on the culture of disasters that could happen at any time and should prepare well for them (Wang et al 2009). Whereas human resources managers should organise training or exercises regularly to remind staff of the importance of disaster preparedness (O'Fallon and Rutherford 2011).

Besides, Fredrickson (2001) and Schneider (2001) mention that leaders and managers of hotels are necessary to improve their capacity to maintain a positive attitude in times of facing difficulties and shocks to indicate the culture of learning from mistakes and taking them as opportunities rather than failures. They need to help employees build confidence and establish an organisational culture in which they are not afraid of failure and can face disasters or difficulties calmly (Ayaka and Manzano 2010). If disaster strikes, the staff can be stronger and more resilient than before because they have experienced and learnt from mistakes and changed so that they are able to adapt to a new organisational environment and structure (Cannon and Edmondson 2005). Elsubbaugh et al (2004) also highlight that the organisational culture and attitude of hotel managers can directly have an impact on disaster preparedness and even the resilience of hotels.

Building resilience is also a process of reviewing the culture of organisations. Likewise, it is the arena for change agents of hotels to recognise the advantages and disadvantages that the culture brings to hotels during disasters (Seville et al 2008). In times of disaster, hotels have to respond and recover depending on their people who work as a coordinated team under pressure and be able to make strategic decisions. This requires more attention to developing the abilities of staff in dealing with disasters and building communications within teams during times of regular training so that they manage actual disasters effectively (Seville et al 2008). Thus, establishing a culture of understanding the importance of hotel disaster preparedness that staff in hotels can perceive, which will aid motivate them to participate in disaster planning so that improving hotel resilience (Mitroff and Anagnos 2001, Elsubbaugh et al 2004).

In short, organisational culture can decide the approach of organisations to deal with disasters that might threaten their normal operations (Kulatunga, 2010, Kondra and Hurst, 2009). Indeed, the development of effective disaster

management practices and the resilience of hotels can be affected by their culture (Wang and Ritchie 2010). The resilience and culture of hotels are a combination of both their adaptive abilities and planning, which demonstrates a culture of forward-looking that will enhance awareness and confidence to chase down opportunities to improve resilience and adapt to respond to issues. Meanwhile, HRD can help and support shaping this culture and make a positive impact. However, there is still a lack of sufficient research on the relationship between human resource management and resilience at the current stage, which provides an opportunity for this study to delve into how to build resilience in hotels to disasters.

2.6 Identification of research gaps

The rapid growth of the tourism industry has drawn great attention from scholars, particularly given the impacts of disastrous events and the vulnerability of the tourism industry, the research on tourism disaster and crisis management (TCDM) has made great progress in the past two decades. Ritchie (2004) also proposes that the negative impacts of disasters cannot be stopped, but they can be reduced, and also lives and properties can be saved. A range of researchers makes great contributions to the current literature on crisis and disaster management in tourism. Faulkner (2001) makes a pioneering beginning in the research of tourism disaster management and proposes a framework including six stages (See Figure 2).

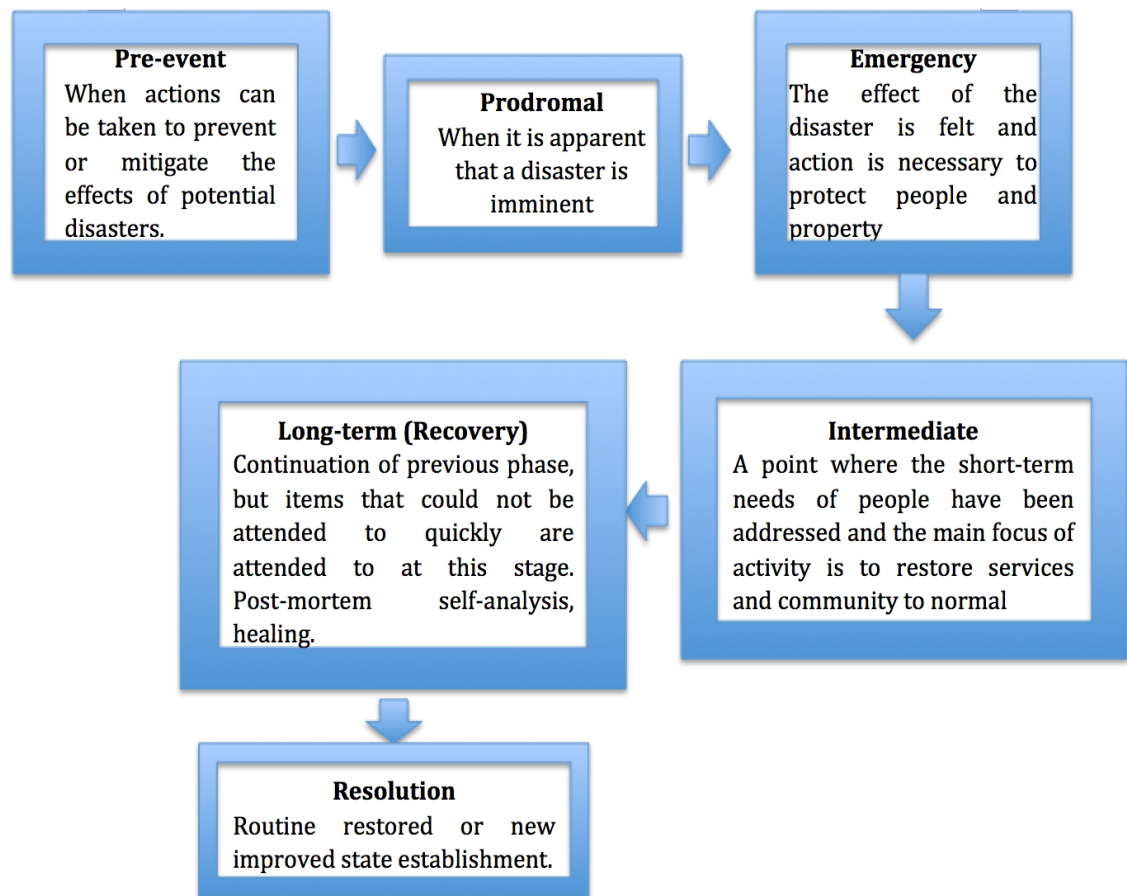


Figure 2: Tourism crisis and disaster management framework (Faulkner 2001, p.144)

This generic framework is proposed according to the broader disaster management literature aimed at specifically providing insights on analysis and developing strategies of tourism disaster management as well as offering the principles of effective disaster management planning on tourism destinations (Faulkner 2001). Afterwards, a more comprehensive and strategic model of crisis and disaster management in the tourism industry was raised by Ritchie (2004), which focused on a strategic approach implemented for proactive planning and prevention, resources management and resolution (see Figure 3). Ritchie (2004) highlights it is important for tourism organisations to be flexible in order to plan and manage effectively disasters. Along with this, Ritchie (2009)

also examines the need for resource management and leadership at every level of effective tourism disaster management. The abilities to make quick decisions, lead employees, and effectively make planning can be the components of the core competency of organisation managers, which are also the main points of entrepreneurial resilience highlighted. Linking the standpoints of Ritchie to entrepreneurial resilience illustrated in section 2.4.2.1, entrepreneurs with high levels of these core competencies likely exhibit greater resilience than others in terms of managing disasters. Similarly, an organisation with a high level of entrepreneurial resilience also may demonstrate a higher level of organisational resilience.

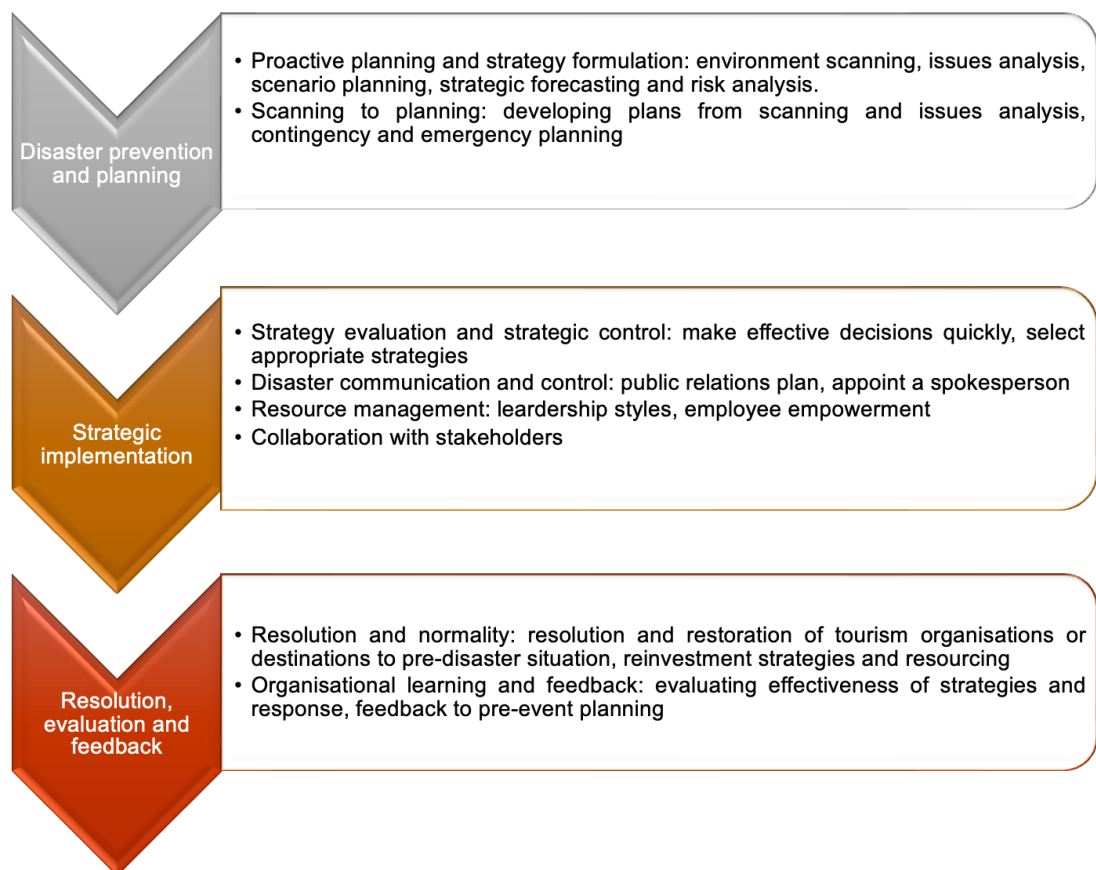


Figure 3: Model of Strategic Tourism Crisis management (Ritchie 2004, p.674)

In addition, Scott and Laws (2006) apply systems theory to understand the concept of crisis and disaster and also focus on organisation network analysis.

Subsequently, a framework produced by Hystad and Keller (2008) focuses on the destination level of tourism disaster management based on Ritchie (2004). The emphasis of this framework is cooperative communication strategies among all stakeholders ranging over phases of planning, management and recovery. Simultaneously, it highlights that organisations are critically necessary to clearly establish accountability and responsibility. The summary of the tourism crisis and disaster management framework is presented in Table 3.

Table 3: Summary of Tourism Disaster Management Frameworks (Author's own)

Researcher	Theme and level of analysis	Focus
Faulkner (2001)	Pioneering theoretical framework of disaster management on tourism. (at every level)	Response to disaster situations, chaos theory introduced, six stages of disaster management in tourism.
Ritchie (2004)	Disaster planning and strategic approach applied to effectively manage and handle events. (level of tourism destinations, sectors and organisations)	Proactive planning, strategic implementation and resolution. A strategic and holistic approach for the tourism industry in its efforts to manage and respond to disasters. Chaos and complexity theories.
Scott and Laws (2006)	Disaster planning from system perspectives and organisation network analysis. (tourism destinations and organisations level)	Open boundaries, network exchanges, and a focus on information flows.
Hystad and Keller (2008)	Disaster planning: framework learned from studies of forest fires. (level of destinations)	Cooperative communications, clear accountability and responsibility.

Previous literature made significant contributions to providing theoretical and empirical knowledge and research direction for subsequent research. In other words, every single research needs to rely on past research findings and acquire evidence and support from its relevant disciplines (Li et al 2017). Research published in relevant journals can be seen as the authority on certain topics, and the cited reference in this literature can be taken as a knowledge base provider

(Li et al 2017). These tourism crisis and disaster management frameworks listed above are bottom-up approaches to shed light on the way and process of managing disasters in general in the tourism area. However, resilience as a holistic approach is not yet investigated comprehensively and should therefore be promoted and focused further (Boin and McConnell 2007) on preparedness to deal with disasters and understanding TCDM, in particular, the concept of resilience applied to hotels is not discussed adequately in detail. In order to specifically explore the resilience concept in hotels and map the knowledge contribution to the current literature, the research gap between hotel resilience and current literature on tourism crisis and disaster management is examined in the next section.

In this research, Citespace is used, which is a Java application specifically for analysing and visualising co-citation networks (Chen 2004), to conduct a bibliometric visualisation of TCDM research and to visualise TCDM literature patterns and trends and further identify the gap between TCDM and hotel disaster management and resilience. Figure 4 is the result constructed by Citespace and shows the co-citation network with knowledge clusters. The input data for Citespace was based on journal articles and a review on TCDM provided by the Scopus database through searching keywords 'tourism disaster', 'tourism crisis' 'tourism resilience' and 'hotel crisis management' 'hotel disaster management' and 'hotel resilience' from 1987 onwards. The clusters are performed by choosing 'title' as labels. The network can be explained by analysing the colour, size and proximity of links and nodes. A number of key terminologies in the network are explained in Table 4.

Table 4: Key Terminologies Explanation (Chen 2014)

Key Nouns	Explanation
Nodes	Cited reference
Size of node	The proportional to the number of citations received by the cited reference
Links	Co-citation links
Colour of links	The time of a particular connection based on the publication year of source year. (e.g., blue is older linkage, red and orange are relatively more recent connections).

In Figure 4, it can be revealed that many nodes of fundamental articles such as already mentioned above by Faulkner (2001), Ritchie (2004) and Prideaux et al (2003) have a high level of connections. These papers mainly focused on frameworks of tourism crisis and disaster management. Faulkner (2001) concludes the tourism crisis and disaster management into the stages from pre-event to resolution. Extending this view, Ritchie (2004) first employed a strategic management approach to tourism crisis and disaster management. Prideaux et al (2003) highlight the strategies that can be applied to enhance the effectiveness of forecasting in circumstances. These papers are likely to be cited together from the same source documents. While nodes that are poorly connected or absent of links with other nodes, which indicates the research gap needs to be filled by scholars. In addition, some nodes are connected by several links otherwise disconnected, these minority links can be seen as the bridges that make a significant strategic contribution to connecting two different fields of literature (Jiang et al 2019).

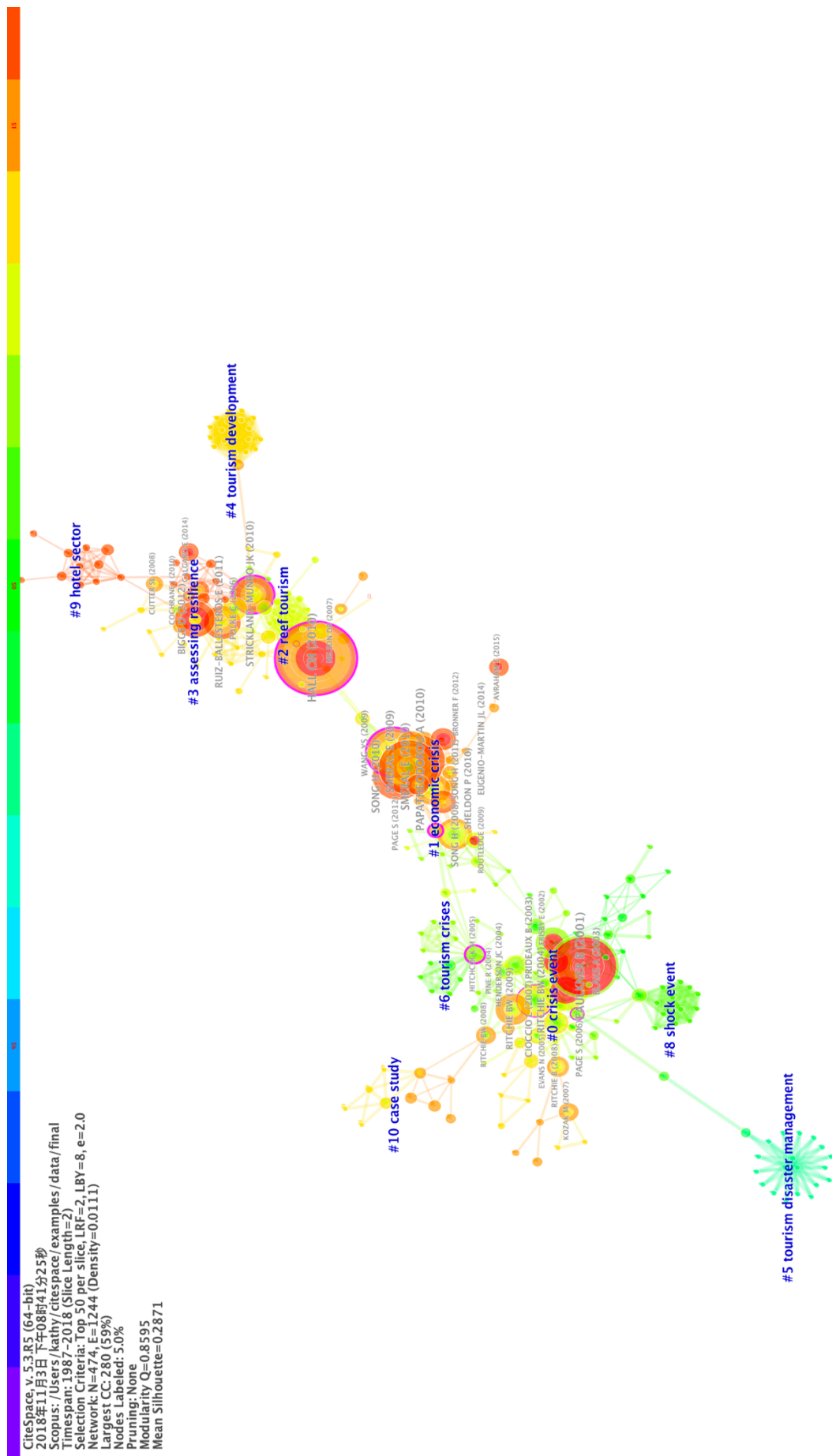


Figure 4: Co-citation Network with Knowledge Clusters 1987-2018 (Author's own)

As Figure 4 shows, the connection between the hotel sector and assessing resilience is more recent and is not well connected. More importantly, they both are poorly connected to major tourism crisis and disaster management literature and quite far from them. Indeed, Faulkner (2001) noticed that there are a limited number of studies that focus on disasters and crisis management within the hotel industry. It can further demonstrate the shortage of research related to hotel resilience.

According to Cluster #3 (labelled as assessing resilience) in Figure 4, major articles in this cluster all focus on examining resilience in the tourism community and its importance on tourism sustainability (Strickland-Munro et al 2010, Powell et al 2018, Lew et al 2016, Tsao and Ni 2016), understanding destination resilience and its framework (Hamzah and Hampton 2013, Pyke et al 2016, Calgaro et al 2014, Guo et al 2018), tourism enterprises (Biggs 2011) and cruise ship resilience (Adam 2010).

While Cluster #9 (labelled as the hotel sector) is more related to disaster planning (Wang and Ritchie 2010, Nguyen et al 2018, Nguyen et al 2017) and the response of hotels (Johnston 2006, Henderson 2005) and has a focus on lessons learnt from past disasters (Tew et al 2008). However, in terms of resilience in hotels, only a few articles currently primarily concentrate on the integrative framework and systematic review of resilience in the hotel sector. As Brown et al (2017) and Brown et al (2018) suggest disaster resilience of the hotel sector can be considered within a context made up of six capital predictors including social (e.g., social networks), economic (e.g., diverse income), human (e.g., skills, knowledge and business continuity), physical (e.g., building code), natural (e.g., location) and cultural (e.g., culture). They claim that building resilience in these six independent spheres can facilitate hotel management to improve hotel resilience in many various ways.

Although the hotel industry plays an important role to facilitate tourism development, the research on the hotel sector regarding resilience and disaster management is not examined adequately (Ritchie et al 2014). Despite the outbreak of public health crises such as COVID-19 in the process of this study, it should be clarified that this study focuses on how to enhance hotel resilience in the context of man-made and natural disasters. Meanwhile, COVID-19 also has drawn the attention of many researchers, which makes much research on improving tourism resilience and organisational resilience in the context of COVID-19 emerge such as Prayag (2020), Sharma et al (2021), Pathak and Joshi (2021). However, it has to be mentioned that there is still a lack of research regarding how to build hotel resilience to disaster, which provides an opportunity for this study to further understand the resilience of hotels particularly and to contribute to the knowledge. Even though the human factor plays a significant role in making organisations effectively prepare for disasters, currently a very limited number of studies primarily discussed human factors related to building disaster resilience and disaster management in the context of hotels even after the outbreak of COVID-19. Therefore, this research primarily focuses on human factors (hotel agents) to conceptualise hotel resilience to enrich this underdeveloped field.

It is worth noting that while there is a growing body of scholarly attention to the topic of organisational resilience (Akgün and Keskin 2014, Yılmaz Borekci et al 2015), there are only a few studies that specifically link HRM (Branicki et al 2019, Gerçekand Börekçi 2021, Suder et al 2019), particularly human resource policies to resilience at an individual/entrepreneurial level and explore the role of the two in building organisational resilience, particularly in the context of organisations such as hotels.

2.7 Conceptualising hotel resilience

The latest definition of hotel resilience is defined by Brown et al (2018, p.69) as “dynamic conditions describing the capacity of a hotel, together with its stakeholders (staff, guests, the local community), to assess, innovate, adapt, and overcome possible disruptions that are triggered by disaster”. This definition emphasises the overall view on building hotel resilience and provides hotels with a standard framework. However, the human factor of hotel resilience is not particularly examined in-depth, and the role of the agency is not well demonstrated in this definition. In the context of hotels, the human dimension is also placed in an important central position to build hotel resilience and operate disaster management. A transdisciplinary analysis may open a window of opportunity to identify links between hotel resilience building from the entrepreneurial aspect of hotel human agents and the weakness of hotel HRM regarding disaster dealing. Given that resilience is often seen as a bottom-up approach that contributes to handling disasters, the concept of human agency also emphasizes the role and engagement of key stakeholders (Smit and Wandel 2006, Goulding et al 2018, Mili et al 2018, Papageorgiou 2008, Suntornpithug et al 2010, Padilla-Meléndez and Garrido-Moreno 2014). In this research, the concept of hotel resilience is defined overall from the entrepreneurial perspective of human agents (entrepreneurs, managers, and HRM practitioners who work in hotels) according to the literature drawn from different fields. Hotel managers are by all accounts the most important part of the human factors that not only determine the development of the hotel, but more importantly, their behaviour can largely influence the performance of the hotel staff. As Núñez-Ríos et al (2021) mentioned, the perceptions of managers can directly influence the adaptability of the organisation and organisational innovation. Therefore, based on the discussion in sections 2.4, 2.5 and 2.6, human factors are identified and highlighted in this study to define hotel resilience and explore their role in enhancing hotel resilience to disasters.

There is also a significant need to evaluate the abilities and skills of hotel managers to prepare for disasters and how they perceive disasters (Albattat and Mat Som 2019). Therefore, the concept of entrepreneurial resilience discussed in Section 2.4.2.1 can accordingly be applied in this research to particularly discuss the abilities and skills of hotel managers and to further explore how it contributes to hotel resilience building from a human factor perspective. Moreover, there is still a research gap to understand the role of entrepreneurial resilience in building resilience to disasters in hotels. This also provides an opportunity to conceptualise hotel resilience from an important and novel aspect.

In addition to the entrepreneurial aspects of hotel managers, hotel resilience can also be essentially linked to the HRM of hotels. The importance of HRM in building resilience has been identified in section 2.5. This point is key because the human aspect of hotels is still challenged by many factors such as insufficient training, lack of soft skills and knowledge etc. before and after disasters (Brown et al 2017, Nguyen et al 2018, Wang and Ritchie 2012). Accordingly, the human resource of hotels is one of the most significant and complicated issues (Lamanna et al 2012) in terms of managing disasters and building hotel resilience. Once a disaster strikes, the employees of hotels may quit their normal operation of making a turnover and providing service to respond to the disaster, which leads to their normal performance and business being interrupted. Therefore, the shortage of staff in hotels and the arrangement of staff in disaster preparedness are also challenging the hotels (Gunter 2005). Necessarily, hotel agents such as general managers (entrepreneurs), line managers and HRM practitioners, their resilience still need to be evaluated adequately. Especially hotel agents in general with respect to disaster management should be arranged to receive training seminars and be taught how to effectively manage disasters (Barrows and Powers 2008, Rutherford and O'Fallon 2007). Setting up a budget for hotel agents in terms of effective training programmes and recruiting professional disaster managers is an indispensable strategy (Henderson et al 2010).

From a human factor perspective, the concept of hotel resilience therefore can be extracted and described as the continual abilities of hotel agents to prepare and plan for disasters and overcome and adapt to disruptions caused by disasters (Brown et al 2018, Börekçi 2014), develop and upgrade innovative human resource policies and practices in order to achieve better competences (Lengnick-Hall 2011, Orchiston and Higham 2016) of hotel agents for effectively managing potential disasters. It focuses on hotel agents and their management, as well as provides hotel agents with opportunities to tease out their effective features of current conditions and make innovative transformations and help them navigate a future of facing possible adversities.

2.8 Conclusion

This chapter sets out the fundamental concepts that are relevant to this study and provides the necessary knowledge to understand hotel resilience. It clearly outlines the vulnerability of hotels and the importance of building hotel resilience to disasters. Identifying the research gap clearly shows the need of developing research regarding resilience in the hotel industry. More importantly, the role of human factors is justified in building hotel resilience and is highlighted as the key body of this research. It also highlights the role of entrepreneurial resilience and HRM in building disaster resilience, which also provides an understanding of the possible link between them. It also informs the key elements of the development of the conceptual framework and helps guide this research. The conceptual framework is discussed in Chapter 3.

Chapter 3 Conceptual Framework

3.1 Introduction

As discussed in sections 2.6 and 2.7, the specific scopes or boundaries of hotel resilience have not been properly established. While the complexity of resilience studies has resulted in resilience being open to the development of multiple, often contradictory, conceptual frameworks. Indeed, hotel resilience can be understood from various perspectives, but at the same time, too broad a definition of hotel resilience to a lack of effective utility in terms of operationalisation. This chapter presents the primary standpoints and outlines the specific elements of the conceptual framework that further understand the parameters and contours of hotel resilience and inform the future empirical investigations of the thesis.

3.2 Conceptual framework: human factors in hotel resilience (HFHRe)

It should be mentioned that the conceptual framework is centred on the relationship between agency and structure. This conceptual framework aims to understand hotel resilience from a human factor perspective by exploring the complex relationship between ER of hotel agents and the HRM of hotels, and more importantly, to develop an understanding of how human factors of hotel resilience (HFHRe) can be better achieved. In order to do so, this chapter introduces a conceptual framework of HFHRe, which sets up three objectives to specifically understand the main elements of HFHRe and their contribution to building enhanced hotel resilience. From that, its potential and benefits for hotel disaster management processes and human resource policies reformation in hotels are developed for building better HFHRe and future research agendas.

The first objective of this conceptual framework is to understand the importance and degree of entrepreneurial abilities and activities of hotel agents contributing to hotel resilience. The drive and control of the hotel agents within the various

operating units of the hotel can influence the direction of the hotel. This reveals the importance of exploring entrepreneurial abilities and processes that hotel agents should possess to achieve better HFHRe and cope with disasters as highlighted in sections 2.4.2.1 and 2.7.

The second objective of the conceptual framework is to evaluate the importance and degree of human resource practices and policies in relation to respective hotel resilience. The greater details about HRM in building resilience can be found in section 2.5. Equally, awareness of hotel agents on disasters and resilience building, determines what kind of employees should be recruited and if HR practices and policies need to be reformed in order to achieve better HFHRe. In a more general sense, this framework is considered an appropriate tool to analyse the linkage between entrepreneurial skills (abilities) and the process of hotel agents and hotel HRM (policies, HRP and HRD), and their impacts on enhancing effective HFHRe.

The third objective of the conceptual framework is to assess the relative balance between ER and HRM elements in the delivery of existing and improved levels of hotel resilience. Achieving better HFHRe does not only depend on entrepreneurial aspects of hotel agents but also needs to assemble effective HRM ranging from HRM policies and HRM practices (HRP and HRD) so as to select the right people and enhance the abilities of hotel humans regarding hotel resilience building and disaster management through a series of strategies.

Hence, this conceptual framework provides a value-added contribution to the knowledge of how enhanced hotel resilience can be achieved by mainly highlighting HFHRe and understanding the relationship between ER and HRM in hotels; in particular to the understanding of parameters and contours of hotel resilience. From that, another contribution of this conceptual framework is to provide a basic guideline including a series of components, which would give hotel practitioners windows of opportunity to take actions of improving ER abilities

and help them adjust or produce HR policies and practices. In this way, it is anticipated to be a proposal that adopts a balanced evaluation of core concepts applied in this research and provides propositions and managerial suggestions to hotel agents and practitioners in China or even the hotel industry to improve hotel resilience.

Moreover, the conceptual framework is designed to strongly link with the aim of this study and to be a supportive tool to address the research questions of this study outlined in section 1.3.3.

Figure 5 is proposed to represent an integrative framework, which illustrates the interacting elements identified between the required ER and the HRM; and demonstrates the scope of building HFHRe. The conceptual framework can be broadly divided into four elements, respectively, structural factors of hotel resilience, ER, HRM and the scenarios of the conceptual framework. The components of the framework (dependent and independent variables) and core concepts based on various fields of literature (Lee and Wang 2017, Wang and Ritchie 2010, Hosie and Christof 2016, Reilly 2008, Peters 2005, De Vries and Shields 2006) are presented in Table 5 and 6, of which, the dependent variables (Table 6) are primarily focused and discussed in order to collectively define human factors in hotel resilience. From Figure 5, it is clearly understood that ER is formed by entrepreneurial skills and ER processes, and HRM is made up of HRM policies and practices (job analysis, recruitment, selection, training, development and monitoring).

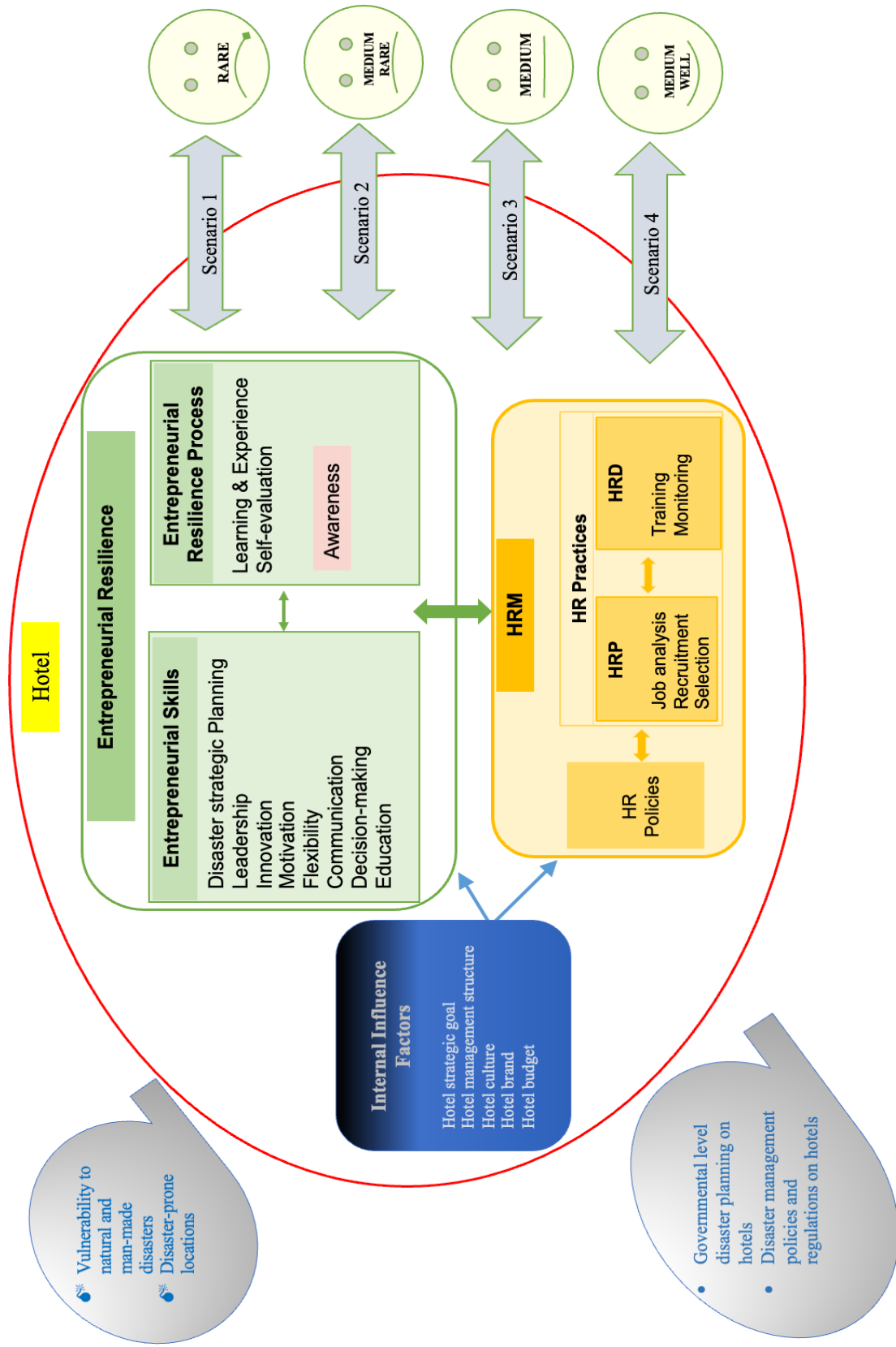


Figure 5: Conceptual Framework of Human Factors in Hotel Resilience (Author's own)

3.2.1 Introducing structural factors

The first part of the conceptual framework is structural factors and aims to understand their impacts on HFHRe. Structure and agency debate has been discussed in different disciplines, which mostly emphasise their complementary forces. The structural aspects thus in this conceptual framework are chosen to explain how structure influences hotel human agency building hotel resilience from both internal and external perspectives. The external factors related to disaster management are exactly what hotel agents need to consider in order to establish effective hotel resilience. While the internal factors focused on here are constrained forces that limit hotel agents to take effective actions to build hotel resilience. Leading on from this, they can be the basis for providing recommendations to achieve complete hotel resilience. Table 5 presents the structural factors including both external and internal influence factors, which also can be seen as the independent variables of this study since they have significant impacts on the decisions of hotel agents regarding the way to build or enhance HFHRe.

3.2.1.1 External influence factors

The two clusters outside the circle in Figure 5 represent the external influence factors ranging from hotel disaster-prone locations and vulnerability to natural and man-made disasters, which affect ER abilities and the process of hotel agents and HRM of hotels. They can be compared to two bombs that might explode at any time, which reminds hotel agents thus need to take enhancing resilience into account when they consider hotel strategic planning in order to prepare for and cope with these potential threats effectively. In other words, these factors can also be seen as motivators to enhance ER of hotel agents and HRM of hotels.

Table 5: Structure Influence Factors of Conceptual Framework (Author's own)

Framework Component			Relevant Explanation
Independent Variables	External Influence Factors	✧ Vulnerability to Man-made and Natural Disasters ✧ Disaster-prone Locations ✧ Governmental Level Disaster Planning on Hotels ✧ Disaster Management Policies and Regulations	➤ Hotels are vulnerable to man-made and natural disasters, which requires high skills and abilities of hotel managers and staff to effectively prepare for and deal with disasters ➤ Many hotels are located in the disaster-prone areas, especially hotels that rely on natural tourism resources ➤ If there is disaster planning involved with hotels in place that are administrated and assessed by governments, which requires humans of hotels (from top managers to line staff) to increase their abilities in order to prepare for disasters at any time ➤ Local DM policies are enforced effectively targeting hotels, which forces hotel managers to comply with and participate in the preparedness for disasters. This requires their ER abilities.
	Internal Influence Factors	✧ Strategic goal ✧ Management Structure ✧ Hotel Culture ✧ Hotel Brand ✧ Hotel Budget	➤ Hotel strategic goal determines whether developing hotel resilience in daily management & directly influences HRM policy ➤ Hotel management structure: various standards, policies and procedures depending on different hotel types, which influence the level of control of hotel managers ➤ Hotel culture: influences entrepreneurial skills and process ➤ Hotel brand: brand influences hotel strategic objectives and how managers take actions to maintain the brand reputation ➤ Hotel budget: directly influences HRM, especially on training (HRD practices)

External influence factors also include governmental disaster planning on hotels and policies and regulations on hotels regarding disaster management. At present, governmental disaster management planning, policies and regulations specifically for hotels are largely scarce or deficient, which implies there are no conditions to guide and enforce hotel agents to improve resilience to disasters. If these factors are in place, hotel agents will comply with them, enhance relevant abilities and develop HRM so that respective resilience can be enhanced accordingly. The external influence factors on the social level are knowledge of disaster management, network and collaboration, and industry features. Social culture is also seen as social knowledge that plays a significant role to prepare for and manage disasters. Social knowledge of disasters drives communities to raise awareness and enhance resilience in order to prepare for disasters. Whereupon hotels as members of communities should strengthen their overall abilities to cope with disasters to enhance community resilience. While hotel agents at the centre of hotels accordingly should enhance their abilities and awareness and keep agile to adapt to potential threats in order to enhance hotel resilience. To survive in the competitive hotel industry, hotels are required to have a competitive advantage. Indeed, achieving HFHRe to disasters is a strategic way to gain a competitive advantage due to the abilities and preparedness that will be beneficial to keep business continuity if disasters happen. This is also an advantage and an opportunity to build networks and collaborations with other organisations to find alternative ways for hotels to prepare for disasters and expand businesses.

3.2.1.2 Internal influence factors

As Figure 5 shows, the internal influence factors are ranging from hotel strategic goal, management structure, culture, brand and budget. They are all interrelated, which influences the decisions of hotel agents to build ER and HRM for handling disasters and can ultimately determine the level of hotel resilience.

The strategic goals are the central purposes of hotels for following to achieve what they expect. While some hotel organisations have always striven to only ensure profits are maximised, some seek to set competitive advantages so as to achieve long-term resilience. Meanwhile, the strategic goals directly influence HRM policies. Given that the goals decide what actions and strategies hotel managers should take to achieve them. Accordingly, the strategic goals of hotels can be varied based on different hotel management structures. As Hodari et al (2017) argue that hotels operated through branded management companies are liable to follow the branding standards and guidelines, which limits the operational control of hotel managers to act for building hotel resilience. The small hotels managed by independent entrepreneurs or managers have complete operational control, yet they might lack systematic management principles, and more importantly, have limited entrepreneurial abilities and implementations of HRM (Nolan 2002). Equally, hotel culture directly affects ER, especially motivation, innovation and learning development of hotel agents, and in particular HRM practices (Cascio 2015). Hedner et al (2011) found that ER depends on both personal aspects and structural characteristics and can be enhanced by improving networks. Most important is the extent of budget setting for hotel resilience building and disaster management, which closely relates to the strategic planning and demand on implementing HRM, particularly on training, learning and development of HRD (see next sections).

3.2.2 Understanding entrepreneurial resilience

The second part of the conceptual framework is the entrepreneurial resilience of hotel agents, which is also the dependent variable of this study. Table 6 demonstrates the dependent variables that form the two key components of the conceptual framework (Figure 5), which are selected after taking clues combining the study of Duchek (2017) on entrepreneurial resilience and the research of human resource management discussed in sections 2.4 and 2.5. ER is one of the two key focuses of the conceptual framework because all the hotel managers

- human agencies are the drivers of hotel operation. Hence, understanding their entrepreneurial abilities and activities is critically important for enhancing HFHRe.

ER can be simply split into ER skills and ER processes. Nothing can be achieved without resilient managers who are motivated, stable and skilled (Riley 1996). More importantly, the visions of managers are required to make strategies happen and be active. The elements of ER presented in the conceptual framework (Figure 5) are mutually inclusive. The education level of hotel agents is always related to their strategic planning skills as discussed in section 2.4.2.1. The ability of managers to strategically make effective planning for disasters is a decisive consideration to develop sustainable and resilient organisations (Vargo and Seville 2011). More importantly, as Wilson et al (2001) illustrate that strategic planning requires strong leadership and is a basic ability for effective resource usage particularly for human resources of human-based hotels. Leadership also plays an indispensable role to make innovation within organisations by connecting the long-term vision with the present needs and organising all actors together (Lester and Krejci 2007, Demiroz and Kapucu 2012) so as to prepare and manage disasters effectively. The awareness and leadership drive the demand of hotel agents for improving hotel HRM to establish an effective hotel 'human' pool regarding resilience and DM in order to deal with disasters effectively.

Table 6: Key Components of Conceptual Framework (Author's own)

Framework Components			Research Perspectives	Relevant Concepts	
Dependent Variables	Entrepreneurial Resilience	Entrepreneurial Skills	Entrepreneurial abilities to prepare for and deal with potential disasters and adopt to change	✓ Education level in Disaster Management (DM) ✓ Leadership is the key to influencing the performance of hotel staff toward achieving resilience ✓ Disaster strategic planning: anticipate and plan to align with changing environment ✓ Innovation is required for adapting to the changing environment ✓ Motivation has a strong influence on DM behaviour and intention ✓ Flexibility is needed to apply different strategies in dealing with disasters ✓ Communication with other actors to produce a robust hotel resilience ✓ Make decisions on strategies regarding resilience building	
		Entrepreneurial Resilience Process	Process-related elements of hotel agents in effective hotel resilience building and DM	✓ Proactive work behaviours to effectively prepare for potential disasters ✓ Learning and gaining experience from disruptive events and more training and routine activities ✓ Critical self-evaluation to tease shortage out and make innovative policies change so that enhance resilience	
		Awareness of hotel managers on DM and hotel resilience creates the demand on HRM including various elements of HRP and HRD in order to establish a resilient talent pool, and influences on making continuous improvement of HRM policies			
	HRM	HR Practices	Human Resource Planning	HRP can be considered as a determinant in making subsequent strategic choice that enhance resilience	✓ HRM policies and practices are limited ✓ Recruitment: considering resilience attributes as required skills and abilities ✓ Staff selection
			Human Resource Development	HRD strategies make critically great contributions to enhance abilities regarding resilience development	✓ Training: strategic investment in human resources in order to improve hotel resilience ✓ Development: learning, simulation, education, and experience to improve skills and knowledge ✓ Monitoring: monitor training and learning progress towards achieving resilience abilities
Hotel HR policy may need to be improved and developed related to resilience building by understanding the role of resilience and DM and combining with the feedback generated from HRP and HRD in order to further implement best HR practices to increase abilities. It aims to provide comprehensive standards and procedures to facilitate enhancement of human factors of hotel resilience.					

At the same time, building entrepreneurial resilience is a process (Duchek 2017). It is also related to awareness in the way that providing continuous learning from training and experience as well as education over time (Hoffmann and Muttarak 2017). The awareness of hotel managers on disasters decides if they take into account disaster management and resilience building (Orchiston 2013), which motivates them to have holistic thinking on the other elements of ER skills presented in this framework. More importantly, it plays a significantly positive role in adequate human resourcing within businesses (Webb et al 2002). Assuming the hotel managers have the awareness of disasters, they would constantly evaluate and find out if they have other required abilities, plans and policies to deal with disasters. Hotel managers are able to exhibit their entrepreneurial skills and abilities through their work behaviours. This can be reflected by how they perceive the opportunities and make innovative strategies in order to adapt to changes and deal with disasters (Baron 2008). Learning and experiencing not only motivate hotel managers to have critical self-evaluation and examine whether their work behaviours are effective or not, so that the relatively poor abilities will be exposed. More importantly, learning from past experiences and disasters is also a positive way to increase their awareness, which intends to regulate current policies and principles so as to improve abilities and resilience (Wang and Ritchie 2010). In an organisation, managers are the patterns to exhibit their leading roles at various levels, which are always foremost and decisive in distributing resources and team building (Riley 1996) in terms of handling disasters.

Although hotel resilience is a dynamic concept related to a range of elements, the study underlines that HFHRe remains a novel idea. Entrepreneurial skills and abilities not only help to enhance the ability of hotel managers to anticipate potential disasters and adapt to change but also have a decisive influence on hotel HRM implementation in terms of augmenting the comprehensive quality of hotel staff regarding disaster management. Equally, their decisions on HRM

implementation of hotels are highly important to indicate what abilities are expected to build better HFHRe. Therefore, improving the combined action of ER and HRM is an effective way to enhance hotel resilience from a holistic human agency perspective.

3.2.3 Reflecting on HRM

Simultaneously, the other key component of the conceptual framework (Figure 5) is hotel HRM, which includes HRM policies and HRM practices. HRM can be viewed as a dependent variable that is in-between structure and agency because HRM itself is structure, but it is ultimately targeting human agency. As Lee-Ross and Pryce (2010) argue that strategic HR practices should be developed from and adjusted with the strategies of organisations. For instance, if a hotel is committed to pursuing competitive advantages and effectively dealing with disasters as a strategic goal, it will need staff with notable ER skills. There will also need to be supportive HRM action plans that seek to adequately implement training and simulations to increase abilities in coping with disasters, as well as plans/policies that focus on recruiting and developing employees with resilient abilities to deal with disasters. Effectively, HRM implementation should be evaluated to ensure abilities and skills of managers and employees totally align with the hotel resilience strategies.

Human resource planning is the beginning of human resources strategy implementation as discussed in section 2.5, which can be related to the ability of managers (ER) to forecast demand on what kind of human resources are needed in order to meet the organisational goals of achieving resilience. For example, if the vulnerability of hotels to disasters can be considered when doing job analysis, hotel managers particularly top managers will have to evaluate ability demands and establish explicit standards of requirements regarding resilience to disasters to sustain and develop a particular positioning (Peters 2005) so that recruit and select right people in order to achieve better HFHRe. At this point, hotel managers

have the power to select quality people who have the required knowledge, skills and abilities for successful performance in confronting difficult situations (Riley 1996) and dealing with disasters, and the design process of building hotel resilience according to the hotel's strategic goals. However, an issue to be aware of is that recruitment and selection in service sectors such as hotels are broadly operated by selectors who have not been trained adequately (Lockyer and Scholarios 2004). In general, hotels do not have standardised policies and processes for selecting and recruiting employees, particularly smaller hotels (Lockyer and Scholarios 2004, Lee-Ross and Pryce 2010).

On the other hand, HFHRe can be achieved by effectively implementing HRD, namely, (training) learning and development and monitoring. HRD needs to be recognised as a continuous procedure as discussed in section 2.5. Equally important is that hotel managers (agents) have to acquire training and development regarding disaster management so as to increase their abilities and awareness of disasters and facilitate their entrepreneurial skills. The most important point is learning (training) should be conducted according to the organisational strategies and kept aligned with strategic goals (Garavan 2007). In other words, whether conducting learning on hotel resilience depends on the extent to which hotel managers perceive disasters when making strategic planning. Yet, simulation exercises can be seen as an HRD approach to developing necessary managerial skills and improving dynamic abilities in particular decision-making abilities (Trim 2004). Simulation exercises regarding disasters are especially useful for improving HFHRe since the complexity of disasters and dynamic abilities are required. At this point, monitoring within HRD is highly important to monitor learning and training progress towards achieving the required abilities and skills in relation to coping with disasters. However, there is a clear-cut issue, which is very difficult to encourage training within organisations because of the shortage of training budget (Riley 1996). This is related to the awareness and strategic planning ability of managers. If they have

awareness of disasters and value the importance of learning about resilience building, they will make this issue simple and put it into their strategic planning. As Riley (1996), Lee-Ross and Pryce (2010), and Morsy et al (2016) highlight learning quality should be focused more rather than on its cost.

There is no doubt that resilient managers and human resources can be seen as the source of competitive advantage and the most important abilities of hotels to deal with disasters. HRM practices to be implemented are based on HRM policies. However, Lee-Ross and Pryce (2010) highlight that the tourism industry generally has been limited by scarce perspectives on HRM policies and practices and even the large hotel chains. The overall hotel HRM policies and practices are absent, let alone the HRM policies and practices on the relatively newer idea of resilience building. Disaster management in the hotel industry has not been perceived properly, and the awareness of hotel managers still needs to be improved (Wang and Ritchie 2010). Therefore, hotel managers are encouraged to take advantage of this valuable opportunity to exploit and improve HRM practices and policies which will adapt to the needs of hotel agents so that effectively achieve better HFHRe to disasters.

3.2.4 Presenting scenarios

The final element of the conceptual framework (see Figure 5) outlines four scenarios that are designed to aid understanding of the extent of HFHRe present within any organization as well as provide a basic index for further data collection. Simultaneously, they also could be the basis for later providing recommendations for policies on hotel resilience. Here, the scenarios can be named by using the degree of steak doneness (rare, medium-rare, medium and medium well) to describe the extent of HFHRe. They are explained in Table 7.

Table 7: Scenarios of the Conceptual Framework (Author's own)

Level of HFHRe	Index	ER	HRM
Rare	Very poor ER&HRM	*Very poor and incomplete skills and abilities of preparing for and coping with disasters (e.g., lack of flexibility and no education experience of DM) ER processes: *Lack of awareness on disasters *Lack of learning processes and knowledge *Lack of understanding of DM and resilience *Lack of understanding of the role of improving abilities related to dealing with disasters	*Lack of HRM policies regarding DM and resilience building in place *None, useless or defective HRM practices related to DM. (e.g., no actual training or simulations for hotel managers about how to deal with earthquakes)
Medium Rare	Poor ER & Incomplete HRM	*Poor skills and abilities of preparing for and coping with disasters ER processes: *Weak learning processes and knowledge *Weak awareness and understanding on disasters and DM *Weak understanding of improving abilities with regard to preparing for disasters	*There are HRM policies regarding DM and resilience in place but no HRM practices thoroughly. (i.e., HRM policy is stated in documents, but the practice is not properly implemented based on the documents) * Or there are some HRM practice activities but no HRM policies
Medium	Acceptable ER & Partially complete HRM	*Relatively complete skills and abilities in terms of dealing with disasters ER processes: *Average awareness of DM: can be improved if constantly HRD practices (e.g., training) are in place *Learning and experience about DM still should be improved *Average ability to forecast demand on human resources related to DM	* Both HRM policy and practices regarding DM and resilience but limited and weak implementation. Partial HR policy and narrow implementation of practices only targeting on few aspects (i.e., HRM policy of learning related to building resilience and DM established and HRM practice of learning implemented, but no HRM policy & practice of monitoring in place to supervise until required skills achieved effectively)
Medium Well	Good ER & Complete HRM	*Robust and comprehensive skills and abilities regarding DM ER processes: *Robust skills and abilities can be preserved and improved constantly through learning and self-evaluation processes *Strong awareness of DM *Effective demands on HRM ranging from policymaking (DM and resilience building), HRP (e.g., recruiting people with resilient abilities) and HRD (e.g., disaster training and simulations)	*HRM policies regarding DM and resilience building have been established and HRM practices (both HRP and HRD) have been implemented effectively. *Yet, policies need to be updated regularly in order to support effective HRM practices implementation and to constantly improve the abilities and develop skills of hotel managers so that achieve enhanced HFHRe

3.3 Relevance to China

Subsequently, this framework is expected to be applied to evaluate human factors of hotel resilience in China. This can be identified through three steps as Figure 6 shows.

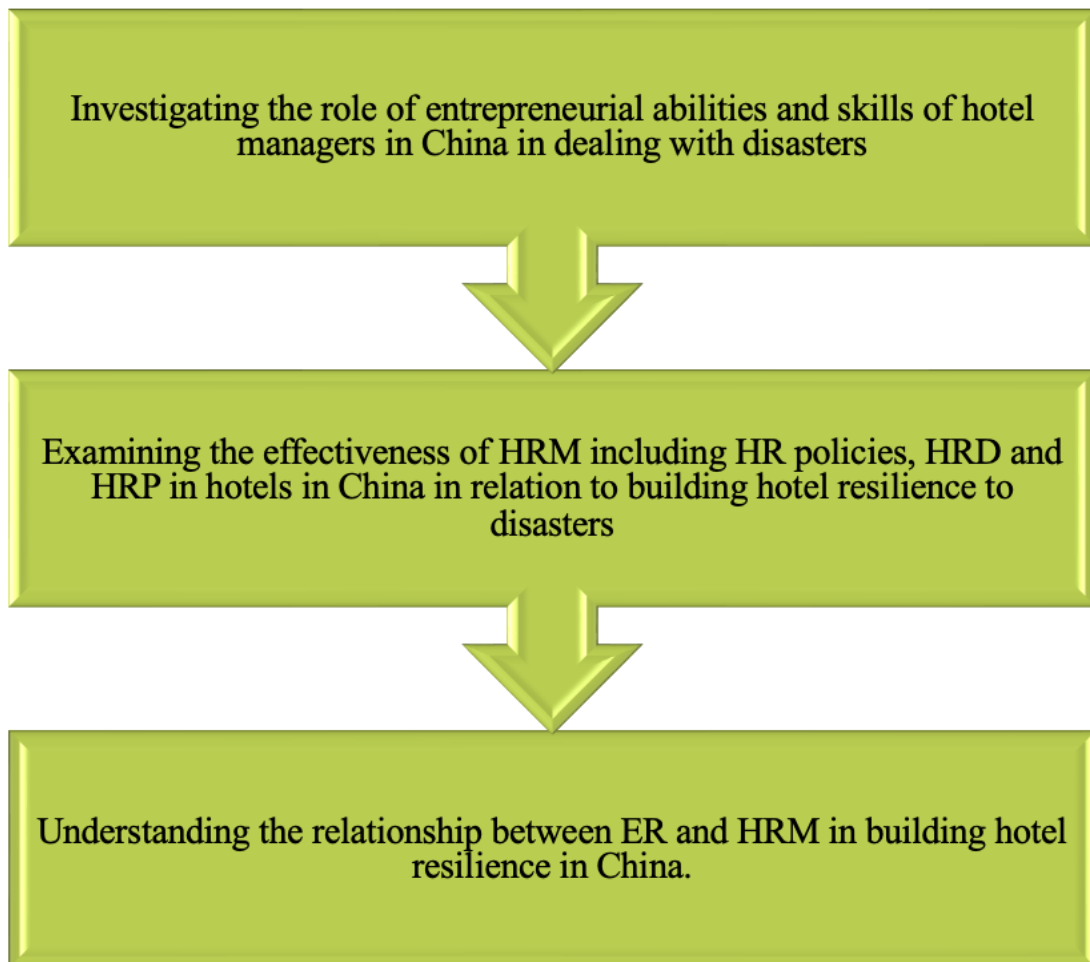


Figure 6: Three Steps to Evaluate Human Factors of Hotel Resilience in China (Author's own)

There are three rationales for these steps. First of all, many hotels in China have experienced adverse disasters such as earthquakes and fires and have been affected negatively. Despite that, a lack of disaster management planning and preparation in the hotel sector is still challenging hotel managers in China. Secondly, hotel managers in China do not take into account disaster management in operation management and they still lack comprehensive

disaster management awareness (Yin et al 2015, Cao 2009). In particular, resilience is a relatively new topic and has not been explored properly in China hotel context, and more importantly, has not been perceived by hotel managers. Thirdly, there is a distinct lack of research on hotel resilience in China from a human agency perspective currently. Even though previous research has raised the issues about HRM practices and policies (Zhang and Wu 2004) and the issues of managers of the hotel industry in China (Hsu et al 2012), their relationships with hotel resilience remain under-explored. By doing so, this framework will contribute to being one of the first studies of hotel resilience, particularly from a human agency perspective in China.

However, two initial limitations should be considered when applying this conceptual framework. First of all, this is a conceptual framework that primarily focuses on one aspect of hotel resilience --- the human factor. Hence, it is limited in evaluating other aspects of hotel resilience, which also provides future research opportunities to explore structural aspects of hotel resilience. Further exploration can focus on structural factors such as the vulnerability of hotels to man-made and natural disasters, hotel disaster-prone locations, disaster planning on hotels at the governmental level, and disaster management policies and regulations. In addition, hotel management structure and culture can be further explored to examine the relationship between human factors of hotel resilience and internal structural factors of hotel resilience. This can help us understand how human factors of hotel resilience can be influenced and how hotel resilience can be enhanced by structural factors.

3.4 Conclusion

This chapter provides a discussion on developing human resilience in hotels by focusing on entrepreneurial resilience including entrepreneurial abilities and entrepreneurial resilience processes, and HRM practices including HRP and HRD. Exploring an effective way of operationalizing understanding human factors

of hotel resilience therefore can be assumed as an advanced approach to contributing to achieving complete resilience of hotels. More importantly, developing a conceptual framework is highly needed by taking advantage of knowledge from different disciplines such as ER and HRM to specifically discuss how human factors of hotel resilience to disasters can be better achieved. The interactions of identified elements are explained and the relationships between ER and HR are highlighted. By enhancing ER abilities and processes (awareness) of hotel managers, HRM (HR policies and practices) will be improved in place alone with this. It is proposed that this framework will be examined in the field of hotel agents (managers) in China hotel context. In the next chapter, the methodology of this study is discussed.

Chapter 4 Methodology

4.1 Introduction

Chapter 3 has presented the conceptual framework, which sets the scene for guiding the methodology described here. This chapter discusses the methodology and the research procedures adopted to collect data for this thesis. The research methodology can be understood as a strategy aiming to find the answers to the research questions and fulfil the research aim and objectives (Clough and Nutbrown 2012), which is always linked to the philosophical view. Within this, the choices of methods and procedures play an important role to influence the entire research process of data collection and analysis (Creswell 2009). Hence, the application of the chosen methodology needs to consider the specific research problems and the nature of the data that is required for collection. This chapter seeks to outline a methodology and respective research methods that can facilitate the aim and four objectives outlined in section 1.3. Accordingly, this chapter starts with a discussion of the philosophical underpinning of this study followed by justifying why the research approach was applied in this thesis. After that, the suitability of the research method used in this study is explained in detail, within that, the most appropriate data collection technique is selected, and the reasons are described with a detailed justification.

4.2 Philosophical underpinning

An integrally philosophical worldview is significantly helpful in understanding how the researcher views the world in the research (Creswell 2009). Many scholars have mentioned that the synonym of worldview is a paradigm (Creswell and Clark 2011, Patton 2002, Rossman and Rallis 2003). A paradigm can be defined as the philosophical assumptions and the underlying series of beliefs that provide principles to guide the actions of researchers, which encompasses the common terms: ontology, epistemology and methodology (Lincoln et al 2011). In other

words, it reflects the choices and ways of researchers conducting the research actions (Saunders et al 2009, Bryman 2008). Ontology is the fundamental starting point with regard to the nature of reality in the world. At the same time, epistemology emphasises how knowledge can be acquired or how the world can be known, which encompasses the relationship between the researcher and what is researched. Therefore, a paradigm can be seen as the conceptual and functional thinking that underpins the research to answer the specific questions and clarify and refine the research methods to be utilised in particular research (Kaushik and Walsh 2019, Creswell 2009).

Several main paradigms have been highlighted in social science research such as interpretivism, positivism and pragmatism, in which, each paradigm holds different views on ontology, epistemology and methodology. The main features of these paradigms are summarised in Table 8.

Table 8: Philosophical Underpinning of the Study (Creswell 2009, Creswell and Clark 2011)

	Interpretivism	Pragmatism	Positivism
Ontology	Multiple realities	Singular reality and multiple realities	Singular realities
Epistemology	Subjective	Subjective and Practical	Objective
Methodology	Qualitative	Mixed-methods	Quantitative

Interpretivism and positivism are the two most common paradigms that researchers applied to think about the development of knowledge in social science research (Saunders et al 2003). On one hand, the interpretivism paradigm ontologically considers that a single shared reality is not viable (Ritchie and Lewis 2003), instead, there is a series of realities that can be explained in many different ways (Jennings 2010). On the other hand, it believes that the realities are complicated socially constructed meanings, values and experiences (Bryman 2016). Interpretivism is concerned with understanding human experiences and behaviours by getting researchers involved and exploring multiple realities (Jennings 2010). In other words, epistemological interpretivism embraces that knowledge and realities are subjective, and are always based on the perception and experiences of individuals. Meanwhile, the knowledge and value of researchers are always taken into account during the whole research journey so that they inevitably influence the way of data collection, data interpretation and data analysis. The interpretive paradigm believes that the deeper meaning can be interpreted and understood by the interaction between the researchers and the participants. Put simply, this paradigm argues that knowledge in terms of humans and their behaviours can be only gained and interpreted from a human point of view. More importantly, this paradigm is suitable to understand and examine the experiences and behaviours of humans and generate knowledge by designed methods to gather meanings that others (participants) have regarding the researched issues (Hatch and Cunliffe 2006). In general, the interpretivist paradigm thus always allows researchers to take part in the whole research journey based on their knowledge and interpretation of the realities and the views of participants to develop the subjective meanings of a particular phenomenon, which can be typically connected with inductive reasoning approach and qualitative methodology to create concepts (Bryman 2016).

On the contrary, positivism differs from interpretivism because it views the social and scientific world as a singular reality that exists independently and objectively (Veal 2017). In other words, ontologically positivism believes that a singular reality can be investigated through conducting controllable experiments and observation. Moreover, positivism aims at proving hypotheses, making sense of the relationship between variables and testing specific theories (Bryman 2016, Jennings 2010). Epistemologically, the positivist paradigm advocates that facts are objective and can be tested, in which, the thoughts and beliefs of humans (researchers) should be separated from the research journey in order to avoid bias. In this paradigm, the research results or participants cannot be influenced by the researchers (Jennings 2010). Because of the objective feature of the positivist paradigm (Bryman 2016), it is thus often connected with the deductive reasoning approach and quantitative methods, which allows researchers to control the knowledge and relevant steps within a highly structured research process based on objectivity and standards to test hypotheses and theories and analyse quantifiable data (Saunders et al 2003). However, there are limitations regarding the positivist paradigm since it cannot provide or restrict researchers to gather deeper meaning to the phenomenon that is being researched. At the same time, the positivist paradigm commonly argues one fact by testing hypotheses and theories rather than constructing theories and generating knowledge based on the human point of view. Therefore, this paradigm is not compatible with the aim and objectives of this study and is not appropriate to be applied.

Simultaneously, another paradigm positioning comes from a pragmatism that originates from 'actions, situations and consequences' (Creswell and Creswell 2018, p.10), which gives researchers the freedom to choose the most effective and freewheeling approaches and methods to answer particular research questions that are being researched (Creswell and Creswell 2018, Kaushik and Walsh 2019). Action is the key point in the pragmatism paradigm because human action can never be disconnected from past experience and human thoughts (Kaushik

and Walsh 2019). More importantly, pragmatism advocates there can be singular or multiple realities that can be changed through actions (Morgan 2014, Creswell and Clark 2011), which emphasises the consequences and how to achieve the objectives effectively, in other words, it aims to figure out practical problems in the real world (Hothersall 2019, Kaushik and Walsh 2019). However, the pragmatist paradigm focuses on the consequences of the research and the research questions instead of focusing on the research methods (Creswell and Clark 2011, Creswell 2018). Pragmatism embraces the process of gaining knowledge as a continuation with going through steps several times in terms of research design, methods selection, choices reflection and research questions revision, which can provide flexible approaches and methods according to the specific requirements of research design (Goles and Hirschheim 2000, Morgan 2014). This paradigm thus is often linked to the abductive reasoning approach that highly relies on the explanation and understanding of the views of participants (Bryman 2016), which allows moving backwards and forwards between inductive and deductive (Kaushik and Walsh 2019). Therefore, this paradigm is always concerned with mixed methods to deal with the research questions (Creswell 2009, Tashakkori and Teddlie 2008).

Therefore, based on the discussion above, the interpretivism paradigm is adopted as the most appropriate paradigm for conducting this research. By adopting it, the researcher is able to address the issues regarding human factors (ER and HRM) and their relationships with hotel resilience and disaster management of hotels. In this regard, there is a need to recall the main argument of this study, which is to evaluate hotel resilience to disasters from human factors perspective, which is based on the requirement of gaining a broader knowledge about resilience, entrepreneurial resilience and HRM. The meanings of hotel resilience and disaster management need to be understood according to the views and experience of participants and the interpretations and knowledge of the researcher. Furthermore, resilience is a broad concept that needs to be

constructed through induction and development, in the contrast, not to be verified without the opinions and values of humans that positivism embraces. Moreover, based on objectives (1) (2) (3) of this study, they involve a subjective human point of view rather than objective reality. Recalling objective (4) of this study, subjective experiences, interpretation and induction are highly needed in order to provide appropriate recommendations for hotel policymakers to take actions to enhance hotel resilience to disasters from human factors perspective. Due to the similarity, it seems both interpretivism and pragmatism can be applied to this study. However, pragmatism is rejected in this study because it emphasises utilitarianism, which results in a lack of accuracy (Feilzer 2010). In other words, it seeks any necessary solutions to solve the problems and any applications as long as they work but ignores the most accurate reality (Creswell 2009). While, the interpretivist paradigm allows the researcher to accurately interpret meanings of disaster resilience, reasons and subjective experiences of participants and their behaviours in a specific context of hotels (Neuman 2000). Therefore, interpretivism is considered the most appropriate paradigm to conduct this research.

4.3 Research approach

Along with the philosophical underpinning, researchers need to choose the most appropriate research approach in order to successfully conduct the research. As Bryman (2004) mentioned, a researcher needs to clearly understand the nature of the relationship between research and theory. At present, the main research approaches can be categorised into inductive, deductive and abductive. The following paragraphs discuss the rationale for adopting the inductive approach and the strengths and weaknesses of the three approaches.

The inductive approach is a logic of thinking about research questions, which works in a bottom-up way (Creswell and Clark 2007). By adopting this approach, researchers follow the logical process of the specific to the general, which is from

gathering specific information and finding out a pattern to making broad generalisations and developing a theory (Bryman 2004). In this regard, researchers start by observing the world and analysing the existing concepts and applying them as resources to develop a framework and to guide the data collection and address data analysis (Yin 1994). The researchers then utilise the views of participants to create broader themes and findings, then move to generate a theory by building the interconnection between the findings (Creswell and Clark 2007). The inductive approach is flexible that on one hand allows researchers to form research questions by taking advantage of existing knowledge and concepts, on the other hand, researchers are not limited to pre-determined knowledge and can explore more possibilities. More importantly, researchers can generate more probable meanings through empirical data collection to make conclusions and build up concepts to relevant research areas (Saunders et al 2012). However, this approach is a time-consuming process that potentially ends up with a wrong conclusion (Gratton and Jones 2009). This research commences with reviewing the existing literature with the aim to evaluate resilience in the hotel context. However, the researcher found that resilience is a broad concept that can be evaluated from many different perspectives. The gap is thus raised that scarce studies about explicitly evaluating hotel resilience from a specific perspective, which results in a lack of effective utility in terms of operationalisation. Then a specific perspective of hotel resilience — the human factor is decided as the main concern to devise a conceptual framework for HFHRe. The conceptual framework guides the researcher to conduct data collection and direct the data analysis. Ultimately, the findings of this study build a new concept of HFHRe and add new opinions to the existing knowledge regarding hotel disaster resilience and disaster management. Therefore, based on the aim and objectives, and interpretivism paradigm, the inductive approach is employed as the most suitable approach in this study.

On the other hand, the deductive approach involves a logical process that is in

the opposite direction of the inductive approach. The deductive approach works as a top-down process, which means it commences with the general and ends up with the specific (Creswell and Clark 2007). In more specific terms, the deduction starts with a limited existing theory known in advance as a base and then generates hypotheses that can be tested according to the pre-determined theory. After that particular data are collected to produce findings in order to test the hypotheses and decide if they are confirmed or rejected and prove if they can be added to or are contrary to the theory (Bryman 2004). This approach is more concerned with testing hypotheses and quantitatively revising theory, at the same time, it allows researchers to complete the studies within a short time frame (Babbie 2013). However, the deductive approach does prevent researchers from divergent thinking and creating more possibilities because of the limitation of theory. Also, the deductive approach is more suitable for positivist researchers to conduct quantitative research with testing hypotheses. Therefore, this approach is inappropriate to be adopted according to the aim, objectives and philosophical underpinning of this study.

In addition, the approach underpinned by pragmatism is abductive reasoning. The abductive approach can be considered as the logical process that is in between induction and deduction. As Dong et al (2015) illustrate, the abductive approach is described as an incomplete, creative, intuitive, innovative and even revolutionary process. During the abductive process, researchers can move back and forward to compare empirical data and the existing theory until they achieve the best explanation. For example, a doctor can utilise an abductive approach to make the best diagnosis according to the symptom given by the patients. Moreover, the abductive approach can provide evidence to support testing hypotheses by using the best information that can be available. Applying an abductive approach allows researchers to start with an insufficient range of observations and move on to the most feasible explanation for the range (Lu and Liu 2012). However, it aims at gathering the best explanation of a range of given

reality and test hypotheses which is not integrated and can result in making false conclusions (Walton 2014). More importantly, this approach is underpinned by the pragmatism paradigm and is thus not compliant with the aim and objectives of this study.

4.4 Research methodology

As mentioned above, the main aim of this research is to evaluate hotel resilience from a human factor perspective by exploring the complex relationship between entrepreneurial resilience (ER) of hotel agents and hotels' HRM in China, and how HFHRe can be better achieved. In other words, the main purpose can be interpreted into two elements: 1) to understand how human factor contributes to building hotel resilience to disasters, 2) to specifically explain how both ER and HRM in hotels influence HFHRe building, 3) to clarify in what way that HFHRe can be effectively improved. In order to achieve the first element, the first question is developed to focus on clarifying the meaning of the human factor in building hotel disaster resilience and understanding the role of the human factor in the phase of disaster preparedness. Secondly, ER of hotel managers and HRM are considered two primary aspects of the human factor in the hotel context in terms of improving hotel disaster resilience. In this regard, understanding the nature of ER and HRM and exploring if hotel managers take behaviours and actions to build their ER and hotel HRM is highly important. To satisfy the third element, a question regarding recommendations is needed to gather more information so that eventually make a contribution to improve HFHRe. Therefore, the research questions are designed as section 1.3.3 shows, which are also developed to achieve the objectives of this study demonstrated in section 1.3.2.

When research is conducted, the most important aspect for the researcher is to select the most appropriate and understandable research methodology that is able to successfully answer the research questions (Sedmak and Longhurst 2010). The research methodology, also known as the research strategy, is a

scheme that specifically describes how the data can be collected, analysed and reported by different methods (Creswell 2009). Leading research methods in the social science discipline are quantitative, qualitative, and mixed methods (Creswell 2018, Bryman 2016, Jennings 2010). While there are differences that have been examined among these three methods by scholars. For example, quantitative researchers prefer to use numerical data to identify realities, whereas qualitative researchers emphasise the information provided by participants' words, sentences and images (Zickermann 2014). Furthermore, researchers who applied mixed methods tend to combine the attributes of quantitative and qualitative methods (Swanson and Holton 2005). The comparison of advantages and disadvantages of quantitative and qualitative methods are concluded as follow (see Table 9).

Table 9: Comparison of Qualitative and Quantitative Methods (Creswell and Creswell 2018, Bryman 2016)

	Qualitative	Quantitative
Advantage	● Flexible style ● Can provide detailed and basic information ● Can provide more in-depth knowledge ● Naturalistic ● Allow opportunities to ask 'how' and 'why'	● Can avoid personal bias ● Can allow broader research
Disadvantage	● Time-consuming ● Not easy to recruit participants	● Rigid style ● Large dataset ● Less human perception ● Cannot reflect how humans act about the research

As illustrated in sections 4.2 and 4.3, the interpretivist paradigm and the inductive approach determine that qualitative is the most appropriate method to be adopted in this study. The qualitative method aims to understand the phenomena and meaning, and to gain knowledge and insights from human beings based on their experiences of the world (Creswell 2009, Patton 2014, Denzin and Lincoln 2005). It pays attention to the quality of the data rather than the quantity (Miller and Brewer 2003). While Strauss and Corbin (1998) consider qualitative research can be any type of research that produces statistical findings by numerical procedures and quantification. Yilmaz (2013) justifies this definition of qualitative research as simple because it just emphasises data collection techniques and procedures and other aspects have been ignored, yet it is defined from a quantitative perspective. Thus, qualitative research should be defined comprehensively in order to demonstrate its fundamental features (Yilmaz 2013). Drawing from a series of literature, qualitative research can be described as an interpretive, inductive and detailed method to the inquiry of human situations, problems, descriptions of things, facts and processes so that the meanings in relation to the human experience of the world can be revealed (Creswell 2009, Patton 2014, Denzin and Lincoln 2005, Yilmaz 2013, Bryman 2018), which is also the approach that the interpretivist paradigm mainly embraces. In this term, the qualitative approach is understood as a way to seek answers by identifying a wide variety of social contexts and the groups or individuals who stay in these contexts (Lune and Berg 2017). Employing an appropriate and reliable method when conducting research not only can effectively answer the research questions but also can enhance the validity and reliability of the research (Newman et al 2003, Sedmak and Longhurst 2010). Indeed, this study can be considered a pathfinder study, one of the first of its kind to evaluate in detail the human factor aspects of hotel resilience in a conceptual way. Thus, the trustworthiness of this research plays a critically important role in order to make a significant contribution to the knowledge. The reasons for adopting qualitative methods in this study can be explained as follows.

First of all, the qualitative method is the most appropriate approach as it is often applied to explore how humans construct themselves and their contexts, and also how groups and individuals of these contexts understand their settings through social structures, roles, judgments, attitudes, symbols and so forth (Kanbur 2002, Lune and Berg 2017). In order to clarify this point, recalling the main inquiry of this study is needed. According to the aim of this study outlined in section 1.3, and the elements of ER and HRM and their possible links are outlined in sections 3.2.2 and 3.2.3, the main focus of the study is the one area of hotel resilience – human. Qualitative methods allow the researcher to explore more facts from the views of participants and understand the relationship between ER and HRM based on the experiences of participants. As Neergaard and Ulhoi (2007) and Jennings (2010) state, deep insights can be provided and the extracted meaning beneath the surface can be excavated by employing qualitative methods. By doing so, the level of ER of hotel managers to disasters and the importance and degree of HR practices and policies of hotels in relation to respective hotel disaster resilience can be assessed, which cannot be quantified by quantitative statistics. More importantly, it is appropriate to answer the research questions of this study.

Secondly, qualitative methods can provide additional benefits over quantitative in a way which allows the researcher to collect relevant information from the viewpoint of the involved population (participants) so that a given research topic or question can be answered. In particular, it plays an effective role to gain specific information with regard to opinions, behaviours and contexts of specific people (Maxwell and Mittapalli 2010, Bryman 2018). Moreover, qualitative methods can provide effective techniques that help researchers examine complex relationships (Analoui, 2000). In order to address the research questions, the actions and activities hotel agents undertake to prepare for disasters need to be identified and interpreted, and a deeper understanding of various factors that influence HFHRe needs to be gathered. By adopting qualitative methods, the

answers to the research questions can be effectively gathered from the words, opinions and behaviours of participants. Moreover, this study seeks to explore details about how human agency contributes to building hotel resilience, the structural factors thus are not considered as a main focus. Indeed, the underlying qualitative approach advocates detailed explanations and exactly illustrates which factors are critical and valuable (Atieno 2009). At the same time, intangible elements can be identified such as the status of disaster preparedness and degree of resilience through the process of qualitative research.

Thirdly, qualitative research advocates quality, which holistically highlights what (meanings, concepts), how (characteristics and methods), when and where (contexts), and why (reasons and sources) (Lune and Berg 2017). Conducting research through qualitative methods can offer insights and develop thinking related to hotel resilience based on the empirical data gathered from participants. The relationship between the entrepreneurial resilience of hotel agents and hotel human resource management and how they contribute to hotel resilience can be examined here and sets the scene to provide recommendations. In this sense, the qualitative approach is appropriate to be employed in this study since it helps interpret and better understand the complex relationships of a specific context (Daymon and Holloway 2011). By doing so, the research questions of this study can be appropriately addressed.

4.4.1 Choice of research method for data collection

Unlike quantitative methods typically employing random surveys or other statistical techniques to collect data, qualitative methods tend to apply the techniques that need to get participants involved such as purposive sampling and interviews to collect data (Kanbur 2002). Moreover, a wide variety of techniques can be adopted in qualitative research commonly ranging from the focus group, and case study to interviews (Snape and Spencer 2003, Lune and Berg 2017, King 2004, Gray 2018, Costley and Fulton 2019). Researchers can gather in-

depth insights and understand participants' social experiences and behaviours by adopting these methods. These insights and perceptions are based on the evolving themes that formed in the process of researchers' observation and communication with the participants. In order to have the most suitable qualitative method of data collection for this study, the most appropriate choice is made from the following three methods: case study, focus groups and in-depth interviews.

A case study is an empirical method that helps researchers explore and investigate a phenomenon within a specific context (Yin 1994). It allows holistic and in-depth explorations and investigations regarding a complicated issue existing in a real-life context (Zainal 2007). In much research adopting a case study method, a small geographical area or a very limited number of individuals are selected as the research cases (Zainal 2007). While researchers can choose to employ either a single case or collective cases in one study according to their actual demand. The case study method can be extensively applied in a wide range of disciplines, especially in social science research (Crowe et al 2011). Most often, this method is used to describe and demonstrate an event or a phenomenon (Crowe et al 2011). For example, the researcher applies the 2004 Indonesian tsunami as a case study to conduct the research regarding disaster recovery (Said et al 2011). The primary benefit of adopting the case study method is that it allows researchers to conduct the study within the situation where the activities happen (Yin 1994). In addition, it helps researchers explain the complexities of a particular situation in a specific way that cannot be available in any other type of method. Even though the case study method has many advantages and applied in different fields, its weaknesses can be raised in various terms. First of all, this method can only employ a very limited number of subjects, in some cases, only one subject is used. This could result in very limited evidence available to generalise conclusions. In particular, the hotel industry is a large group that is run by a huge number of people. Only utilising a single hotel or multiple hotels as the case cannot represent the phenomena existing in this

whole industry. More importantly, the case study method is criticised since it takes a long time to conduct and gather massive amounts of data, which also leads to data management failure (Zainal 2007). Therefore, this method is not considered appropriate for this study.

The focus group as one of the qualitative methods is excluded in this study since it involves the interviews in the form of a group (Jennings 2010). Some main challenges cannot be overcome, which leads to this method being eliminated in this study. First of all, distance is the biggest issue as the potential participants are located in different cities across China. If the researcher arranges a central meeting point for the participants, it will cost too much time or money. Secondly, hotel managers are hectic with their businesses, which raises another challenge, namely, it is very difficult to bring them together at the same time to have group meetings. Thirdly, the focus group method is not advisable to keep the privacy and confidentiality of information. In this way, the participants cannot feel free to talk about their own experiences and opinions since they may not know each other. Even this method is given up in this study, there are still some advantages that can be mentioned. For example, it can save time and cost if the participants are distributed in a common place. In addition, it can provide broad information with regard to social issues (Nyumba et al 2018).

Accordingly, an in-depth interview is chosen as the most suitable data collection technique for this study since it is considered a powerful method to gather much explicit personalised information associated with participants' opinions (Bryman 2016, Veal 2017). In-depth interviews can be divided into many different types including face-to-face interviews and internet interviews (e.g. via Skype etc applications) and non-face-to-face interviews via telephone (Bryman 2016, Veal 2017). Face-to-face interviews are identified as the most appropriate interview technique because they allow participants to present their personal opinions and express their own ideas regarding their daily activities and experiences with a

free talk style (Veal 2017). Meanwhile, the researcher can find out new themes that are not established in advance and gain more broad information. What is more, face-to-face interviews provide the researcher with an opportunity to ask personalised questions and to observe the actions and behaviours of participants (Jennings 2010). However, this research at the same time has to reserve the opportunity to employ online interviews through GoToMeeting or Skype or Teams since the outbreak of COVID-19 resulted in travel restrictions for some time in some specific areas.

4.4.2 Choice of semi-structured interviews

In-depth Interview is an effective tool to obtain broad detailed information, which can be considered three types – structured, open semi-structured and unstructured in qualitative research (Veal 2017, Bryman 2018, Creswell 2009). The strength and weaknesses of these three types of interviews are presented in Table 10.

A structured interview is usually adopted in quantitative research by asking participants pre-designed questions in the same way. Moreover, this type of interview can be completed in a short time manner. On the other hand, it does not provide the researcher opportunity to ask follow-up questions and does not allow to explore deeper experiences so there is no additional information available. Therefore, this type of interview is not considered for this study.

On the contrary, an unstructured interview starts with a general idea, which has no structure and pre-designed questions. In other words, it can be seen as a conversation rather than a type of interview (Gerrish and Lacey 2010). Thus, there are only limited topics can be discussed during the interviews with no orders and wording to any questions. However, it is very free and flexible for interviewees to talk about anything they want regarding the topics.

Table 10: Advantages and Disadvantages of Three Types of Interviews (King 2004, Bryman 2018, Creswell 2009)

	Structured interview	Open Semi-structured interview	Unstructured interview
Strengths	● Comparable response ● Save time	● In between structured and unstructured interview ● Flexible to ask open-ended questions ● A prepared list of topics ● Can gather independent thoughts	● Free to talk ● Detailed ● Flexible
Weaknesses	● No flexibility ● Not free to answer questions ● No additional questions added	● Time consuming ● Limitation to encompass large samples	● Limited topics ● No orders and wording to any questions

The open semi-structured interview is preferent and chosen for this study since there is a need to understand hotel resilience from the view and experience of participants. Indeed, open semi-structured interviews are personalised to meet the explanatory demand of understanding the meanings and actions from the viewpoint of participants (Saunders et al 2009). Walliman (2017) also highlights that individual experiences, understanding and viewpoints can be gathered through applying in-depth semi-structured interviews. Meanwhile, the research topic can be expanded and information on a certain area can be developed with a free talk style. Moreover, it allows one to explain actions and collect information from participants by providing participants opportunities to present their opinions flexibly and describe their experiences with freedom (Veal 2006) to gather in-depth explanatory and explorative information about daily activities (King 2004, Bryman 2008). More importantly, the researcher can take the chance to get additional actions and behaviours by observing during the interviews, which is an

important way for increasing the validity of the study (Driscoll 2011).

It should be particularly noted that the open semi-structured interview is the most suitable choice if there is a need to conduct a formative evaluation and require interviews with key relevant managers, and staff (Adams 2015). In order to examine the level of ER of hotel managers to disasters in China and how it contributes to hotel resilience, there is a need to get detailed information from hotel managers and explore how they implement disaster management and what actions they implemented to build resilience to disasters. In addition, it is significant to examine how HRM influences hotel resilience by identifying the importance and degree of human resource practices and policies of hotels in China in relation to respective hotel resilience to disasters. In this term, a series of questions around building resilience to disasters can be designed in advance and asked to the participants when conducting interviews.

However, there are also a few limitations to collecting data by conducting open semi-structured interviews. Firstly, this is a time-consuming process. The researcher needs to spend a long time preparing interviews and contacting participants, and also needs to cost money for flight and accommodation during conducting interviews in China. Secondly, there is a limitation to encompassing large samples. The researcher needs to contact and recruit participants one by one before conducting interviews, which is time-consuming and difficult work.

4.5 Pilot study

Conducting semi-structured interviews is not an easy research activity, which requires researchers to have skills that can ask follow-up questions and gather much information. Thus, a pilot study was applied in this research as the final preparation before formal data collection. It not only can help develop interview questions, but also enable the researcher to accordingly adjust the interview guides. Three pilot interviews were conducted with hotel managers from large

hotel chains in Chengdu Sichuan province of China via Skype because of the travel restriction caused by COVID-19. The experience was very helpful as it reflected the weakness of the interview questions, meanwhile, helped enhance the self-confidence of the researcher. It was hard to arrange an agreed time to conduct the interview since there is an eight-hour time difference between China and the UK. Moreover, the internet was unstable and led to the interviews being interrupted, which made interviewees impatient during the discussion. In addition, the interview guide was revised, some questions were removed and improved questions were added. A copy of finalised interview guide can be found in appendix 1.

4.6 Interview agenda and sampling

For conducting the open semi-structured interviews successfully, it is important to choose the sampling of informants. When selecting the sample, the purposive sampling strategy was adopted since there are specific criteria or perceptions of the examined issues (Creswell and Clark 2011). The specific selection criteria for participants were designed in Table 11. Considering the difficulties to reach the hotel managers and HRM practitioners in different cities in China, within a purposive sampling strategy, the snowball sampling technique was adopted in this research, in which a small group of people were interviewed in the initial stage and such participants would suggest other participants who possess relevant characteristics regarding this research (Bryman 2018).

Table 11: Participants Selection Criteria (Author's own)

Criteria	Description
Position	Hotel senior managers including operation managers, HR managers, security managers etc.
Location	Disaster-prone areas: Chengdu (earthquake, fire, flood, typhoon,), Shenyang (earthquake, flood, fire, typhoon)
Gender	Male & Female (if available)
Nationality	Chinese, Western nationals
Hotel type	Large chain hotels and independent hotels
Prior working experience	3 years and above

According to the main focus of the study, to evaluate the entrepreneurial resilience of hotel agents (managers), hotel HRM, and how these two elements contribute to hotel resilience, the initially planned sample size was at least 20 participants including hotel senior managers (operation managers, HRM managers, Security managers) from two cities (Chengdu and Shenyang) of China were interviewed in order to build more detailed depth concept, demonstration and analysis of hotel resilience and disaster management. The final size was changed because of the unpredictable and potential situations such as the depth of interviews, availability of resources, time and data saturation etc. Data saturation was achieved after conducting the 21 interviews and data collection was concluded since there was no new information emerging in three consecutive interviews. The cities were chosen according to the times, space and significance of disasters. The most recent event COVID-19 proves that the hotel industry around the world is highly vulnerable to pandemic disasters.

Chengdu is the capital city of Sichuan province, which benefits from its popularity among tourists and is also challenged by its vulnerability to disasters. It is generally known that Sichuan is located in a disaster-prone region, where already experienced many catastrophic events in the past 10 years. The most shocking

event is the 2008 Sichuan earthquake, which caused tourism losses of 62.4 billion Chinese Yuan (Qiu and Zhou 2009). It is a popular and famous destination in China, whose tourism relies on natural resources and historical infrastructure. Hotel as the main tourism element plays a significant role in Sichuan, which is composed by 397 star-rated hotels and 103 of them are located in Chengdu (SCTA 2018). Hence, Chengdu as a typical tourism destination and one of the most vulnerable places in China to earthquakes completely meets the requirements of this research in order to particularly assess hotel resilience and disaster management.

Shenyang, the capital of Liaoning province, is an economic and cultural centre in the northeast area of China. There are many historical tourist sites and heritages, which attract many tourists every year. Along with this, the hotel industry in Shenyang is developing stably and is composed of international and national large hotel chains. Shenyang is located in a relatively safer geographic location, where is less vulnerable to natural disasters (earthquakes) compare with Chengdu. Occasionally, it is threatened by floods, especially in July and August every year. However, it is mainly challenged by man-made disasters such as fire. Thus, Shenyang is chosen to identify the level of hotel resilience to disasters in China.

The data were collected in two phases as shown in Figure 7. 21 hotel senior managers including general managers, hotel operation managers, human resource managers and security managers from 21 hotels across two cities.

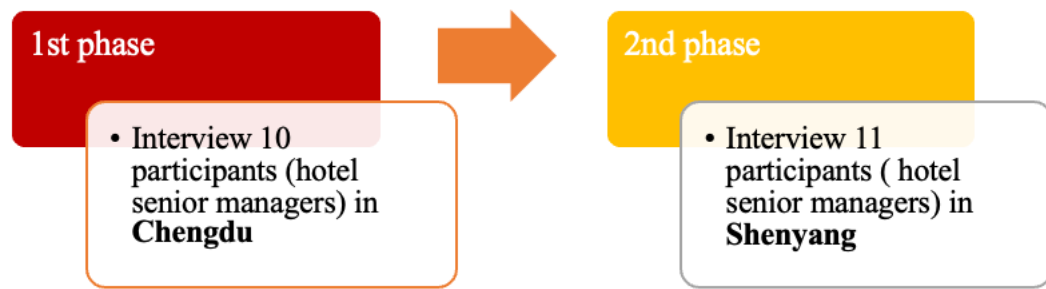


Figure 7: Research Phases of the Study (Author's own)

Hotel managers in Chengdu (Sichuan province) and Shenyang (Liaoning province) were interviewed to collect qualitative data in order to find out what the broader China prospectively might be and a deeper perception toward the research questions is captured. More importantly, this can examine how ER and HRM play a significant role to enhance respective hotel resilience. Each interview took at least one hour, but the duration was subject to change depending on how the depth of the information was gathered.

10 representatives from hotels in Chengdu were interviewed in the first phase, which were asked about their experiences and actions during past disasters and what future reforms or changes they need to attempt, how they perceive building hotel resilience to disasters and more importantly infer the degree of hotel ER and HRM for preparing disasters.

In addition, 11 open semi-structured interviews with hotel senior managers were conducted in another city in China Shenyang in the second phase in order to examine the broader and more detailed perception as well as an understanding of China. More importantly, it aimed to get many more managerial processes and actions related to hotel resilience and disaster management. In this regard, ideas and actions gained from managers within the hotel industry possibly provide some authoritative knowledge for the development of more relevant and effective preparedness methods.

It is important to clarify that this study does not focus on China as a whole and collects data at a national level. Rather, two cities (Shenyang and Chengdu) were chosen as the focus of the study in specific regions at the same tier according to the Chinese City Tier System and data was collected in both of two cities. This is not only because these two cities are typical of the northern and southern regions of China, but also because they can represent the cultural differences between the two regions. By choosing these two typical cities, it can also reflect the impact of cultural differences in terms of disaster awareness and the proactivity of hotels as discussed in Section 7.5. However, this also brings research limitations to this study and provides research opportunities for future studies. Further research can take China as a whole and collect data nationwide to examine hotel resilience in broader China.

4.6.1 Conducting interviews

The researcher contacted participants in advance and arranged a suitable time and place to conduct interviews. The interviews took place in different cities in China and different hotels in various forms to satisfy the requirements of the participants. Due to the situation of COVID-19, all interviews with twenty-one hotel managers were conducted individually via Wechat (a free messaging and calling application) and Skype. As noted in Chapter 2, a small hotel can be defined as has 50 rooms or less and less than 50 staff (Buhalis and Main 1998, Ingram et al. 2000, Nolan 2002, Sharma and Upneja 2005, Avcikurt et al 2011), whereas large hotels have more guest rooms and departments, employment and responsibilities, meanwhile, more vertical levels, rules and regulations (Wang and Ritchie 2010). In this research, all interviewed hotel managers work in large hotels, which have more than 50 rooms on each site. The interviewees were classified and coded according to the hotel types they were working for. The interviewed hotel managers who work in independent hotels were coded as IH + number, by parity of reasoning, chain hotels were coded as CH + number. The participant

profiles of the interviewees are shown in Table 12.

Table 12: Participant Profiles of Interviewees (Author's own)

Participant No.	Position	Formal Qualification	Gender	Working length
I1	OM (Operation manager)	No	Male	5-10 years
I2	GM (General manager)	MBA	Female	5-10 years
I3	OM	No	Female	5-10 years
I4	OM	Bachelor of management	Female	3-5 years
I5	OM	Bachelor of tourism management	Female	5-10 years
I6	DM (Duty manager)	No	Female	3-5 years
I7	OM	Bachelor of marketing	Male	3-5 years
I8	HRM (Human resource manager)	Level 3 Certified HR Professional	Female	3-5 years
I9	OM	Bachelor of tourism management	Male	5-10 years
I10	OM	Bachelor of tourism management	Male	5-10 years
C1	HRM	Bachelor of tourism management & Level 3 Certified HR Professional	Female	5-10 years
C2	HRM	Bachelor of HRM	Male	3-5 years
C3	OM	Bachelor of hospitality management	Male	3-5 years
C4	SM (Security manager)	Level 2 Certified Fire Engineer	Male	5-10 years
C5	OM	Bachelor of marketing	Male	3-5 years
C6	OM	Bachelor of business management	Male	5-10 years
C7	GM	Bachelor of hospitality management	Female	5-10 years
C8	OM	Master of hospitality and tourism management	Male	3-5 years
C9	HRM	Bachelor of hospitality management	Male	3-5 years
C10	OM	Bachelor of E-commerce	Female	5-10 years
C11	GM	Bachelor of tourism management	Male	5-10 years

The interview guide was designed based on the conceptual framework in Chapter 3 and the literature review in Chapter 2. The consent was given by participants prior to the interviews, meanwhile, both the Participants Information Sheets (see appendix 2) and Participant Agreement Forms (see appendix 3) were provided before they decided to take part in the interviews. Once the participants agreed to be interviewed, the actual interviews were conducted. The interview started with an introduction about the research followed by direct and indirect questions. Along with this, some probe questions were asked in order to get more in-depth information. During the interviews, all the information was recorded by audio recorder with consent from participants in advance.

As a lone working researcher, it is necessary to conduct a risk assessment. Before the outbreak of COVID-19, there was a potential risk because the researcher needed to conduct the research outside the UK which required the researcher to travel around and complete the interviews within a limited time manner. However, the researcher stayed at home all the time and conducted online interviews because of COVID-19, which had a very low risk. Therefore, a risk assessment was not necessary in this case.

4.7 Qualitative data processing and analysis

Qualitative data analysis is the process to understand, organise, categorise and interpret the data gathered from the response of the participants, which includes various techniques such as thematic analysis and framework approach (Flick 2014, Auerbach and Silverstein 2003). Within them, thematic analysis is widely welcomed by many qualitative researchers to analyse qualitative data since it can interpret the issues, meanwhile, the most common analysis technique can develop themes and provide a better understanding of data (Bryman 2018). The thematic analysis process is demonstrated in Figure 8. The thematic analysis provides a more understandable and accessible way to conduct data analysis, in particular for research starters (Braun & Clarke 2006). Researchers who are not

familiar with thematic analysis can also easily figure out and learn since there are only a few procedures (King 2004, Braun & Clarke 2006).



Figure 8: Thematic Analysis Procedure (Bryman 2018)

Accordingly, the thematic framework approach technique will be employed in this study to analyse the data since it allows an effective theme-based approach involved and provides researchers with the opportunity to ensure the linkage between the data and themes (Ritchie et al 2013). The framework approach is the matrix-based method of thematic analysis to “construct an index of central themes and subthemes” (Bryman 2018, p. 579). This method is especially suitable for this study because it is helpful to address a large amount of text-based data (Ritchie and Lewis, 2003). Moreover, it allows researchers to mark, categorise and manage data with regard to key concepts and themes (Ritchie et al 2013). It also is advantaged since the framework approach is flexible but highly structured and enables the researcher to move back and forward across the data obtained to recognise emerging themes. Another reason why this method is selected because the data analysis can be completed without computer software, which does not require the researcher to take a long time for learning computer skills. It is composed of five interactive steps illustrated in Figure 9.

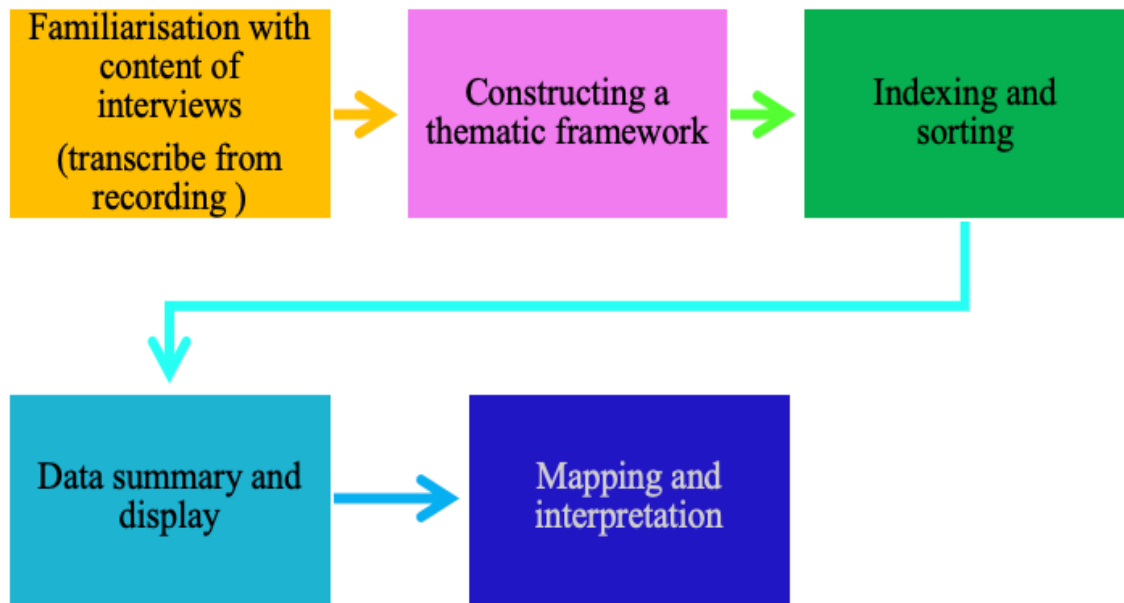


Figure 9: Framework Approach Procedure (Adapted from Ritchie et al 2013, Hackett and Strickland 2018)

The process of data analysis begins with a time-consuming process – manually transcribing interviews by carefully listening to the recordings and then reading the transcripts to have a broad sense of the information gathered from participants (Creswell 2009). An example of the interview transcript can be found in appendix 4. Then coding as much as possible that might be relevant. Followed by constructing the thematic framework to assist in organising the data. An example of a thematic framework is included in appendix 5. Topics and ideas that emerged in the first step can become the initial thematic framework. The initial framework is then refined by the indexing and sorting stage. During this step, it is necessary to sort the coded groups into relevant themes or categories in the matrix. Finally, conducting interpretation to explore the meaning in the gathered data, which involves subjective understanding and revisiting the relevant literature regarding this research by connecting with the findings (Roberts-Holmes 2011).

4.7.1 Trustworthiness of data

The trustworthiness of data is an expression of the value of research findings. Trustworthiness is also just like its name, which means the findings are worthy to be trusted and paid attention to (Lincoln and Guba 1985). In this research, the trustworthiness of data is demonstrated in a widely accepted and original way claimed by Lincoln and Guba (1985) including four criteria credibility, transferability, dependability and confirmability. For example, the credibility of this study can be fulfilled through a member checking process in order to examine the findings and interpretations with participants. In terms of transferability, the researchers can provide a deep and accurate description as best as they can, and then the people who try to transfer the findings can evaluate the transferability according to their requirements (Lincoln and Guba 1985). In order to achieve dependability, the researcher makes sure that the research is conducted logically and ensures that all the data and transcripts can be traced and well documented (Tobin and Begley 2004, Lincoln and Guba 1985). Once credibility, transferability and dependability are all successfully reached, confirmability is built up (Lincoln and Guba 1985). Clearly explaining the reasons for each choice including concepts applied, methodology and data analysis techniques can enhance the understanding of other researchers, which helps to increase the confirmability.

4.8 Ethical considerations

According to the guidelines of Bournemouth University, the researcher has completed the Research Ethics E-module, and the Research Ethics Online Checklist is approved and included in appendix 6 before the interviews are conducted. This research will be based on the “golden rule”, which gets involved research with humans that researchers should treat others as you would want others to treat you (Veal 2017). Put specifically, considering the vulnerability of participants since they are asked questions about disasters, all the participants

are informed consent and have no risk of harm in this research, which means they have their freedom of choice and reserve the right to take part in, reject or withdraw this research. Moreover, the participant information sheet will be provided for potential participants to give them sufficient information to make an informed decision. The nature and aims of this research will be clearly and honestly explained to the participants. Simultaneously, the researcher will clearly describe the benefits for participants and demonstrate the importance of the research. More importantly, all the participants are assured that their identity will be anonymous and data gathered will be maintained privately and backup confidentially in the device of the researcher and also stored anonymously so that no other people have access to them.

4.9 Conclusion

The research strategy adopted in this study draws on the interpretivist paradigm to evaluate hotel resilience to disasters from human factors perspective, which provides flexibility and freedom in terms of selecting the most appropriate methodology to interpret and induct behaviours and meanings from participants. Qualitative methods employed are underpinned by interpretivism and an inductive approach. The reasons for choosing the qualitative method and open semi-structured interviews are explained in this chapter. Moreover, this chapter illustrates the data analysis technique, in which, the thematic framework approach is employed in this study to analyse the data obtained. The next chapter will present the data gathered from semi-structured interviews.

Chapter 5 Findings on Entrepreneurial Resilience

5.1 Introduction

The aim of this study is to evaluate hotel resilience from a human factor perspective and understand effective disaster management by exploring the complex relationship between the entrepreneurial resilience of hotel agents and hotel human resource management in China. To achieve it, this chapter, therefore, is to present and analyse the key findings on entrepreneurial resilience gathered from qualitative interviews. It also provides clear identification of the entrepreneurial resilience of hotel agents that are responsible for building hotel resilience and as one of the most important drivers of effective hotel disaster management.

The first objective of this study is to critically analyse the level of entrepreneurial resilience of hotel managers to disasters in China and how it contributes to hotel resilience. To achieve this, it is necessary to understand what the attributes of entrepreneurial resilience are and how much contribute to hotel resilience. Thus, the empirical interviews with 21 hotel managers (agents) of independent hotels and chain hotels from Shenyang and Chengdu in China enable the understanding of hotel resilience from the view and experience of hotel practitioners and explore how they implement disaster management and what actions they implemented to build resilience to disasters.

5.2 Priority of building hotel resilience: hotel agents

One of the main findings of the empirical research confirms that human agents play a significant role in making hotels resilient in China. In particular, the research interviews with hotel managers highlighted that all the participants also saw human resources and the enhancement of the abilities and skills of people (both hotel managers and staff) as the most important priority in building hotel resilience. Hotel agents mainly including hotel managers and operators were

especially identified as playing a significant role in the process of building disaster resilience of the hotels. Moreover, the research also suggests that the enhancement of their skills related to disaster management should be wide-ranging and comprehensive. All the participants highlighted this in their respective answers and feedback. In addition, the participants also discussed the need for hotel managers and staff to focus on making timely adaptations to the operation of the hotel to reflect actual and changing situations. The need for timely adjustments was regarded as being critical if the respective hotel was to improve its chances of remaining operational and surviving any disaster as well as undertake stable and effective recovery afterwards. As one of the participants commented:

The person who makes decisions in the hotel is one of the most important elements to making hotel resilience. In the face of disasters, we need to have a calm mind and logical thinking, and actively respond to the policy to provide customers with the most assured service and reduce losses. So, hotel managers, as well as the decision-makers, are the first element to make hotels resilient to disasters... (IH5)

In addition, another participant also highlighted that:

Our hotel staff is the foundation to build hotel resilience. Moreover, it is inseparable from the experience and ability of hotel managers and the efforts of all employees...(IH6)

The findings also suggest that there is strong consensus, all the participants confirmed that the abilities and skills of hotel agents represent another vital aspect contributing to making hotels resilient to disasters. In particular, all participants recognised the central role of and heavy reliance upon hotel managers and operators in managing disasters and in effectively building hotel resilience and that ultimately this requires them to ideally develop a high level of abilities for hotel managers and operators. At the same time, the findings also confirm that there is a scarcity of managers and hotel agents that presently are equipped with a comprehensive 'full set' of disaster management abilities and

skills. There remain important skills gaps that need to be addressed through further disaster management training and skills development. The 100% of interviewees did confirm that many managers possessed basic and rudimentary disaster-dealing abilities and skills, but there remained notable opportunities for their respective competencies to be improved over time during the work. A manager in charge of hotel operations said:

In my opinion, in order to build effective disaster resilience in the hotel, a necessary condition is that the hotel staff should have strong disaster resistance quality, ability and skills. In other words, a hotel cannot enhance disaster resilience if its internal staff are not competent enough to be overwhelmed when encountering difficulties or disasters. Of course, all department managers and leaders of the hotel need to have professional and superior disaster-handling abilities first...(CH7)

However, the participants indicate that in practice there is no systematic assessment and supervision of the ability of hotel managers and staff to deal with disasters. What's more, hotel managers in some ways do not focus on improving their ability to deal with disasters. With regard to abilities and skills in dealing with disasters, the interviewees pointed out that:

The overall ability of all hotel staff is the most important aspect of making hotels resilient to disaster. But in actual work, I found that our employees' ability to deal with disasters is relatively weak, and this is where we are more troublesome in management... (IH3)

At the same time, a hotel manager further showed significant concerns about the lack of abilities and skills in making hotel resilience and felt that necessary to explain:

... in our practice, we did not put much attention and effort into building disaster resilience...the most important aspect of building disaster resilience, I would say the quality and ability of the hotel staff...because we lack investment in this area, we also lack the skills and experience to deal with disasters... (CH4)

The information provided by the interviewees partially reflects that hotel agents are aware of the importance to build abilities and skills in dealing with disasters in making hotels resilient to disasters.

5.3 Understanding of entrepreneurial resilience to hotel resilience

In the context of hotel disaster management considered in this study, entrepreneurial resilience can be explained as a complex series of abilities and skills that hotel managers or practitioners need to possess in order to realise the hotel's survival and sustainable development in the face of disaster. A main finding from the interviews was that it was widely regarded among hotel managers and staff that skills closely associated with notions of entrepreneurial resilience, were also viewed as complementary and indispensable. In particular, several specific skills and attributes were often mentioned as being important in the interviews. These are summarised as follows in descending order of the frequency they are mentioned in the interviews:

- Situational awareness on disasters
- Leadership skills: Team Building and Cooperation, Communication, Innovation, Flexibility
- Decision-making
- Disaster strategic planning
- Prediction on potential consequences
- Implementation and sense of responsibility
- Allocating resources
- Learning and experience
- Education

5.3.1 Situational awareness on disasters

The findings suggested that the perception of hotel agents on disasters is an important part of entrepreneurial resilience, which is also viewed as the basic premise to build hotel disaster resilience (Tsai et al 2020, AlBattat and Som 2015, Lamanna et al 2012). 100% of participants from both independent and chain hotels highlighted this in their respective answers. According to a hotel manager:

The disaster awareness of all hotel staff is the driving force for the hotel resilience. If employees have a good sense of disasters, and can correctly understand disasters...will drive the hotel management and employees of all levels to prepare together at all times to seek advantages and avoid disadvantages...(IH7)

Another participant continued to stress:

The disaster awareness of hotel management and employees is the first place for the hotel to be resilient...disaster awareness is the foundation of a person's foothold, survival and development. Being prepared for a disaster in times of peace should be respected...From a small individual to a large team, or even a country must have a sense of crisis and disaster (CH8).

All the hotel managers interviewed did emphasise that disaster awareness is a foundation for the entrepreneurial resilience of hotel agents and a prerequisite for building hotel disaster resilience. However, 70% of participants of independent hotels said that there is a lack of disaster awareness in their practical work especially when it comes to disasters other than fires. The hotel manager from an independent hotel replied:

...I do not think that I have a very good understanding of hotel disaster management and the building of hotel disaster resilience...we do not often encounter disasters, and naturally, we do not have that strong awareness of them, and we do not focus on them that much...we have no official and rigid rules and requirements, saying that we have to integrate disaster management into the normal operation of the hotel, except for fire...we have to meet the fire prevention regulations of the superior...we naturally become more aware of fires than other

disasters...(IH4)

The finding shows that disaster awareness of hotel agents can be viewed as one of the most important attributes of entrepreneurial resilience, meanwhile, plays a significant role to enhance hotel resilience. However, there is much improvement needed in this aspect due to many reasons, for example, lack of disaster-related experience and knowledge.

5.3.2 Leadership skills

More importantly, the findings also confirm that leadership skills play a significant role in preparing for, responding to and recovering from disasters. There was a strong consensus among all participants on the role of effective leadership in helping hotel disaster management to be implemented and facilitated more effectively. More details are discussed in section 7.2.2.

The findings strongly indicate that hotel managers act as leaders before, during and after disasters. Hotel managers at all levels should lead, influence and motivate employees to jointly work hard to improve their abilities, so as to enhance the ability of hotels to deal with disasters. More details are discussed in section 7.2.2. According to the response of a hotel manager:

...we are the absolute leaders and pillars when dealing with and preparing for disaster. Our ability and awareness determine the success of hotel disaster management. We also need to teach our employees how to prepare for emergency situations and how to deal with them... (IH7)

Disasters often make employees and customers feel scared, confused and disorderly. At this time, if hotel managers have strong and calm leadership, they will proactively appease and influence their subordinates and teams to calmly face difficulties and disasters (Beech and Chadwick 2006, Demiroz and Kapucu 2012, Alzoubi and Jaaffar 2020). In this way, the hotel staff can face the disaster bravely in a difficult situation, reduce fear, and restore calm and order. At the

same time, the calm leadership of the hotel manager can also help them avoid the occurrence of cascading disasters. Their accurate and prompt application of effective planning and calm leadership could have prevented the tragedy from spreading further and could have prevented even greater losses. As one participant stated:

When the hotel encounters a disaster, the hotel leaders and managers cannot hide, and must first stand up, take responsibility, avoid fear, and actively respond to the impact of the disaster. Let employees see that the leader has not been overthrown, but on the contrary, they are confident. Only in this way can employees truly enhance their confidence, courage and ability to overcome disasters... (IH5)

On the contrary, if the leadership of the hotel manager is not appropriate, it will also have a negative impact on the people in the disaster, and at the same time it will deepen the chaos, and the hotel manager will also fall into leadership failure.

The energy and determination shown by managers to survive a disaster are important because it stabilizes employees. If our hotel is in the most difficult moment, and the hotel managers are the first to panic and are not calm, then their staff will naturally shrink back. In other words, it is still the leader of our hotel managers, which is the precondition for the staff to deal with the disaster... (IH7)

Proactive leadership enables businesses to recover from crises and disasters (Azazz and Elshaer 2022) since proactive managers often take various measures before the disaster occurs to avoid the loss or minimise the impact caused by the disaster, instead of thinking of taking measures to make up after the disaster occurs. The leadership of hotel managers is also closely related to the awareness of hotel managers of disasters and their ability to predict the possible consequences of disasters as mentioned in section 2.4.2.1. Therefore, leadership is first reflected in whether hotel managers are aware of potential disasters and hidden dangers before disasters, so as to eliminate all potential impacts of disasters as much as possible, and at the same time, they will actively organise employees to brainstorm together to establish disaster plans. An interviewee

mentioned:

...the strength of leadership is of great significance to improving the level of hotel disaster management and improving hotel resilience to get through disasters. Also, our leadership is not formed in an instant, but requires a process of learning and training slowly.... (CH2)

Moreover, in accordance with the strategic goals of the hotel, formulate a strategic disaster response plan (strategic planning). At the same time, they will ask their subordinates to make progress together, learn disaster-related knowledge, and teach them to fundamentally improve their disaster response abilities.

Leadership must not only be reflected in how to influence my subordinates, and how to make plans, the most important thing is to teach subordinates so that they can learn skills, so as to improve their abilities from the foundation. A hotel manager with effective leadership also needs to have a positive impetus to ensure the progress of daily work... (CH2)

The findings suggest that hotel managers in China are desirable to facilitate and develop comprehensive and effective leadership skills, generally including calm thinking and decisive decision making, team building and cooperation, effective communication, continuous innovation and flexibility to changes.

5.3.2.1 Team Building and Cooperation

The findings (all participants) confirm that leadership skills of hotel managers that focus on employees and team building are critical to overcoming disasters. Hotel managers, therefore, need to build a strong team with the necessary skills and personality to deal with disasters. Before that, they identify the strengths and areas of improvement for each team member and motivate them to improve their ability to overcome disasters. In addition, this leadership skill includes the facilitation of cooperation and support between team members by providing training and networking activities, allowing team members to better understand and share information with each other. However, the findings reveal that this cannot be completed effectively throughout independent hotels in China since

there is a lack of human resources with capable employees.

In addition, 95% of interviewees confirmed that it is very important to establish a disaster response team or disaster resilient team composed of capable and coordinated hotel managers and staff. In particular, the findings also suggest that it is necessary to establish a hotel disaster management team with cross-departmental members. These teams can be constituted by senior, middle managers and department managers in their hotels. For example, a participant expressed:

...our disaster resilience team has been created in advance, and it consists of general manager, operation manager, security manager, engineering Manager, duty manager, housekeeping manager and other colleagues from different departments... (CH5)

But the premise is that all members of the team should have strong comprehensive abilities and relevant knowledge. Whether it is a disaster resilience team or a working team of various departments, members of the team need to play their own strengths, be willing to share responsibilities, build mutual trust, and form efficient cooperation in continuous cooperation and adjustments and can solve problems together to survive the disaster (Pascucci et al 2022), so as to achieve the strategic goals of hotels. This also requires human resource management in place, which will be further discussed in the next chapter. Moreover, the team leader must also have the experience and expertise in disaster handling, as well as outstanding characteristics to lead everyone to work together in order to achieve the goal. There was an interviewee who commented:

The building of disaster resilience and disaster management of hotels requires cross-functional cooperation or multi-departmental collaboration to obtain the best results. Teamwork is common in most hotels or organizations, and a lot of work requires teamwork to complete, but it can be tricky to form a team with the right combination of disaster-related knowledge and expertise. In addition, creating an effective team requires real leadership skills, and not many people have such leadership skills. (CH6)

According to 48% of interviewees, understanding the importance of team building as well as understanding the meaning of rational use of human resources is the foundation for getting through disasters. If hotel managers want to contribute to improving the hotel resilience to respond to disasters, they need to exercise leadership skills in team building. Just as a participant said:

Hotel managers need to think more about the team, not the individual. Clearly define team goals and responsibilities and implement necessary team building activities and encourage behaviours. More importantly, the leader should also work, integrate into the actual work, and play the role of a team example...Once there are strong and proactive teams with professional knowledge in place, we will be willing to understand and accept the challenges brought about by disasters. (CH8)

The findings reveal that both chain and independent hotel managers are aware of the importance of team-building and desire to develop such leadership skills. However, from the words of the manager of chain hotels, it can be seen that it is more necessary to establish a cross-department cooperative disaster management team in the chain hotel, so as to obtain more information effectively.

5.3.2.2 Communication

There is a strong consensus among all participants that effective communication is one of the manifestations of the desirable leadership skills of hotel managers in dealing with disasters. As a hotel manager stated:

Whether dealing with disasters or not, working in a hotel requires good communication skills, whether it is an employee or a manager. When dealing with emergencies, hotel managers must not only communicate effectively with employees but also communicate with guests and appease them...(IH3)

The findings also indicated that “*higher-level orders or decisions regarding disaster handling need to be communicated decisively, clearly and effectively (CH8)*”. Otherwise, the information obtained by employees differs greatly from the upper-level decision-making and initial intentions. For example, another

participant presented that:

I think that when dealing with disaster-related issues, effective communication skills are what hotel managers should have. Whether it is before the decision is made or after the decision is issued. Communication skills play a key role in the effective implementation of decision-making, and it also allows the executors to clearly understand their own tasks and responsibilities, so as to efficiently solve the problems and troubles caused by the disaster...(CH10)

Information processing outside the scope of their own functions is reported to the upper-level manager after analysis and judgment and immediately executed after the manager's decision and guidance, which also need effective communication.

As a hotel manager mentioned:

Like me, after I collect as much information as I can, but I am unable to make a decision, I have to report to my superior and then follow the instructions of my superior... (IH9)

Furthermore, the findings suggest that the effective communication of hotel managers is multifaceted, facilitates information sharing and builds situational awareness, especially when dealing with disasters (Murad et al 2021). They not only need to communicate with the internal staff of the hotel but also with other stakeholders (including the media, suppliers, customers, partners, hotel owners and government departments, etc.) (Jiang and Ritchie 2017, Fung et al 2020). The interviews revealed that communication can facilitate hotel managers resolving the negative impact of the disaster, and timely convey information about the disaster and the progress of disaster handling to employees, which cannot only eliminate suspicion of employees on the hotel and avoid rumours (Kim and Lim 2020) but also stabilise the mood of employees and encourage them to face difficulties together (Jin et al 2014, Mazzei et al 2022). At the same time, effective communication enables the hotel manager to understand their own resources and the ability to allocate such resources to understand all kinds of external information and intelligence, such as government guidelines and policies.

According to the new policy, disaster management decisions are adjusted in time to adapt to the changes in the external environment. To some extent, they need to get support from relevant government departments through effective communication. For example, a hotel manager stated:

We must establish a friendly relationship and communication with government departments and strictly comply with their requirements to carry out our management. In addition, we may need their help at certain times, such as inviting them to conduct safety training for our employees, etc... (CH4)

This in fact plays a key role in establishing effective situational awareness (Huang and Xiao 2015), which helps hotel managers identify problems before a disaster occurs and acts as a management tool that promotes learning among hotel staff. They need to assess the current problems in the hotel based on the information collected in order to implement reasonable solutions to address them. Situational awareness is an important prerequisite for hotel managers to decide what needs to be done in a complex and dynamic environment, making it an important element of flexible leadership. By constantly integrating disaster management activities with environmental change and implementation progress, the desired goals can be achieved.

All the participants confirmed that transparent, direct, face-to-face and targeted communication is more effective. Meanwhile, social media also plays a key role in the internal and external communication of the hotel, especially in the event of a major disaster, they can obtain real-time disaster-related information and policies. A hotel manager said:

... communication is more important when dealing with disaster events. ... have communication within the department, including communication with my subordinates and my superiors. ... also need to communicate with external individuals and organisations such as our supplier, media, or relevant department of government. The purpose of communication is to solve the problem, and the fundamental purpose is to safeguard the interests and business reputation of the hotel when a

disaster occurs... (CH5)

5.3.2.3 Innovation

52% of participants suggested that continuous innovation in disaster management is one of the leadership skills desired by hotel managers. In a complex and changing internal and external environment, hotel managers should motivate themselves and their staff to adopt and even create better and newer methods to improve the disaster management of the hotel, thereby improving the disaster resilience of the hotel (Le and Phi 2021). For example, a participant stated:

I think the ability to innovate is one of the most effective abilities in the face of disaster. During a disaster, if we can put forward new ideas and use them to try new methods, such as using new Internet technologies to implement reforms, we can continue to maintain the operation of the hotel... (IH3)

The findings suggest that hotel managers should explore innovative strategies to facilitate new policies and get recovery from disasters (Ignat and Constantin 2020). While leading the staff to explore new strategies to deal with disasters, it is also possible to embark on the path of innovation and turn disasters into opportunities for hotel development. According to the response of a hotel manager:

The hotel manager is also an explorer. I will need to guide my staff through the new business and learn new skills to cope with the disaster. For example, we have organised our team to do LIVE commerce to sell our products during the disastrous challenging time so that we can still make money to keep the operation of the hotel. So far, this is an effective way to innovate, and it shows that we have made the right decision... (IH2)

Furthermore, hotel managers play a significant role to facilitate new policies and the implementation of the policies made by the government and the operation standards made by the group of chain hotels. As a hotel manager highlighted that:

During disasters, government policies can change as the situation changes, so we will follow the government's policies and change our own plans. Actively cooperating with the policies of various relevant departments and the country can maximise convenience for customers and employees and reduce losses of ours... (IH5)

Since the nature of the disaster is sudden, in many cases there is no previous experience to learn from. The methods used in the past may not be applicable in this disaster or may not be used well. At this time, leaders are required to be innovative when dealing with disasters and making decisions. A participant said:

...Innovation for hotel resilience is certainly important, but it is necessary to decide whether the new plan is feasible or not based on actual abilities and circumstances... (CH3)

At the same time, some participants highlighted that innovative thinking is needed in dealing with disasters for managers since this will bring new opportunities. For example, a hotel operation manager said:

... disasters not only bring negative effects but also opportunities. But only if we can be innovative in dealing with disasters. We are able to be adventurous when making decisions... have innovative thinking... (IH7)

All participants indicated that they would also take innovative actions after a disaster to adapt to new changes brought by the disaster to improve the hotel resilience to disasters. In this process, the foresight and courage of hotel managers to take responsibility will be fully recognised. A hotel manager commented:

It is very necessary to take innovative actions after a disaster. After the earthquake of magnitude 8.8 in Sichuan in 2017, although our hotel was not physically damaged, many people still felt fear and anxiety about travelling to Sichuan, and the negative impact could not be changed in a short time. This undoubtedly brought challenges to the recovery of our hotel and even the tourism industry of Sichuan.

At the same time, it is a good opportunity for the hotel managers to do some self-

reflection and make up for any mistakes. For example, a hotel chain manager in Chengdu said:

... the action we took was to take advantage of the media to resume normal operations. At that time, Sichuan was reported and promoted every day on TV and on social media. So, we just took advantage of this opportunity to cleverly carry out marketing and introduce some preferential measures at that time, which attracted more guests and helped our hotel get through the disaster. This meant an effective action for our hotel to improve disaster resilience but examined the entrepreneurial resilience of our managers at the same time ... (CH2)

However, there were seven interviewees from independent hotels who were concerned about the weakness of innovation in disaster resilience. For example, a participant stated:

... one of the most important points is actually what we lack, that is, innovative management. Due to the limitation of many factors and the lack of personal ability, we cannot achieve innovation in disaster management... (IH8)

5.3.2.4 Flexibility

Six participants (28.6%) also suggested that the flexibility of both managers and employees is a very important leadership skill when dealing with disasters (Hao et al 2020). Hotel agents need to constantly face customers and deal with various issues all the time, especially in times of disaster or crisis, the leadership and decision-making of hotel managers must be more flexible, so as to help them adapt flexibly to the ever-changing environment. In a limited time, any decision made by anyone is risky, but brainstorming can be applied and finally make a solution and decision based on the actual situation. As a participant stated:

When dealing with disasters, I think upper-level managers should not only assign tasks to employees according to the pre-made plan but also give them opportunities to express their ideas and opinions and leave them space to make decisions, so that they should not feel pressured. If they feel pressured, they fear that they will be punished or blamed if they make

a wrong or inappropriate decision, or make mistakes, which prevents them from acting on the situation... (CH3)

Hotel managers must always pay attention to the rules and regulations and response plans of hotels and make timely and flexible corrections based on the actual situation. Good rules and regulations and response plans must be constantly revised and improved. In order to adapt to changes, this also requires hotel managers to be flexible in leadership and management. According to the response from a hotel manager:

...We are trying to give every management position as much authority as possible to make decisions. In emergency or disaster situations, we may reduce approvals and processes and have the flexibility to change our plans to foster a culture of innovation and improvement...to be flexible, it's also important to avoid bureaucracy... (CH10)

However, to some extent, the flexibility of the hotel manager is constrained by the standard operating procedure in the face of disaster. In particular, the hotel managers of the chain hotels are also required to facilitate daily work and to conduct disaster management in accordance with the standard operating procedures of their hotel group. A manager from a chain hotel said:

Our daily work is to ensure the effective implementation of the standard operation procedures of our group and accurately follow the operating standards of the group. This is also the reason why we are limited in our ability to prepare for disasters because our operating standards do not specify the requirements. However, if we do disaster management according to our own wishes, we will also violate the operating standards of the group... (CH7)

Furthermore, there were also participants who provided an opinion that the flexibility of leadership of hotel managers in handling disasters should also be reflected in the flexible allocation of resources, especially human resources. This point will be discussed further in the later sections. For example, a participant replied:

... flexible deployment of human resources and asking for help from external resources according to our own situation during a disaster is highly important, which will not only maximise the deployment of people with strong comprehensive abilities but may also reduce our expenses to some extent... (IH1)

5.3.3 Decision-making

The findings also suggest that the ability of hotel managers to make decisions is one of the most important components of their entrepreneurial resilience. All interviewees did reach a consensus on this point. Hotel managers as the decision makers of hotels at any time, who need to make predictions according to the information and data of the disaster situation, and the response abilities of hotels and decide the best plan to deal with disasters. They also determine whether they can consider incorporating disaster management into their daily management and strategic planning and whether they have the motivation or subjective activity to invest in building disaster resilience. A hotel manager stated that:

As a manager, I should have clear judgments, or decisiveness from time to time, when making decisions. When faced with a disaster, I must quickly decide what to do, whom to do it, how to do and whom to contact... (IH3)

Meanwhile, hotel managers also mentioned that decisions are made about the allocation of critical human resources for the hotel. Decision making plays an important role in supporting resource allocation and improving entrepreneurial resilience (Franco et al 2021). They need to make decisions for the comfort and allocation of the staff and guests of the hotel in the event of a disaster so that the hotel can maintain operation and recover quickly in the face of a disaster.

...I am the support and decision-maker of the entire hotel. We need to decide how to maintain the staff and ensure the safety and benefits of employees and guests in dealing with disasters. ... we also need to maintain the relationship with customers and protect their rights and interests, such as providing compensation to maintain their loyalty. So, they can come back to our hotel after a disaster... (IH2)

Another hotel manager also commented that the ability to make decisions is highly important and necessary for hotel staff to deal with disasters, whether they are senior managers, junior managers or staff. But the difference is that the decisions they make are not the same in terms of the magnitude and scope of their impact. For example,

For hotel leaders and senior managers, it is important whether they can keep calm when disaster strikes, whether can make correct decisions quickly based on past experience and knowledge, and whether they can convey accurate and effective messages and commands to his/her subordinates. All this will test the ability and experience of the hotel leadership team.... (IH6)

The findings also confirm that the decision-making ability of hotel managers is the foundation of disaster management. Without decisions, there can be no rational response to disasters. Moreover, decision making is at the heart of disaster planning, whether it is planning, personnel allocation, or command and leadership, ultimately requires decision making. A hotel manager responded that:

I think decision-making ability is a must. When dealing with disasters, we will outline a direction and framework according to our own professional knowledge. Then try our best to make an appropriate decision about the series of problems caused by the disaster. In addition, after the problem is solved, the problem should be reviewed to summarize the experience and see which decision is positive and which decision is not helpful to overcome the disaster...(CH10)

It resonated with all the participants that the ability to make decisions is closely related to the knowledge and courage of the hotel manager since disasters are often very sudden. In the decision-making process, a hotel manager is faced with a variety of alternatives, and he must rely on his own experience in disaster management, disaster-related knowledge and other characteristics to select and apply them. These experiences, knowledge and other characteristics in the mind of managers have different effects. Managers may be experiencing such a disaster or crisis for the first time, which is unexpected and irregular. There is a

tight time frame for decision making and no room for considering more and reflection. This will make the hotel manager in play with their decision-making ability to face the risk of wrong decisions, and even cause the failure of disaster response resulting in more serious consequences. As a result, hotel managers may hesitate or fear responsibility in the face of a disaster. A hotel manager stressed that:

As a hotel manager, the ability to make decisions during disaster or emergency situations is very important. Make a quick decision! I need to inform and reassure the rest of the staff about the situation we are currently in. Make decisions as quickly as possible, and never hesitate or be afraid to take responsibility. Hesitating will aggravate the situation and amplify the negative impact. And if I hesitate, I show my employees that I'm uncertain or afraid. At times like this, I need to be a good role model for other employees, and frankly, I can be their anchor... (CH11)

14 participants also highlighted that decision-making ability is also a kind of comparison ability, which is a process of constantly taking appropriate actions and looking for ways to improve disaster management abilities, making specific plans based on internal and external information, forming the latest perception on disasters and selecting the most appropriate among numerous options and make decisions. Put simply, they usually make the best decision by comparing various comparable options based on a basic standard established at the current perception level.

Therefore, the most important thing to make decisions is their perception level of disasters, which is also the reason why they should keep learning. As they continue to gain more knowledge and experience from reading books and interacting with others to communicate and share information, their perception of disasters will grow as well. At that time, they also review their original decisions and improve them constantly.

5.3.4 Disaster strategic planning

76% of interviewees also revealed that there was a shared view that a strong focus on strategic-level planning was regarded as being critical to the improvement of hotel disaster resilience. An interviewee mentioned that:

The ability to accurately formulate specific strategic plans and guidance according to the long-term and short-term goals of the hotel plays a vital role in its development of the hotel. This will not only help the hotel achieve short-term and long-term goals but also prepare for future unknowns or disasters. Of course, if you want to achieve the hotel's long-term development goals, you must take into account the establishment of hotel disaster resilience, because this is the basis for the hotel to continue to thrive. (CH5)

The findings confirm that appropriately integrating disaster planning into the hotel general strategic planning is a very important measure for the hotels to improve disaster resilience. Once hotel resilience is decided as a long-term development goal of the hotels, strategic disaster planning should be actively adopted to effectively prepare for disaster. Just like a participant from an independent hotel said:

... Making strategic planning for the sustainable development of hotels is an important element to make a hotel resilient. Just like the sudden emergence of a disaster, many hotels and tourism companies had to close and bankrupt because they did not have suitable strategic planning and disaster planning, so they could only seek to help or just die...the ability to predict the future of the industry is also necessary when formulating a plan. This involves the awareness of disasters and the understanding of changes in market rules, so as to formulate a more comprehensive and feasible plan to prepare and respond to disasters. (IH10)

55% of the interviewees also highlighted that integrating disaster planning of hotels into hotel strategic planning is an organisational behaviour that requires the participation of all hotel staff from senior management to frontline employees. This makes the target of a hotel clear, reasonable, acceptable, planned, detailed and fully implemented. This point is specially mentioned by interviewees from chain hotels. As one participant of a chain hotel commented:

Not only the top leaders of the entire hotel but also the leaders and employees of various departments are also responsible for our hotel strategy and planning. Our leaders and employees of human resources and finance are also responsible for the strategy in the functional areas, as well as customer-oriented employees such as hotel sales and front office service, they are also responsible for strategy and planning. (CH7)

13 interviewees responded that strategic plans do support the entrepreneurial resilience of hotel agents and vice versa. However, challenges will be encountered in the actual implementation process, especially in the aspect of improving the strategic plans. The participant said that:

Every time a strategic plan is made, there are actually fierce disputes within the hotel. Where is our direction? How different ideas can reach an agreement is that during the process of arguing, each department looks for its own problems, what can I improve, and what is missing. It may be possible to improve for a year, but continuous improvement is very, very difficult. This is also the reason why the development of hotel disaster resilience is missing or not improving in strategic planning. (CH4)

The findings also strongly suggest that disaster planning should exist in every link of hotel strategic planning and also be recognised in various departments of the hotels. 62% of interviewees from both independent and chain hotels confirmed this in their respective answers. Hotel managers acted as a planner. In the process of preparing for the disaster, they need to continue to develop a series of strategic plans and disaster planning. However, seven participants from independent hotels expressed concern that their planning skills, especially for disaster planning, should be urgently improved. For example, a participant said:

As far as I understand, hotel managers play a significant role to develop strategic plans to improve the overall resilience of employees and the hotel to prepare for disasters. When formulating a plan, it should clearly divide responsibilities and have reliable communication and reporting procedures. But I would say that this is exactly what our hotel lacks... (IH6)

5.3.5 Prediction of potential impacts

The findings note that the prediction of hotel managers on potential impacts

brought about by likely disasters is highly related to the enhancement of hotel resilience. In particular, 13 participants (62%) emphasised in their respective feedback that appropriate prediction on possible impacts of disasters helps them improve their preparedness for disasters and disaster planning. The findings also suggest that hotel managers are expected to have comprehensive foresight, which enables them to predict the possible periodic and long-term effects of a disaster as accurately as possible. This also depends on their own observation of the likelihood of a disaster and their knowledge of the disaster. More importantly, daring to predict the potential outcomes in the period before disasters not only will allow hotel agents to make adjustments to their existing plans but will also allow them to make targeted changes to their strategies in the future. This can greatly improve their disaster awareness and preparedness, at the very least, preparing for predictable outcomes. A participant confirmed this point:

...Be proactive about what the outcome will be... Because everything we do is geared towards achieving long-term development at some point in the future. In other words, hotel disaster resilience, to a large extent, requires us to rehearse the plan targeting possible impacts in our own minds many times, find out what works and what doesn't, and make adjustments. We are to work hard for this goal on this basis, and then make a series of plans, step by step to implement our own ideas...(IH10)

Another interviewee who also suggested a similar point of view simply said:

Before taking action to improve the hotel's disaster resilience, it is very important for hotel managers to understand the possible future situations and impacts caused by the disaster. Even if it is a failure, there must be advanced psychological preparation and construction, but also an analysis of the cause of failure. These impacts should be considered, not blindly rushed forward...(CH10)

Further, the participants also discussed that the prediction of potential impacts of disasters can be understood as a test of the disaster experience, disaster-related knowledge and preparedness of hotel managers and decision-makers, especially for hotel managers in chain hotels located in disaster-prone areas. In particular,

91% of participants from chain hotels confirmed the need to improve their local disaster-related knowledge and common sense and be familiar with the advantages and expertise of their own hotels and existing problems in order to improve the preparedness of hotel managers to enhance hotel resilience to disasters. At the same time, these participants also highlighted that hotel managers need to improve their level of operation and management in the industry to fully understand the development trend of the industry and related markets in order to adapt to the new environment brought about by disasters. According to a participant from a chain hotel:

...The ability to predict possible impacts of disasters is based on a perception of the basic information of the hotel, such as whether the hotel is located in a disaster-prone location. The ability to predict disasters needs to be improved through constant practice and exploration... (CH8)

An important view reflected that the prediction of possible disaster impacts plays a very significant role in the decision-making of hotel managers. As one of the hotel managers mentioned in an interview:

...predicting the outcome of a disaster is the foundation of managers' decision-making on disaster... (IH8)

The findings suggest that the prediction of hotel managers on the potential impacts of disasters is actually a part of the process of disaster planning. This requires sufficient and accurate information and consideration of every detail, as this will affect the direction of the disaster preparedness and response plans. One participant also believed that:

The prediction of the outcome of a disaster must even be refined to every detail because this is a whole process of interrelated and mutual influence. There is one detail that is not in place, which will have an impact on the results of the prediction and the feasibility plan of disaster management...(CH4)

5.3.6 Implementation and sense of responsibility

The findings also suggest that strong implementation ability on strategic disaster plans and policies is another important foundation for hotel managers to deal with disasters. 57% of total interviews revealed that if there is no strong implementation ability, all the strategic plans, disaster preparedness plans, rules and regulations and measures of hotels are just meaningless. A participant from a chain hotel also commented that:

Planning is not only a “report”, but also needs effective strategy implementation. As a hotel manager from the human resource department, I have the duty to implement our training and learning plans for our employees to enhance their relevant ability... (CH2)

Although many hotels actually have good disaster strategies, the lack of strong implementation by managers eventually leads to disaster management failures. A participant expressed the opinion on the importance of implementation ability:

Whether the implementation of the disaster plans is in place completely reflects the role positioning of a hotel manager. The role of hotel managers is not only to formulate strategies and issue orders, but more importantly, they must have the ability to execute. For example, we actually have a disaster-related strategic plan, but if there is a lack of specific implementation ability, then the prepared plan will not be fully functional. (CH10)

There were 43% of participants also highlighted that hotel middle managers particularly play a key role in the implementation of hotel disaster management, which can be regarded as a bridge between the decision-makers of the hotel and the frontline implementation staff. The findings reveal that decision-making on hotel disaster management in China remains hierarchical with executive and strategic level decisions being left to senior managers of hotels. For example, a general manager of an independent hotel commented:

I had to make decisions about the disaster management of our hotel, such as we should try our best to make fire prevention and meet the requirements of the government. (IH2)

While, middle managers are not only responsible for executing the decisions of senior managers, but they are also responsible for communicating those decisions and deploying tasks to subordinates. As a participant replied:

We sometimes overestimate the understanding and implementation abilities of middle managers, thinking that they can always fully understand and implement superior decisions. However, in actual work, it is contrary to our estimation. Many middle managers of hotels will make decisions and plans based on their own personal wishes and understanding. Although they have sufficient work experience and flexibility, they lack knowledge and control of important information during execution. They may think that this matter is not important, so they did not take it seriously. (CH6)

In this way, the implementation of disaster management is highly inseparable from the command and control ability of hotel middle managers. They should timely track and control the implementation of the hotel disaster planning, to ensure that the disaster management is effectively implemented. For example, by making daily inspections and monitoring of safety and hazard of hotels to prevent disasters as much as possible. According to the point of a hotel manager:

At the same time, we need to make sure that we do not put ourselves in a hazardous situation. Try our best to eliminate the hidden danger at its root through inspection and monitoring of hazards. If there is something bad already happened, we will try to avoid making it even worse... (CH6)

The findings also confirm that to a certain extent, the implementation ability of employees depends on the sense of responsibility of hotel agents. Execution cannot only stop at the level of the knowledge and skills of hotel managers but also focus on the willingness of hotel managers to take responsibility. The hotel puts emphasis on improving the execution ability of the hotel managers because it can make up for their shortcomings in disaster strategy, and it can also realise the disaster resilience of the hotel more effectively. An interviewee replied:

Turning decisions and strategies into actions depends not only on the individual execution ability of hotel managers but also on their work

attitude. Ability is the foundation, but attitude is also the key. If our employees and managers have a sense of responsibility to prepare for disasters, they will take every detail of the work seriously and implement plans seriously. They will not be afraid to take responsibility so they will form a subjective initiative to build hotel resilience for getting through disasters. (IH9)

However, the findings also suggest that strategic disaster plans are not fully implemented throughout the actual work routine of hotels. In particular, all participants of independent hotels recognised this weakness and confirmed that the main reason is that most hotel managers are willing to make decisions and assign tasks, but do not know why the plan should be implemented, who should be responsible for executing it, and how it should be implemented. In contrast, chain hotels have higher requirements for the implementation of hotel managers. The hierarchy of chain hotels is complex, and the departments are more diverse. Hence, there is a need for high implementation in order to effectively communicate, command and control the staff on disaster management.

5.3.7 Ability to allocate resources

The findings also suggest that resource allocation is an important part of improving the entrepreneurial resilience of hotel managers and an essential component of hotel resilience to get through disasters. In particular, 52% of participants did emphasise that human resource allocation is a critical focus for hotel managers to deal with disasters. As a participant stated:

...stabilising the core staff of the hotel in the face of a disaster is a very important aspect. They are assigned to different positions and tasks according to their abilities so that we can all pull together to get through the tough times. At the same time, when the core staff is stable, they also give comfort and confidence to their staff and encourage them to overcome difficulties together... (CH3)

Another participant also confirmed the importance of appropriate resource

allocation:

... sharing our benefits with my employees is that they are satisfied while also stimulating their enthusiasm and enhancing their loyalty to our hotel. In this way, capable and excellent colleagues will continue working in my hotel in times of crisis and disaster. Staying in the hotel and working together to get the hotel out of trouble... (IH2)

There were six participants who also mentioned that the misallocation of human resources leads to many consequences when dealing with disasters. Firstly, in many cases, hotel managers often feel that all kinds of things happen because of a lack of staff, but when there are enough staff, once a disaster happens, things are still in a mess, which is caused by the unreasonable allocation of human resources. It will make the division of responsibilities of departments unclear. In the face of a disaster, some people are asked to do more and some people do less, but they all get the same treatment. In this way, employees who do more will be psychologically unbalanced and eventually lose team cohesion. Second, disaster management will not achieve the desired results, because of the chaotic allocation of resources, leading to advanced resources at a critical moment that cannot be invested. This can then lead to things not being done properly, things that have been done but not being able to do anything to help achieve their goals, which can affect the disaster resilience of hotels. Thirdly, management leadership cannot be established, because everyone works in a confused state, so they cannot meet the needs of the superior, and the hotel manager will punish them, resulting in conflicts between the two sides, leading to the lack of leadership of the hotel manager and affecting the team execution.

In addition, financial resources should be allocated appropriately for the disaster resilience of hotels. participants noted that in many cases, hotels do not allocate dedicated financial resources for disaster management and building hotel disaster resilience. As an interviewee highlighted:

I think it is very important to allocate specific funds in advance for establishing the hotel resilience in the disaster plan. Because whether it is the need to prepare for a disaster, or the need to use the operating costs during a disaster, we need to reserve funds. In other words, financial strength is the insurance against disaster... (IH2)

In contrast, participants from chain hotels mentioned more about resource allocation, especially the impact of human resource allocation on disaster management, while participants from independent hotels paid more attention to financial resource allocation.

5.3.8 Learning and experience

The findings also suggest that constant learning is essential for a hotel manager to deal with a disaster. In particular, 43% of participants confirmed this point. As one participant simply mentioned in the interview:

the ability to learn is not optional but a necessity, as well as a sure investment that hotel managers make for their hotel and their own future (CH5).

Based on the results from interviews, continuous learning helps hotel managers make scientific and appropriate decisions in the face of disasters. It will help analyse current threats based on their knowledge of disasters and build their situational awareness, and change plans in an orderly manner to avoid risks as much as possible, so as to quickly adapt to the new environment brought by disasters. A participant replied that:

For us, continuous learning is an effective way to improve our hotel's disaster resilience. Keep learning from past cases, summarize the experience, and clearly analyse which effective countermeasures can be continued in the future, which is ineffective and needs to be improved, etc. At the same time, you can also communicate with other colleagues in the same industry or the hotel, learn from their good experiences and lessons, and then correct them, and apply them to ourselves... (CH2)

At the same time, it is also vital to learn and apply new knowledge, improve the

efficiency of collecting internal and external information, and understand the latest development trend. A participant with hope said:

...to keep our hotel managers and staff learning new knowledge and skills in every possible way. Whether it is disaster drills and exercises, or industry exchanges... This will not only improve our ability to respond to disasters and emergencies but also keep us informed of the latest policies and developments, thus enhancing our disaster resilience in all aspects. But unfortunately, in real work, there are many limiting factors... (IH4)

5.3.9 Education

24% of participants mentioned that the level of disaster education that hotel managers received was one of the important factors to improve hotel resilience towards a disaster. It is highly related to the breadth of vision of hotel managers. A general hotel manager stated that:

... the leader is the helm of the entire hotel, and our breadth of vision directly determines the future development of the hotel. ... most of our breadth of vision originates from how much we have been educated and what we have learned so far, and our experience.... (IH1)

According to these participants, in most cases, the higher the level of disaster education, the more preparedness and resilience hotel managers have (Torani et al 2019). But disaster management education is much needed for hotel managers in the current stage to improve their ability to deal with disasters, especially at the strategic level. And this professional quality is also the sum and performance of disaster knowledge, skills and awareness. The more professional a hotel manager is, the better able he or she is to see the big picture in the face of a disaster and take on challenges and lead employees to innovate. At the same time, because the hotel staff in each position is not the same, they must have a certain degree of education, which not only refers to the academic degree of education, but also to their own disaster knowledge. If the hotel managers have such quality, when facing a disaster, they can open their vision, think

comprehensively and make decisions (Hasan et al 2020), whether from the early preparation to the mid-term response or the recovery after the disaster.

From the formal level of education of managers, we can see how they look at problems, their breadth of vision on managing the hotel, and their ability to learn...even in the face of difficulties or disasters, you still have a good ability to live, this is something you can get through education. . . (IH2)

5.4 Level of entrepreneurial resilience of hotel managers to disasters

According to the interview results, 28.6% of the participants, who were all from the chain hotels felt that they have both the ability and skills in place to properly deal with disasters and have received basic training on disaster handling. The reason for this is that they believed that they have a relatively satisfactory level of knowledge and a basic understanding and awareness of disasters. They also confidently believed that they could use their current knowledge and abilities to lead the hotel out of the dilemma brought by disasters. Another reason they feel satisfied is that they believed that the formation of their entrepreneurial resilience to deal with disasters is a process, and many aspects can be obtained or improved through continuous learning such as training and education. And it is precisely because they have such a learning platform, such as group or hotel training so that they can learn how to calmly prepare for and deal with disasters such as earthquakes or fires. Even if they are satisfied with the level of their ability and skills at the moment, they felt that their entrepreneurial resilience still has room to improve, which needs to be continuously updated and enhanced to effectively cope with this changing environment. At the same time, they also pointed out that although they now have training related to disaster dealing, the knowledge they can learn is only at the basic level. It is very necessary to have a deeper level, especially more comprehensive disaster management training at the management level needed. One of the participants noted that:

Yes, I am satisfied with the abilities and skills I have at this stage because

I have basically mastered the ability to predict the impacts of disasters and crises and the ability to deal with incidents in my position. Moreover, I have effectively executed the decisions and policy requirements of the superiors on disaster handling, which are also regarded as effective. But I am still learning other skills in my daily work, and then make my entrepreneurial resilience more comprehensive and specific, open my perspective and continue to enrich my knowledge.... (CH11)

A hotel manager also confirmed that appropriate training is an effective way to enhance their resilience:

I think the disaster training that I have received so far is correct and can be applied to actual work, but there are many things I want to learn that have not been specifically involved, such as how to formulate a plan, how to train my subordinates, this kind of aspects on management level, I still need more training and learning in this regard...(CH10)

The majority of participants (71.4%) believed that they had basic relevant skills and abilities to deal with disasters, but there remained significant room to enhance their entrepreneurial skills and experience. They felt that they are lacking in disaster handling training and education and are not confident with it. It should be noted that this view was agreed upon by all participants from independent hotels and five participants from chain hotels. They believed that at this stage, they can at least be sure that their abilities and skills can correctly handle the difficulties and pressures they face, but they need continuous improvement in all aspects of entrepreneurial resilience to deal with disasters more effectively and confidently. They highlighted that there is a serious lack of targeted training and education that can improve their ability to deal with disasters or, even if there is training, it lacks comprehensiveness and effectiveness. For this group of interviewees, there is a high demand for disaster management-related training. At the same time, they also believed that the managers on each level of hotels need training in disaster management especially managers at the middle and junior levels. Some middle and junior managers are not clear about their management role because often middle managers are selected from the outstanding frontline staff, who may have never been involved in management

practices before. Also, their mindset and awareness have not yet been adjusted from the past. Once they are chosen to be managers, they still have many deficiencies in terms of ability. Although they have become managers in their positions, their work habits and thinking patterns are still in the state of employees, and their roles have not yet changed. Therefore, communication problems, decision-making ability, execution problems, and leadership will still be weak. These are the abilities that a hotel manager should possess when dealing with disasters. Secondly, 15 interviewees (71.4%) also believed that the existing training is ineffective to a certain extent. Some simple basic disaster knowledge has been mastered, but deeper, real disaster management training is lacking. The reason is that the content of the training is too simple and incomplete, let alone detailed. More importantly, the disaster training that some hotels are doing is basically superficial or just a form of the requirements, which does not play a real role in improving the hotel resilience to disasters. A hotel manager expressed that:

I believe that I have the correct ability and skills to deal with disasters even though I know I still need to improve with the changing environment. Our hotel can continue to survive in this industry even after experiencing crises and difficulties. I think this is also a manifestation of my ability to deal with crises and disasters...(IH9)

The hotel manager continued to express his concerns about the current training:

...with regard to training, I am a little bit worried. I think disaster training, whether it is for the leaders and managers or employees, is somewhat lacking, especially the lack of training for middle managers and employees is more obvious. For various reasons, such as financial reasons, our training on disasters cannot be fully realised or there is only very basic training on disasters. For example, there will be fire prevention training at the time of induction...(IH9)

5.5 Contribution of hotel managers and staff to building hotel resilience

In fact, the findings reveal that hotel managers realised that they are important and indispensable in the field of building hotel resilience and enhancing disaster

management of hotels. However, their specific roles and responsibilities when preparing for disasters are not clearly divided into actual work, and there are also differences in the implementation process. Especially for different hotel types, their roles will be slightly different.

The hotel managers are critical for the operation and disaster management of hotels, including proper hotel planning and follow-up operation. Many hotel managers hesitated to respond to questions concerning their contribution and responsibilities in preparing or managing disasters, claiming that it is difficult to define specific roles in dealing with disasters rather than define their roles in hotel operations. Nevertheless, hotel managers still gave the answers according to their thinking, which can be viewed from many aspects of the whole process of disaster management from preparedness, and response to recovery. The contributions that hotel managers and employees can make to building hotel disaster resilience, which is also rarely mentioned in the existing literature.

The findings suggest that hotel managers made a leading and decisive contribution to making hotels resilient. They can lead and determine the direction of the disaster resilience building of hotels and whether it is proactive or not to prepare for disasters. Different perceptions of hotel managers on disaster lead to different results of disaster resilience improvement of hotels. Hotel managers who focus on the disaster preparedness phase, may be more forward-looking, which means they will actively participate in team-building and disaster planning and preparedness for the hotels. Moreover, if the hotel manager has experienced a disaster or crisis in the past or is located in a specific vulnerable region, they will also be more aware of the disaster and have more initiative to build the disaster resilience of the hotel. As a proactive manager said:

...the stage of disaster management that our hotel or our team focuses on is disaster preparation and planning because being well prepared in advance always reduces the loss of being unprepared when a disaster occurs. In addition, due to the vulnerable location of our hotel, we have

to require ourselves to prepare in advance... we will try our best to make contingency plans and establish a disaster response team for the disaster our hotel may face... (CH10)

Meanwhile, some hotel managers also can play a powerful role based on what they have learned from past disasters. In this regard, hotel managers need to fully understand themselves, figure out their strengths and weaknesses, and give full play to their strengths. At the same time, through various ways to try to make up for their shortcomings. Therefore, space for self-improvement of ability can emerge from the daily management of the hotel, which requires hotel managers to accept more knowledge to enrich their experience, rather than repeating and strengthening invalid and wrong thinking and methods. In order to further optimise the disaster management of the hotel, they should learn from each crisis or emergency and reflect on their own strengths and weaknesses.

I think the hotel manager might be a reflector. Summarising from experience and daily work, and reflect on what you and your team lack, so as to check for deficiencies and actively deal with them... (IH5)

At the same time, junior and middle-level hotel managers also take responsibility to provide feedback to upper-level managers. In hotel daily operation management, the senior managers of hotels may overlook many details and some management deficiencies. This requires hotel managers to put their ideas and thinking together. Once they encounter problems that cannot be solved immediately, timely provide feedback to the upper-level managers and discuss solutions. Building hotel disaster resilience is an aspect of hotel daily management that may be neglected due to a lack of disaster awareness. If middle managers and department managers find themselves or their employees deficient in this aspect of daily operation, they should give timely feedback to the superior leaders and provide solutions. A hotel manager stressed that:

... it is also important for the hotel manager to be able to provide timely

feedback when dealing with a disaster. Put simply, it's a way to communicate effectively. ...It is in a virtuous circle of constant expression, listening, and feedback that we achieve our ultimate goals... (CH4)

At the same time, they take proactive actions to lead and guide the staff to participate in the disaster resilience training of hotels. More specifically, proactive hotel managers provide training and learning platforms to improve the disaster response capabilities of their staff in order to enhance hotel resilience to get through disasters, thus more effectively preparing for potential disasters. As a hotel manager said:

We organise disaster training and drills for ourselves as well as our employees to improve our cooperation ability and communication between all of our managers and their subordinates. We work together to make sure there are no hazards in our working environment... (CH6)

Furthermore, all hotel managers confirmed that they can contribute to enhancing their hotel resilience by continuously accumulating resources in their daily work, especially including financial and human resources. This group of hotel managers believed that human resource is the basic guarantee to improve hotel resilience to disasters, and financial resource is the fundamental guarantee of human resource loyalty. Put simply, they considered that improving the hotel resilience to disasters is not something that can be accomplished by one person but requires the joint efforts and dedication of all hotel staff. Just as a hotel manager of an independent hotel stated that:

... I have to make decisions in difficult situations and maintain relationships with subordinates at any time because I need them to help me when facing disasters ... one of the first things I did was make sure that we had money available to pay our staff before the disaster so that they can survive and live. Then I can ensure that my employees will not leave and stay with me during the challenging time. Then I will lead them to work together to "live" better, and at the same time make the hotel more resilient... (IH2)

According to the interviews, the hotel staff made a joint contribution to improving hotel resilience to get through disasters. They pay attention to the details and resolve problems in a timely manner in daily work. In the hotel, they are not only a group of people who are the easiest to directly face the disaster, but also the ablest to find the potential disaster in the daily work. As a result, some participants indicated that hotel staff provided real-time basic information and constructive suggestions for improving hotel disaster planning and disaster resilience. One of the hotel managers highlighted that “*our staff are at the core of our ability to build resilience and overcome disasters (IH2)*” They also contribute to the accurate implementation and execution of the plans to improve hotel resilience to get through disasters. As one participant commented that:

Hotel staff serve as a link between the managers and the real-time information in the aspect of disaster preparedness and response. Real-time reporting and disaster preparedness helped us improve the current state of the hotel. As an employee, the effective implementation of the decisions the plans of the hotel made by their managers and leaders is also a contribution to the improvement of our hotel resilience towards disaster. Moreover, it is also very likely to help us get rid of the disaster... (CH11)

38% of interviewees expressed that the hotel staff took the initiative to participate in the disaster training organized by both internal and external organisations and could really learn knowledge and improve their own abilities from them, which was also a great contribution to improving the hotel resilience to deal with disasters. By actively cooperating with disaster preparedness, it will maximise the collective benefits.

We also encourage our staff to improve their ability to deal with disasters. What we are expecting is that our employees can actively participate in different training because they can improve their awareness and understanding of the disaster by doing so. More importantly, they can learn some disaster dealing skills, such as how to protect themselves in an earthquake, how to evacuate hotel guests and so on. ...(CH10)

In addition, interviewees expressed that the loyalty of hotel staff especially core staff to the hotel plays a key role in enhancing hotel resilience to disasters. Employees did not leave the hotels during the most difficult time, which is undoubtedly their great contribution to the hotel. They also understand what happened to the hotel during the disaster and maintain a high level of loyalty, which allows the hotel to have the human resources in time and get through the disaster.

In times of crisis or disaster, employees understand the difficulties of the hotel. The hotel staff unites as one and trusts each other. The disaster is also a turning point. The hotel will get rid of the disaster and it will turn to a higher level, and the employees will also benefit from it... (IH10)

5.6 Influence of entrepreneurial resilience in hotel resilience and disaster management

As the soul of the hotel, the hotel managers play a significant role in hotel resilience and disaster management of the hotels. Interviews revealed that hotel managers need to constantly practice their internal skills and temper their resilience under pressure and the external environment in the face of disasters uncertainties and changes, so as to explore new development opportunities for hotels in the post-disaster period. Facing disaster and difficulties, innovation is the most helpful way out and also a powerful tool for development. The entrepreneurial resilience of hotel managers is to take the initiative to innovate and develop in the process of change caused by disasters.

To a large extent, the entrepreneurial resilience of hotel managers determines hotel resilience and disaster management. Hotels are becoming more and more vulnerable in a disaster environment, and the frequency and severity of disasters are increasing day by day. Interview results proved that how to effectively predict and control the development trend of hotel disasters, reduce and avoid the losses caused by hotel disasters, so as to turn the hotel into safety and turn disasters into opportunities, is a severe test of entrepreneurial resilience of hotel managers.

With high entrepreneurial resilience, for example, professional quality and strong decision-making ability, as well as a forward-looking, hotel managers can gain insight into the dynamics and rules of hotel development and clearly analyse the environment in which the hotel is located. At the same time, they can also correctly understand the various disasters and crises faced by the hotels and find out the cause of the disaster that poses a threat to the hotel, so as to formulate an effective and targeted disaster plan to minimise the loss caused by the disaster. The hotel manager makes the right decision, which is also the first condition for the effective implementation of hotel disaster management. According to a hotel manager in Chengdu,

As a hotel manager, I have the ability to take precautions, and I understand the importance of preparedness in advance, implement it in our emergency plan and incorporate daily inspections into my daily work. Because the environment we are in now requires us to do this. My every action also affects my employees all the time. My entrepreneurial resilience actually determines whether I can carry out effective disaster management... (CH9)

In particular, the entrepreneurial resilience of hotel managers of independent hotels plays a leading role in the effective disaster management of hotels. All hotel managers from independent hotels indicated that hotel managers working in independent hotels are the backbone of the entire hotel, and their entrepreneurial resilience directly determines the fate of the hotel. In these independent hotels, human resources management still has much room for improvement, so what employees can do depends directly on the decisions and direction of managers. A hotel manager from an independent hotel expressed that:

In my opinion, entrepreneurial resilience definitely plays a leading role in building hotel disaster resilience. If the entrepreneurial resilience of the hotel leader or manager is strong enough, other abilities will also be improved accordingly so that contributing to managing disasters of the hotel... (IH2)

The entrepreneurial resilience of hotel managers is also the foundation and

advocate of hotel disaster management. Some interviewees indicated that the strong entrepreneurial resilience of hotel managers with disaster management awareness has an important influence and a strong role in promoting hotel disaster management and hotel resilience (Filimonau and De Coteau 2020). Hotel managers face the challenges of disasters at work, and hotel managers with strong entrepreneurial resilience are more likely to be motivated to overcome difficulties and survive the disaster. Although the future cannot be accurately predicted, and hotels are also faced with countless changes, hotel managers with strong entrepreneurial resilience also have a strong awareness of disaster and will always be preparing for possible disasters in hotels. A hotel manager of a chain hotel from Chengdu stated:

...the effective disaster management of a hotel mainly depends on whether the manager of the hotel wants to pay attention to this aspect, ... whether the hotel manager has disaster awareness. But this sense of disaster is also one of the performances of entrepreneurial resilience of the hotel manager. ...then they will take the initiative to build the hotel resilience to disasters and effectively manage disasters to prevent disasters... (CH7)

The entrepreneurial resilience of hotel managers plays a key role in the effective implementation of hotel disaster management. At the same time, it also plays a driving role in the human resource management of the hotels. The findings that hotel managers with high entrepreneurial resilience have strong execution capabilities. This is also an important factor in determining the success or failure of hotel disaster management. Implementation and drills of preparatory plans before the occurrence of a disaster are helpful for mitigating negative impacts. When a disaster occurs, hotel managers must take advantage of their entrepreneurial resilience and seize the best time to deal with the disaster, take corrective measures and make timely and rapid decisions to survive the disaster. According to a hotel manager:

... entrepreneurial resilience plays a leading and catalytic role in hotel

disaster management. If the entrepreneurial resilience of the hotel leader or manager is relatively complete and effective, it will accelerate the construction of the hotel disaster management, or at least promote the integration of disaster management into the hotel daily management... (IH3)

In addition, hotel managers with strong entrepreneurial resilience will affect the requirements for the abilities of hotel employees. They will motivate employees to respond positively and effectively in the face of disasters and crises, and at the same time motivate employees to be willing to contribute to the long-term development of the hotel by improving their abilities. The findings also revealed that hotel managers with high entrepreneurial resilience have a certain degree of demand on human resources and assume responsibility for human resource management of the hotels because they need the support and cooperation of capable employees. Among them, the improvement of the ability of all staff is the core. As the complexity of the external environment of the hotels and the increasing changes caused by disasters, the ability of the core team is not enough to support the efficient operation of the hotels. This requires the improvement of the ability of all staff, which also means the improvement of the overall management ability of the hotel and the entrepreneurial resilience of hotel managers. According to two hotel managers who are from an independent hotel and a chain hotel respectively:

A hotel manager from an independent hotel stated:

The entrepreneurial resilience of hotel managers plays a leading role, but at the same time, the resilience of employees is synergistic. If the two can be combined, hotel disaster management will be more effective... (IH5)

A hotel manager from a chain hotel noted that:

Entrepreneurial resilience is one of the leading elements in hotel disaster management, but I think it also depends on the nature of the hotel. Because some large chain hotels need more human resources to intervene in order to carry out effective hotel disaster management together... (CH1)

5.7 Conclusion

This chapter has presented the main findings to fully address objective one of this study. It has confirmed the entrepreneurial resilience of hotel managers can significantly contribute to building human factors of hotel resilience. Nine attributes of entrepreneurial resilience as highlighted in section 5.3 have been identified and confirmed that can help hotel managers deal with disasters and enhance hotel resilience. Among the attributes identified, disaster awareness has been recognised as a fundamental attribute of entrepreneurial resilience. It is particularly noteworthy that educational level is also considered by interviewees to be an important component of entrepreneurial resilience. However, interviewees indicated that their education and training in disaster management in practice were limited. This also acts as a barrier for them to improve ER and further hotel resilience. Meanwhile, it has also indicated that ER can influence the HRM practice. A strong ER can contribute to the improvement of the hotel HRM over time, such as the appropriate staff allocation and the formation of an effective training program. This also set the scene for the discussion about HRM, which is presented in depth in the next chapter.

Chapter 6 Human Resource Management for Hotel Resilience

6.1 Introduction

Chapter 5 examined the levels of entrepreneurial resilience of hotel managers to disasters in China and how it contributes to hotel resilience and achieved objective one of this study. This chapter will focus on addressing objective two and will be evaluating the results in relation to the importance and degree of human resource practices and policies of hotels in China in relation to respective hotel resilience to disasters. Furthermore, the chapter will then progress to consider the relationship between entrepreneurial resilience and HRM elements of hotels in China in the delivery of existing and improved levels of hotel resilience to disasters from section 6.6 onwards, thus addressing the third objective of this study.

6.2 Human resource policies for building hotel resilience

The findings show all (100%) of the interviewees believed that human resource policies play a very important role in guiding and supervising the building of hotel disaster resilience. Yet, all (100%) of the participants also agreed that there is a serious lack of explicit and direct human resource policies for disaster management of hotels in China at present and they still have huge room for improvement in this regard. Some existing human resource policies can be narrowly regarded as disaster resilience oriented but are not clearly stated and reflected in the human resource system of hotels. However, these existing human resource policies can only indirectly or implicitly build hotel resilience. According to the interview results, these existing human resource policies in relation to improving the disaster resilience of hotels can be summarised into two aspects, namely, planning (staffing and selecting) policies, and training and reward policies.

The findings indicate that 100% of interviewees stated that their hotel will make corresponding adaptations to the human resource policy in times of disasters and

crises according to changes in the environment. The human resources department of hotels will formulate various plans and emergency plans promptly based on the information collected and the communication with the upper-level managers, and timely adjust the original work plan and work arrangement to deal with the latest situation. One of the most common practices is to promote a mutual cross-rotation model during a crisis or disaster, in which employees from other departments with relatively fewer workloads can be transferred to support others with more workloads. This approach often requires the support and cooperation of relevant colleagues from different departments. As a participant said:

...the human resources department needs to play an effective role in organising managers and employees from various related departments, helping establish an emergency team, or joint investigation agency, coordinating everyone's work, sharing information, maintaining a consistent pace, and forming a joint force when dealing with disasters... (CH10).

Another approach is to adjust the employment classification of hotels in line with the policy of effective labour cost control. For example, the core staff should be retained under the premise of maintaining the normal operation of the hotel, and the working hours of some other posts can be adjusted from the original full-time to part-time. Participants said that this cannot only maintain the ability of hotels to continue running based on maximising labour cost savings but also retain staff for the recovery of hotels post-disaster so that it does not have to face the problem of staff shortages after the disaster. Having constant resilience expertise and experience across all hotel staff is important, but it can be limited by cost control (financial resource). As one of the participants commented:

Yes, we have a relevant human resource policy on how to arrange staff during a disaster. For example, we have to change the form of employment to reduce labour costs. We will adopt a shift work system, appropriately let some employees take unpaid leave at home, and raise the wages of employees who are willing to take the initiative to work in the most difficult times. (IH4)

In addition, one of the specific findings from the interviews regarding human resources policies for improving hotel disaster resilience is that hotel security department managers or directors are expected to hold relevant fire safety qualifications or certificates issued by the relevant authorities or have a background or experience of serving in the military. 29% of interviewees believed that the security department of hotels and its employees, especially the security managers, are the core departments and employees who implement the disaster management of hotels. Their abilities and skills are necessary conditions for determining whether the entire hotel can successfully build disaster resilience. Security managers who can obtain fire safety qualification certificates indicate that they have undergone professional and formal fire safety training and appraisal examinations and have mastered a certain degree of relevant knowledge and skills. Yet, security managers of hotels with military experience will have more entrepreneurial resilience to deal with disasters. According to the response of a participant:

...they possess the features such as effective teamwork, strong awareness of potential dangers, quick response and effective implementation ability because of the intensive exercises and training they have received in the military... (CH7)

According to the interview results, only 29% of hotels have performance appraisals specifically for disaster management. Correspondingly, this group of hotels also have incentive policies for disaster management. If an employee performs well in dealing with a disaster, such as dealing with a fire or hotel safety to reduce the damage to the hotel and impact on the reputation of the hotel, they will be rewarded by the hotel. Meanwhile, the remaining 71% of hotels did not explicitly establish a disaster management performance appraisal system for hotel staff. Meanwhile, disaster management competencies are not considered part of career progression and assessment for most of the positions. As a hotel manager said:

we have not yet established performance appraisals to evaluate our staff in terms of disaster handling since our human resource management system still needs to be improved (IH8).

29% of interviewees also felt that the establishment of such a human resource policy will help the hotels to ensure the personal safety and property safety of all staff in the hotel more effectively, in order to maintain a safe operating environment and improve the management of disasters and emergencies in the hotel. A participant expressed that:

Yes...the security manager of our hotel is required to have a relevant certificate such as a fire safety certificate, which means that they have relevant experience and have received training on fire. This will make our hotel secure in dealing with such disasters... (CH1)

6.3 Human resource planning for hotel resilience

The interview results show that 100% of the participants confirmed human resource planning is an important factor in building hotel resilience to disasters. However, these interviewees have different views on the specific role and the importance of human resource planning in building hotel resilience to disasters, which directly or indirectly leads to their different requirements and demands for staff with disaster-dealing abilities and skills. Of this group, 57% of participants considered that human resource planning is an integral and critical part of building hotel disaster resilience. Robust human resource planning can affect whether a hotel can get the necessary manpower support in the face of a disaster and eventually influence organisational performance (Al-Qudah et al 2020). Human resource planning can help hotels achieve strategic goals and actively respond to the impact of a changing environment or disasters. As a participant highlighted:

...through appropriate HRP, we have the opportunity to make reasonable personnel allocation and arrangements in the process of disaster management, realise the optimal allocation of various resources and improve the efficiency of human resource use, so as to provide a good internal environment for hotels to build resilience to disaster... (CH3).

The remaining 43% of participants felt that human resource planning was not mandatory but can be considered notable added value in terms of building hotel resilience. These participants indicated that human resource planning needs to take into account the investment of hotels, and that building the hotel resilience to disasters can be done in many ways on the basis of cost savings. According to one participant:

...We understand the importance of planning for people with disaster management skills to build resilience in hotels, but this is not essential to the development of hotels as we need to consider other factors such as the availability of funds to allocate to this area when planning for talent... (IH4).

Given the attitude of participants on human resource planning for building hotel resilience, a specific finding is that 57% of participants believed that they want to recruit employees who have the ability and experience to deal with disasters especially hotel managers at every level. This is because the more ability and experience, the calmer to deal with the disaster, and can help the hotel to reduce losses and survive the crisis and disaster at a difficult moment. The remaining 43% of participants said that the experience and ability to deal with disasters will be considered a desirable ability when recruiting new employees, but not seen as a mandatory and basic requirement except for special positions. Two reasons can be concluded from the expressions of interviewees: disasters are perceived as accidental rather than inevitable, and if necessary, the experience and ability to deal with disasters can be learned in daily work. As a hotel manager commented:

I think it is very important. If you have the experience and ability to deal with disasters, which may help the hotel reduce losses when you encounter the same problem or disaster the next time. For most positions, the ability and experience in this regard are bonus points, but there is no mandatory requirement, except for specific positions... (IH1)

Interviewees gave insight into the planning of the security managers of hotels with disaster-dealing ability and experience. The findings show that 76% of

participants highlighted that hotels have specific requirements and emphasise the need for disaster management ability and experience when recruiting security managers. In particular, large chain hotels (57% of participants) require more specific disaster-related experience and the ability of security managers. Independent hotels (19% of participants), by contrast, require less of this but have related demands. As mentioned in Section 6.2, for hotels in China especially large chain hotels, the hotel security department is the core department responsible for hotel disaster management. Therefore, when conducting job analysis related to security positions, more attention will be paid in terms of disaster risk reduction compared with other positions. As a participant responded:

...the security manager in our hotel plays a significant role in managing disasters. He needs to take the responsibility for the disaster response and recovery of hotels and establish contact with local government departments as well as complete relevant reports according to the regulations. More importantly, the hotel disaster management plans and rules and regulations are also established and implemented by the security manager and his team...(CH9).

Also, recruiting a capable security manager also helps hotels to prepare for disasters legally. As a participant said:

the security manager is not only responsible for the public security and fire safety management of the entire hotel but also mainly responsible for the management and training of the "five preventions" of the hotels, including fire prevention, theft prevention, explosion prevention, destruction prevention and natural disasters prevention, a policy made by the Chinese government (CH4).

In fact, when conducting the job analysis of the security manager, the human resources department of interviewed hotels realised the importance of this position and determined its positioning in the hotel by combining internal and external dynamic changes. As a result, when hiring a security manager at a hotel, the human resources department often lists disaster abilities and experience in the job description. As the leader of the security department, the abilities and

experience of security managers to deal with disasters, therefore, are highly significant to improving hotel resilience to disasters. In other words, when it comes to disaster management, the senior managers at the decision-making level of the hotel take the lead, followed by the security managers. The findings show that the security managers not only demonstrate leadership to guide and supervise other security staff to complete the security work of the hotels but also are responsible for planning, directing, controlling, and coordinating all staff to participate in the disaster preparedness activities of the hotel. Meanwhile, one of the main tasks of the hotel security manager is to take leadership to develop effective disaster plans, measures and rules and regulations to deal with potential disasters. A human resource manager of a chain hotel in Shenyang gave an example:

We will mention in the job description of the security manager of the hotel that the candidate needs to have the ability to formulate the overall emergency and disaster management plan and regulations of the hotel, as well as the ability to provide disaster-related training to the hotel staff, etc... (CH1)

In addition to the specific disaster-related requirements for security managers, 52% of participants revealed that there is also specific demand in relation to disaster handling abilities for senior managers and middle-level managers when making HRP. Senior managers at the decision-making level of hotels can be such as general managers, deputy managers, and operations managers, while middle-level managers at the management level can be considered as various departmental managers. In the recruitment of senior managers and middle-level managers, the demand for disaster handling abilities is mainly focused on fire protection and hotel safety. As one interviewed hotel manager described:

Regarding the ability and experience in dealing with disasters, we will require senior managers, such as operations managers, and list in the job description of the recruitment information to have the ability to comprehensively supervise the safety management of the hotel and effectively handle the fire management work of the hotel; the ability to

formulate and improve the emergency and disaster response plan and various rules and regulations, etc. (IH4)

Yet, the main finding from interviews is that 100% of participants indicated there is no specific demand regarding disaster handling abilities and experience for frontline employees when they conduct job analysis and description in the process of human resources planning. At the same time, the ability and skills of disaster management are not considered in the recruitment of frontline staff, either as a basic criterion or as a desirable condition. As a participant said:

...For frontline positions such as housekeeping, we have not fully considered the disaster dealing abilities when we conduct both job analysis and recruitment. If we consider this aspect, it will be very difficult to find employees with such abilities... (CH1).

According to participants, there are three main reasons for this. Firstly, due to the lack of disaster awareness, the human resources department did not take this aspect into consideration when conducting a job analysis. Secondly, the recruitment of frontline staff has always been a challenge for hotels. As a result, the hotel has to lower the requirements for frontline staff in order to be possible to recruit them. Thirdly, there are too few candidates with the skills and experience to deal with disasters in fact.

However, there is also an important finding from the interviews, 86% of participants said that although hotels have a demand for disaster management skills and experiences in specific positions and departments, such as security or management teams, these qualities are not considered final or decisive criteria in the recruitment process. The interviewees believed that there are very few people with disaster handling related skills and experience in fact, and which really meet the demand and requirements of the positions even if the relevant features are considered in the human resource planning process as the essential ability and experience, such as security managers. Therefore, to a certain extent, it is still difficult for hotels to recruit managers and employees with relevant

abilities and skills (Langford et al 2019) given the situation of recruitment barriers in the hospitality industry as mentioned in Section 2.5. Moreover, the interviewees also indicated that hotel managers with rich professional knowledge are very scarce in China at this stage, and hotel managers who have received formal training or higher education are even more scarce. And among this small group of formally educated hotel managers, there is very little knowledge about disaster management in their educational background, let alone those candidates who have no exposure to formal training or education. In addition, in the current context of hotels in China, the education level of hotel staff is generally low, especially the staff of independent hotels (Wang et al 2020), which also means that the training and education they receive in terms of professional service level and disaster handling are both limited. As a result, the overall level of disaster management of hotel managers will also be affected. Most of the hotel managers at all levels are promoted from the internal lower-level employees of hotels, and in the promotion process, there is no assessment with regards to disaster management, so it will form a cycle of lack of hotel resilience to disasters. This also provides an opportunity for human resource practitioners to identify and assess disaster-related training gaps, so as to make up for the lack of capacity and insufficiency of hotel practitioners in this area, and more importantly, to reserve the human resource pool of hotels for effective disaster handling. According to the response of a hotel manager:

The ability and experience to deal with disasters are certainly important but combined with the overall human resource planning of the hotel, this point cannot be used as a fixed criterion to decide whether to hire an employee even if it is an employee of our security department. Because knowledge of disaster-related aspects is limited, there are very few candidates with such abilities. And actually, we don't ask disaster-handling questions in most of our job interviews... (CH9)

6.4 Human Resource Development on Disaster Management

In addition to the findings in relation to the role of human resource planning in improving hotel resilience to disasters, all the interviewees also confirmed that human resource development of hotels has a significantly irreplaceable impact on improving hotel resilience to disasters, especially in terms of improving disaster preparedness and response ability of hotel managers and staff and their disaster awareness.

All interviewees mentioned that the training policy of the hotels can be regarded as an important human resource policy for building hotel resilience to disasters. The findings show that 100% of participants agreed that the training policies for building resilience to disasters at the present stage are mainly focused on fire safety training in hotels. The hotels, therefore, take fire safety as the core of the entire hotel disaster management and focus on the implementation of fire prevention training in this aspect. In other words, this can be seen as a reactive engagement in terms of preparing for man-made disasters. Training policies can be adjusted for different work patterns. For example, 57% of participants said they require full-time employees to complete formal orientation fire safety training provided by their hotel, which is also part of their onboarding process. But for part-time employees, all interviewees said that either there is no relevant disaster training, or they are learning from each other on the job. Another specific finding shows 48% of the interviewees indicated that the hotels adopt different disaster-related training policies according to different positions and different levels of training targets. For example, training policies for the management member will focus on how to lead, manage, command, and control a disaster, while training for grassroots and front-line staff will focus on basic emergency operations, such as how to use fire-fighting equipment. Due to the extensive and complex content of hotel training and strong pertinence, therefore, training programs also need to be diversified. It is necessary to combine job requirements and environmental changes, usually using special training and management training, internal

training and external training, basic training and system training, short-term training, and long-term training. At the same time, 100% of the interviewees also stated that the hotel will formulate real-time training policies according to the changing environment and the actual needs of the hotel staff so as to provide employees with strict skills retraining and new training. For example, during an epidemic crisis, the housekeeping department of a hotel becomes particularly important, because they need to carry out in-depth cleaning and a series of disinfection procedures for the hotel rooms, which requires them to be trained in various other aspects of customer service and backstage operation in order to meet the requirements of the government and the hotel. As a hotel manager stated:

We have training policies to improve the skills of our employees in dealing with fire or emergencies. This has played a good guiding and normative role in encouraging staff to participate in training and improving the resilience of the hotel to deal with disasters... (CH4)

Apart from training policies, six participants stated that they have relevant reward policies for employees who have outstanding performance in fire safety or the prevention of major emergencies. Participants also believed that the formulation of such reward policies can fully mobilise the enthusiasm and creativity of employees, and constantly motivate employees to contribute to the fire safety of the hotel, which is more conducive to optimising the disaster management plans and measures of the hotel and effectively reduce the loss of the hotel and avoid the occurrence of accidents. As one of the hotel managers commented:

...Yes, our hotel has relevant human resource policies for enhancing the hotel resilience to disasters in terms of rewards. We will reward, but not be limited to, promotions and salary increases for employees who perform well in fire safety or help the hotel to minimise losses in emergencies... (CH10)

6.4.1 Training in dealing with disasters

Furthermore, according to the interviewees, the existing tools of human resource

development in Chinese hotels for dealing with disasters can be basically summarised (see Table 13) into formal training and education and informal training such as daily publicity of disaster safety knowledge, and self-learning on the job. Among them, the most mentioned by 81% of interviewees is the role of formal training in human resource development for improving hotel resilience and disaster management, which is further discussed in Section 6.4.1.1. More importantly, it can be determined from the interviews that the preparation tools of most hotels in China at this stage are aimed at man-made disaster preparation, and more specifically, they are aimed at emergencies such as fires and public security. In terms of natural disasters, the interviewed hotels primarily focus on earthquakes.

Table 13: Training Forms for Disaster Management (Author’s own)

Formal Training	Informal Training
➤ knowledge lectures	➤ daily publicity of disaster safety knowledge (e.g., posters)
➤ exercises (e.g., fire drills)	
➤ fire safety training (e.g., pre-job training)	➤ self-learning on the job
➤ online learning	

6.4.1.1 Formal training for handling disasters

81% of hotels interviewed have adopted some form of formal training to some extent to prepare for and respond to disasters. First of all, 76% of participants said that relevant **knowledge lectures** are organised as one of a formal training programme, which helps establish an initial understanding of a crisis or disaster. At the same time, around special anniversaries local fire departments are often

invited by hotels to educate hotel staff on fire and safety by talking about real fire cases. Furthermore, security department staff of hotels are required to carry out safety checks more often including warning systems and equipment before and after these major festivals so as to reduce the risk of fire. Typically, this relatively simple and direct way can be adopted by hotels to popularise essential fire protection knowledge for hotel employees so that employees to some extent can understand the importance of establishing fire awareness, the role of fire preparation and prevention, and master certain skills on responding to fire such as how to evacuate from a fire scene. These hotels organise one or two similar disasters (mainly fire) knowledge lectures or seminars irregularly every year to strengthen the basic disaster-related knowledge of hotel staff. 76% of participants believed that this form of training is very theoretical and instructive and has strong guiding significance for improving the fire awareness of hotel employees. As a hotel manager mentioned:

We hold one or two fire knowledge lectures every year, the purpose is to enhance employees' awareness of fire safety and improve our skills in dealing with fire. (IH7)

In addition, the hotel managers interviewed all stated that the main actions and processes they take during the disaster preparation phase of building hotel resilience are to build knowledge and abilities related to disaster handling. Hotel managers understand that they must not blindly rely on their own experience to deal with disasters, because such a single treatment method will not only affect the results of disaster handling but also make the impact of disasters even more negative. Therefore, the main action they choose is to learn more basic knowledge of disaster prevention in peacetime. At the same time, they encourage and organise employees to learn more related knowledge. They can slowly build a reasonable knowledge structure through training, education, or courses. In this way, effective insights can be gradually formed, and scientific and reasonable decisions can be generated when dealing with disasters. According to a

participant:

We conduct disaster-related knowledge publicity and education through training for management and employees. Employees' awareness of disaster will gradually increase, and their skills and abilities will improve accordingly... (IH1)

The interviewees pointed out that from knowledge lectures they can learn basic knowledge of disasters and hazards (fire and natural disasters, here mainly refer to earthquakes and typhoons). They can learn many operational skills which can also be seen as first aid training such as 1) escape skills, 2) self-rescue skills, 3) how to conduct self-examination and self-correction of hazards in fire safety or natural disasters, 4) how to guide guests to evacuate when a fire or natural disaster occurs, 5) correctly dial the alarming number, 6) daily electricity, fire, gas precautions, 7) how to put out the initial fire, 8) how to correctly use fire extinguishers and indoor fire hydrants, etc. By doing so, it can enhance the awareness of all staff about fire and earthquakes, improve the self-defence and self-rescue ability of staff in fire and natural disasters, and effectively improve the fire safety and natural disaster management level of the hotel, thereby effectively preventing the occurrence of various fire accidents. However, there is also strategic disaster management and risk reduction training such as risk assessment, risk registers and multiagency cooperation onsite and offsite have not been fully covered.

Furthermore, establishing a reasonable and solid knowledge structure for disaster management will mean that hotel managers can discover and accurately analyse the possible results of disasters in time, combine the advantages and disadvantages of the hotel and the managers themselves, and use the decision-making ability of their entrepreneurial resilience to formulate reasonable, correct, and detailed plans for the disaster management of hotels. It is important to note that hotel disaster management is a dynamic management activity, and the decisions made by hotel managers are also non-procedural because each hotel

faces different disaster situations, and each hotel has its own characteristics. Therefore, hotel managers need to flexibly manage disasters based on their own conditions, instead of directly using other people's disaster management models and plans and making corresponding decisions and plans after analysing the specific conditions of their own hotels. A hotel manager stated that:

We formulate a disaster plan belonging to our hotel in detail. We are used to calling it the "disaster management" manual. In this plan, we list some of the things we need to do, such as establishing a disaster resilience team, as well as the contact information of each team member, as well as explaining who needs to be contacted in case of an emergency, etc. We also implement the corresponding hotel operation plan according to the extent of the disaster...(CH5)

However, six participants said that providing training in the form of knowledge lectures actually had a limited effect on improving the ability of hotel employees to deal with disasters. They believe that this kind of training only allows hotel staff to have some understanding of basic theoretical knowledge but does not involve more practical operations. Hence, when the disaster happened, the hotel staff still had a big blank about how to operate. One of the hotel managers interviewed emphasised:

One of the very common forms of formal training we take is to organise disaster knowledge lectures. Although we can recognise where we need to accumulate more knowledge, and also experience the importance of raising disaster awareness and mastering self-rescue skills, this training method has certain limitations. Our employees may slip through lectures, or their ability to deal with disasters cannot be improved due to a lack of operation in actual scenarios. (CH6)

Second, 57% of participants indicated that all hired full-time hotel employees are provided formal **pre-job training** as part of their onboarding process before starting work, partly focusing on fire safety, which is also included in the human resource policy of hotels to improve the hotel resilience to disasters. In particular, different levels of disaster handling training (on fire safety) are provided for different positions in hotels. These participants also indicated that pre-job training

is beneficial for new employees to quickly adapt to the new environment of the hotel. Through pre-job training activities, new employees can become familiar with the workplace of hotels and understand the specific disasters or hazards the hotels face. At the same time, they can also understand the relevant rules and regulations of hotel disaster handling, in particular, they can understand the organisational structure of the hotel when dealing with disasters. For the new employees without hotel work experience, the pre-job disaster dealing training, as the first impression the hotels leave on the staff in terms of disaster management, will greatly affect their cognition and attitude towards disaster handling, which also plays a key role in improving the disaster resilience of the hotels in the future.

At the same time, through pre-job training, new employees can learn new skills or knowledge related to dealing with disasters required for their positions and obtain relevant information necessary for their careers. Not only does this help build employee loyalty (Yee et al 2010, Ford et al 2022) to the hotels, but it also motivates them to work on improving the hotel resilience to disasters. The hotel introduces the basic information, rules and regulations, organisational structure, job environment and other aspects of the hotel to the new employees in the pre-job training so that the employees can find a space to give full play to their talent in the new working environment. By understanding all aspects of the hotel, employees make corresponding adjustments to their own strengths and weaknesses, knowledge structure and skill structure to meet the requirements of the hotel. Furthermore, in the pre-job training for new employees, there is an opportunity to build good interpersonal relationships between employees, thereby enhancing the teamwork and collaboration capabilities of employees, which is also an integral part of the hotel resilience to disasters. Compared with independent hotels, chain hotels pay more attention to pre-job training in terms of dealing with disasters for new employees. As one of the participants responded:

Pre-job fire safety training for employees is an important part of the human resource development programme in our hotel, and we also improve our ability and skills to deal with disasters in this way. (CH3)

Nevertheless, many hotels still fail to provide adequate pre-job disaster management training for new employees, either without training or in a formalistic way, which does not allow employees to fully understand the attitude of hotels towards disaster management and resilience building. A participant commented:

How to treat pre-job training is a problem worth paying attention to. If it is just treated as a workflow to give a simple introduction of the situation of the hotel, it will leave the staff in the dilemma of lack of sufficient information, and they do not know how to solve the difficulties, crises, or disasters. On the other hand, if we treat pre-job training related disasters seriously and rigorously, and provide sufficient relevant information to new employees, they will more intuitively feel that the hotel attaches importance to emergency or disaster management. (CH7)

Third, from the results of the interviews, 71% of participants confirmed that **disaster drills** or exercises are included as important formal training in their human resource development for all hotel employees to effectively enhance hotel resilience to disasters. It can be shown that the drills taken at this stage are mainly aimed at earthquakes and fires. In addition to the reserve of basic knowledge, such as how to use fire extinguishers, it is also necessary to improve and pay attention to the study of disaster management knowledge from a practical perspective. For example, by summing up the experience and lessons from the case studies of hotel disaster management, organising knowledge competitions to improve the understanding of theoretical knowledge on disaster management. By arranging simulation exercises, managers and employees can cultivate their disaster awareness and enhance their overall ability of disaster management, so that when the hotel meets a disaster, they can be orderly and calm in command. More importantly, the entrepreneurial resilience of hotel managers will also be recognised in this process, and deficiencies will be screened out for future improvements. According to a participant:

We normally conduct fire safety drills and recent case studies in conjunction with the fire department. Because we believe that daily training is an important way to improve our response to disasters like fires. Our purpose is to allow our managers and employees to participate in the disaster management process to obtain more successful and effective experiences. The more similar experiences, the clearer our vision for the future. At important junctures, we can repeatedly acquire this knowledge and experience to help us cope with the pressure and challenges of disasters... (CH9)

Of these, 14% of the hotels organise **fire drills** but are limited to this single disaster type. In this regard, one interviewee explained that large hotels in China are generally high-rise buildings. Compared with low-rise buildings, the structure is more complex, and evacuation and escape become particularly difficult. Fires are man-made disasters that are generally avoidable if prepare enough. Even if the fire is not serious because of the negligence of fire prevention, the hotel will be in a bad reputation for a considerable period. This is because a disaster or crisis is a threat to reputation (Ndone and Park 2022). If the public believes that the organisation is responsible for a crisis, the organisation's reputation is at risk (Schoofs et al 2019). This can also link to crisis communication as effective communication can play a role in reducing the likelihood of reputational damage during a disaster or crisis (De Waele et al 2020). The main purpose of the hotels to organise fire drills is to enhance the disaster (fire) prevention awareness of all the hotel staff to the greatest extent, popularize the common knowledge of fire and improve the emergency handling ability, so as to effectively prevent and respond to similar disasters. At the same time, it can also test the coordination and cooperation ability of hotel resilience team personnel (hotel managers) in the aspects of an organisation, command, communication, rescue, and other aspects in emergencies. More importantly, this allows us to verify the practicability and operability of the fire emergency plan, find deficiencies, and constantly revise, and improve the fire emergency plan. According to the comment of a participant:

Fire is the main disaster that our hotel faces, so we pay special attention to prevention in this aspect. We organise fire drills, partly because they

meet the requirements of the government, and partly because they are by far the most effective and practical means of preventing such disasters.
(IH2)

In addition to fire drills, 57% of the hotels interviewed said they would conduct additional **earthquake response drills**. However, it is worth mentioning that, even if the hotels are located in areas that are relatively vulnerable to earthquakes, fire drills still take precedence over earthquake drills. They believe that thanks to the effective local earthquake early warning system, the possibility of the occurrence of earthquakes as predictable natural disasters will be slight, so the possible damage and impact will be much less than that of fires that may occur at any time. The earthquake drill is not only a practical disaster response activity but also exercises psychological quality and reduces the sense of fear of all the hotel staff to be calm, sensitive, rigorous and orderly under special circumstances, which plays a very good educational role to enhance hotel resilience to disasters. At the same time, the simulated earthquake drill can further improve the disaster awareness of all hotel staff and master the relevant knowledge of earthquake avoidance and emergency evacuation. For employees, it can exercise their ability to obey commands and help each other at critical moments; for hotel disaster resilience teams and hotel managers, it can improve their disaster response abilities, including leadership and command abilities and coordination with various departments. In this way, the safety of guests and employees can be protected to the greatest extent, and a strong guarantee is provided for the smooth and sustainable development of the hotels. Participants indicated that they hoped to use earthquake drills to test the familiarity of hotel leaders and managers at all levels including functional departments and relevant personnel on the content and working procedures of an earthquake and emergency evacuation plans and their responsibilities. Meanwhile, they need to verify the hotel staff on the understanding and use of various disaster facilities through the way of conducting the exercise. Furthermore, the earthquake drill can test the disaster response speed of hotel managers at all levels in the occurrence of a

sudden disaster and their ability to work during an emergency. More importantly, the shortcomings can be identified during the drills so that can make targeted improvements in the future. A hotel manager commented:

Conducting an earthquake drill is an effective training programme to enhance the ability of hotel staff to deal with disasters. In particular, it can improve the ability of hotel managers to deal with disasters from multiple perspectives. (CH6)

Participants further emphasised the importance of doing disaster drills in more detail: Firstly, from the point of view of hotel human resource management, carrying out emergency drills can impress hotel employees more deeply by simulating real events and the emergency response process and truly understanding disasters intuitively and perceptually. By doing disaster drills, hotel employees can further improve their understanding of hotel vulnerabilities and are encouraged to take the initiative to learn disaster knowledge, strengthen disaster knowledge and dealing skills, improve self-rescue and mutual rescue abilities, and ensure the safety of their lives and properties. Disaster drills are an important means to test, improve and evaluate the disaster response abilities of hotel managers particularly. Through disaster drills that are close to real experience, hotel managers at all levels can improve their ability to analyse, predict, command, organise and coordinate in response to disasters, which can help facilitate hotel disaster management. Hotel disaster managers are familiar with disaster situations, improve disaster practical skills, and communication, coordination and cooperation between disaster management organisations and personnel, especially with the government and departments to jointly respond to disasters.

Secondly, from the perspective of hotel disaster management, it can check the operability and practicability of the disaster plan. Through emergency drills, it can reveal the problems in the disaster plan and expose the shortcomings of the plan before a disaster occurs. In addition, it can verify the adaptability of the plan in

dealing with various unexpected situations that may occur and find out what needs to be further improved and revised. It can also test the feasibility of the plan and the preparedness of disaster management and verify whether the whole or key parts of the plan can be effectively implemented. More importantly, it can test whether the disaster management mechanism is strong enough and which parts need to be changed and improved.

Even so, 62% of participants indicated that drills are a time-consuming and labour-intensive activity, and due to budget constraints, recurring disaster drills have not been implemented at this stage. In particular, participants generally noted that specific practical training on how to exactly manage disasters, how to formulate disaster plans, and how coordinate and cooperate between external and internal departments in face of a disaster is particularly limited or even absent. A participant expressed that:

The disaster-related training we have received so far only stays at the level of basic knowledge. I think what we need is really how to prevent and respond to disasters at the management level, including how to do a risk assessment, how to cooperate with each department, how to operate, how to allocate our human resources, how to coordinate cooperation with the industry, etc. These are the things that managers in China's hotel industry need time to think seriously at this stage. Especially for middle and high-level managers in hotels. (CH7)

The frequency of drills of interviewed hotels on fires and earthquakes on yearly basis are respectively shown in Figures 10 and 11. They believe that one or two drills cannot have obvious effects. To achieve good results, while ensuring the quality of each drill, disaster drills must be included in the hotel daily work, and they must be persistently pursued. It should be noted that a single drill should not be too long to ensure a strong sense of participation in the entire drill process so that employees will feel less tired and impressed.

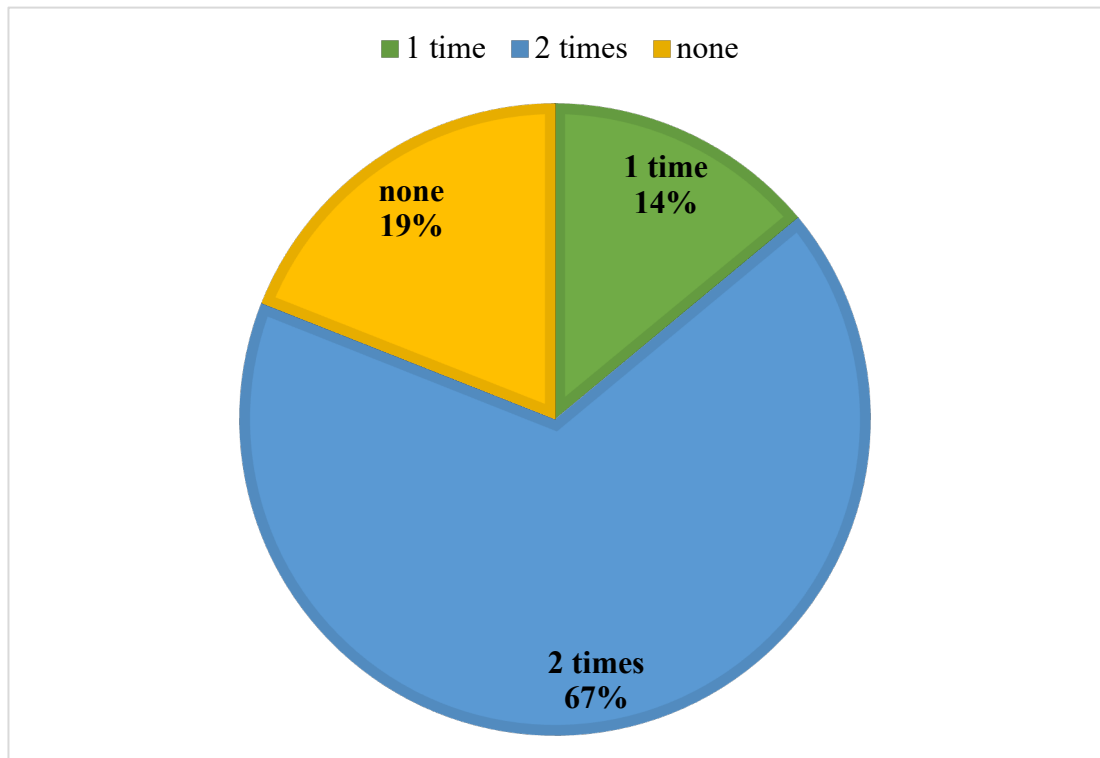


Figure 10: Frequency of Fire Drills Annually (Author's own)

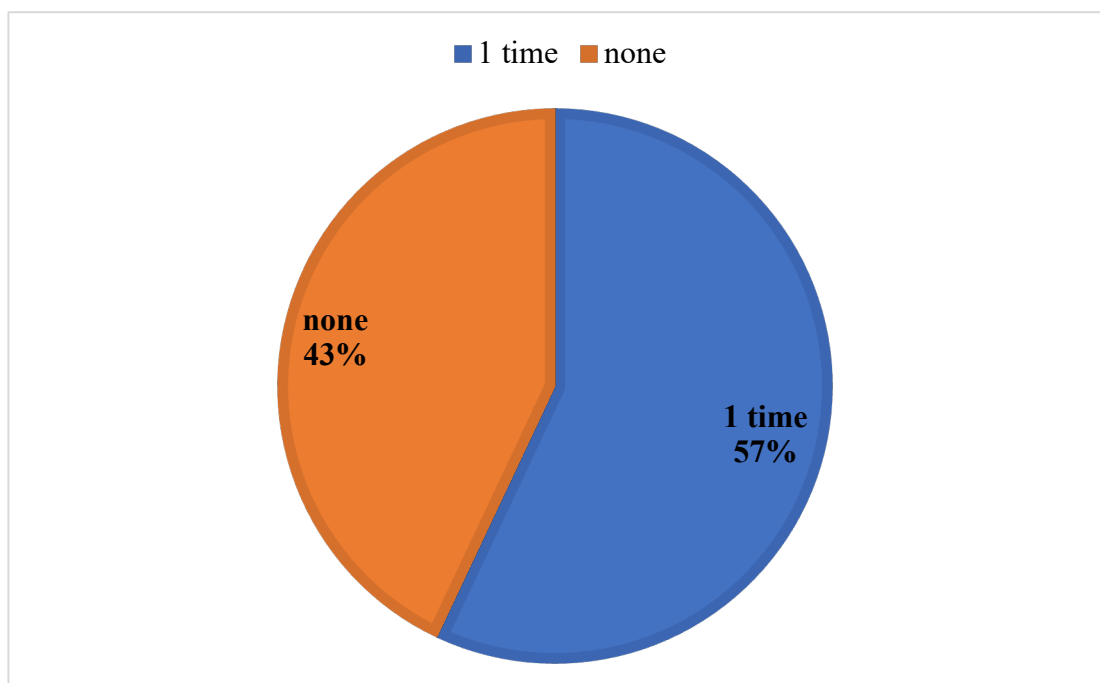


Figure 11: Frequency of Earthquake Drills Annually (Author's own)

Furthermore, 19% of participants said their hotels provide **online crisis and risk management training**. This formal training method allows all hotel staff to participate in the process so that they can learn relevant knowledge about dealing with crises and disasters. This kind of training is mainly to popularise basic knowledge for all the hotel staff in the form of an online video demonstration combined with answering questions. Employees can log in to the training system at any time through their work account to review the training content whenever they need it. On the other hand, the participants also indicated that the cost of such formal online training is generally lower than that of formal offline training. The online method saves the cost and time of hotel employee training, for the hotel industry in particular chain hotels where employees are not concentrated, online training can greatly reduce training costs. In addition, online training is a convenient way for employees to complete training tasks within a specified time, and it also gives every employee the opportunity to learn disaster dealing skills to some extent.

However, the following problem is that employees often face many external interference factors when participating in online training. It is difficult to effectively supervise and manage employees who receive online training. This is because employees with poor technology skills have difficulties concentrating on online training, which cannot achieve a satisfying result of training. As a participant commented:

Online training is convenient but can be difficult for some employees, such as those who are not computer or software proficient, or those who are not active learners. It can likewise be a challenge for us to monitor the effectiveness of the training. (CH9)

In addition to the training set for all hotel employees, the interviewees also mentioned there are training and development programmes that cover disaster management for different positions, which mainly target hotel security personnel and hotel managers at all levels. Forming resilience teams within the hotels is

another action as mentioned in section 5.3.2.1. Most disaster resilience teams are composed of managers of various departments and employees of key departments (such as the security department and the back kitchen). The hotel manager who pays attention to the preparation stage of disaster management will formulate a disaster resilience team at the same time as making the hotel disaster plan before the disaster occurs. In contrast, hotel managers who focus on the disaster management response phase will immediately set up a disaster emergency team when a disaster occurs. Compared to the average front-line employee, these team members as key staff handling disasters and educating subordinates of their own department receive more systematic disaster-handling training provided within the hotel by security managers or by an external government agency. The specific personnel training structure is shown in Figure 12.

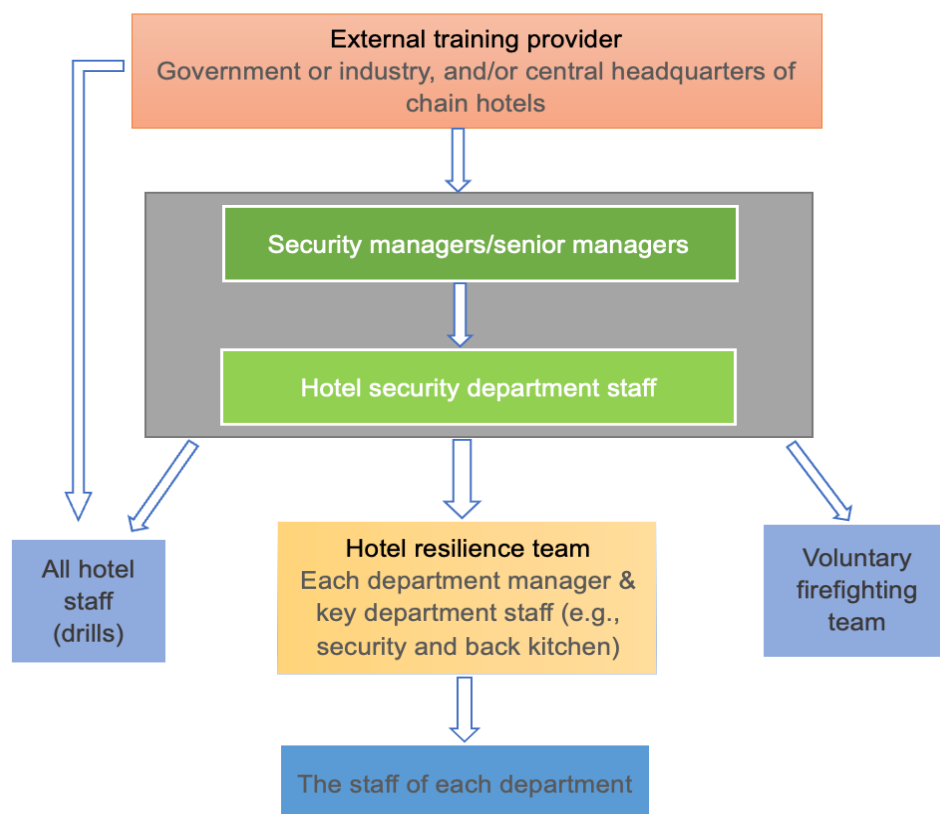


Figure 12: Structure of Hotel Disaster Handling Training (Author's own)

As the hotel disaster management agency, the hotel resilience team is mainly responsible for organising and coordinating the implementation of relevant national laws and regulations throughout the hotel and creating and maintaining a safe environment for the normal operation of the hotel. Generally, the general manager or security manager of the hotel serves as the disaster and safety management leader is fully responsible for the whole disaster and safety management related work of the hotel. As the centralised management functional department of the hotel disaster and safety work, the security department is the permanent agency responsible for the disaster and safety work within the hotel and is also the office of the hotel disaster resilience team. The manager of the security department, as the person in charge of the overall hotel disaster and safety management functional department, assists the general manager or comprehensively leads the hotel staff to complete the implementation of specific disaster and safety management and training work. Meanwhile, according to the response of a participant:

...Based on the provisions of the national fire protection law, the hotels need to assign personnel from various departments to form a voluntary firefighting team, which is fully responsible for and carries out regular inspections of the disaster prevention and safety conditions of various parts of the department and eliminates various hidden risks in time. And this part of the people will also receive more comprehensive training in disaster handling than average front-line staff... (CH10).

Notably, eight participants indicated that managers and employees in functional departments such as the human resources department do not have a comprehensive consideration of disaster management training. They believed that the human resources department only cooperates with and assists the security department to organise training for dealing with disasters, and the specific implementation of related training still depends on the security department. A participant commented:

Disaster training such as earthquake drills is a part of the human resources development of our hotel, but it is not the main responsibility of the human resources department. The human resources department only plays a coordinating and organising role in this process. For disaster management, the human resources department is more of a logistical support role. (CH1)

It is noted that there is a difference between independent and chain hotels in terms of key actions to enhance hotel resilience in terms of human resources development. Findings from independent hotel participants indicated a preference for key action for disaster response, such as setting up an emergency response team once a disaster occurs. Although they do take actions such as training to prepare for disasters, they are in fact very lacking in this area. By contrast, chain hotels tend to focus on major actions taken in the disaster preparedness phase, including setting up emergency response teams and organising relatively diverse training before a disaster occurs.

6.4.1.2 Informal training on disaster-related knowledge

In addition to formal training and development, informal development opportunities were also mentioned. 48% of interviewees consider that the simplest and most common disaster preparation tools they take are organising daily fire safety publicity activities. The security department of the hotels normally makes use of the publicity board in the staff activity area, and makes fire safety slogans and knowledge columns, so as to promote employees to build disaster awareness in their daily work. In particular, around special anniversaries or major festivals every year, such as Fire Safety Day or Spring Festival, the hotels will also hold related fire safety propaganda campaigns, and the security department will also cooperate with the human resource department to organise and arrange the hotel staff to conduct fire safety knowledge exams or competitions.

However, this group of participants also stated that in fact such disaster preparedness tools were not formally included in the hotel's human resources

development programmes. For some independent hotels with relatively poor human resources management, this practice is a limited tool for them to prepare for disaster, but also to comply with the requirements of local authorities. Just as a hotel manager of an independent hotel commented:

...Our human resource management is not yet good enough. This has not yet been systematised from the personnel employment and overall planning to ability and skills improvement of employees and training programmes. So, the way we prepare for disasters at this stage is just limited to the process of disseminating knowledge on fire prevention and public security to employees in our daily work when requested by our local authorities. (IH10)

Another informal training mentioned by 14% of the participants is that in daily work, existing employees of hotels lead fresh employees to continuously learn and provide answers and help when they encounter related problems. The existing employees will be selected and reviewed by the human resources department as the "leaders" of the fresh employees, and they will teach and share relevant work experience with the new employees in their daily work. At the same time, provide help and guidance to new employees on how to deal with disaster-related issues. This method is also generally used by independent hotels, as a hotel manager of an independent hotel commented:

Basically, we select and ask one or more hotel employees who have been already working in our hotel depending on the situation with a strong ability to guide and help new staff. These existing employees act as mentors to answer questions when new staff encounter related problems at work. The process of guiding new staff is the process of training them...(IH4)

6.4.2 Monitoring of disaster training

From the results of interviews, it can be known that the monitoring of disaster management training implemented at this stage mainly focuses on two aspects, namely, the supervision of training attendance rate and post-training assessment. 67% of participants said they would first monitor the training of employees by

recording their attendance. They said that under normal circumstances, managers and employees at all levels in various departments of the hotel are encouraged to actively support and take part in the disaster and emergency training organised by the human resources department and the security department. However, in some special cases, such as the absence of a large number of employees during the training, the attendance rate of employees will be recorded in the form of a sign-in. Yet, in some large-scale training activities, such as joint drills and exercises, all employees will be required to participate on time. For some employees in special positions and departments, such as the security staff, their attendance at disaster and emergency training will affect their salary and job promotion. One of the interviewees said:

Recording employee attendance at training is one of the ways we effectively monitor training. Employees do not care so much about what they can learn in disaster training, but they care about the impact that not attending the training will have on their job promotion. (IH5)

81% of the participants also said that after completing a special disaster or safety training session, each hotel employee who participated in the training will be assessed in different forms with regard to the training content. One of the most common ways is to test the degree of disaster knowledge of the hotel staff directly through exam questionnaires. The exam questionnaires are generally closely linked to training objectives and training content, and the results of the assessment depend on the scores they get in the questionnaires. After reaching the qualified score, it will be recorded in the employee file as a pass. If the qualified score is not reached, it is necessary to continue to participate in the learning until the qualified score is reached, so as to encourage hotel staff to truly reflect the results. In addition, hotel staff also have practical operation assessments, such as how to use fire extinguishers, so as to evaluate how much knowledge they have gained from the practical training. Outstanding employees are selected based on their performance during training such as in drills and can be rewarded. For some specific positions, such as security personnel, the

monitoring of their training is mainly based on whether they can obtain relevant certificates or qualifications issued by the relevant agency.

Another way of training monitoring is dynamic supervision, which observes the participation and response of employees to solve problems in the whole process from the beginning to the end of training and randomly asks them questions. After the training, monitoring observes the status of employees at work and the application of the knowledge learned in the training at any time and conducts random checks on employees from time to time. According to their answers and handling of the questions raised by the examiners (department managers), the mastery of the disaster and emergency knowledge is judged, and the parts that need to be improved are proposed to guide the employees to formulate improvement evolution and participate in training and related exercises in a targeted manner. More importantly, it provides a reference for the internal or external training institutions of hotels to organise training in a specific manner. As an interviewee answered:

We observe how employees respond to the issues involved in the daily disaster management training to determine whether they are seriously involved in training and upgrading their skills. (CH10)

6.5 Level of human resource support and management

As Figure 12 shows, 24% of participants believed that they have neither the right human resource management support nor the right human resource management structure to improve hotel resilience. As a participant indicated:

...disaster management is not fully integrated into the human resource management in our hotel and there is still a lot of room for improvement. We are not having the right support because we have not gotten enough training to really improve our abilities in disaster and crisis management. In other words, our existing training programmes did not meet our needs for dealing with disasters... (IH7).

As section 6.4 discussed, training is largely at a very superficial and limited level.

The form of training is monotonous, which only talks about theory and lacks practicality. What's more, disaster handling training is not valued by hotel leaders, and sometimes it is just a formality, which also leads to negative attitudes of employees towards disaster training and lack of attention. Therefore, training has not achieved the purpose of truly improving the ability of employees to deal with disasters. Due to the business needs of the hotel, there is no pre-job training on disaster and crisis management for new employees before they start work. On the one hand, it is to save costs. On the other hand, it is to save time for employees to start work as soon as possible to solve the problem of hotel staff shortage. As a result, new employees are at a loss when faced with an emergency. Second, insufficient rewards can reduce employee motivation and initiative to participate in disaster handling and prevention as discussed in section 6.2.

In addition, they also believe that their hotel has a lot of room to improve the human resource management structure in terms of enhancing the resilience of the hotel, including the establishment of human resource policy and human resource planning. There is a lack of consideration of disaster management when formulating human resources planning, so disaster handling skills are not taken into account when recruiting staff. As a result, some positions in the hotel do not match their abilities. A participant commented that:

There are still many problems in our human resource management at the present stage. For disaster and emergency handling, our human resource management system still has a lot to do, not only in training to improve but also in personnel planning. (IH10)

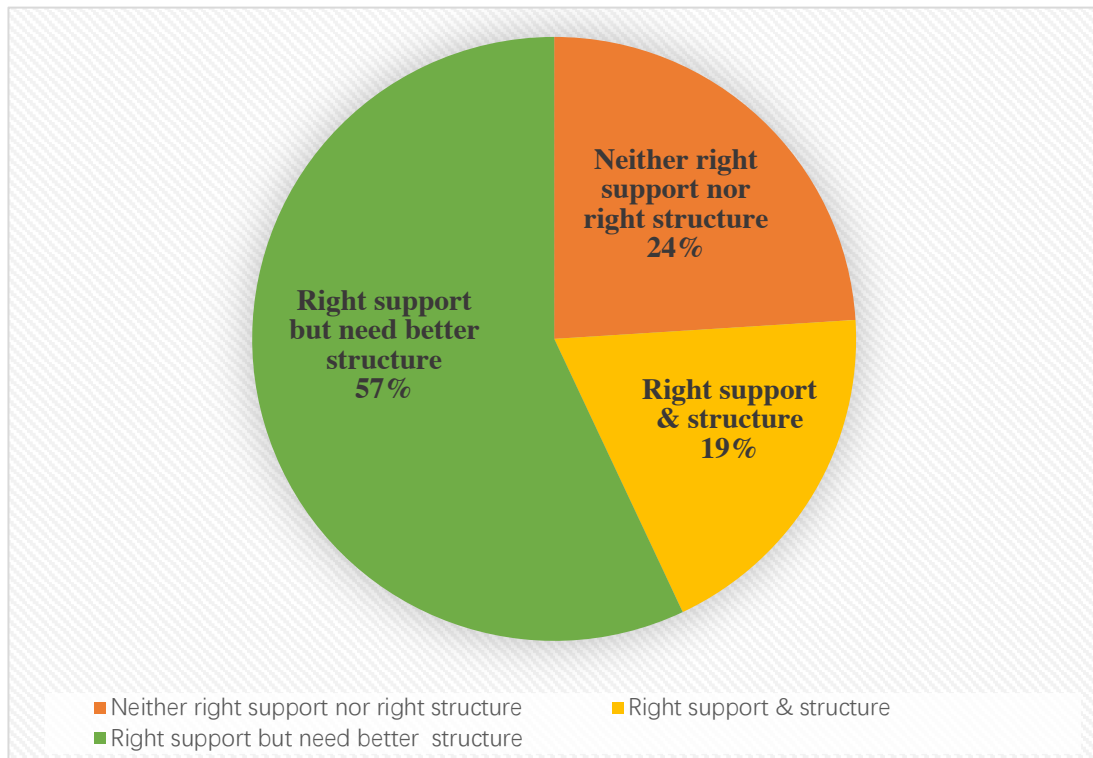


Figure 12: Level of Human Resource Support and Management (Author's own)

The findings also revealed that 19% of participants believe their hotel has both the right human resource support and structure to improve hotel disaster resilience. On the one hand, they believe that the managers of their hotels have effective leadership and strong disaster awareness. Therefore, there are requirements related to disaster management from human resource planning to policy. Specifically, the recruitment of relevant personnel will also take into account the importance of disaster handling ability to enhance the hotel resilience to disasters. Hence, requirements will be put forward during recruitment. It is precisely because of the appropriate human resource structure that the hotel has a relatively complete mechanism to deal with disasters, which can effectively improve the level of disaster preparation and handling. On the other hand, the hotel provides employees with a variety of disaster handling training, using a combination of theory and practice, as far as possible to allow employees to acquire basic disaster prevention knowledge and at the same time personally improve their ability and skills to deal with disasters. According to the expression

of an interviewee:

Our hotel leaders and managers predicted the disasters and challenges our hotel might face in the future, so we gradually established a set of strategic plans including human resource plans to prepare for future disasters or crises. (CH5)

In addition to this, 57% of participants reach a consensus that they have the right human resource management support to improve hotel resilience to disasters, but the human resource management structure needs to be improved. They believe that most of the current ordinary managers are promoted from front-line employees. Although they have rich practical experience, they are not professional managers, and there is no systematic professional management theory to support their disaster management practice. In addition, hotels not only need operational service personnel but also need a large number of management talent with leadership and decision-making ability in particular for managing disasters. Recruitment has always been a challenge for hotels, which has led to the repeated reduction of the requirements for staff recruitment and the low level of professionalism required. As a participant said:

In the context of the actual hotel situation, recruitment is challenging because in many cases it is difficult to recruit the ideal staff. As a result, only a small percentage of hotel staff may be recruited with relevant disaster training, and this is limited to theoretical knowledge. Even more limited is the number of people with formal disaster education or disaster management training. (CH1)

On the other hand, they think that they do not have clear strategic goals, let alone strategic human resource planning. Just passively adapt to changes in the external environment, rather than actively prepare for changes. Human resource managers often rely on their subjective experience to predict the demand and supply of human resources, and lack dynamic human resource planning, resulting in the randomness of personnel policies. Only seeing the short-term business needs, not being able to do the reasonable allocation of long-term

human resources of the hotel, and human resources cannot be rationally developed and utilised, which leads to the imbalance of human resource management in the building of the hotel resilience to disasters.

6.6 Relationship between ER and HRM

The relationship between ER and HRM is also examined to address the third objective of this study outlined in section 1.3.2. The results of the interviews showed that 100% of the participants reach a consensus that the entrepreneurial resilience of hotel managers and hotel human resource management are complementary and underpin each other, which confirms the discussion of the Conceptual Framework of this study in Chapter 3. As a hotel manager expressed:

...In my opinion, HRM and the entrepreneurial resilience of hotel managers are mutually supportive, because, without strong entrepreneurial traits, we cannot help improve the management structure of our organisations, and HRM as part of the management structure necessarily requires the joint support of hotel managers; conversely, appropriate HRM enhances the quality of our people and supports us to improve our ability, for example through the provision of relevant training or incentives for our managers... (CH3).

Moreover, as shown in Figure 13, entrepreneurial resilience and hotel human resource management are equally important in establishing hotel disaster resilience. To some extent, ER and HRM need to play their respective roles together to maximise hotel resilience. According to a hotel manager highlighted:

...In our hotel, the improvement of our ability is very dependent on the support of the hotel HRM; and the improvement of the hotel HRM requires higher qualifications for the hotel managers. So if you want to effectively improve the disaster resilience of the hotel, I think the two are indispensable, because they need to contribute together, especially in large hotels...(CH6).

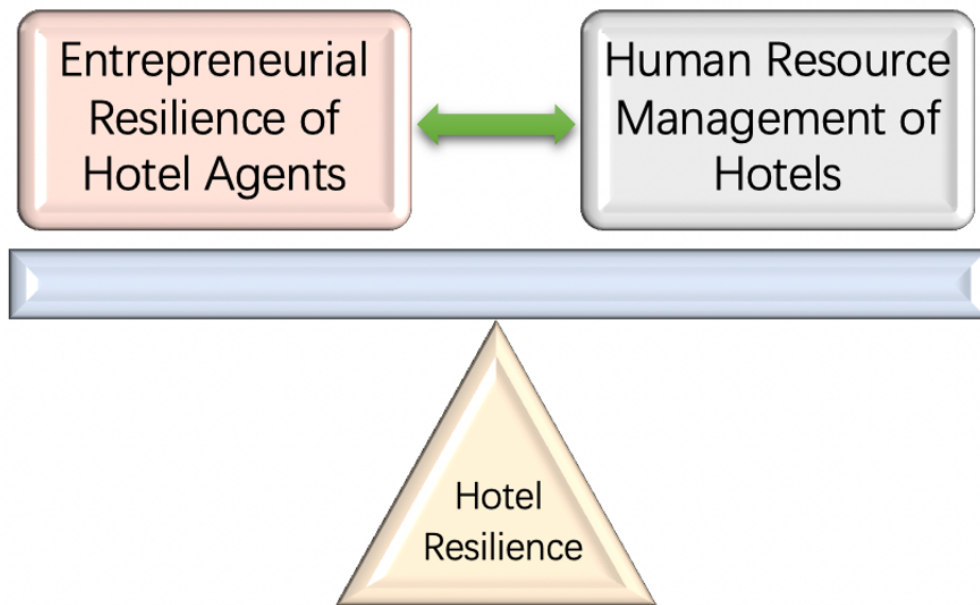


Figure 13: Relationship between ER and HRM (Author's own)

The participants believe that building hotel resilience to disasters needs to be considered from multiple perspectives, and the quality and ability of the hotel agents and staff play a decisive role in this process. The entrepreneurial resilience of hotel agents, as a dynamic capability of the hotel manager, can enable the hotel manager to help the hotel effectively cope with the challenges and disasters it faces in order to achieve sustainable development of the hotel. Hotel leaders with entrepreneurial resilience understand the importance of disaster preparedness, and awareness of uncertainty enables them to make better judgments about future development. Whether a hotel can quickly recover from a crisis or disaster or use the crisis to achieve adverse growth depends on whether the hotel agents are well prepared before the disaster strikes. Their situational awareness and disaster awareness can keep them alert to disasters or crises, keenly observe the external environment, and evaluate all kinds of adverse factors that may bring disaster to the hotel. They need to continually assess risks so that the risks can be minimised. Hotel agents can use their leadership and decision-making skills to respond to the changing external environment of the hotel, thereby enhancing the hotel resilience to disasters and

its development capacity of the hotel. Hotel agents with entrepreneurial resilience are good at continuously learning from mistakes to continuously improve their abilities. More importantly, strong entrepreneurial resilience will make hotel agents realise that human resources are one of the most important factors when a hotel responds to crises and disasters, and it is difficult to overcome crises and disasters on their own. Through a series of human resource accumulation and ability enhancement before the disaster, the communication between employees will be smoother, and more power will be given to front-line employees. By empowering the whole hotel staff and facilitating the coordination and cooperation between teams, accordingly, the hotel resilience to deal with crisis and disaster will also become stronger. As a hotel manager commented:

ER plays a leading role in facilitating the establishment of organisational structures in hotels in terms of dealing with disasters. It takes all aspects of the hotel manager's competencies to facilitate the integrity and effectiveness of the hotel's organisational structure. Improving the hotel's HRM requires the support of the ER to identify potential problems in management and to improve the HRM related policies and practices. Thus, ER and HRM are mutually reinforcing and are equally important in building hotel disaster resilience. (IH3)

At the same time, hotel human resource management particularly HRD can positively support enhancing the abilities and skills of hotel practitioners to deal with disasters and further enhance entrepreneurial resilience (Lee and Wang 2017, Roundy and Burke-Smalley 2022). Without the support of the management team, the hotel resilience to deal with disasters will not be formed. Successful hotels often have sufficient reserves of capable managers. As one interviewee said:

...entrepreneurial resilience should be achieved through the overall human resource management of the hotel, which can support the improvement of the ability of hotel managers (CH10).

Human resource management should solve the problem that hotel managers are not competent to help improve their disaster management awareness and

management ability. At the same time, it stimulates the vitality of the management team making it play the role of forming the disaster management culture, leading the team, and developing the team. The most important task of human resource development is to promote the achievement of the strategic goals of the hotel. To achieve this goal, they must start with "people", including managers and employees, and provide sufficient and competent people. The human resource management of the hotel can consider the operation and development of the hotel from the dimension of the hotel resilience to deal with disasters, adjust the personnel structure in a timely manner, and promote the combination and allocation of the hotel personnel so as to enhance the effectiveness of the hotel to deal with disasters or crises. As a participant expressed:

I think HRM can largely help all our staff to upgrade our skills because we need to keep learning in order to cope with the daily changes. Many hotel managers are in a blank when it comes to dealing with disasters, so if HRM can have systematic planning and arrangements, we will also have more possibilities to improve more aspects of our abilities, that is, our ER...(IH9)

Moreover, the continuous construction and optimisation of mechanisms and processes in human resource management can enable hotel managers and employees to improve their collaborative capabilities and clearly evaluate themselves so that use certainty to deal with uncertainty. As a hotel manager said:

Our current HRM practice is to upgrade training methods and organise as much training as possible to improve the resilience of all staff, including our managers. This will make them more prepared and more confident in the face of a crisis. (CH10)

In terms of building hotel resilience, human resource management not only controls the staffing and quality of the hotel but also manages and controls the ability of hotel personnel to respond to disasters. The content of human resource management is not only at the level of professional functions, but more importantly, it extends to knowledge management and capability management.

At the same time, human resource management is not only to improve efficiency but also to realise the value-added of people themselves. The management of people is no longer simply regarded as a tool or factor of production, but as a leading factor of value creation. The value of people in building hotel resilience needs to be fully demonstrated by involving everyone in disaster management, rather than relying solely on external organisations and a few individuals. In addition to providing a platform for capacity improvement, it is also necessary to stimulate the vitality of each team and individual. Through innovative design of incentive mechanisms, every employee is encouraged to participate in disaster management so as to gradually establish a culture of hotel disaster management. Because of this, the interviewees also agreed that the entrepreneurial resilience of hotel managers directly facilitates the improvement of hotel human resource management. One participant explained:

...entrepreneurial resilience of the hotel manager is just as important as the hotel human resource management in building the hotel resilience, but as the entrepreneurial resilience of the hotel manager increases, so does the hotel human resource management, and vice versa" (CH8).

The entrepreneurial resilience of hotel leaders and managers determines whether they will incorporate disaster management into the human resources system as an important part. Conversely, the degree of emphasis on disaster management by the human resource management system will determine the awareness and attitude of hotel managers and all staff towards disaster. Hence, achieving a balance between the two aspects is important for building resilience in hotels. As one interviewee said:

...while investing in the capabilities of hotel managers, don't forget to invest in the human resource management system as well (CH11).

In addition, 29% of the participants believe that in some hotels with incomplete human resource management at this stage, especially independent hotels, the entrepreneurial resilience of hotel managers plays a more important role than

human resources management in building the resilience of the hotel. Due to the lack of human resource planning and personnel shortage, along with an unsound human resource development system, it is impossible to effectively help and support the entrepreneurial resilience of hotel managers. This also makes it more difficult to improve hotel disaster resilience. One participant commented:

In our hotel, I think entrepreneurial resilience is more important at this stage and should also play a leading role in disaster handling. Human resource management is something that we need to improve in the near future, especially in terms of disaster and crisis handling. (IH10)

6.7 Conclusion

This chapter has provided the main findings on the role of human resource management in building human factors of hotel resilience. It has been revealed that establishing explicit human resources policies such as specifically for recruitment, training and reward practice is helpful for improving hotel disaster resilience and disaster management. However, it has indicated that there is a lack of explicit HR policies for building hotel resilience to disasters. This chapter has also demonstrated that hotel managers with disaster dealing abilities and skills are preferred in terms of HRP, on the contrary, frontline staff are not required to have such abilities and skills. More importantly, the findings confirmed that human resource development plays a significant role in building human factors of hotel resilience. By conducting different forms of informal and formal training programmes, hotel practitioners can enhance their abilities and skills of dealing with disasters, and further improve hotel resilience. However, it has also shown that more education and training for multiple disasters are needed. It has also demonstrated that the hotel human resource management structure needs to be improved. Finally, this chapter has examined that entrepreneurial resilience and human resource management are complementary and underpin each other. Also, they both are important and can together contribute to maximising hotel resilience. A discussion of the findings will be provided in the next chapter.

Chapter 7 Discussion on Hotel Resilience

7.1 Introduction

Hotels are vulnerable to crises and disasters no matter man-made or natural. In this context, this chapter provides an in-depth discussion of the main findings on hotel resilience towards disasters and summarises a series of lessons identified. It subsequently produces a revised conceptual framework on hotel resilience based on the outputs presented in the findings chapters. Meanwhile, it sheds light on the current perceived status of hotel resilience to disasters in China. More importantly, this chapter provides 21 lessons (highlighted and numbered with bold italics in the discussions and in section 7.6) to help enhance hotel resilience to disasters, which also addresses the fourth objective of this study.

7.2 Role of entrepreneurial resilience in building hotel resilience

As Chapter two (see section 2.4) discussed, resilience is a notion that has been addressed in different areas and discussed from various perspectives and levels such as individual resilience, organisational resilience, community resilience and destination resilience in the relevant studies of tourism and disaster management (Crosweller and Tschakert 2021, Ducheck 2020, Demiroz and Haase 2019, Ruizmartin et al 2018, Van Doorn et al 2017, Hall et al 2017, Orchiston et al 2016, Sabatino 2016, Lew 2014, Becken 2013, Kapucu et al 2013, McManus et al 2008, Dalziell and McManus 2004, Sutcliffe and Vogus 2003). However, there is no consensus framework for conceptualising resilience in such areas. In particular, the concept of hotel resilience in crisis and disaster management context has just been considered and addressed in recent years and yet explicitly lacks specific conceptualisation. Broadly, hotel resilience plays a significant role in contributing to the resilience of the tourism industry and destination resilience.

In order to be able to withstand the impact when the disaster occurs and to quickly respond to and recover from the disaster, as well as maintain the normal operation

of important functions, hotels, especially hotel agents including multi-level managers and other staff must be fully prepared and continuously improve relevant strategies in building the resilience of disasters as much as possible (Paraskevas and Quek 2019, Pappas 2018, Hall et al 2016, Ghaderi et al 2014). This requires hotel managers to flexibly use their capabilities and skills to comprehensively think and analyse what strategies and measures are beneficial and effective for hotels to deal with disasters. In other words, the entrepreneurial resilience of hotel managers is the foundation for achieving hotel disaster resilience. Entrepreneurial resilience can be closely linked to disaster management in the context of hotels since it focuses on the comprehensive and dynamic abilities and skills of agents to deal with threats and impacts caused by crises and disasters (Duchek 2018, Crick and Crick 2016). The appropriate abilities, skills, behaviours and actions of people (e.g., hotel agents or managers) in preparing for and responding to various disasters have widely been recognised as the most important and effective elements of building resilience (Prior and Eriksen 2013, Paton et al 2006, Newman 2005, Paton and Johnston 2001). Entrepreneurial skills of personnel and related disaster managers as part of best practices make an important contribution to enabling change in managing disasters and utilising their existing resources in innovative ways (Miles and Petridou 2013, Bullough and Renko 2013). As presented in section 5.3, the notion of entrepreneurial resilience of hotel agents has been identified from various aspects including a series of outstanding abilities and skills that can make a great contribution to enhancing hotel resilience to disasters. At the same time, entrepreneurial resilience is a dynamic formative process, and its components are not just limited to those demonstrated in this study. It may also increase in response to changing circumstances and some of its components or the whole may also improve as a result of ongoing learning. Table 14 summarises and explains the key elements of entrepreneurial resilience of hotel agents that have been established from the results of this study.

Table 14: Key Elements of Entrepreneurial Resilience of Hotel Agents in Building Hotel Resilience (Author's own)

<i>Entrepreneurial Resilience Elements</i>	<i>Explanations</i>	<i>Role in building Hotel Resilience</i>
<i>Situational awareness of disasters</i>	➤ Understanding of hotel agents on their surrounding environment and disaster situation ➤ Perception of disasters that hotel agents are facing, ➤ Prediction of potential consequences,	✓ Help build disaster preparedness ✓ Help collect information about disasters ✓ Guide the behaviours of hotel agents to build hotel resilience ✓ Reduce vulnerability ✓ Assist decision-making ✓ Develop an appropriate disaster management attitude
<i>Leadership skills (team building and cooperation, communication, innovation, flexibility)</i>	➤ Lead by example and are proactive in dealing with disasters ➤ Transparent and often communication with employees ➤ Building capable teams and effective cooperation ➤ Create new thinking activities or perspectives ➤ Quickly adapt to internal and external influences	✓ Shape and manage resilience-building activities within their teams ✓ Motivate the teams to take initiative in building hotel resilience ✓ Maintain operations and make profits from alternative channels during disasters ✓ Help to implement disaster plans and mobilise resources
<i>Decision-making</i>	➤ The ability of hotel agents to make appropriate and quick decisions pre-disaster, during and after disasters	✓ Minimise the impact and damage caused by the disaster ✓ Help enhance disaster preparedness ✓ Maintain the order and the reputation of the hotel

<i>Disaster strategic planning</i>	➤ Integrating the disaster planning of the hotel into the strategic planning, a core competency for managers	✓ Get attention to building hotel resilience ✓ Guide for future disaster management actions
<i>Implementation and sense of responsibility</i>	➤ A strategic disaster plan for the hotel can be effectively implemented in disaster management practice.	✓ Allow disaster planning to be tested and revised in practice to continuously improve ✓ Facilitate collaboration and communication
<i>Resources allocation</i>	➤ Allocate human resource and financial resources	✓ People are used to their full potential ✓ Enhance disaster preparedness
<i>Learning and experience</i>	➤ A continuous process of accumulating knowledge and experience ➤ Reflection and summary of past disasters or crises	✓ Enrich the existing knowledge base about disaster ✓ Strengthen the disaster awareness of hotel managers ✓ Improve disaster practices ✓ Support for decision-making ✓ Facilitate the development of human resource management
<i>Education</i>	➤ Intellectual and spiritual support for hotel managers to build hotel resilience	✓ Acquire disaster-related knowledge and coping skills ✓ Help to build a culture of hotel disaster resilience ✓ Reducing vulnerability and enhancing resilience ✓ Help shape and enhance the perception of disasters

7.2.1 Awareness of disaster

First of all, the results show (see section 5.3.1) that awareness of hotel agents about disasters is considered the most essential and significant element to building hotel resilience, which also corresponds to the elements of entrepreneurial resilience that have been raised in the conceptual framework of Chapter 3. This is also supported by a wide range of studies such as Horan (2021), Aliperti and Cruz (2020), Tsai et al (2020), Edeh et al (2019), Ivkov et al (2019), Tibay et al (2018), Sydnor-Bousso et al (2011), Racherla and Hu (2009), Ritchie (2008), who have also identified that building awareness of disasters helps organisations, for example, hotels to establish preparedness for disasters, and it is also a fundamental protective shield for organisations to achieve sustainable development in a constantly changing environment. How hotel agents perceive disaster is highly significant for building hotel resilience from various aspects. **(1) *Maintaining and raising disaster awareness at all times is a precondition to have effective disaster management systems in place and take strong initiatives to proactively prepare for disasters before they happen and to ensure that they can address and get recovery quickly after a disaster.*** A clear understanding of the impact of disasters and the importance of disaster management can strengthen the preparation and planning of hotel agents for disasters from various aspects. It also helps hotel agents to clarify their thoughts and conduct self-evaluation so as to integrate available resources for building hotel resilience. Sufficient disaster awareness can make hotel agents realise that the hotel is difficult to avoid natural disasters and unpredictable man-made disasters on the road to sustainable development. This requires that they must not ignore the occurrence of disasters, even if they are accidental while operating and managing the hotel. At the same time, it is necessary to have sufficient psychological and material preparations for the uncertainty, destructiveness, and suddenness of disasters, and establish appropriate response measures and preparation plans.

In this regard, the notion of situational awareness has arisen and been applied to recognise and identify crises and disasters that hotels and agents are facing. Establishing situational awareness of disasters requires hotel managers to have a clear and real-time perception of their surrounding environment, and to be fully prepared for unknown situations. This means that when there is an unexpected event such as a natural disaster or a man-made disaster, a hotel manager with sufficient situational awareness can decide in time how to respond to such a situation. This situational awareness drives the hotel manager to foresee or imagine various situations that may arise and to practice the actions to be taken in response to possible situations or emergencies. By doing this, hotel managers have at least one action plan available, or even, at least a rough idea of what to do, in the event of a disaster. This is also consistent with the view put forward by McManus et al (2008), situation awareness can be simply considered as an understanding of agents about what is going on in the dynamic operating environment surrounding them. Building situation awareness can help agents to make sense of the disaster environment and clearly produce complete ideas and solutions to deal with disasters (Mistilis and Sheldon 2006, Zhang et al 2002). This is in line with a wide range of studies such as Jiang et al (2021), Edeh et al (2020), Filimonau and De Coteau (2020), and Shan et al (2019), who highlighted the role of situational awareness in building resilience and reducing the vulnerability of tourism organisations. In addition, the results also show that situational awareness of disasters can support the decision-making of hotel agents in the process of disaster management, which involves whether hotel managers take preparatory activities before the disaster (such as focusing on formulating disaster plans), making prepared decisions during the disaster (such as deciding which available resources to mobilise), and how to resume hotel operations as soon as possible after the disaster (such as deciding what marketing strategy to adopt to attract consumers). In this regard, hotel managers must hand their purpose and values steady even as situations change. If their core value is about building resilience, they will put that at the centre of every

decision they make. This point is also supported by Paraskevas and Quek (2019), Antony and Jacob (2019), and Scarpino and Gretzel (2014), who showcased the importance of situational awareness in the decision-making of disaster management.

Moreover, it is worth mentioning that situational awareness of hotel agents can affect their response to disasters and their decisions in disaster management, which further influence disaster resilience building (Magoua and Li 2022, Peng et al 2023). Situational awareness is also influenced by previous knowledge and experience (Fathi and Fiedrich 2022), and education level (Teo et al 2018). Limited situational awareness or inappropriate perception of disasters by hotel agents can make hotel agents averse to building disaster resilience, while also putting hotels in a disaster management dilemma. For example, the perception of disasters of some hotel agents is limited to "very rare or infrequent occurrences", as well as something that they do not want to happen, hence, they just consider it unnecessary to invest too much in disaster management. In this case, hotel agents are required to strengthen their learning and thinking about relevant information and knowledge in terms of disasters. It is necessary to accept the inevitability of disasters from their mindset, so as to guide employees to properly deal with disasters. This will also give hotel agents well-placed access to disaster scenarios to effectively develop measures to prepare for and deal with disasters.

7.2.2 Leadership

Second, this study has indicated (see section 5.3.2) that the leadership of hotel agents plays a key role in building hotel resilience, which also confirms the points raised in the conceptual framework of Chapter 3. Many researchers also highlighted that leadership is truly crucial in building the resilience of tourism and hospitality organisations such as hotels (Altshuler and Schmidt 2021, Robertson

2021, Prayag 2020, Filimonau and De Coteau 2020, Brown et al 2018). Hotel leaders (usually managers) play a vital role in shaping and managing activities within their teams, and their decisions and actions influence the activities of their staff and contribute significantly to the achievement of hotel goals. If they lead by example and are proactive in dealing with disasters, they will be able to show the team and their staff the way in dealing with disasters and prevent the team from being caught up in the confusion of disaster management. This requires hotel managers to be knowledgeable and action-oriented in developing measures to manage disasters. Whether the hotel is experiencing a disaster or a time of crisis or in normal times, it is essential that the leader of the hotel is deeply involved in the disaster management of the hotel. In other words, hotel leaders need to have a strong situational awareness to understand the situation on the ground and discuss with their staff or team how to improve hotel disaster resilience. Instead, they often turn on a "remote" leadership model, which only delegates the establishment of disaster resilience to subordinates, but does not personally understand the situation, which can lead to a lack of relevant knowledge and inappropriate decisions (Jiang et al 2021).

Transparent and frequent communication. From a perspective of disaster risk reduction, hotel managers are key actors responsible for developing and implementing hotel resilience strategies, reducing hotel disaster vulnerability, and building hotel resilience. One of their main tasks is to cooperate across departments to help hotels improve internal communication, solve their own complexity and hierarchy, and encourage cooperation between employees to enhance the hotel resilience in the face of disasters. In this regard, it requires appropriate leadership in building hotel resilience by communicating with transparency and communicating often with the team and employees. Whether it is a hotel general manager, a middle manager or even a frontline employee, facing and preparing for a disaster means that people have to be open-minded to seek advice and build their skills with humility. When the information they know

is limited, leaders must share what they know and admit what they do not know so as that gather more useful information from others.

In an organisation like a hotel, people at different levels may see only a small part of what is going on. For example, in the event of an earthquake, the hotel front desk and front office manager must have different information. This is very detrimental to the overall approach to dealing with disaster. Communicating with employees to convey effective orders and accurate information is one of the most important roles of hotel managers when dealing with disasters. Communication is not only a single direct information transferred by hotel managers, but also requires information analysis according to different situations, comprehensive judgment, and the information that can be handled within their own functional scope, and then immediately make decisions and execute them. Therefore, it is the responsibility of each team member to take mindful action and to keep in touch and exchange information with their peers in other roles. This leadership with transparent communication can also create more psychological security for their employees. This is because employees can feel trust in this process, meanwhile, they can realise that the leaders are not hiding in the shadows when there is the uncertainty of disaster. Well-planning communication in advance can also support hotel agents to address challenges and build hotel resilience ultimately. This needs hotel agents to have the leadership to inspire and influence colleagues and stakeholders and effectively activate the strategy of hotel resilience. Hotel managers need to communicate effectively with multiple departments and disciplines to drive resilience dialogue in the hotel and gain stakeholder buy-in, to raise awareness for everyone involved about the importance of building resilience in hotels. Therefore, building hotel resilience to disasters requires more communication and team cooperation abilities of hotel managers than their ability to command and control as in traditional emergency management (Khunwishit et al 2018).

Team building. The empirical data of this study (see section 5.3.2.1) also confirms that effective leadership is also reflected in the ability to build teams that can work together and cooperate (Fapohunda 2013, Aga et al 2016, Lee and Wang 2017) in the face of a disaster and motivate the teams to take initiative in building hotel resilience. Building a cohesive team is necessary to deal with disasters, but it starts with finding the right people. This is inseparable from the leadership of hotel managers as team shapers and the support of human resource management (more on this in the next section). Select members who are flexible and capable of handling disasters and put these carefully selected members into suitable positions according to their respective strengths. At the same time, ***(2) it is necessary to implement a management method with reasonable authorisation to create an equal atmosphere so that everyone in the team has an equal right to speak and involve in disaster resilience building.*** In this way, they cannot only play to their strengths in their positions but also take the initiative to fill their positions and do things voluntarily that will help build resilience properly. For example, hotel housekeepers with lower disaster-related knowledge and involvement should also be empowered and trained to participate in hotel disaster resilience building, since the nature of their work allows them to first access and provide frontline details, such as in the event of a fire, they may be the first to know which floor and which room the first scene of the fire will be. Cross-departmental collaborative work to deal with disasters can maximise information sharing and can comprehensively improve hotel disaster management from multiple perspectives to achieve the sustainable development of a hotel. Sharing power with those around hotel managers is at the same time one of the most effective ways of showing leadership. In this way, their work meshes together exactly like gears with no hierarchy or status difference between them. Everyone in the team is sharing joy and sorrow, and the whole team operates like one person, which brings out strong execution to deal with disasters. Achieving this also requires the help of a team because a single hotel manager cannot work as a whole to address the difficulties brought about by disasters (Tsai

et al 2020). While empowering the rest of the team, it also stimulates the creativity and innovation of the team. The notion of team building and cooperation is therefore one of the main elements within leadership in entrepreneurial resilience and is identified as a value-added driver for building hotel resilience.

Innovation. The empirical results of this study (see section 5.3.2.3) also show that the innovation ability of hotel managers also contributes to the building of hotel disaster resilience, but it is also inseparable from the open-minded leadership of hotel managers. This element is also in line with the point that has been highlighted in the initial conceptual framework designed in Chapter 3. Innovation is a process that relies on human agency and accumulated knowledge and experience and based on this to create new thinking activities or perspectives. This includes being able to come up with new business practices, methods, services or policies in the face of a disaster to create value-added ways to improve previous operations or maintain operations during a disaster (Hjalager 2002, Gomezelj 2016, Seraphin 2018, Filimonau and De Coteau 2020). Innovation has been often used to link with new technologies such as social media, which can contribute to effective disaster management (Kavota et al 2020). For example, a hotel that was interviewed has adopted a live webcast to sell their products such as mooncakes made by their hotel during the pandemic and live-stream the whole process of making mooncakes. This innovative action not only allows the hotel to maintain operations and make profits from alternative channels even if no guests are staying in the hotel during the disaster. More importantly, this innovative approach greatly enhances the popularity of the hotel so that more people know the hotel, but also plays an important role in improving the hotel marketing and maintaining its reputation of the hotel. Put simply, innovation can be seen as one of the most elements of entrepreneurial resilience of hotel agents to adapt to changes caused by disasters. This is further supported by a wide range of researchers such as Jiang and Ritchie (2019), Ooi et al (2018), Verreyne et al (2019), Lin et al (2021) and Biggs (2011) who recognised the

importance of innovation ability for adapting to the changing environment.

The **flexibility** of hotel managers is confirmed by empirical data (see Chapter 5 section 5.3.2.4) as an important factor in building hotel resilience, which also confirms the components of entrepreneurial resilience mentioned in the initial conceptual framework presented in Chapter 3. Flexibility can be understood as an ability to quickly adapt to internal and external influences (Holweg 2005). This can be discussed here from two aspects. First, is the flexible response of hotel managers to the changing environment. This includes not only the flexibility to update and implement relevant policies and plans in line with changes in the environment, but also the flexibility to allocate and mobilise resources such as financial and human resources. Hotels and the environment in which they are located will always develop and change with the occurrence of disasters or other crises, and corresponding policies must also adapt to this change in order to play a good role. Therefore, ***(3) hotel managers must always pay attention to the policies, rules, and plans of the hotels and correct and update them in time when they are found to be inappropriate to the real-time scenario.*** Effective hotel disaster plans and policies must be constantly revised and improved. The hotel plans and policies must adapt to changes, which also requires hotel managers to be flexible in hotel disaster management. This is also closely linked to the situational awareness discussed earlier, because strong situational awareness will allow hotel managers to be more flexible with a full picture to deal with disasters. Hotel agents with flexible leadership are often able to adapt to change effectively. At the same time, they can also quickly assess the surrounding situation and the possible threat of disaster and rely on this to develop a diverse approach to deal with the challenges and threats they have assessed. In addition, they consider the big picture and weigh the pros and cons and execute delicate balancing actions to deal with the various challenges posed by disasters, rather than dwelling on one challenge and ignoring others. Secondly, the flexibility of hotel managers is also reflected in their ability to be flexible in

leading hotel staff to overcome disasters. This in turn is closely linked to the need for reasonable authorisation and flexible mobilisation of human resources as mentioned earlier. However, the flexibility of hotel agents may be limited by some factors such as complex hierarchy and standard operating procedures in the face of a disaster, particularly in large chain hotels. A wide range of studies appeared to identify and showcase the importance of flexibility can be seen as a contributor to building disaster resilience (Yukl and Mahsud 2010, Brown et al 2018, Goralnick et al 2015, Parsons 2010, Lee and Wang 2017, Motoc 2020, Senbeto and Hon 2020).

7.2.3 Decision-making

The empirical data (see Chapter 5 section 5.3.3) proves that the decision-making ability of hotel agents, as the most important component of their entrepreneurial resilience, plays a crucial role in building hotel disaster resilience. This is further supported by the researchers such as Brown et al (2017), Pappas (2018), Melián-Alzola (2020), and Brown et al (2018). Appropriate decisions made by hotel managers may not necessarily lead to the most perfect outcome for the hotel when dealing with a disaster, but it will minimise the impact and damage caused by the disaster. Decisions are made to solve problems faced by the hotel that a disaster may bring or to achieve the long-term development goals of the hotel. (4)

During the disaster preparedness phase, hotel managers need to decide whether to take a series of preparation measures or what preparation measures to take, including preparations in terms of personnel, education and training, funds, materials, and disaster plans. In terms of staff preparation, decisions can be made about whether to employ fully qualified and professional staff to form the disaster response team of the hotel or make appropriate decisions about whether to hire or fire staff and/or provide disaster training for them to enhance the hotel resilience to a disaster. Another example is whether the feasibility and operability of the plans

for dealing with disasters have been tested, and decisions are made for these plans to select the most appropriate plans for effectively dealing with disasters. Whether decision makers are able to decide on effective strategies for dealing with a disaster may affect the level of disaster preparedness of individuals (Shmueli et al 2021). This also depends on their perception of the disaster and their situational awareness of the disaster as discussed in earlier sections. During the disaster response stage, if the hotel manager can make appropriate and quick decisions such as the scheduling of employees and resource allocation, it can effectively maintain order and the reputation of the hotel. However, this assumes that adequate preparations have been made during the disaster preparedness phase and that there are several feasible alternative disaster plans. Hotel managers need the flexibility to make choices based on real-time conditions and choose the most appropriate one. During the disaster recovery phase, the hotel manager also makes innovative decisions on how to restore all aspects of the operations of hotels as quickly as possible.

However, hotel managers face many problems in making decisions about improving the resilience of their hotels, which are limited by several factors. These include their own abilities and skills and the abilities of employees in various areas such as situational awareness, the decision-making environment, organisational characteristics such as hotel culture, and government policies. Disaster decision-making is a test of hotel managers' abilities in all aspects. For example, a lack of strong enough situational awareness of disasters, limited knowledge or experience will make hotel managers panic when making decisions and lack of consideration of some important factors, which might be resulting in irreparable losses.

The stability of the hotel environment also affects the decision-making of hotel managers. For example, when the environment is relatively stable, the middle-level managers of the hotel generally make decisions; but in the case of drastic

changes in the environment, the senior managers generally make decisions. This process involves effective communication between managers to fully obtain adequate information, but at the same time, it can also lead to hesitation and mistakes in decision-making by hotel managers who are afraid of taking responsibility. The middle managers of hotels play a very important role in building hotel resilience because if they can be aware of and pay attention to the importance of disaster management in the day-to-day hotel operation management when the environment is relatively stable before the disaster, it will have a direct impact on how prepared a hotel is to respond to a disaster.

The organisational characteristics of a hotel can also have an impact on the disaster decisions made by hotel managers. For example, a hotel culture that values disaster or crisis preparedness will influence the attitudes of hotel staff and the way they think about disasters, which in turn will influence the choice and implementation of disaster plans by managers. Awareness of the importance of building hotel disaster resilience affects the decisions of hotel managers in several ways. If it is well understood, it will attract the attention of senior management and more support, which will also make it more likely that decisions will be made by the group, and therefore more comprehensive, and potentially higher quality. Relevant policies set by the government can also largely influence the disaster decision-making of hotel managers and the direction of hotel operations. For example, a hotel manager may decide to control occupancy or close down during a pandemic in response to the government's 'no travel unless necessary' policy and requirements.

7.2.4 Strategic disaster planning

Strategic disaster planning is also examined in Chapter 5 section 5.3.4 as an important element of the entrepreneurial resilience of hotel agents to enhance hotel resilience. As Ritchie (2008) suggested that crisis and disaster planning

should be considered a core competency for tourism managers. Ignoring possible potential threats such as disasters in hotel strategic management will seriously affect and weaken the benefits that strategic management should bring to the hotel. Therefore, it is very necessary to integrate disaster management into the strategic management level of the hotel (Pollard and Hotho 2006, Morden 2007, Mitroff 2004). Similarly, ***(5) integrating the disaster planning of the hotel into the hotel strategic planning is necessary, which can help the hotel to reduce its exposure to vulnerability in this regard.*** The disaster planning and the strategic planning of the hotel are all aimed at the future of the hotel and the uncertainty (Karam 2018, Melián-Alzola 2020). Hotel managers need to effectively integrate their own hotel characteristics, such as strategic planning or objectives, with disaster management to develop a practical and complete disaster plan for their hotels. Disaster planning should be formulated based on the actual situation of the hotel and the available resources, which also need to be revised and updated in line with the changing environment. Also, the planning of the various departments of the hotel in the event of a disaster should be detailed, so that enables consistency and cooperation in disaster management between departments. It is important for hotel managers to learn how to minimise the impact of a disaster by developing effective disaster planning. ***(6) Disaster planning and preparedness can be integrated into the general strategic planning of the hotels and should be given the same importance and links to other management functions so that contribute to achieving long-term strategic goals.*** Once building hotel resilience is decided as a long-term development goal of the hotels, strategic disaster planning should be actively adopted to effectively prepare for disaster.

However, many factors can affect whether a hotel manager develops effective disaster planning and integrates it into the overall strategic planning of the hotel. First, the perception of disaster determines the attitude of hotel managers to developing hotel disaster planning (Wang and Ritchie 2010). For example, in the

understanding of some hotel managers, disasters do not happen often, so they feel that it is useless to make disaster plans, so this becomes an obstacle for hotel managers to make disaster plans. The findings also demonstrate (see Chapter 5 section 5.3.5) that the abilities of hotel managers to predict the potential impacts of disasters may help prepare for disaster planning.

Second, the past disaster experience of hotel managers can also affect their ability to effectively plan for disasters (Rousaki and Alcott 2007, Spillan and Hough 2003, Wang and Ritchie 2010). Hotel managers with extensive past disaster experience will have a more comprehensive understanding of disasters, which will also make them more aware of the importance of effectively preparing for disasters. For example, a hotel manager with past disaster experience will pay more attention to the preparation phase of a disaster and take a range of measures, such as forming a disaster management team before a disaster occurs, which is ideal for making quick decisions and playing a key role in dealing with the disaster. The members of this team should have solid disaster management skills and be able to continue working under pressure. More importantly, they have been doing constant simulations in advance of a disaster so that they have a clear understanding of the disaster management options and their role in the disaster management process. In the period following a disaster, disaster awareness of some hotel managers will quickly increase and will prompt them to have to plan for a disaster, but somewhat too late (Chastang 2000). It is interesting to note that their disaster awareness is not continuous but gradually decreases in a stable and calm period after the disaster, which also prevents them from updating and improving disaster planning promptly.

7.2.5 Implementation and sense of responsibility

Strong implementation of strategic disaster plans and policies in place is another important foundation for hotel managers to build hotel resilience. Implementation

ability can influence whether a strategic disaster plan for the hotel can be effectively implemented in disaster management practice (see Chapter 5 section 5.3.6). If a well-developed disaster plan is only developed but not put into practice effectively, then it is just a meaningless paper. Effective implementation can allow disaster planning to be tested and revised in practice to continuously improve, thereby enhancing the resilience of the hotel. **(7) To have an effective implementation, it requires appropriate collaboration and communication among hotel managers and frontline employees.** Especially middle-level managers who play a role in connecting senior managers and frontline employees. They not only need to understand and implement the decisions of the top managers but also deploy and arrange the subordinate employees. To a large extent, they exercise discretion over their subordinates while implementing the decisions and plans set forth by senior managers.

In other words, they have command and control over the specific implementation of the disaster strategic planning and management by their subordinates. The command involves the hotel manager taking the lead in the disaster planning and management implementation process, exercising leadership, and communicating fully with frontline staff. The hotel manager also has to motivate the staff in order to realise the plan in place, and this can be achieved by using appropriate motivational tools and methods. On the other hand, control is about ensuring that hotel goals are achieved, and disaster decisions are implemented. This involves supervising the effectiveness of the disaster plan and management implementation process, checking the progress of the plan implementation, and adjusting the plan to keep in line with changing environment. Errors that can be controlled within the implementation are identified and corrected in a timely manner, while for those uncontrollable errors, corresponding measures should be taken to adjust the original plan to make it conform to the actual environmental changes. The purpose of control is to point out weaknesses and errors in disaster planning and management so that they can be corrected and improved.

To a large extent, implementation is also inextricably linked to the sense of responsibility of hotel managers. If they want to be responsible for building hotel disaster resilience, then they will value each stage of disaster management and be willing to act responsibly and take mindful actions for it rather than do it perfunctorily. Thus, implementation ability and a sense of responsibility have also been found to be a value-added component of entrepreneurial resilience and an important factor in building hotel resilience.

7.2.6 Resource allocation

An interesting result from empirical interviews (see Chapter 5 section 5.3.7) indicates that rational resource allocation also plays a key role in enhancing the resilience of hotels (Norris et al 2008, Paton and Johnston 2001). In implementing hotel disaster management, proper resource allocation mainly involves the allocation of human resources and financial resources. Firstly, human resources allocation is particularly important for organisations such as hotels (Murakami et al 2011, Bouajaja and Dridi 2017, Khanizad and Montazer 2018, Khanizad and Montazer 2021), especially in dealing with disasters. If a hotel is to develop a disaster management plan, identify and accurately assess the likelihood and severity of a disaster, and respond to and deal with disasters that have occurred or are likely to occur, then it must have disaster management personnel with expertise in disaster management. Therefore, in the process of implementing hotel disaster management, it is urgent to improve the human resources guarantee with disaster-dealing ability and skill. The research also suggests that hotel personnel allocation in the face of disasters should be based on disaster planning as the premise, which is also the implementation of the plan and team cooperation, and the embodiment of the leadership of the hotel manager. At the same time, the hotel manager is also responsible for organising staff solidarity in a disaster, organising and motivating staff to work together before and after a disaster and assigning tasks to subordinates according to their abilities. If

personnel allocation is incomplete or inappropriate in dealing with the disaster, for example, a department manager of the hotel knows nothing about disaster management but is assigned to be the leader of the hotel disaster resilience team. As a result, his/her ability and knowledge are not in line with his/her position. Therefore, it is conceivable that it is impossible to create good disaster management results. At the same time, other members cannot use their initiative and innovation in dealing with this disaster. Similarly, if it is necessary to retain only core staff in the event of a disaster, it is also worth considering whether the core staff can meet the requirements of hotel resilience and disaster management. But at the same time, if necessary, some measures can be taken to retain the core staff with strong comprehensive ability during a disaster.

In addition, the ability of the hotel manager to assign the right people to the right positions determines the effectiveness of the implementation of disaster management in the hotel. For example, incorporating an employee with past experience and disaster awareness into the disaster management team of the hotel can have a positive effect on managing hotel disasters effectively. The allocation of human resources needs to be aligned with the strategic disaster planning of the hotel, which is linked to the discussion above. ***(8) In order to effectively implement the strategic disaster plan of the hotel, it is necessary to have personnel with an understanding of disaster management in strategic positions, particularly the selection and placement of key individuals in key positions,*** such as the leader of the security department or senior managers in the hotel. However, due to various constraints such as a lack of disaster awareness, the importance of human resource allocation has not been given sufficient attention.

Second, the allocation of financial resources to hotels plays a direct role in supporting the enhancement of hotel resilience. As researchers suggest, adequate resource allocation in advance of a disaster can be effective in

enhancing resilience (Orhan 2021, Norris et al 2008). **(9) Adequate financial resources should be set aside for disaster handling and preparedness when hotels develop overall strategic planning, for example by planning adequate budgets for disaster management training.** As Wang and Ritchie (2010) mentioned, one of the major reasons why some organisations do not have effective disaster planning is a lack of money. Hotel managers prioritise the allocation of funds based on the importance of each project to the overall strategy of the hotel, which relates to whether the hotel manager perceives building disaster resilience as a significantly necessary part of the overall strategy of the hotel. In short, it is also linked to the disaster awareness of hotel managers. For example, if building disaster resilience is given the same attention by hotel managers as hotel marketing, then resources will be adequately allocated and used effectively for disaster preparedness. As Pennington-Gray et al (2011) indicated that resources are not allocated for disasters and disaster preparedness to an expected level. **(10) Hotel managers should take precise measures in disaster management and maximise the use of limited resources.**

7.2.7 Learning and experience

Learning and experience of hotel managers in disaster handling can provide strong support and help to improve the disaster resilience of hotels as examined in section 5.3.8, which is in line with some researchers (Folke et al. 2010, Masten, 2001, Sutcliffe and Vogus, 2003) who also notified the importance of learning and experience in building resilience. This can be closely in line with the principles of the Sendai Framework for Disaster Risk Reduction 2015-2030 (UNDRR 2022), which highlights the understanding of disasters, and all their characteristics should be the basis for the practices and policies of disaster management. It also proposes that all levels including private sectors and communities need to build related knowledge through learning, training, experience sharing and education.

Learning is a continuous process of accumulating knowledge and experience, which can inform and guide managers in their future management behaviour. Reflecting on and learning from past or present crises or disasters has a positive effect on building disaster resilience in hotels. On the one hand, the new information gained from a disaster situation will enrich the existing knowledge base, and on the other hand, it will strengthen the disaster awareness of hotel managers. Taking the current COVID-19 pandemic as an example, many hotel managers did not pay special attention to the impact of the public health event on the hotel before the outbreak of COVID-19. After the outbreak of COVID-19, they had a deeper understanding of such disasters and have learned a lot about disaster preparedness measures (epidemic prevention measures), more importantly, their awareness and knowledge base of such disasters has been enhanced and building hotel resilience has been aware and paid more attention. However, learning is an uninterrupted process, some managers will gradually weaken their awareness of the disaster and related learning after the heat of a disaster has passed. It can be learned not only from formal disaster management procedures but also from everyday working practices (Keith et al 2016, Duchek 2020), for example, informal meetings and discussions between employees. Continuous learning can also derive the ability of managers to adapt to changing environments, gain foresight, and develop innovation to improve disaster practices (Ghaderi et al 2014). In other words, this allows managers to keep pace with the times to develop up-to-date disaster management plans and policies and manage disasters adequately and effectively. At the same time, experience and learning are inseparable, as they reinforce each other and improve together. Learning from past disaster experiences can help hotel managers make quick assessments and make appropriate decisions when dealing with disasters and build disaster resilience (Chang et al 2014, Parker 2020, Duchek 2018, Santoro et al 2020).

Meanwhile, disaster awareness will also be improved with the accumulation of experience. When dealing with a crisis or disaster, the sooner interventions are implemented, the greater the likelihood of controlling it and reducing its impact. To be able to intervene correctly, it is necessary to make accurate assessments of the disaster, which are based on the rapid collection and analysis of information, more importantly, backed up by past disaster experiences. However, it must be noted that past experience cannot be applied to all current or potential future disasters and that even if the type or situation is similar to those that have occurred in the past, new features and problems may in fact arise that require additional knowledge and means to solve. This, therefore, requires that **(11) the human resources management of an organisation such as a hotel needs to provide continuous learning support and a platform for hotel agents, such as human resources training, so that they can keep up to date and acquire new knowledge in real-time and apply it to the practical operation of disaster management.**

7.2.8 Education

Disaster education provides intellectual and spiritual support for hotel managers to build hotel resilience as mentioned in section 5.3.9. As part of learning and experience, this can be also linked with the Sendai Framework for Disaster Reduction 2015-2030 (UNDRR 2022), which is guided by one of the principles that embrace enhancing disaster education and disaster awareness and “Build Back Better” in the disaster recovery phase. Even hotel managers who are graduates with tourism and hospitality management qualification are not fully educated in the field of disaster management. Moreover, the education content related to disasters received is relatively simple, such as some common sense of first aid and self-rescue. Hotel managers are even less educated in disaster management at a systematic and strategic level, for example, they do not have a clear understanding of how to develop a disaster plan or what aspects to consider.

More broadly, this is very closely linked to the national culture in China. According to Lin et al (2021), disaster management education started relatively late in China and the required disaster management talents and professionals are also facing a large gap. This is not only a challenge for the hospitality industry, but also for the Chinese national disaster management aspect. The construction of disaster management disciplines in China is still at a very early stage, and the disciplines currently set up in universities and education institutions can only be considered preliminary explorations (Lin et al 2021). Moreover, the current system of disaster management related courses is not very systematic and the courses offered by the universities and education institutions are not well developed (Lin et al 2021).

(12) Improving the education level is urgently needed in order to enhance hotel resilience.

On the one hand, disaster education can improve awareness of disasters of hotel managers and enhance their perception of disasters. On the other hand, disaster-related knowledge and coping skills can be acquired by hotel managers through education. Education is the essential driver for hotel managers to build a culture of hotel disaster resilience. More importantly, education enables hotel managers to remain fully informed and motivated in disaster preparedness and building hotel resilience. In research such as Sakurai and Sato (2016), Exadaktylos (2021), and Thayaparan (2014), the importance of disaster education for building disaster resilience has also been highlighted. The education discussed can take many forms, including formal education (e.g., systematic study at university or formal courses and training) and informal education (e.g., self-learning to gain knowledge and experience). In this context, Muttarak and Lutz (2014) highlight the positive role of formal education in reducing vulnerability and enhancing resilience. This is because, having a formal education can help hotel practitioners acquire more knowledge and enhance their cognition, vision, pattern, and problem-solving ability. Educated people have better comprehension skills including the understanding and processing of disaster information (such as

disaster warning information). In an emergency like a disaster, the gained knowledge and expanded horizons allow educated hotel managers to take mindful actions on disasters, and at the same time, they are also more likely to be more comprehensive in disaster preparedness. Therefore, the level of disaster education of a hotel manager will affect the level of hotel disaster resilience and is also an important part of the entrepreneurial resilience of hotel managers.

Based on the above discussion, the elements of entrepreneurial resilience are closely interrelated and mutually reinforcing in building hotel resilience. The improvement of any one of these elements will promote the improvement of others. As shown in Figure 14, if one of these elements is improved, a positive circle is created, which leads to an increase in entrepreneurial resilience and contributes significantly to the overall hotel disaster resilience. To enhance this, it also requires the support of human resource management in hotels.

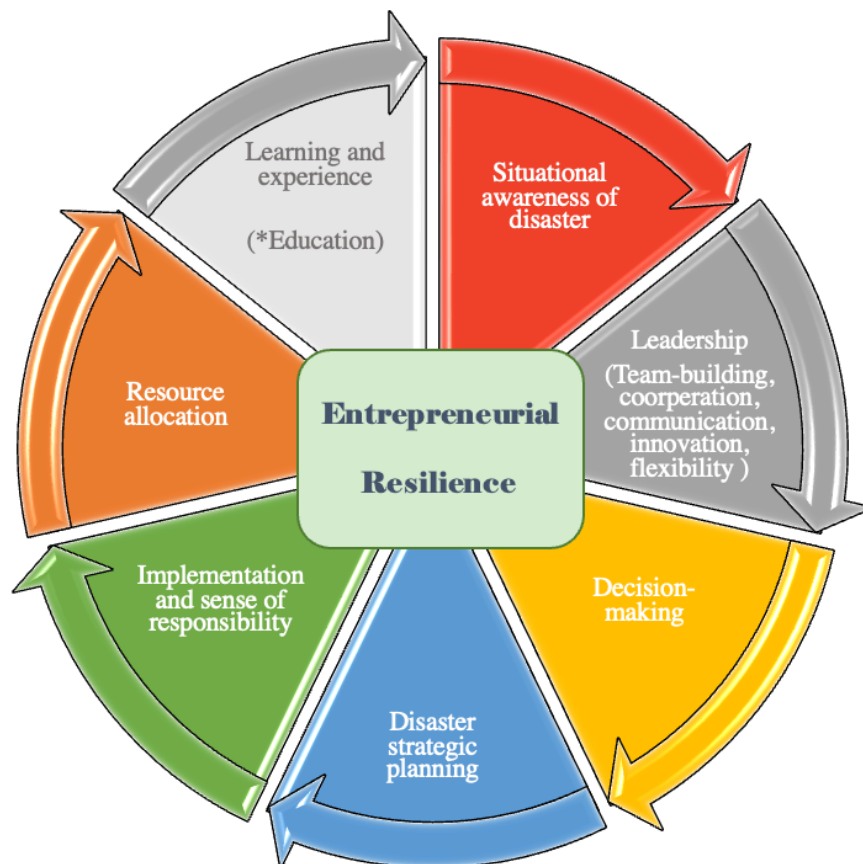


Figure 14: Entrepreneurial Resilience in Building Hotel Resilience (Author's own)

7.3 Role of human resource management in building hotel resilience

A wide range of studies emphasised that human resource management particularly human resource practices play a significant role in contributing to building resilience (Bardoel et al 2014, Gerçek and Börekçi 2021, Khan et al 2019, Ngoc Su et al 2021, Bouaziz and Hachicha 2018, Al-Ayed 2019). This study also confirms the critical role of well-developed human resource management in building hotel resilience including developing explicit human resource policies and thoroughly implementing human resource strategies for building hotel resilience such as the development of comprehensive and proactive human resource planning and multi-hazard training and evaluation. Figure 15 shows how human resource management contributes to building hotel resilience according to the findings demonstrated in Chapter 6.

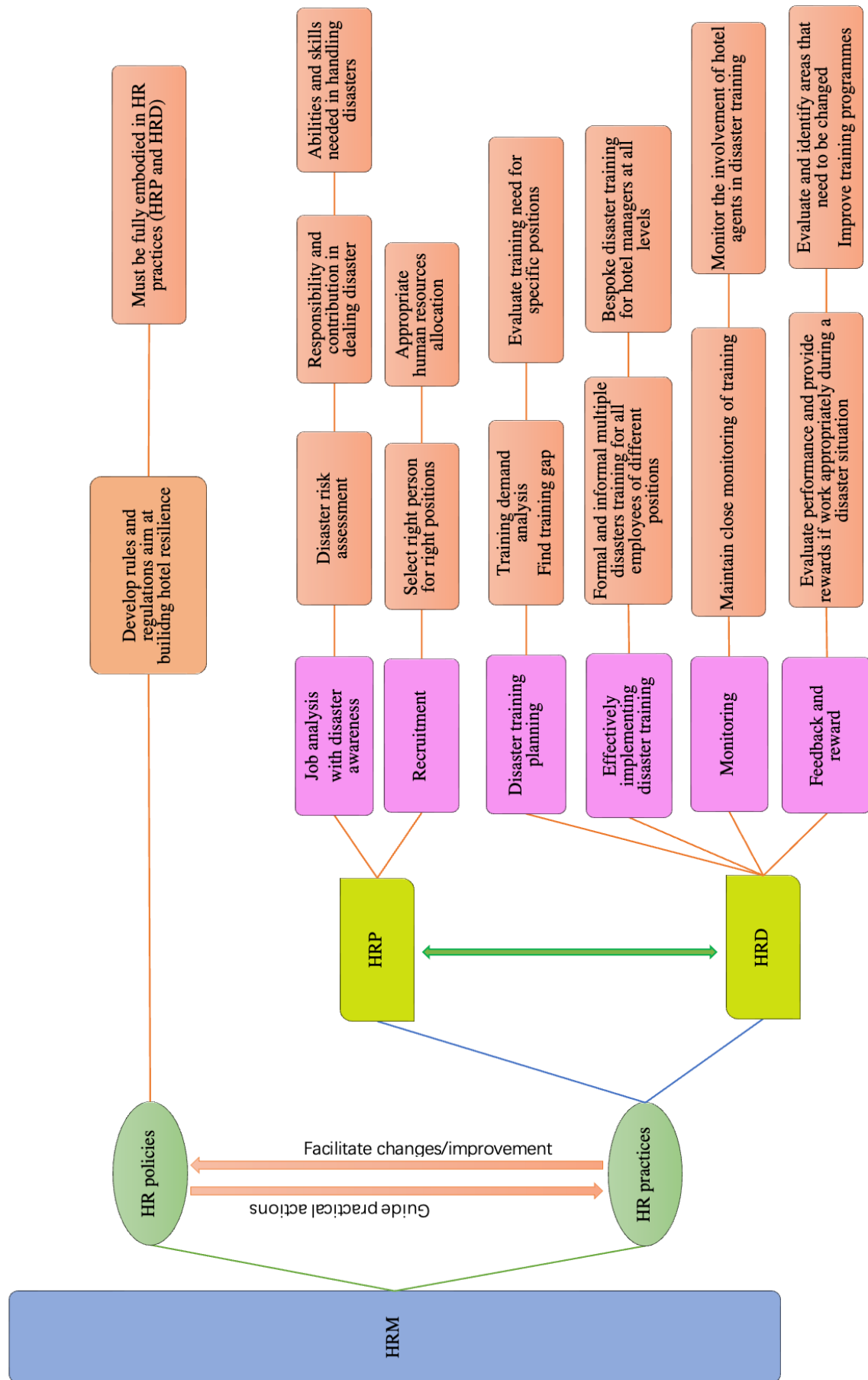


Figure 15: HRM in Building Hotel Resilience to Disasters (Author's own)

7.3.1 Human resource policy

Human resources policies serve as written guidance for organisations such as hotels to manage employees and managers and address various issues related to them. Human resource policies are also commonly referred to as human resource manuals and are typically found in large or chain hotels. Research on the relationship between human resource policy and building disaster resilience is limited, especially in the context of hotels. Human resource policies have also been found that they can underpin the enhancement of the hotel resilience to crises and disasters. This is in line with Lengnick-Hall et al (2011) who emphasised the importance of human resource policy in creating organisational resilience.

According to the findings of this study (see Chapter 6 section 6.2), establishing explicit human resource policies specifically for building hotel disaster resilience can allow for the recognition of work and achievements related to disaster management and the perception of work environments and conditions that are fraught with disaster vulnerability. More importantly, employee involvement in building hotel disaster resilience can also be encouraged, and the ability and skills to build disaster resilience can be carefully considered and practical actions can be taken to improve this ability in a targeted manner - that is, to develop a corresponding training plan. Meanwhile, rational and targeted formulation of human resource policies will guide and promote effective disaster preparedness.

Human resources policy is a kind of activity guidance, which tends to be general rather than specialised. ***(13) To create the added value discussed above, explicit rules and principles for enhancing hotel resilience should be embodied in the human resource policies of hotels and communicated effectively to all hotel staff and management levels so that they are fully***

aware of this. The rules and principles here are a description of the process of resilience-building behaviour, but also the establishment of an implementation condition for such activities and behaviour. It may be a restriction or a requirement, but it must be followed in the day-to-day operation of the work so that disaster resilience building can be implemented effectively. For example, a human resource policy established related to building hotel resilience could be “resilient and capable people should be in suitable positions”. The specific corresponding rules and principles could be the following : 1) continuously conducting hotel risk assessment according to environmental changes; 2) clarifying the ability of staff and management to deal with potential crises and disasters; 3) creating an environment conducive to learning for all staff to enhance their relevant ability; 4) establish a scientific and effective training and learning planning with a focus on improving disaster dealing abilities, and 5) make the level of knowledge of disasters and the ability to deal with disasters part of the promotion assessment of hotel staff.

Human resource policies are necessary to manage people working in a people-driven organisation such as a hotel (Tinti et al 2017). This is particularly true for functions including human resources planning such as recruitment and the development of appropriate plans, and human resources development such as training and evaluation, and providing a robust and capacity-building environment for hotel staff and managers. Therefore, it is also necessary to establish a series of explicit and specific rules and regulations for building hotel resilience in terms of human resource planning and human resource development and training. This could include the specific responsibilities of hotel managers and employees in dealing with disasters and obligations as well as desired contributions to building hotel resilience. For example, the rules and regulations established related to the recruitment, could be “all employees who are recruited must be reviewed for their local knowledge of multiple potential disasters, or their knowledge of the

vulnerability of the hotel” for measuring their disaster awareness.

The development of human resource policies is to be based on flexibility and hotel managers should make updates corresponding to the changing environment so as to reflect the latest human resource essence of the hotel. Usually, the human resources policy will list a series of rules for hotel managers and employees to follow in their daily work, and their rights and responsibilities. Meanwhile, it had to be mentioned that it is the responsibility of hotel managers, especially the middle and senior managers of the hotel, to formulate reasonable and timely human resource policies. This is thus related to the entrepreneurial resilience discussed in section 7.2. First of all, entrepreneurial resilience can promote the formation of human resource policies for improving hotel disaster resilience, especially their situational awareness of disasters and leadership plays an important role in developing policies for improving hotel resilience. It is worth mentioning that hotel managers such as human resource managers, and their entrepreneurial resilience can greatly influence the building of hotel disaster resilience. One of their job duties and responsibilities is to be primarily responsible for formulating and improving human resource policies. Whether they can have an appropriate perception of disasters, lead employees to continuously formulate and update human resources policies according to environmental changes and provide timely and appropriate guidance for human resources practices centred on improving disaster handling abilities and skills, which is essential for the effective establishment of hotel resilience to disasters. Secondly and conversely, a sound human resource policy will also supervise and promote the improvement of the entrepreneurial resilience of hotel managers. For example, the human resources policy of "resilient and capable people should be in suitable positions" will make hotel managers realise that they should continue to accumulate and improve their ability to deal with disasters so that they can have the opportunity to be further promoted in their positions. In other words, a well-developed and effective human resource policy also motivates hotel

managers to take action to improve the hotel resilience to disasters.

7.3.2 Human resource practices

The human resources policies are formulated to clarify the regulations of the human resource management of hotels, and at the same time to provide directive and supervisory support for the human resource practices of hotels. At the level of maintaining and encouraging a high level of manager and employee involvement in building hotel resilience, the problem is to have the best and clearer policies. To ensure that the human resource policy of improving hotel resilience can truly be put into action, the necessary human resource practices also need to be developed. This study has confirmed the significant role of human resource practices in building hotel resilience to disaster. This is also aligned with many researchers such as Al-Ayed (2019), Mitsakis (2020), Bardoel (2014), Parsons (2010), Khan et al (2019) and Ngoc Su et al (2021) who examined the resilience of employees and organisations can be enhanced by effectively implementing human resources practices.

Equally, human resource practices can make important contributions to building hotel resilience by 1) providing opportunities and platforms to strengthen the capacity of hotel agents to deal with disasters and enhance their relevant skills (Al-Tit 2016, Boon et al 2018), 2) improving the awareness and attitude (Li et al 2019) of managers and staff towards disasters, 3) promote the involvement (Aktar and Pangil 2018) of managers and staff in building hotel disaster resilience, 4) comprehensively controlling the disaster handling abilities and experience of employees in various positions in the hotel and select appropriate managers with effective disaster handling abilities. ***(14) This requires implementing appropriate human resource planning for reasonable talent allocation and taking explicit human resources development measures to fully mobilise the enthusiasm and creativity of employees, thereby maximising human***

agency to deal with disasters and developing a fully competent workforce.

7.3.2.1 Human resource planning

For organisations like hotels, where people and services are the focal points, human resource planning is very important in terms of building hotel resilience to disasters. This is because human resource planning is also a people-centred activity, which requires appropriate consideration of the manpower demand and adequate supply to meet the needs of the organisation to achieve its goals (Chioke and Mbamalu 2020, Vineeth 2019). Human resource planning is not only about providing hotels with the right number of staff but more importantly, capable staff (Chakraborty and Biswas 2020). If effective disaster resilience building is a strategic goal or plan for the hotel, then it is even more important that hotel managers make an effort in their human resource planning to provide and attract the hotel with staff who are capable of handling disasters. To enhance the resilience of hotels to disasters, the allocation of the right human resources is an essential action. Human resource planning is the upfront process of allocating human resources (Zhao 2018) in the process of building hotel resilience and is a process of dynamic forecasting and decision-making on the flow of people in hotels. This process allows for appropriate forecasting of the human resource needs and likely supply (Vardarlier 2016) of the hotel, ensuring that the hotel has the required personnel with comprehensive disaster management capabilities at the time and in the positions needed to implement effective disaster management and achieve sustainable development for the hotel.

One of the fundamental activities involved in human resources planning is a job analysis of the positions in hotels. This activity plays an essential role in supporting disaster planning. As Vardarlier (2016) highlighted, job analysis should be reassessed and examined before making disaster plans in order to have full insight into the role each position can play in handling disasters. An effective

job analysis examines and determines the issues of the existing job setup in relation to the need for effective hotel disaster management and the associated missing jobs, for example, neglecting or underestimating the importance of some positions in dealing with disasters. This activity allows hotel managers to have a clear understanding of not only what each position in the hotel is expected to do, but also what specific abilities and knowledge are required of hotel staff in those positions in dealing with disasters (see Chapter 6 section 6.3). To enhance hotel resilience to disasters, this activity is linked to the entrepreneurial resilience of hotel managers which was discussed in the previous section, for example, it requires a clear awareness of disasters to analyse the jobs comprehensively as Figure 15 shows. Hotel managers with a clear understanding and awareness of disasters and disaster management will carry out disaster risk assessments to understand the potential disasters that each position may face and deal with, in combination with internal and external changing environments while conducting job analysis. They will also consider whether the positions of the hotel will be affected by disasters, especially in specific positions such as security managers.

More importantly, the information collected by job analysis will enable hotel managers to extract the information necessary for disaster management and provide a robust human resource basis to support the hotel to acquire staff with disaster-handling abilities and skills to build its resilience. For example, by analysing the job attributes of hotel public relations managers, their abilities and skills in dealing with disasters should be taken into account such as the need to have strong communication skills to communicate effectively with stakeholders aims to help maintain the business reputation of the hotel during and after disasters. At the same time, detailed consideration is given to the responsibilities and contributions that individual employees are expected to make to disaster management and the resilience building of the hotel. For example, when analysing the position of the hotel human resource manager, it is not only important to analyse its traditional job content, but move beyond that, it is also

necessary to consider at a deeper level the importance of this position to enhance the disaster resilience of hotels, as it holds the role of the entire human resource department to effectively support the implementation of disaster management in the hotel, for example, by actively encouraging staff to participate in disaster management training or learning or conducting an integrated job analysis regarding disasters. The job knowledge required of human resource managers therefore may also include knowledge of disaster management such as disaster risk assessment to conduct appropriate human resource planning.

Job analysis is a complex process, but it can effectively help hotel managers have sufficient information to develop human resource planning. The comprehensive information regarding the jobs collected by job analysis can form job descriptions and job requirements, which also provide a clear basis and criteria for other activities of human resource practices such as recruitment and selection. Recruitment and selection are the implementation process of human resources planning, which controls the quality of the people entering the hotel workforce (Saddam and Mansor 2015, Njuguna et al 2020). Meanwhile, they play an important role in building hotel resilience by providing the right people to fit in the right positions and hotel environment. ***(15) Hotel managers, particularly human resource managers, need to use job analysis as the basis for developing and implementing a recruitment plan for the talent that the hotel needs to deal with disasters, including what skills should be recruited and what channels should be used to attract competent staff and managers to join the hotel.*** For example, hotels can recruit employees with disaster management education and related knowledge through university-enterprise partnerships.

At the same time, selection can have a positive effect on enhancing hotel resilience. In this process, the disaster management abilities, skills and experience of the hotel staff candidate can be a basic and value-added requirement to be selected. These abilities and experiences can also be judged

in several ways during the process. For example, by looking at whether they have formal disaster-related qualifications; whether they have had formal or informal disaster training; whether they have experienced or dealt with disasters in the past and what the outcome was; or by using a test or exam to verify their disaster-related knowledge. This also confirms the point of Njuguna et al (2020) that recruitment and selection must not be neglected in order to improve hotel resilience to disasters, which helps hotels prepare for and respond to disasters by maximising the right persons with appropriate abilities. With this in mind, it is important to put the most suitable people in the most suitable positions so as to improve the hotel resilience to disasters in the long term. For example, although the marketing manager of a hotel is mainly concerned about whether it can bring the maximum income to the hotel in job positioning, their disaster handling ability may often not be paid attention to or not used as a reference condition for selection. However, in a hotel, the next step in the promotion route of the marketing manager may be the general manager of the hotel, and due to their lack of knowledge and ability in disaster management, the effectiveness of the hotel disaster management may be weakened. Therefore, in this case, the marketing manager who lacks disaster management knowledge can either not be placed in the position of general manager of the hotel or should strengthen the learning in this area to gain opportunities for promotion.

Robust entrepreneurial resilience will contribute to the development of human resource planning. For example, their ability to make disaster planning will lead them to prepare for a disaster in terms of staff reserves. Conversely, Well-defined human resource planning will also play a monitoring and analytical role in the entrepreneurial resilience of hotel managers. For example, what elements of the entrepreneurial resilience of hotel managers should be further strengthened, in particular, entrepreneurial resilience can be an essential requirement and criteria for the recruitment and selection of hotel managers.

7.3.2.2 Human resource development

The main role of human resource development activities is to develop the skills of employees to meet the current and future needs of the organization to further enhance resilience (Richman 2015). These activities can specifically include training, monitoring, feedback and reward (Haslinda 2019). The results (see Chapter 6 section 6.4) show that benefits often arise in terms of enhancing disaster management capability when appropriate training was provided for hotel employees and managers (Brown et al 2018). ***(16) The training programme of the hotel should not only include job-specific training for staff on service awareness and standards but more broadly, complete disaster management training integrated into the hotel's human resources training system.*** The purpose of this is to enable hotel staff to improve their disaster knowledge and skills through frequent and systematic learning, thereby enhancing their ability to respond to disasters and apply them in daily practice. More importantly, in the process, they can feel responsible and motivated for disaster management in the hotel (Chanana 2021). Employees who have been trained for disasters are better able to adapt to changes in their environment and because of this, they are even able to develop solutions to the difficult dilemmas they face as a result of disasters. Awareness of disaster preparedness and the ability to respond flexibly to disasters comes from the skills that employees have acquired from previous training or experience (Njuguna et al 2020).

An important practice in human resource development is making appropriate training plans, which play a vital role in building hotel resilience for preparing for disasters (Nazli et al 2014, Brown et al 2018). Hotel human resource practitioners need to develop a human resource training plan in line with the disaster planning of the hotel. The premise of developing a training plan is to conduct training needs investigation and analysis. Likewise, training programs aimed at improving hotel resilience to disasters should begin with an analysis of disaster training needs.

The job analysis discussed in section 7.3.2.1 will then provide the appropriate support for the training needs analysis. This is done by analysing the areas that need to be improved based on the job attributes and clear job responsibilities, as well as the current problems faced, in order to develop a plan for disaster training. For example, when analysing the training needs of the front office staff, one of their responsibilities is to ensure that in the event of an earthquake, they are able to assist in evacuating guests to a safe area outside the hotel, and they are faced with the problem of not knowing how to evacuate guests. Therefore, the training plan needs to include the improvement of the emergency evacuation and communication skills of the hotel front office staff.

In addition to this, the training needs of key personnel and special positions, such as hotel security department staff and managers at all levels, also need to be assessed. In the context of the security department, their disaster training may be more specific than that of other positions, as they have to ensure the safety of the property and personnel of the hotel at all times. Disaster training programmes for managers at all levels may be more strategic and operational, for example in terms of how to develop disaster plans. As highlighted by Nazli et al (2014), training needs analysis is a way to ensure that the right people receive the right training at the right time. In addition to this, recruitment and selection discussed above, also influence the development of disaster training programmes. This is because if the hotel recruits and selects poor quality personnel with a mismatch of specialisms or low disaster knowledge skills, its training needs analysis may result in a larger gap requiring more training costs, or conversely, a smaller training gap. Training needs analysis is often linked with job performance that can be easily and regularly observed, given the nature of disasters in terms of irregularity, unpredictability and complexity, job performance cannot be observed during the disasters (Nazli et al 2014). Therefore, hotel managers need to adopt new approaches to training needs analysis, such as designing disaster exercises (Paton and Jackson 2002).

Training for hotel disaster management can take a variety of forms, but the ultimate goal is the same: to strengthen the ability of hotel staff to deal with disasters. It is important to stress here that **(17) *human resource training for disaster management needs to be for multiple disasters rather than a single type of disaster, especially for hotels located in disaster-prone areas.*** Doing so can make hotel staff more prepared for different disasters, rather than actually being prepared for familiar disasters. Although the purpose of training for different disasters is the same, the types of disasters are different, and the methods of dealing with disasters are also different. For example, the responses to earthquakes and fires are completely different. Formal disaster management training can involve professionals from disaster management organisations or agencies, such as firefighters, giving lectures or seminars to staff on the basics of disaster management and demonstrating the use of relevant equipment and facilities as well as first aid training. However, this approach has limitations in terms of improving the ability of hotel staff to deal with disasters, as the practical experience gained by staff is limited and can only be used as a way of gaining an initial understanding of disasters. Especially management staff, need more strategic level disaster training, for example, how to work with multiple agencies in a disaster.

One formal form of disaster training that has been identified by many academics (Johnson et al 2007, Paton and Johnson 2002, Owen et al 2013, Metallinou 2018, Chuang and King 2013) as effective is simulation exercises such as drills. **(18) *Setting up simulation exercises is necessary for staff to facilitate the acquisition of more practical disaster management skills and experience, as well as facilitate the application of the theoretical disaster knowledge gained from lectures or seminars.*** Because of the rarity and complexity of disasters, staff can only learn from training programmes and from past disasters or case studies. A simulation exercise is necessary to enhance hotel resilience because it creates a near-realistic disaster environment, which allows them to

apply and implement what they have learnt, familiarises them with disaster dealing procedures and receive feedback from it. In this way, the current level of disaster handling capabilities of the hotel staff can be assessed, and it can also provide a basis for future training needs. What's more, simulation exercises are very important to improve the disaster handling ability of hotel managers (Paton and Johnson 2002). This can provide them with opportunities to develop and test their disaster management capabilities in a near-realistic and high-stress environment. Beyond that, they become familiar with and play their roles and responsibilities in a disaster situation. They can also derive and summarise strengths and weaknesses, so as to identify areas that must be improved for effective disaster management for future personal development. Most importantly, hotel managers can improve their awareness of disaster management, identify the organisational constraints that the hotel has in responding to disasters, and develop the ability to coordinate and communicate across multiple departments.

In addition to this, it is very important to ***(19) provide formal induction training and incorporate relevant disaster management training for new employees who are new to hotel work, especially those without previous disaster handling experience and knowledge*** (see section 6.4.1.1). There could be courses on disaster prevention and preparedness, with the training focusing more on appropriate attitudes and skills for disaster preparedness. This is very helpful for them to adapt to the hotel environment and understand the vulnerability of the hotel to disaster from the beginning. At the same time, it can also promote them to recognise their responsibilities in disaster management from the root, thereby affecting their attitudes and behaviours towards disasters in their daily work (Tsai et al 2020).

Likewise, there is informal training that can also help build resilience in hotels. In most cases, this is done by hotel staff helping each other (see section 6.4.1.2). They share information and work together to solve problems related to disaster

response. In some situations, with some guidance provided by experienced staff, new staff are motivated to undertake informal learning on disaster management in a purposeful manner. For example, in order to obtain the fire protection qualification certificate required by the manager of the security department, the security guard of the hotel needs to acquire knowledge autonomously and actively, through continuous accumulation of disaster knowledge and skills, and apply them to disaster handling work, and ultimately contribute to improving the hotel resilience to disasters. The knowledge source of these informal pieces of training may be the hotel's regular publicity of relevant knowledge, or it may come from the mobile learning platform.

(20) Bespoke training specifically aimed at improving the disaster management capabilities of hotel managers at all levels plays a very critical role in improving hotel resilience. Due to their importance in managing disasters and their leadership responsibilities, they should be provided with more extensive disaster training, especially at a strategic level.

Empirical data (see section 6.4.1.1) suggests that hotel managers receive very limited training in strategic disaster management. For example, they should be trained in how to do a hotel disaster risk assessment, how to take measures to conduct risk reduction, and how to make disaster planning.

As hotel managers at each level and in each department are responsible for different areas of disaster management and need to make different decisions, it is essential that hotel managers at different levels and in different departments have clearly defined disaster management responsibilities and that they are given targeted training on strategic disaster management. This will clarify the contribution that hotel managers are expected to make in disaster management and facilitate cooperation and communication between departments, thereby contributing to the hotel resilience to disasters. For example, a sales manager may think that disaster management is irrelevant and out of his scope. In fact,

managers at all levels of the hotel play an important role in disaster management, and more importantly, they lead their subordinates in dealing with disasters. Their awareness and attitude toward handling disasters will also influence the attitude and perceptions of their subordinates. Improving hotel resilience requires all staff to work together, not just one or a few individuals. The entrepreneurial resilience discussed above can be used as a reference for bespoke disaster management training for individual hotel managers. In other words, their training can be tailored to the various components of entrepreneurial resilience as an entry point for disaster management training for hotel managers.

Monitoring and feedback on training are very important to ensure its effectiveness and are also part of human resource development. While monitoring staff participation during the training process, it is also important to judge whether the disaster training implemented is effective or whether it has made hotel staff more prepared for a disaster based on their performance. At the same time, staff performance needs to be evaluated at the end of the training. For example, ***(21) the results of the training can be assessed through competitions or in simulation exercises, with awards given or career progression for good performance. Disaster management should be considered an important part of the assessment of each department.*** This can also help to get feedback and identify areas for change in disaster training and facilitate an improved analysis of training needs so that disaster training programmes can be developed that are more beneficial to the hotel resilience to disasters.

7.4 Relationship between ER and HRM in contributing hotel resilience

According to the discussion above, the relationship between entrepreneurial resilience and human resource management thus can be concluded as follows. First, this study conceptualises the entrepreneurial resilience of hotel managers in dealing with disasters as a holistic competency that has a significant impact on the development of hotel resilience in the context of highly uncertain hotel

disasters. A hotel manager with robust entrepreneurial resilience can be seen as valuable, scarce and difficult to imitate hotel human resources, which can help hotels chart the direction of development while being forward-looking. A hotel manager with strong entrepreneurial resilience has the strong disaster awareness and strategic thinking to identify and take proactive measures to address potential crises and disasters, as well as to increase the full foresight and insight into crises and disasters of the hotels, which can lead the hotel through a timely strategic transformation and improving its resilience to disasters.

The entrepreneurial resilience of hotel managers will enable them to enhance the work behaviours of the hotel staff in terms of their sense of self-worth, purpose and responsibility within the hotel on disaster management through shared values and vision. Conversely, well-defined human resource development and training will also support hotel managers in enhancing their entrepreneurial resilience and hotel staff in dealing with disasters such as awareness, learning and experience. This thereby increases the capital of individual staff and their characteristics and promotes their motivation and willingness to conduct cooperative work with the hotel to face and deal with disasters, thus effectively enhancing hotel resilience to disasters.

The hotel manager will help the hotel create new knowledge and skills to meet the needs of the hotel as it adapts to the uncertainty of the disaster environment by enhancing exploratory learning. A hotel human resource manager with robust entrepreneurial resilience will take proactive leadership to establish a continuous learning environment in the hotel and incorporate disaster training into regular human resource training and as a key part of the disaster planning of the hotel to help staff adapt to changing environments to enhance their adaptive ability and skills. In a disaster situation, given the limited response time and resources available to the hotel, hotel managers with strong entrepreneurial resilience will focus more on existing knowledge and resources and enhance staff learning

opportunities to improve existing knowledge and skills to increase the efficiency of hotel innovation. At the same time, before a disaster and after a disaster, continuous learning can be used to integrate external knowledge absorbed by the hotel managers with existing knowledge, helping the hotel to develop a new understanding of disaster management, expanding the internal disaster knowledge base and avoiding the limitations of resilience enhancement of the hotels.

The entrepreneurial resilience of hotel managers is more likely to be awakened and stimulated by disasters. When existing knowledge and resources cannot cope with crises and disasters, hotel managers need to motivate employees by building the structure of hotels, developing plans, creating a learning atmosphere, reducing employee resource loss, breaking the dependence of hotels on existing knowledge, and stimulating hotel restructuring and explore new knowledge and skills to reduce the exposure to vulnerability and minimise the impact of disasters on hotels. This series of actions will, in turn, stimulate the need of hotel managers for human resources while exercising their own initiative (agency), as well as prompting them to focus on people-centred human resource management. Meanwhile, hotel managers can take proactive steps to implement human resource practices that will enhance the ability and responsibility of all employees to cope with disasters while giving full play to their own advantages and abilities.

In turn, human resource management can underpin the enhancement of entrepreneurial resilience and improve the disaster management structure. Human resource management is facilitated by the agency of hotel managers and is all about providing the hotel with better manpower and making better use of it, including the knowledge, creativity and skills of the staff. The hotel manager creates an environment that maximises the combination of human resources with the physical resources of the hotel to maximise the resilience of the hotel to disasters.

The hotel manager provides the basis for the effective implementation of human resource practices in disaster management through the clear establishment of human resource policies in the area of disaster management. This may include consideration of disaster management competencies in human resource planning, such as the need for a professional educational background in disaster management, to control the quality of hotel managers and staff at the source and to enable a more rational and effective human resource structure for disaster management in hotels.

At the same time, disaster management can be effectively integrated into human resource development to enhance the ability of hotel staff to adapt quickly to changing environments and disaster-related knowledge and skills and, more importantly, to change staff attitudes and coping behaviour in the face of disasters. This will, on the one hand, enhance the agency of hotel staff in coping with disasters and, on the other hand, optimise the structure of hotel human resource management. For hotel managers, effective disaster management training can both urge them to improve their own disaster management strategies and capabilities (increased agency) in order to improve the effectiveness of disaster management, and at the same time provide them with better structures to support their disaster management.

The elements of entrepreneurial resilience for hotel managers can also inform the human resource development practices in hotels, for example as a tool to analyse training needs and guide human resource managers in the development of relevant disaster management training programmes. It can also be used as a useful tool to analyse the level of disaster handling capability of hotel managers.

Thus, it can be considered that the combination of entrepreneurial resilience for hotel managers and human resource management can achieve best practices for disaster resilience enhancement in hotels. The entrepreneurial resilience of

hotel managers and human resource management are mutually reinforcing. These two areas, while playing their respective roles, need to work together to make a value-added contribution to further enhance the disaster resilience of hotels. The absence of either of these two dimensions can lead to an imbalance between the hotel manager agency and hotel disaster management structure, which affects best practices for building disaster resilience in hotels.

7.5 Revised conceptual framework of hotel resilience

Having identified the elements of the initial conceptual framework proposed in Chapter 3 and some new elements that emerged from the analysis of the main findings, a revised conceptual framework of hotel resilience in this study can be presented in Figure 16 according to the discussion above. This revised conceptual framework can be considered a valuable and useful toolkit and a starting point for building hotel resilience to guide hotel practitioners in evaluating hotel resilience to disasters.

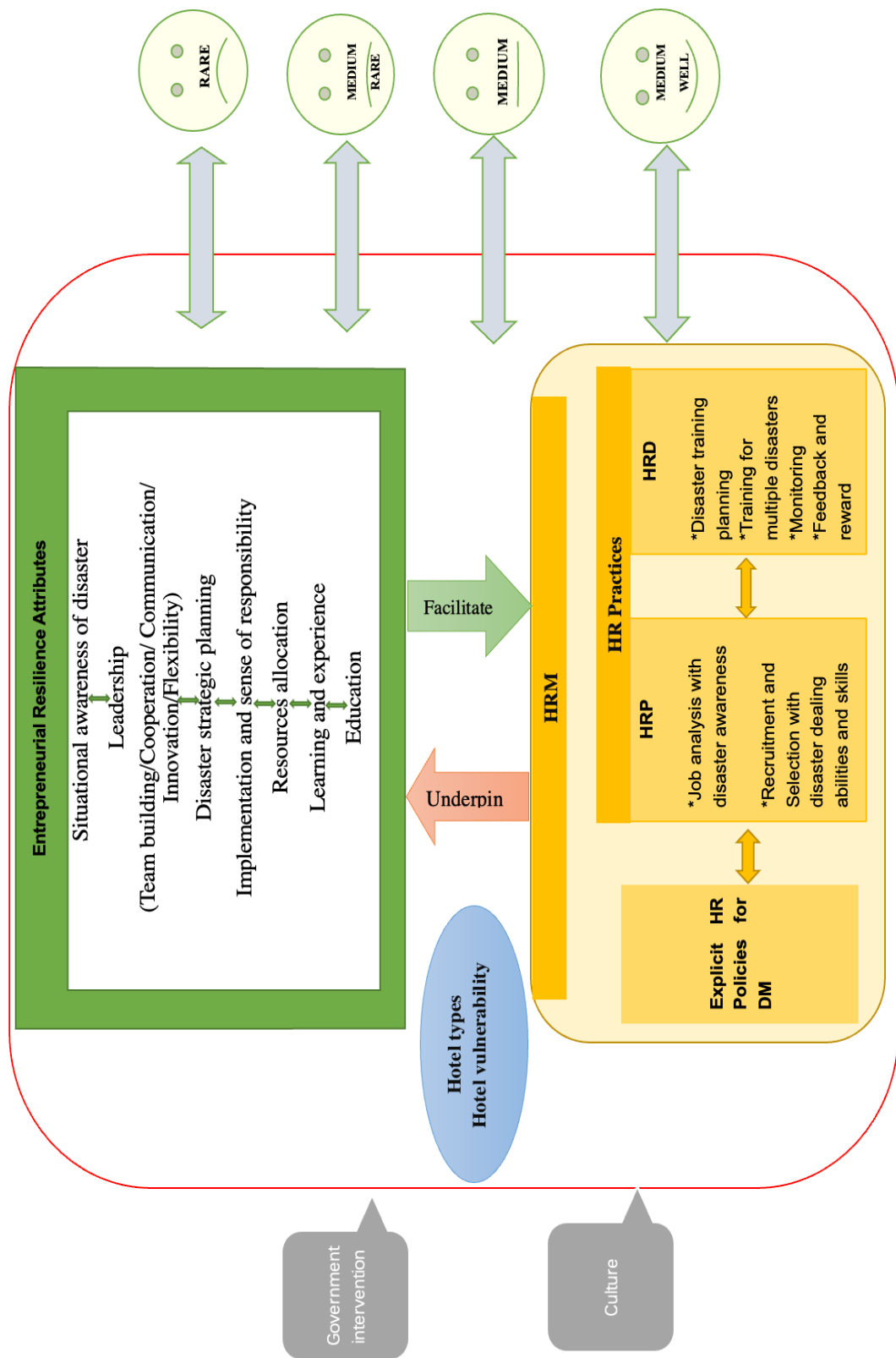


Figure 16: Revised Conceptual Framework of Hotel Resilience (Author's own)

In the initial conceptual framework, entrepreneurial resilience was divided into two parts, entrepreneurial skills and process. However, the analysis confirmed that entrepreneurial resilience itself can be considered a process that depends on the attributes such as the abilities and skills of hotel managers. Likewise, these attributes are also not set in stone and may change or improve as the process continues to evolve for example through continuous learning. Therefore, in the revised conceptual framework, the entrepreneurial resilience part is slightly changed to a holistic set of attributes that interact with and reinforce each other, as discussed in Section 7.2. In the initial conceptual framework, the motivation of hotel managers appeared to be one of the attributes of entrepreneurial resilience. According to the analysis of the main findings, motivation was not directly identified in-depth as the main attribute of entrepreneurial resilience of hotel managers to build hotel resilience to disasters in this study. However, Lee and Wang (2017) suggested that motivation is found that can influence the entrepreneurial behaviours of leaders to deal with uncertainty and crisis situations. This element thus can be considered one of the limitations of this study, which can be explored in-depth for future research. In addition, based on the analysis of the findings, self-evaluation is more or less present in the process of enhancing entrepreneurial resilience, and self-evaluation in the original framework can be merged into other attributes of entrepreneurial resilience, such as learning and experience, without the need to list them separately.

The ability to allocate resources appropriately was an emerged attribute of entrepreneurial resilience and has been identified as an increased role in enhancing hotel resilience, thus can be updated in the revised conceptual framework. Additionally, effective implementation of plans and a sense of responsibility also have been considered value-added entrepreneurial resilience attributes and updated to the revised conceptual framework.

Furthermore, the other main dimension of the initial conceptual framework, human resource management has also been amended on the basis of this study's findings. In terms of human resources planning, job analysis was identified as a very important entry point to building hotel resilience to disasters. It has been confirmed that job analysis should be approached with disaster awareness. In addition, disaster training plans based on the disaster training needs of personnel should also be developed during the human resource planning phase, which is important for the targeted implementation of disaster training to improve disaster dealing abilities, therefore should be given an emphasis in the revised conceptual framework. Feedback and rewards were found to have a positive impact on enhancing the effectiveness of disaster training, as well as increasing staff engagement in disaster management. It also should be updated to the revised conceptual framework as part of human resource development.

In terms of the influencing factors proposed in the initial conceptual framework, they are changed and concluded into four aspects, namely, hotel types and vulnerability (internal factors), and government intervention and culture (external factors).

Government intervention including issue policies and regulations has a positive effect on enhancing hotel resilience and the implementation of hotel disaster management. And it can affect the decisions and plans made by hotel managers in response to disasters. Take the fire prevention of a hotel as an example, as the government has issued relevant policies and regulations on fire prevention and safety, and hotel managers are required to pay attention to fire prevention, which forces them to make efforts to enhance disaster resilience of hotels in terms of man-made disasters.

Culture is also an important influential factor that can facilitate resilience building as it can affect disaster awareness (Danar and Pushpalal 2014), disaster preparedness and perception (Kao et al 2023, Appleby-Arnold et al 2021). A culture that understands frequent disasters can facilitate proactive mitigation and preparedness activities (Parsizadeh et al 2015). According to the interviews, as Chengdu is vulnerable to earthquakes, hotels in Chengdu have a better understanding of earthquakes than hotels in Shenyang. They thus take more earthquake preparation activities, such as drills, which also improve their hotel resilience.

The type of hotel also has a very important impact on the hotel resilience building to disasters. Chain hotels have clearer and higher requirements for the ability of hotel managers. Moreover, the relevant systems of chain hotels are comparatively complete, especially with a comparatively complete human resource management system, which is helpful for improving hotel managers to enhance their entrepreneurial resilience. However, chain hotels, especially the headquarters of hotel groups, have complex management levels and generally adopt traditional hierarchical management models, which have disadvantages such as multiple management levels, slow information transmission and communication, and low management efficiency. This also affects hotel managers to get through disasters. In contrast, independent hotels rely more on the entrepreneurial resilience of the hotel manager, because they lack comprehensive human resources, so no matter how small the matter is, they need the hotel manager to complete and make decisions.

The vulnerability of the hotel has an impact on the building of hotel resilience. The first vulnerability of the hotels is their geographic location. For hotels located in areas where disasters are more likely to occur, hotel managers may be more aware of disasters, which is also due to the local culture. It is precisely because of this that the hotel managers may accept more training and prepare to deal with

different kinds of disasters. Taking hotels in Chengdu as an example, they are located in areas with frequent earthquakes, participants who work in hotels in Chengdu will receive fire training and also conduct regular earthquake drills, which is very helpful for improving the hotel resilience to disasters.

The four scenarios of the initial conceptual framework have been identified and confirmed by the participants, which can represent four levels of hotel resilience in ascending order: rare, medium-rare, medium and medium-well, as shown in Figure 17. The level of “Rare” can represent both the entrepreneurial resilience of hotel managers and human resource management is very poor in the hotels. For example, hotel managers completely neglect disaster management and there is totally no human resource management in terms of dealing with disasters in place. The level of “Medium-rare” represents the poor entrepreneurial resilience of hotel managers and an incomplete human resource management system. For example, hotel managers have only a few entrepreneurial resilience attributes and are weak in most attributes such as never being educated in disasters and human resource management regarding disaster management partially existing. The level of “Medium” represents acceptable entrepreneurial resilience of hotel managers with relatively complete attributes in terms of dealing with disasters but some aspects still need to be improved, and the human resource management system is partially complete but needs more effective focus on holistic disaster management and its implementation. Furthermore, the level of “Medium-well” represents both the entrepreneurial resilience of hotel managers and human resource management are good and can effectively make a contribution to enhancing hotel resilience to disasters.

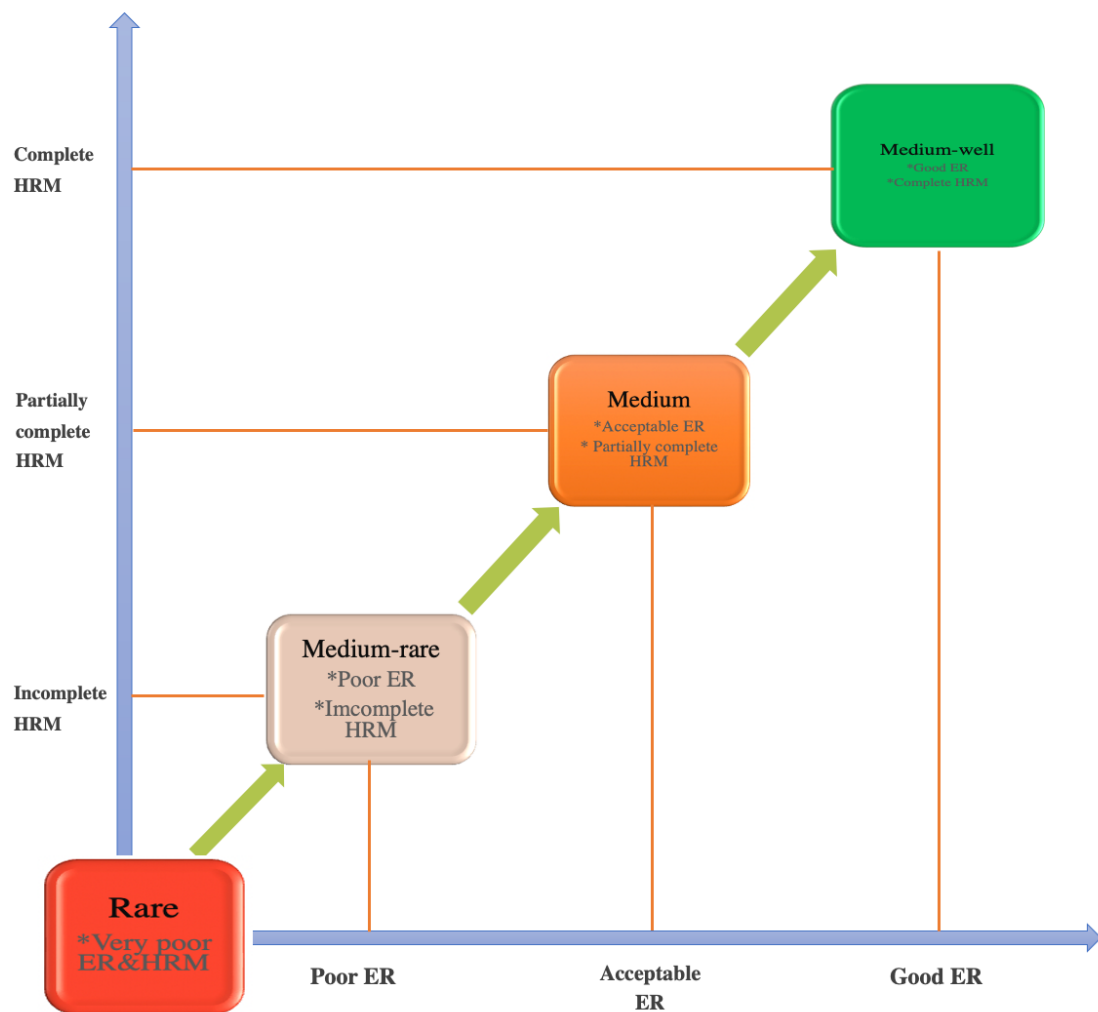


Figure 17: Levels of Hotel Resilience (Author's own)

7.6 Reflection of hotel resilience in China

Based on the general conceptual framework presented in section 7.5 and discussion in section 7.2 and 7.3 together with section 5.4 and 6.5, the level of hotel resilience from a human factor perspective in China are perceived by interviewees as a “medium” level. Figure 18 represents the interviewee perception of the level of hotel resilience in China at this stage.

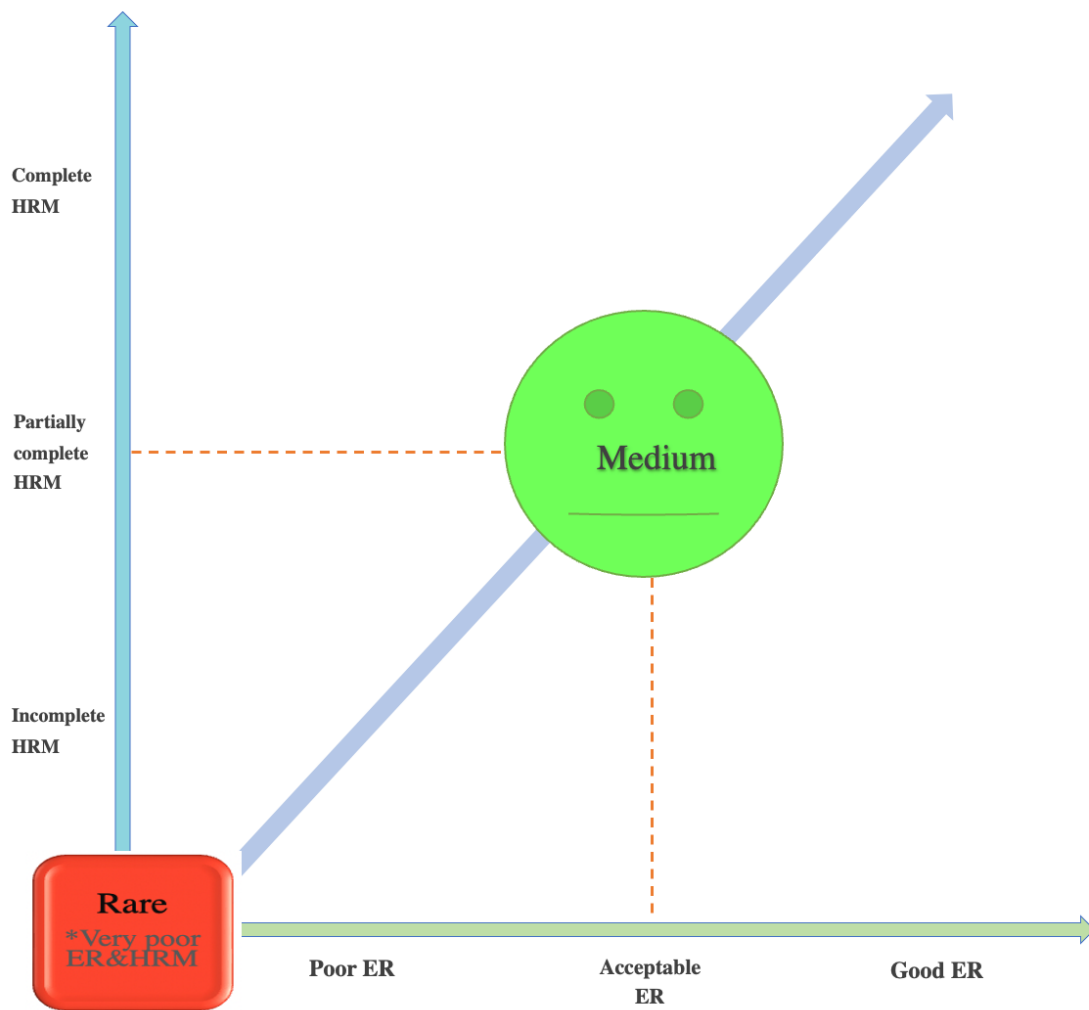


Figure 18: Hotel Resilience in China (Author's own)

7.6.1 Opportunities to build enhanced hotel resilience

In general, hotel managers in China believe that they have an acceptable level of entrepreneurial resilience, which indicates that they have the ability and skills to cope with disasters. In addition, hotel HRM needs to be improved to have a better policy, structure and complete elements. Hotel managers in China need to make further improvements in a number of areas to achieve a “medium-well” level. The future changes for achieving better hotel resilience can be summarised in Table 15.

Table 15: Summary of “opportunities” to Build “Medium-well” Hotel Resilience (Author’s own)

Hotel resilience elements	Future changes
Entrepreneurial resilience	☺ Increasing the level of disaster education that hotel managers should receive ☺ Increasing awareness of disasters of hotel managers: 1) need to pay sufficient attention to disaster management; 2) Change the perception of disasters to a disaster can happen at any time 3) change the attitude of dealing with disaster, should not over-reliance on the government or relevant agencies. ☺ Strengthen competencies in strategic disaster planning: 1) integrated their own hotel characteristics, such as strategic planning or objectives, with disaster management to develop a practical and appropriate disaster plan for their hotels. 2) disaster planning should be given the same importance and links to other management functions ☺ Maximise the use of limited resources: 1) financial resources should be set aside for disaster handling and preparedness (e.g., disaster training budget), 2) have personnel with an understanding of disaster management in strategic positions
Human resource management	☺ Need more specific and explicit human resource policies that directly address disaster management ☺ Human resource planning should be more sufficient: 1) the job analyses for many key positions, particularly at the management level, should be fully aware of the importance of disaster management; 2) fully take disaster-related knowledge and background as a reference and value-added condition for whether employees will be selected; 3) make clear disaster training planning ☺ The disaster training system in hotels should be more comprehensive and consider a wide range of disasters ☺ Improve and conduct effective strategic disaster training for hotel managers at all levels ☺ Disaster training should be in multiple formats and improve practicality: more simulation exercises for multiple types of disasters ☺ Disaster training should be fully integrated into the hotel's human resources development system ☺ Disaster management should be considered an important part of the assessment of each department

7.7 Conclusion

This chapter provides a discussion of the main findings, and based on this, it produces the revised conceptual framework of this study. The level of entrepreneurial resilience of hotel managers is acceptable with the essential ability and skills to cope with disasters, but some aspects still need to be improved. The discussions also confirm that human resource policies and practices play a critical role in enhancing hotel resilience in terms of human factors. However, the human resource management of hotels in China still needs better integration of disaster management to maximise hotel resilience building practices. Moreover, it discusses the relationship between the entrepreneurial resilience of hotel managers and human resource management, which addresses objective three of this study. The entrepreneurial resilience of hotel managers and human resource management are mutually reinforcing. These two areas, while playing their respective roles, need to work together to make a value-added contribution to further enhance the disaster resilience of hotels. It identifies that the relationship between these two dimensions of hotels in China has not achieved balance at the current stage, which tends to rely on the agency (entrepreneurial resilience) of the hotel manager, and the structure needs to be better improved. By discussing the main findings, 21 recommendations are provided for improving hotel resilience, which achieved the fourth objective of this study. The next chapter as well as the final chapter will provide the conclusion of this study and recommendations for practitioners and academia.

Chapter 8 Conclusions and Recommendations

8.1 Introduction

This thesis aims to evaluate hotel resilience in a disaster context specifically from a human factor perspective, focusing on the entrepreneurial resilience of hotel managers and human resources management to understand how hotel disaster management can be more effective. This research was mainly motivated by the need to develop research on resilience in a hotel context, which has not been much focused on. Meanwhile, the need to reflect on specific human factors in building hotel resilience has been highlighted to provide a starting point to deal with disasters.

This final chapter commences by answering the original research questions of this study and discussing the overall assessment of each of them in the context of the findings. It is followed by presenting the contribution of this thesis to the knowledge. Along with the contribution to knowledge, this chapter also discusses the limitations of this thesis and provides suggestions for future research. Furthermore, it presents the implications of the findings for practitioners and addresses recommendations for practitioners and policymakers.

8.2 Review of research questions

The aim and objectives presented in Chapter 1 have been achieved. The aim was to evaluate hotel resilience from a human factor perspective and understand effective disaster management by exploring the complex relationship between the entrepreneurial resilience of hotel agents and hotel human resource management in China. The objectives involved: 1) analysing the level of entrepreneurial resilience of hotel managers to disasters in China and how it contributes to hotel resilience; 2) evaluating the importance and degree of human resource practices and policies of hotels in China in relation to respective hotel

resilience to disasters; 3) assessing the relationship between entrepreneurial resilience and human resource management elements of hotels in China in delivery of existing and improved levels of hotel resilience to disasters; 4) To propose feasible recommendations to enhance human factors in hotel resilience to disasters in China.

To achieve the aim and objectives of this thesis, three key research questions were set out, and their answers were provided in detail in Chapter five, Chapter six and Chapter seven. The answers can be briefly concluded as follows.

8.2.1 How hotel resilience can be understood in dealing with disasters?

The answer to research question one addresses objectives 1, 2 and 3. Building hotel disaster resilience is essential to be able to effectively manage potential disasters faced by hotels. Hotel resilience is a dynamic process and a desirable outcome that contributes significantly to helping hotels prepare for, respond to and recover from crises and disasters, particularly by allowing hotels to be well prepared for disasters. Hotel resilience to disasters is a relatively novel concept for hotel practitioners, and most of the existing literature understands it in a broad sense. Therefore, in order to be able to refine the concept of hotel resilience in a more focused and explicit manner, this study has chosen to conceptualise and understand hotel resilience in terms of the human factor including the entrepreneurial resilience of hotel agents and the human resource management of hotels, which can be seen as the starting point to effectively build hotel resilience to disasters. This is because hotels are characterised by the need to rely on human agents for service delivery and operational management. Meanwhile, hotel managers and staff are the main agents for managing and responding to disasters, who necessarily need to have the relevant competencies and skills to deal with disasters in order to effectively reduce the impact of disasters on hotels.

The findings presented in Chapter five and the discussion provided in Chapter seven suggested that the entrepreneurial resilience of hotel managers can also be seen as the agency of hotel managers in dealing with disasters and is an important component in effectively building hotel disaster resilience. Here, hotel managers are the main actors in decision-making in hotel disaster management. Their entrepreneurial resilience determines the direction and effectiveness of hotel disaster management. These key elements of the entrepreneurial resilience of hotel managers have been summarised in Figure 14. The hotel manager's awareness of disaster, leadership, decision-making ability, disaster planning ability, implementation of disaster management and sense of responsibility, disaster experience and learning, and rational allocation and demand for resources constitute the internal elements of the entrepreneurial resilience of hotel managers. These elements of entrepreneurial resilience are closely interrelated and mutually reinforcing in building hotel resilience. The improvement of any one of these elements will promote the improvement of others. Differences in these internal elements will ultimately lead to differences in the effectiveness of disaster management by hotel managers. At the same time, the entrepreneurial resilience of hotel managers drives their influence on the structure of the hotel. They not only need a well-defined structure to support enhancing their entrepreneurial resilience but also contribute to building it. For example, when a hotel manager's knowledge does not meet the needs for effective disaster response, the hotel needs to provide relevant learning or training programmes to enrich the knowledge needs.

Meanwhile, well-developed human resource management has been explored in detail in Chapter six and Chapter seven and was considered a key element of building hotel resilience to disasters. The components of human resource management in building hotel resilience have been presented in Figure 15. By effectively integrating disaster management practices into all aspects of human resource management of hotels, hotel resilience especially in terms of human

factors can be significantly improved. This can include making explicit human resource policies specifically for building hotel disaster resilience that allows for the recognition of work and achievements related to disaster management and the perception of work environments and conditions that are fraught with disaster vulnerability. Furthermore, human resources practices are considered important to enable building hotel resilience to be put into action by effective human resource planning and development such as providing opportunities and platforms to strengthen the capacity of hotel agents to deal with disasters and enhance their relevant skills. More importantly, human resource development significantly contributes to supporting entrepreneurial resilience as well as enhancing hotel resilience by conducting effective disaster training and development practices.

The findings also examined that the entrepreneurial resilience of hotel managers and hotel human resource management are mutually reinforcing and complementary. The conceptual framework (see Figure 16) presented the relationship between these two key elements in building hotel resilience. The application of both elements was considered a key driver to building hotel resilience, and the degree to which either element plays a role can affect the level of disaster resilience of a hotel. Therefore, hotel resilience in the context of dealing with disasters can be understood as an effective measure, which takes hotel agents as the main body and achieves the best balance and synergy with the structure while exerting their agency to maximise the disaster dealing abilities and skills of hotel agents, so that they can effectively prepare for, respond to and adapt to disasters and lead hotels to bounce forward.

8.2.2 What are the key actions and processes that hotel managers in China undertake to build hotel resilience?

This research question set out to address objectives 1, 2 and 3. The findings

presented in Chapter five and Chapter six also revealed key actions and processes hotel managers undertake to build hotel resilience. These actions can be summarised from three aspects, which are disaster preparedness, disaster response and disaster recovery respectively. It is worth noting that these actions are relatively more focused on the disaster preparation and recovery phase.

In the disaster preparation stage, the main actions and procedures that hotel managers take are to implement the requirements of the relevant departments of the government to prepare for a specific disaster such as a fire. Hotel managers take action to build the knowledge base and abilities related to disaster handling. Hotel managers understand that they must not blindly rely on their own experience to deal with disasters, because such a single handling method will not only affect the results of managing the disaster but also make the impact of disasters even more negative. Therefore, the main action they choose is to learn more basic knowledge of disaster prevention in peacetime. At the same time, to some extent that they also encourage and organise employees to learn more related knowledge. They can slowly build a reasonable knowledge structure through informal and formal training, education or courses. In this way, effective insights can be gradually formed, and scientific and reasonable decisions can be generated when dealing with disasters.

In addition, forming resilience teams prior to disasters within some hotels is another action that hotel managers undertake to build hotel resilience. The hotel manager who pays attention to the preparation stage of disaster management will formulate a disaster resilience team at the same time as making the hotel disaster plan before the disaster occurs. The members of the disaster resilience team are also constantly bonding with each other and continuously improving the effectiveness of their cooperation during disaster training or drills. In contrast, hotel managers who focus on the disaster management response phase will choose to set up a disaster emergency team when a disaster occurs.

Hotel managers are also required by the relevant authorities to prepare disaster plans, especially for specific common disasters such as fires and earthquakes. This includes meeting the mandatory requirements of the relevant laws and regulations, understanding the potential hazards and threats and assigning responsibility to the hotel managers in general terms. By developing a disaster plan, hotel managers and employees can be provided with some guidance on what to do in response to a disaster.

There are also few human resource management actions and processes involved in the disaster preparation stage. According to the empirical findings, it mainly included some implicit human resource policies and human resource planning practices aimed at improving hotel resilience, as well as partially complete human resource development practices. Relevant human resource policies developed by chain hotels can be indirectly understood to be aimed at improving hotel disaster resilience, for example, they proposed that they would provide employees with rewards for their outstanding performance in dealing with emergencies. In addition, the findings revealed that hotels in China have disaster-related human resource planning in place, for example, some hotels have had disaster awareness when they conducted job analysis for some specific positions and have been looking for suitable employees with disaster handling abilities and skills to fit in the specific positions. However, the planning practices are either not very specific and explicit or have some barriers to implementation, for example, few employees possess disaster handling abilities or systemic disaster knowledge. What's more, research shows that hotel managers are taking actions aimed at improving hotel resilience in terms of human resource development and training, both formal and informal. Most hotels organise formal fire and earthquake drills at the request or intervention of relevant departments or authorities, and some hotels also provide induction and on-the-job training for improving fire first aid knowledge. There is also informal training such as mutual communication and learning among colleagues in terms of handling emergencies.

In addition, the hotel managers also take action to improve the hotel disaster resilience during the disaster response phase. Participants indicated that their entrepreneurial resilience is the most recognised in the disaster response stage, and it is also the stage where problems can be revealed most, and their abilities and skills can be improved. From the actual process of responding to disasters, summing up experiences and shortcomings is also very helpful for hotel managers to improve the hotel resilience to disasters. At this stage, it is mainly to test the leadership, decision-making and resource allocation ability of the hotel manager, and more importantly, how to achieve coordination and cooperation with employees and external rescue departments. A hotel manager with knowledge reserves can predict the possible consequences of a disaster and assess the situation, to respond flexibly to the disaster. Hotel managers with robust entrepreneurial resilience will also be calmer and clearer in the face of disasters. Moreover, they can also grasp the main problems and contradictions, and more importantly, they can seize the most appropriate time to deal with the disaster, actively respond to the pressure and panic caused by the disaster and plan the most suitable solution.

Human resource management also plays a role in the disaster response phase, with participants mentioning that they have human resource policies for the allocation or scheduling of personnel during a disaster. This can provide the hotel with sufficient manpower support when dealing with disasters, and on the other hand, can reasonably arrange the expenditure of hotels to the greatest extent. Human resource training provided before the disaster is also most useful at this stage. Trained hotel practitioners apply the disaster knowledge and skills they have learned, and the effectiveness of disaster training is tested. In the process of dealing with disasters, the gap in disaster training can be revealed and summarised, to provide an effective basis for the future analysis of disaster training needs.

Furthermore, all participants indicated that they also take innovative actions after a disaster to adapt to new changes brought by the disaster to improve the hotel resilience to disasters. One of the biggest barriers to getting a hotel recovery after a disaster is rebuilding the business reputation of the hotel and rebuilding guest confidence. In this process, the foresight and courage of hotel managers to take responsibility will be fully recognised. At the same time, it is a good opportunity for the hotel managers to do some self-reflection and make up for any mistakes.

It is noted that there is a difference between independent and chain hotels in terms of key actions to enhance hotel resilience. Findings from independent hotel participants indicated a preference for key actions for disaster response, such as setting up an emergency response team once a disaster occurs. Although they do take actions such as training to prepare for disasters, they are very lacking in this area. By contrast, chain hotels tend to focus on major actions taken in the disaster preparedness phase, including setting up emergency response teams and organising relatively diverse training before a disaster occurs.

8.2.3 What future changes or reforms do hotel agents in China need to undertake to better improve hotel resilience?

This research question was raised for addressing objective 4. Chapter seven provided detailed discussions on how entrepreneurial resilience and human resource management can be synergised to maximise hotel resilience building practices. Several shortcomings have been revealed and the lack of complete synergy and imbalance between entrepreneurial resilience and human resource management has made the hotel resilience of the large hotels in China at a “medium” level according to the actions and processes are taken by the hotel managers in China at this stage. These disadvantages can also provide an opportunity to make future changes or reforms for improving hotel resilience to a “medium-well” level (as Table 15 shows). The future 21 changes for achieving

better hotel resilience can be summarised as Table 16.

Table 16: Future Changes for Improving Hotel Resilience (Author's own)

Categories	Future Changes
Disaster awareness	1. Maintaining and raising disaster awareness at all times is a precondition to having effective disaster management systems in place and taking strong initiatives to proactively prepare for disasters before they happen and to ensure that they can address and get recovery quickly after a disaster.
Leadership	2. Implementing a management method with reasonable authorisation to create an equal atmosphere so that everyone in the team has an equal right to speak and involve in disaster resilience building.
Communication	3. Enhancing appropriate collaboration and communication among hotel managers and frontline employees.
Policy planning preparedness	4. Explicit rules and principles for enhancing hotel resilience should be embodied in the human resource policies of hotels and communicated effectively to all hotel staff and management levels.
	5. Pay attention to the policies, rules, and plans of the hotels and correct and update them in time when they are found to be inappropriate to the real-time scenario.
	6. Integrating disaster planning into hotel strategic planning is necessary to help reduce its exposure to vulnerability.
	7. During the disaster preparedness phase, hotel managers need to decide whether to take a series of preparation measures or what preparation measures to take, including preparations in terms of personnel, education and training, funds, materials, and disaster plans. In terms of staff preparation, decisions can be made about whether to employ fully qualified and professional staff to form the disaster response team of the hotel or make appropriate decisions about whether to hire or fire staff and/or provide disaster training for them to enhance the hotel resilience to a disaster.
	8. Disaster planning and preparedness can be integrated into the general strategic planning of the hotels and should be given the same importance and links to other management functions so that contribute to achieving long-term strategic goals.
	9. Implementing appropriate human resource planning for reasonable talent allocation and taking explicit human resources development measures to fully mobilise the enthusiasm and creativity of employees, thereby maximising human agency to deal with disasters and developing a fully competent workforce.

	10. Hotel human resource managers need to use job analysis as the basis for developing and implementing a recruitment plan for the talent with disaster awareness, including what skills should be recruited and what channels should be used to attract competent staff and managers to join the hotel.
Resources	11. Hotel managers should take precise measures in disaster management and maximise the use of limited resources.
	12. In order to effectively implement the strategic disaster plan of the hotel, it is necessary to have personnel with an understanding of disaster management in strategic positions, particularly the selection and placement of key individuals in key positions.
	13. Adequate financial resources should be set aside for disaster handling and preparedness when hotels develop overall strategic planning, for example by planning adequate budgets for disaster management training.
Education	14. Improving the education level is urgently needed in order to enhance hotel resilience.
Training and development	15. Human resources management of a hotel needs to provide continuous learning support and a platform for hotel agents, such as human resources training, so that they can keep up to date and acquire new knowledge in real-time and apply it to the practical operation of disaster management.
	16. The training programme of the hotel should include complete disaster management training and should be integrated into the hotel's human resources training system.
	17. Formal induction training should be provided and incorporate relevant disaster management training for new employees who are new to hotel work, especially those without previous disaster handling experience and knowledge.
	18. Human resource training for disaster management needs to be for multiple disasters rather than a single type of disaster, especially for hotels located in disaster-prone areas.
	19. Setting up simulation exercises is necessary for staff to facilitate the acquisition of more practical disaster management skills and experience, as well as facilitate the application of the theoretical disaster knowledge gained from lectures or seminars.
	20. Bespoke training specifically aimed at improving the disaster management capabilities of hotel managers at all levels plays a very critical role in improving hotel resilience. Due to their importance in managing disasters and their leadership responsibilities, they should be provided with more extensive disaster training, especially at a strategic level.
	21. Results of the training can be assessed through competitions or in simulation exercises, with awards given or career progression for good performance. Disaster management should be considered an important part of the assessment of each department.

8.3 Contribution to knowledge

This study has made value-added contributions to the knowledge in five ways. First, this study has responded to the call for extending resilience research into organisations and has subsequently linked hotels to the concept of disaster resilience in a specific way by mainly focusing on the human factor. To the knowledge of the author, this is the first study evaluating hotel resilience by linking the entrepreneurial resilience of hotel agents to hotel human resource management. Previous studies have attempted to summarise the elements that influence hotel resilience together, but lack a real starting point for building hotel resilience. By focusing on the fundamental main body of hotel disaster management, namely hotel managers and staff, analysing the role of their agency in building hotel resilience to disasters and identifying the contribution that structures built around enhancing their agency in dealing with disasters, this research can provide a fundamental entry point for building hotel resilience practices. This also contributes to the resilience literature by providing 'human factors' as an important element of disaster resilience, especially in human-based organisations.

Second, this study has added great value to developing disaster management literature in the hotel industry by identifying the relationship between entrepreneurial resilience and human resource management. Hotel resilience argued in this study is a dynamic process that can be improved and updated depending on the change in internal and external factors, more importantly, it can also play an effective role in each disaster management phase. Building hotel resilience is an effective way to fully prepare for disasters. This study has produced a new conceptual framework that took account of both the entrepreneurial resilience of hotel managers and human resource management, deriving potential levels of hotel resilience by examining the degree of synergy

between the two elements. At the same time, internal and external factors that may influence the practices of building hotel resilience are also covered in this conceptual framework. This conceptual framework provides fundamental guidance for understanding the key components of human factors in hotel resilience, in particular, it contributes to the understanding of the key elements needed at the stage of disaster preparedness. In addition, the conceptual framework can be applied to the disaster response phase. For example, hotel managers can allocate resources and take responsibility to actively respond to disasters, and human resource policies can be adjusted to adapt to the changing environment caused by disasters. Furthermore, during the phase of disaster recovery, the entrepreneurial resilience of hotel managers can lead to continual learning and seek innovative strategies to help hotels bounce forward.

Third, this study has developed the concept of entrepreneurial resilience and explored its synergic influence on managing disasters from an agency perspective in the context of hotels, which contributes another added value to the resilience literature and disaster management literature. Previous studies have discussed its application generally in a business context, which lacks analysis in the context of disasters, especially in a hotel disaster context. A wide range of components of entrepreneurial resilience that hotel managers should acquire in dealing with disasters is considered, which highlights the important role of human agency in effective disaster management. Based on the findings, disaster management in hotels is to some extent dependent on the agency of hotel managers, especially in those hotels whose structure is incomplete. Effective disaster management needs hotel managers to adopt proactive and complete strategies. For example, disaster awareness of hotel managers can be considered as part of their entrepreneurial resilience, which can significantly influence the effectiveness of hotel disaster management. Hotel managers should proactively acquire knowledge to increase their awareness. In addition, entrepreneurial resilience can influence the establishment and improvement of

the structure, which can also contribute to effective disaster management. For example, strategic disaster planning as an attribute of entrepreneurial resilience of hotel managers can decide whether they conduct disaster training to prepare for disasters.

Fourth, this study has contributed to developing more integrated human resource management in the hotel industry and exploring how hotel disaster management can be more effective. The findings can contribute to the current literature on human resource management in the hotel industry by considering disaster management practices and integrating disaster resilience thinking into every part of human resource policies and practices. The importance of hotel human resource management in building hotel resilience has been evaluated by highlighting significant aspects such as making explicit disaster dealing policies, effective human resource planning with disaster awareness and multiple disasters training. This study has produced a detailed framework (see Figure 15) for integrating disaster management practices into human resource management to build better hotel resilience. Moreover, it also provided insight into supporting the entrepreneurial resilience of hotel managers by conducting holistic human resource management to make synergetic effects and maximise the practices of building hotel resilience. The interactions between human resource management elements of hotels and respective entrepreneurial resilience attributes have been identified, which provided a basic understanding of what qualifications hotel managers should have in dealing with disasters and what the nature of human resource management should be. This also contributes to targeted improvements in human resource policies and practices.

Fifth, this study has made a great value-added contribution to the knowledge of hotel disaster management in China. This can be the first research exploring the disaster resilience of hotels in China by focusing on the fundamental elements. Given that hotel disaster management in China is still at an incomplete stage and

lacks an understanding of the concept of resilience, this study provides a fundamental understanding of hotel resilience for researchers and hotel practitioners through a detailed analysis of the relationship between the agency of hotel managers and hotel structure, which also fills the research gap of enhancing hotel resilience to disasters in China. At the same time, this study opens up a fundamental pathway for exploring hotel resilience in China and provides a baseline for managing hotel disasters more effectively in the Chinese context.

8.4 Limitations and future research agenda

There are several limitations of this research have been revealed, which provide opportunities for future research to further address. First of all, this study assessed hotel disaster resilience in the context of both natural and man-made disasters, and even though the study coincided with a major outbreak of a new coronavirus epidemic (COVID-19), it did not change the context of the study. Even though this study revealed that the findings are still relevant in the context of public health disasters, future research can still discuss in more detail how to build hotel resilience in the context of public health disasters, especially in terms of human factors. In particular, how will the entrepreneurial resilience of hotel managers change in the wake of the Covid-19 outbreak, such as how hotel managers' awareness of disaster management has changed and how hotel managers can develop human resource policies to enhance hotel resilience to pandemics.

Second, the main focus of this study was on large hotels (more than 50 guest rooms) in selected localities and these hotels are equipped with formal human resources departments. Small hotels that are not well equipped are not considered in this study. Therefore, more research considering other hotel categories is needed such as small hotels with fewer functional departments to examine the strength of the findings. In particular, future research could

encompass how small hotels should build hotel resilience from the perspective of human factors. This could include, for example, how hotel managers in small hotels use their entrepreneurial resilience to develop disaster strategies for multiple disasters without enough support from an effective hotel structure, and how their entrepreneurial resilience works on an individual level to enhance hotel resilience.

Third, the samples for this study were selected from relatively developed cities in China and did not take into account the fact that the responses of hotel managers in other, less developed cities and regions may be different. Future research could focus on more cities and regions, both developed and backwards, to provide a broader perspective on the overall hotel disaster resilience in China. Due to the limited resources available for this study, the number of participants was limited to twenty-one, and future research could also engage more participants from different hotel types and regions at different levels of development to answer the relevant questions, thus gaining a broader perspective of human factors on hotel disaster resilience in China. Moreover, future studies can also use different research methods to collect data at a large scale such as questionnaires, and HR document analysis to test the conceptual framework on larger samples. In particular, future research could explore which factors motivate hotel managers to build disaster resilience and thus identify corresponding measures to motivate hotel managers to implement hotel disaster management more effectively.

Fourth, the conceptual framework of this study focused on the human factors aspect of building hotel disaster resilience in detail, however, the concept of resilience can be understood from a variety of perspectives and in a variety of contexts. The findings from this study revealed that hotel operations have an impact on building hotel disaster resilience and also showed the importance of hotel daily operations in achieving effective hotel disaster management. Future

research could focus more extensively on the internal structure of hotels, particularly on the resilience of hotel operations, to investigate whether hotel standard operating procedures are effective in responding to disasters, and to explore how the resilience of hotels can be improved by enhancing overall hotel standard operating procedures.

Fifth, while this study examined hotel disaster resilience from the perspective of internal factors of hotels, future research could explore in-depth how to enhance hotel resilience from the perspective of external factors of hotels. More research is welcomed in terms of how governmental or local disaster management policies and planning influence hotel resilience. In particular, this study continued to find in the process of data analysis that government interventions have a significant impact on hotels in terms of disaster preparedness, in other words, the measures taken by the government have a catalytic effect on enhancing hotel disaster resilience. Future research could focus on what government measures can maximise the contribution of hotels to disaster resilience and could also explore the specific role of government interventions in effective hotel disaster management. Future research could also delve into the specific impact of culture on enhancing hotel resilience and how culture can be used to conduct effective hotel disaster management.

Sixth, the role of technology in disaster training of hotels was not discussed specifically. However, given the quick development of technology, further research can focus on the role of technology in facilitating online disaster training and live disaster drills. Virtual reality (VR) has become a popular topic in the use of virtual training (Lui and Goel 2022). Future studies can investigate how VR can contribute to disaster education or training in the hospitality industry and how it can help build hotel resilience effectively.

8.5 Recommendations for practitioners and policymakers

This study can reveal several practical implications for hotel practitioners. First of all, the conceptual framework of this research can provide hotel practitioners with a direction for building hotel disaster resilience. Hotel practitioners can improve the various aspects mentioned in the conceptual framework to improve human factors in hotel disaster resilience accordingly. They can also use this framework as a basis for adding or subtracting components to the framework as circumstances change, thus better adapting to new environmental changes.

Secondly, the entrepreneurial resilience of hotel managers conceptualised in this study can provide an opportunity for hotel practitioners to conduct a self-assessment of their own ability to deal with disasters, identify gaps and find points for improvement.

Thirdly, the study provides an opportunity for human resource professionals in hotels to be more effective in helping hotels prepare for and respond to disasters. Human resource professionals can develop a variety of real-time human resource policies that are aligned with the human factors in enhancing hotel disaster resilience. When developing these policies, some basic disaster-related aspects need to be taken into account, such as job responsibilities and the need to meet the competencies of disaster preparedness. Human resource professionals should ensure that hotels are able to develop staff competencies to successfully prepare for and respond to disasters, which can be achieved by organising frequent and systematic training and exercises for multiple disasters. Overall, this study can provide a basic guide for human resource professionals to play their special roles and responsibilities in carrying out human resource management practices to consider disaster management especially disaster preparedness more comprehensively, so as to be able to take measures to improve the ability of hotel staff to proactively deal with disasters.

This study also set out several recommendations for policymakers as follows in order to enhance hotel resilience effectively.

- (1) Hotels need to further engage with stakeholders, government and tourism authorities in their respective regions and destinations to ensure that the human factors that influence the effectiveness of hotel resilience are more fully and widely understood (based on the discussion of government intervention in section 7.5).
- (2) Hotels should engage with wider stakeholders, including the government and/or tourism authorities to establish a regular and comprehensive training programme for managers of tourism organisations. There is significant potential for the conceptual framework articulated in this thesis to contribute to the design and understanding of the human factors in hotel resilience to any future training requirements and delivery (based on the discussion of government intervention in sections 7.2.8 and 7.5).
- (3) The hotel should actively build a cooperation platform with the university in order to improve the education level of the hotel related practitioners. As part of the recruitment criteria for hotels, universities should be encouraged to strengthen the education of students who study tourism and hotel management with regard to disaster management skills. This can be achieved by building holistic disaster management courses in universities or institutions especially should be integrated into hospitality and tourism programmes as a mandatory subject (based on the discussion of education in section 7.2.8).
- (4) Hotels should continuously promote and disseminate disaster management knowledge by using highly used social media to raise disaster awareness among the practitioners (based on the discussion of situational disaster awareness in section 7.2.1).

Looking to the future, there is a propensity for the government to integrate disaster management into the social development process, not just for tourism organisations so that people have a better understanding of disasters and disaster preparedness. Tourism authorities can take more responsibility in promoting the resilience concept for tourism organisations such as hotels. It is also possible to incorporate disaster management planning criteria into assessments of hotel's respective star ratings reflecting the growing importance of resilience aspects.

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Appendix 1 Interview Guide

Working definitions:

1. Hotel disaster resilience
2. Disaster management of hotels (DM)
3. Human factor in hotel disaster resilience (HFHDR)
4. Entrepreneurial resilience (ER)
5. Human resource management (HRM)

Part I Participant information

1. What is your position in this hotel or hotel group?

- ☐ General manager
- ☐ Security manager
- ☐ HR manager
- ☐ Duty manager

Additional Comments: _____

2. Do you have any formal qualifications relevant to your position?

- ☐ Yes, what is it? _____
- ☐ No _____

3. What type of hotels are you managing?

- ☐ International chain hotel (Western)
- ☐ International chain hotel (Chinese)

☐ National chain hotel

Additional Comments: _____

4. How long have you been working in the hotel industry?

☐ 1-3 years

☐ 3-5 years

☐ 5-10 years

5. What qualities and skills do you think are required to be successful in your role?

6. Is disaster management part of your daily operation activity? If so, in what ways?

☐ General responsibility

☐ Logistics

☐ Daily routine

☐ Central group asks to do

Your comments _____

7. Which phase are you focusing for disaster management of hotel?

☐ Planning and Preparedness

☐ Response

☐ Recovery

8. Do you have previous experience about dealing with disasters? If so, what types?

☐ Natural disasters: earthquake, volcano, typhoon, flood, landslide

Additional comments: _____

☐ Man-made: fires, terrorism attack, _____

Additional comments: _____

*And how many times? _____

9. Are you part of any wider resilience teams in your hotel?

If yes, what is that? _____

10. Do you think if your hotel is resilient to disasters?

☐ If yes, to what extent and what makes the hotel resilient?

☐ No, what makes your hotel not resilient? _____

Part II Entrepreneurial resilience

1. What do you think is the most important aspect of building disaster resilience of your hotel?

e.g. 1. Leadership skills 2. Experience & awareness 3. Human resource management

Your comments:

2. How do you and your staff contribute to build hotel disaster resilience?

You:

Your staff:

3. What is the role and responsibility of hotel managers (like you) in dealing and preparing for disasters based on your understanding?

4. What skills and abilities do you think are most effective for hotel managers

(like you) to handle and prepare for disasters? (in other words, what ER including)

5. How do you build your skills and abilities to enhance your hotel resilience to disasters? (In other words, in what way that you can improve your ER? And what factor can influence ER?)
6. Have you ever received any training and development about disaster management? (what is that and how? What did you learn from that?)
7. What leadership skills do you think hotel managers (like you) should have in making decisions when handling a disaster?
8. What is the role of resilience of hotel managers in hotel disaster management? (Or any linkage between entrepreneurial resilience and disaster management of hotels? And how?)
9. Do you have any training or development programmes for all employees on a regular basis to improve their ability for dealing disasters? (if yes, what is that and how? please provide details)
10. What are the key actions and processes that you undertake to achieve hotel resilience? And are skills and abilities recognised with them?

e.g. 1. Have an emergency plan 2. Have a communication plan 3. Have exercise and simulations 4. Have regular training days
11. Are you satisfied with your level of skills and training in relation to handling disaster?

1) Yes, I have the right skills and training (why do you say this?)

- 2) Yes, I have the skills but no training (why do you say this?)
- 3) No, I have no skills and no training (why do you say this?)

Part III Human resource management

1. Do you have any HR policies regarding disaster resilience building? (if yes, what do you have in place; if not, why not?)
2. When you recruit new employees, do think experiences and abilities in handling disasters are important? If so, how?, If not why not?
3. Are you looking for employees to have disaster related experience and skills when employing new people? If yes, Why? If no, why not?
4. Do you include any formal and specific disaster related criteria and considerations in your job descriptions and analysis when recruiting and selecting new staff? (any criteria for disaster dealing?)
5. Are there any preparation tools (Drills, simulations etc?) for handling disasters are included in your HRD? If yes, what are they? If not, why not?
6. Does your training and development programmes cover disaster management for different positions? If so, how it included? If not, why not?
 - 1) For hotel managers:
 - 2) For reception staff
 - 3) For security personnel
 - 4) For human resource staff

- 5) For catering and kitchens
- 6) For other positions
7. How often do you do training for disasters on average?
8. What actions do you do exactly?
9. How do you monitor the performance after the training developed?
10. So are you satisfied with the level of human resource support and management offered by the hotel?
 - 1) Yes, we have the right support, but have the right structures (why)
 - 2) Yes, we have the right support, but need better structures (why)
 - 3) No, we do not have the right support or the right structures (why)

Part IV Relationship between ER and HRM

1. What is the relationship between abilities of hotel managers in dealing disasters (ER-the agents) and hotel human resource management in terms of achieving hotel resilience (the structure)?
2. Do you think they (both agency and structure) are equally important? Or $ER > HRM$? $ER < HRM$? $ER = HRM$? $ER + HRM = HFHDR$?
3. How do abilities and skills of hotel managers and hotel human resource management contribute together to effective hotel disaster management?
4. Are there any policies about improving abilities and skills of hotel managers and human resource management (together or separately) in your disaster plan? (what are they in details?)
5. How would you suggest it is possible to balance abilities and skills of

hotel managers and HRM in order to achieve better or enhanced hotel resilience?

6. Are there any experience of managing disasters has fed into or developed HR policy and practice? (what is that?)

Part V Scenario

1. Do you agree the scenarios? {rare (0,0), medium rare (0,1), medium (1,0), medium well (1,1)} if yes, which scenario best describes where your hotel is today? If not, please provide suggestion.

Part VI Recommendation

1. In terms of improving the disaster management abilities of hotel managers, what policies do you think should be developed to effectively improve hotel disaster resilience?
2. What aspects of human resource management do you think need to be improved in order to effectively manage disasters?
3. What are your recommendations for future changes in order to better improve hotel resilience?

Appendix 2 Participant Information Sheet

Title of the research

Evaluating Hotel Resilience: Understanding Effective Disaster Management of Hotels in China.

Invitation to take part

You are being invited to take part in this PhD research conducted by Yue Zhang, a PhD candidate based at the Disaster Management Centre of Bournemouth University (BUDMC) in the UK. Before you decide, it is important for you to understand why this research is being conducted and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please do not hesitate to ask me if there is anything that is not clear or if you would like more information. My details are at the bottom of this participant sheet. Take time to decide whether or not you wish to take part.

1. What is the purpose of the study?

This study aims to evaluate hotel resilience particularly from a perspective of hotel agents, by exploring the complex relationship between the abilities and skills of hotels agents to deal disasters and hotels HRM in China. More importantly, it develops understanding of how human factor in hotel resilience can be better achieved in order to effectively enhance hotel disaster management in China.

The specific objectives are:

1. To critically analyse the level of entrepreneurial resilience (ER) of hotel managers to disasters in China and how it contributes to hotel resilience
2. To evaluate the importance and degree of human resource (HR) practices and policies of hotels in China in relation to respective hotel resilience to disasters
3. To assess the relationship between ER and HR elements of hotels in China in delivery of existing and improved levels of hotel resilience to disasters
4. To propose feasible recommendations for better building hotel resilience to disasters in China

2. Why have I been chosen?

You have been chosen based on the criteria for selecting participants designed by the researcher and supervisory team, which includes 1) hotel type and location

that you manage, 2) your position in the hotel, 3) gender, 4) nationality, and 5) prior working experience.

The research mainly covers hotel practitioners who are willing to participate in the research. The participants are mainly hotel senior managers including hotel general managers, hotel operation managers, HR managers and hotel security managers chosen from the large chain hotels in China. The hotels are chosen from first tier and second tier cities in China, where are vulnerable to natural and man-made disasters.

You have been selected for participation because you are hotel professional who has received relevant education and have unique knowledge or managerial and working experience in the area of hotel disaster management and its policymaking or have contributed to knowledge regarding hotel resilience to disasters.

Any input and information expressed during the interviews will be handled without bias, in order to support the analysis and understanding of the issue.

3. Do I have to take part?

It is up to you to decide whether or not to take part. Deciding to take part or not will not adversely affect you. If you do decide to take part, you will be given this information sheet to keep and be asked to sign a participant agreement form. We would like to let you understand what this participation involves before you make a decision on whether to participate. Meanwhile, your data and your organisations will be anonymised.

You can withdraw from participation at any time during the data collection activities without giving a reason. If you do decide to withdraw, we will remove any data collected about you from the study. After you decide to withdraw from the study, we will not collect any further information from or about you. As regards information we have already collected before this point, your rights to access, change or move that information are limited. This is because we need to manage your information in specific ways in order for the research to be reliable and accurate.

Once the interviews have finished, you will still be able to withdraw your data up to the time when the data is analysed and incorporated into the research findings or outputs. At that point, your data is anonymous, so your identity cannot be determined, and it may not be possible to identify your data within the anonymous dataset. Therefore, withdrawal is not possible after data analysis. Withdrawing your data at this point may also adversely affect the validity and integrity of the research. Information that could reveal your identity—such as nationality will remain anonymous as your request. If you wish to be named within the research, you will be asked to read and approve the transcripts of the interviews before a set date, after which you cannot withdraw your data or request it be anonymised.

4. What would taking part involve?

As a participant in this study, you will be interviewed personally by the researcher, to discuss and answer questions related to hotel disaster management and resilience issues. In specific terms, the questions mainly involve entrepreneurial resilience issues, HRM issues and future recommendations.

The interviews will be conducted either in person or via online application such as Skype, whichever is preferable to you. After you answer each question, you will be asked to explain the reasons and rationale behind your answers, facilitating an open discussion and to give you the opportunity to add your own opinions and reflections. The questions allow and encourage an in-depth conversation about the research topic and provide opportunities for you to offer more detailed opinions and comments based on your practical experiences.

The interview should take approximately 60 minutes. However, if you feel there is more that you would like to talk about, it is possible to extend the interview or meet again. If you consent, the interview will be recorded and then transcribed, in order to be analysed as data for the thesis.

5. What are the possible advantages of taking part?

Whilst there are no immediate benefits for participating in the project, it is hoped that this study will help in the area of hotel disaster management especially hotel resilience. The research will also improve our understanding of how hotel resilience can be enhanced particularly from a perspective of hotel managers.

This study will give you the opportunity to talk about your experiences and express your opinion on the research topic. It will provide you with the freedom to openly discuss issues that are relevant to your field and integral to future explorations into disaster management of hotel industry.

6. What are any possible disadvantages of taking part?

Whilst we do not anticipate any risks to you in taking part in this study. Merely, the interview will take time out of your day, but where possible, every effort will be made to minimise and inconvenience and to make sure you are comfortable with the interview process.

7. What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

As an interviewee, the researcher (the interviewer) expects you to share your opinion regarding hotel disaster management and resilience building from a practical perspective. You are the most appropriate participants to get internal information of hotels regarding disaster preparedness. Your experience and relevant knowledge will provide up-to-date information about how hotel resilience can be enhanced from a human factor perspective.

8. Will I be recorded, and how will the recorded media be used?

Yes, the interviews will be recorded to help the researcher accurately capture the extra information not written down during the interview and to avoid missing any valuable comments to be transcribed during data analysis for a final written thesis.

The audio recordings of your activities made during this research will be used only for the data analysis and the transcription of the recording(s) for illustration in conference presentations and lectures. No other use will be made of the recording without your written permission, and no one outside the research team will be allowed access to the original recordings.

The transcription of the recording will not include your name or any identifiable information, other than your gender and location (city) of hotels. Each person interviewed will be identified by a participant number (i.e., participant 1, participant 2, etc.).

9. How will my information be kept?

All the information we collect about you during the research will be kept strictly in accordance with current data protection legislation. Bournemouth University (BU) is the organisation with overall responsibility for this study and the Data Controller of your personal information, which means that we are responsible for looking after your information and using it appropriately. Research is a task that we perform in the public interest, as part of our core function as a university.

Undertaking this research study involves collecting and/or generating information about you. We manage research data strictly in accordance with:

- Ethical requirements; and
- Current data protection laws. These control use of information about identifiable individuals, but do not apply to anonymous research data: “anonymous” means that we have either removed or not collected any pieces of data or links to other data which identify a specific person as the subject or source of a research result.

BU’s Research Participant Privacy Notice sets out more information about how we fulfil our responsibilities as a data controller and about your rights as an individual under the data protection legislation. We ask you to read this Notice so that you can fully understand the basis on which we will process your personal information.

Research data will be used only for the purposes of the study or related uses identified in the Privacy Notice or this Information Sheet. To safeguard your rights in relation to your personal information, we will use the minimum personally-identifiable information possible and control access to that data as described below.

Publication

Research results will be published in the thesis and may be used to support other research projects in the future, including future publications, reports, or presentations. You will not be able to be identified in any reports or publications about the research without your specific consent. Otherwise your information will only be included in these materials in an anonymous form, i.e. you will not be identifiable.

Security and access controls

BU will hold the information we collect about you in hard copy in a secure location and on a BU password protected secure network where held electronically.

Personal information which has not been anonymised will be accessed and used only by appropriate, authorised individuals and when this is necessary for the purposes of the research or another purpose identified in the Privacy Notice. This may include giving access to BU staff or others responsible for monitoring and/or audit of the study, who need to ensure that the research is complying with applicable regulations.

In any other situations, any data collected from participants will be anonymised in this study if there is no authorisation of participants.

Sharing and further use of your personal information

As well as BU staff working on the research, we may also need to share personal information in non-anonymised form with related entities. This may include giving access to your information to Bournemouth University staff responsible for monitoring and/or auditing the study and who need to ensure that the research complies with applicable regulations.

The information collected about you may be used in an anonymous form to support other research projects in the future and access to it in this form will not be restricted. It will not be possible for you to be identified from this data. To enable this use, anonymised data will be added to BU's [Data Repository](#), a central location where data is stored, and which will be publicly available.

Keeping your information if you withdraw from the study

If you withdraw from active participation in the study, we will keep information which we have already collected from or about you, if this has on-going relevance or value to the study. This may include your personal identifiable information. As explained above, your legal rights to access, change, delete or move this information are limited as we need to manage your information in specific ways in order for the research to be reliable and accurate. However, if you have concerns about how this will affect you personally, you can raise these with the research team when you withdraw from the study.

You can find out more about your rights in relation to your data and how to raise queries or complaints in our Privacy Notice.

Retention of your data

We keep copies of signed participant agreements for a long period after completion of the research, so that we have records of how we conducted the research and who took part. The only personal information in this documentation will be your name and signature, and we will not be able to link this to any anonymised research results.

We will keep your personal information in identifiable form for a period of 5 years after completion of the research study. Although published research outputs are anonymised, we need to retain underlying data collected for the study in a non-anonymised form to enable the research to be audited and/or to enable the research findings to be verified.

Bournemouth University will hold the information we collect about you in hard copy and electronically in a password-protected secure network. Only the research team will have access to the data. After that, the data will be destroyed under Bournemouth University policies, to guarantee the security and safety of your data.

10. Who has reviewed the study?

This study has been reviewed and approved in line with Bournemouth University's [Research Ethics Code of Practice](#).

11. Contact for further information

If you have any questions or would like further information, please feel free to contact the research team:

Researcher:

Yue Zhang

Address: Bournemouth University Disaster Management Centre

Dorset House, Talbot Campus

Poole, BH12 5BB

Tel: (+44) 7914633318

Email: yzhang3@bournemouth.ac.uk

Supervisors:

Professor Lee Miles

Dr Anya Chapman

Address: Bournemouth University Disaster Management Centre

Dorset House, Talbot Campus

Poole, BH12 5BB

Tel: 01202 965801

Email: lmiles@bournemouth.ac.uk

achapman@bournemouth.ac.uk

In case of complaints

Any concerns about the study should be directed to Professor Lee Miles on:

lmiles@bournemouth.ac.uk . If your concerns have not been answered by Professor Lee Miles, you should contact Professor Mike Silk, Deputy Dean for Research and Professional Practice, Faculty of Management, Bournemouth University by email to researchgovernance@bournemouth.ac.uk.

Tel: 01202 961217

If you decide to take part, you will be given a copy of the information sheet and a signed participant agreement form to keep.

Thank you for considering taking part in this research project.

Appendix 3 Participant Agreement Form

Full title of the research: Evaluating Hotel Resilience: Understanding Effective Disaster Management of Hotels in China.

Name, position and contact details of researcher:

Yue Zhang, PhD researcher

Disaster Management Centre (DMC)

Bournemouth University

Dorset House, Talbot Campus, Fern Barrow, Poole, Dorset, BH12 5BB

United Kingdom

yzhang3@bournemouth.ac.uk

Name, position and contact details of supervisor:

Professor Lee Miles, Professor of Crisis and Disaster Management

Disaster Management Centre (DMC)

Bournemouth University

Dorset House, Talbot Campus, Fern Barrow, Poole, Dorset, BH12 5BB

United Kingdom

lmiles@bournemouth.ac.uk

Dr Anya Chapman, Senior Lecturer in Tourism Management

Bournemouth University

Dorset House, Talbot Campus, Fern Barrow, Poole, Dorset, BH12 5BB

United Kingdom

achapman@bournemouth.ac.uk

Section A: Agreement to participate in the study

You should only agree to participate in the study if you agree with all of the

I have read and understood the Participant Information Sheet (YZ-4829908 V1) and have been given access to the BU Research Participant Privacy Notice which sets out how we collect and use personal information (https://www1.bournemouth.ac.uk/about/governance/access-information/data-protection-privacy).
I have had an opportunity to ask questions.
I understand that my participation is voluntary. I can stop participating in research activities at any time without giving a reason and I am free to decline to answer any particular question(s).
I understand that taking part in the research will include the following activity/activities as part of the research: • being audio recorded during the research • my words will be quoted in publications, reports, web pages and other research outputs without using my real name.
I understand that, if I withdraw from the study, I will also be able to withdraw my data from further use in the study except where my data has been anonymised (as I cannot be identified) or it will be harmful to the research to have my data removed.
I understand that my data may be included in an anonymised form within a dataset to be archived at BU's Online Research Data Repository.
I understand that my data may be used in an anonymised form by the research team to support other research projects in the future, including future publications, reports or presentations.

statements in this table and accept that participating will involve the listed activities.

	Initial box to agree

I consent to take part in the project on the basis set out above (Section A)	

_____	_____	_____
Name of participant	Date	Signature

(BLOCK CAPITALS)	(dd/mm/yyyy)

Signature

_____	_____	_____
Name of researcher	Date	
(BLOCK CAPITALS)	(dd/mm/yyyy)	

Appendix 4 An Example of Interview Transcript

(Chinese Version)

Research(R): 你好，请问你在酒店的职位是什么？

Interviewee(I): 你好，我是我们酒店的总经理，负责我们酒店的整体运营和管理。

R: 请问您所工作的酒店是属于什么类型的？据我了解是属于中国企业国内连锁酒店对吗？

I: 对的。我们是中国最大的连锁酒店集团之一。

R: 请问您在酒店领域大概工作多久了？

I: 我到现在为止在酒店工作了将近八年了。

R: 那么到目前为止，你取得过与你的职位相关的学位或者证书吗？

I: 有取得过，我是旅游管理专业毕业的，本科学位。我觉得这应该算是与我的现职位相关的教育背景吧，因为有些在大学学到的东西，在实际工作中是有用到的。

R: 能具体举个例子吗？什么是最经常用到的？

I: 我觉得关于市场营销这方面是经常用到的，因为我们可能需要不断的调整价格策略，比如说有不同的节假日的时候，那么价格策略也要随之改变。

R: 要想在您的职位上取得成功，带领酒店长远发展，您认为哪些能力和技能是比较重要的？

I: 这有很多能力和技能可谈，因为作为总经理是需要各个方面来对酒店进行全面的运营和管理的。如果非要选出一些最重要的，那我可能会说是领导，沟通，还有责任感。还有就是不断学习，时刻抓住行业的动态，因为这样才能知道自己是否有优势和竞争力。

R:您能具体说一下为什么领导，沟通，还有责任感在您看来是很重要的吗？

I:首先，领导顾名思义就是要带领我的员工一起向我们的目标努力，并且在工作过程中对他们进行引导和指导。如果他们有什么不明白的或者不知道怎么办，我就要告诉他们应该怎么做，要做什么。那很明显，在这个过程中都是要靠沟通来实现的，无论是采取什么方式，哪怕是在工作群里，都要注意沟通的准确性，因为一旦我向他们传达错误或者不准确，那么就会影响员工的具体执行。而且，我还需要和公司沟通，和街道沟通，还有其他各个部门都要沟通，所以这是非常重要的一个能力，也是必备的能力。我之所以觉得有责任感很重要是因为，无论我们做什么，如果抱着不负责任的态度，那么会导致很多问题的出现，也会导致我们的计划很难执行。

R:像我们这种有很多房间的大型酒店，在您的日常经营活动中有关于灾难管理的部分吗？比如说针对火灾，地震之类的。

I:有，我们一般会按照上级的要求在日常经营管理中进行消防管理，预防火灾，还有一些应急管理方面的，比如说盗抢之类的。

R:我们通常把灾难管理分为三个阶段，计划和准备，应对还有恢复阶段，那在您看来，您或者您的就在在这方面主要针对于哪个阶段呢？

I:我觉得主要还是注重准备和应对阶段吧。

R:能具体说一下为什么会更注重准备和应对阶段吗？

I:首先，我觉得做好准备是应对灾难之本吧，就像我们有句老话叫做凡事预则立，不预则废。准备的越充分，那么一旦真的有灾难了，就会应对的更加从容不迫。应对当然也很重要，因为即使一切准备就绪，但是在灾难来临的那一刻，还是会有

很对没有被预知的问题出现，那时候也要考验我们的临场应变能力了。

R: 在您的职业生涯中，有遇到过灾害吗？或者说有应对灾害的经验吗？

I: 很幸运的是，我在工作中还没有遇到过灾难，也没有处理过所谓的灾难。但这次的新冠疫情算是我在工作中处理的灾难吧。虽然在这个时期对于我们来说是非常困难的，但是还真正的学习到了很对应对疫情的知识。

R: 请问，您的酒店中有应急小组吗？您是其中的一员吗？

I: 我们酒店有应急小组，我也是其中的一员，而且是处理紧急事务的总指挥。

R: 那您在这个小组中具体是负责什么呢？

I: 在灾害发生的时候，我主要就是负责指挥协调各部门迅速采取行动，根据现场的情况，尽可能的将损失降到最低。我可能需要联系或者报告给我们区域的上级主管部门，还需要迅速作出决策，下达紧急处置指令等等。

R: 那么，在您看来，你的酒店现阶段是具备灾害韧性的吗？

I: 我觉得这要看是从哪个方面来说。或者是针对什么规模的灾难。如果就当前疫情情况来讲，我觉得我们还不是很具备灾难韧性的。因为这其中有很多因素是我们不可控的。但就一般规模的自然灾害或者火灾来说，我觉得我们酒店是具备一定的灾害韧性的。比如说我们各个经理的的应对能力和决策力，我们员工的执行力及团结能力，这都是我们能够战胜灾害并且前进，恢复及发展的条件。当然经济能力作为第一要素，也会在使我们酒店具备韧性方面助一臂之力的。

R: 您认为在建立灾害韧性中最重要的方面是什么？

I: 我个人认为是人的适应能力，应对能力及领导的决策力在建立应对灾害的韧性方面是较为重要的。因为像我们的酒店员工要适应并应对各式各样的突发情况，比如说这突如其来的疫情，那如果不能适应并应对解决，那么我们酒店将会在不适应

的条件下被淘汰，而作为酒店的领导，我的决策能力更是指引酒店的方向。作为一个酒店经理，特别是在灾害或紧急情况下做出决定的能力是非常重要的。迅速做出决定！我需要告知其他员工我们目前所处的情况，并让他们放心。尽快做出决定，千万不要犹豫不决或害怕承担责任。犹豫会使情况恶化，放大负面影响。而如果我犹豫不决，就会向我的员工表明我不确定或害怕。在这种时候，我需要成为其他员工的好榜样，坦率地说，我可以成为他们的支柱。

R：那就目前来讲，您觉得您和您的员工为了建立你们酒店的灾害韧性做出了哪些行动或者贡献？

I：首先，从我的角度来说，我会按照我们公司的 SOP 来做，并且按照国家的大方向制定相应的应对灾害的预案。我们经理级别以上的员工还会定期组织学习，特别是关于消防方面的管理还有包括现在的疫情应对。同时，我们还会定期组织员工做好抗灾相关培训及相关的情况演练，让员工具备应对能力。如果从员工的角度来说，如果他们能积极参与我们组织的培训，并且从中认真学习抗灾知识，打好提前量，做好准备，在应对灾害时能应用所学，我觉得就算是对建立韧性做出的巨大贡献吧。

R：那根据您的理解，员工或像你一样的经理在应对和准备灾难方面的角色和责任是什么？

I：作为酒店的一名员工或者中层经理，在应对和准备灾难方面有着一个承上启下的作用，一方面他们需要实时向领导汇报灾害情况并请示做好应对灾难的准备方案，另一方面他们还要将领导的决策执行到底。而总经理则需要顾大局，既要兼顾酒店的运营，又要考虑资源准备，包括配备人力资源或者培训预算等等比较综合性的方面。同时我也需要与我们公司上级领导及时沟通，包括如何支配资源等，还有就是与外部沟通，比如说，和我们消防部门沟通，看看能否请求他们来协助我们预

防灾害等等。我觉得在预防灾害这方面，我们整个酒店的员工都有责任和义务做好自己份内的工作，这样我们才能齐心协力在面对灾害时快速应对。

R：在处理和准备灾害方面，您认为什么样的技能和能力对像你一样的酒店经理来说是最有效的？换句话说，您觉得企业家韧性包括什么？

I：我觉得这是一个很好的问题，企业家韧性也是作为管理者最需要的一种特质。首先，像我之前提到的领导力和决策力是非常重要的，特别是面对危机或者灾难的时候。其次，我觉得酒店或者说企业在资金方面的实力对于应对灾害来说是至关重要的，它也可以说是作为处理灾难时的一个支撑。非常简单的一个例子，如果没有强大的资金储备，在像疫情这样的灾难来临时，我们都没有办法给员工发工资，这就可能会让员工面临失业的风险。还有一点我认为很重要的就是，一定要接受教育，因为教育程度越高，格局可能就越大，眼光可能也会相对更长远一些。而格局和决策力可以一起决定处理灾难的方向，考虑的越长远，需要做的准备就越多同时也会越充分。

R：您是如何提升您的灾难应对技能和能力，以提高您的酒店对灾害的韧性的？换句话说，你可以通过什么方式来改善你的企业家韧性？或者说什么因素会影响您的企业家韧性？

I：我觉得最好的方式就是不断的学习，因为通过学习可以开阔视野和扩大格局。通过不断地社交扩大圈子，结交有能之士，并取长补短，毕竟三人行必有我师，这样来建立我的韧性是比较有效的。当然，外界有很多不可抗因素也会影响我的韧性，作为不可抗因素这是属于大环境下的某种客观存在，比如说，全球气候变化，可能会让我们随时面临着不可预测的灾害，那我的韧性也可能随之提高，因为我要最好准备来面对这种未知的情况。

R: 谈到不断学习, 请问您曾接受过灾害管理方面的培训和教育吗?

I: 接受过, 火灾, 地震方面的相关培训。

R: 能具体谈谈那种培训是什么形式的, 又是怎样进行的? 还有你从中学到了什么吗?

I: 通过面对面培训及演练的方式, 从中了解了一些灭火及逃生的方式和技巧, 并且灾难不是不可战胜的, 但是灾难中的损失却无法避免, 更多的是学习灾难应对及处理的相关知识和怎么减少损失。但就我个人而言, 我还是希望我们可以有更多的安排来进行实际演练, 因为在实际情况中可以更真实地经历那种高压的环境并可以有效地锻炼我们从容应对处理灾难

R: 当处理灾难时, 您认为您在做决策方面应该具备什么样的领导能力?

I: 在情况紧急的情况下需要有决断能力, 当机立断告诉其他员工所遇到灾难应该如何处理, 绝对不能犹豫不决 唯唯诺诺等事态严重扩大, 不能露怯, 做好其他员工的榜样, 这种时刻, 也许你就是他们心中的那颗定山石。还有就是要透明有效的沟通, 不要浪费时间让员工来猜你想要做什么。及时将决策有效清晰的传达给员工, 这点我认为在处理灾难时, 是非常重要的。

R: 您认为您的韧性在酒店灾难管理中扮演什么角色? 或者说您应对灾难的韧性和酒店的灾难管理有怎样的联系?

I: 我认为我面对灾难的韧性或者说酒店管理者的韧性是酒店灾难管理中的基础, 只有具备这种韧性时, 才谈得上管理酒店和管理酒店可能存在的灾难。如果一个企业或者说酒店, 管理者都不具备处理危机的能力, 那还何谈酒店的或者企业的发展和前进呀。

R: 你们酒店是否定期为所有员工提供培训或发展计划, 以提高他们应对灾难的能

力?

I: 是的, 我们有提供消防培训还有地震培训。这也是我们上级要求必须做的。

R: 您采取哪些关键行动和过程来让酒店具备灾害韧性?员工的技能和能力会因这些活动和过程得到认可吗?

I: 我们有制定灾害应急预案来提前做好准备。同时我们也会进行灾难演习和模拟, 比如说火灾演练和地震演习。制定预案就是为了有备无患, 进行灾难演习及模拟更能有身临其境的感觉, 可以锻炼在灾难中的应变力及处理能力, 并且在一次次的模拟中不在畏惧灾难, 员工的技能和能力也会在这些活动中逐步提升。我个人觉得员工和管理人员都会在这些活动中有所收获的, 至少, 举个例子, 知道着火了应该用湿毛巾捂住口鼻。

R: 你對自己处理灾难的技能和训练水平满意吗?

I: 是的, 我可以说是基本满意, 因为我现阶段接受了合适的培训和具备一些相应的技能。因为我在自己的岗位上基本掌握了预测灾害和危机影响的能力和处理事件的能力。此外, 我还有效地执行了上级关于灾害处理的决定和政策要求, 也算是卓有成效。但我在日常工作中还在不断学习其他技能, 进而使自己的韧性更加全面和具体, 打开自己的视野, 不断丰富自己的知识。我受过火灾方面的一些培训, 但是这并不能说我已经熟练的掌握了处理火灾的技能, 只能做一些简单的灭火处理及逃生处理, 希望日后有机会可以多接触这方面的培训, 增强自己处理这方面的能力。同时, 我更加想学的是一些管理层面和战术层面的技能, 这对于我来说是现阶段需要提升的。

R: 在您的酒店有任何为建设灾害韧性的人力资源政策吗?

I: 我们确实有一些人力资源政策, 比如说是关于组织消防安全培训的, 我觉得这

应该可以算是关于建立灾害韧性的人资政策吧。一提到这个，我觉得这也是我们需要改进的一部分，因为确实没有明确针对建立酒店灾害韧性的人力资源政策。我们会时常督促员工培养安全意识，将一切可控的危机扼杀在摇篮之中。

R：当招聘新员工时，您认为应对灾难的经验和能力重要吗？

I：我认为是重要的，但不是必要的。首先招聘新员工是按照所需岗位进行招聘的，其次对于应对灾难在公司相关培训中会涉及到，可以后期培训，最后应对灾难的经验和能力不是每个应聘者都具备的，都是后期培训的所以这并不需要作为招聘考核标准。

R：在招聘新员工时，您是否在寻找具有灾难相关经验和技能的员工？

I：这个在实际招聘中并没有涉及到，能够涉及到的可能只有我们安保部的员工，但也不是必需的。首先在招聘新员工时会按照所需岗位进行招聘，若该员工有灾难相关经验和技能更好，没有也不会影响对岗位的招聘，毕竟这并不影响该员工在公司应聘的岗位工作情况及其工作能力。

R：在招聘和选择新员工时，在你的工作描述和分析中是否包含任何正式的和具体的灾难处理相关的条件和考虑因素？或者说有处理灾难的招聘条件吗？

I：这个可能会根据招聘岗位会有不同要求，安保部的人员会有相关考虑因素。

R：你们的人力资源开发中是否有应对灾难的准备措施或手段？

I：我们酒店是有灾害培训和演练的，但这并没有纳入我们的人力资源开发系统中，这部分主要还是由我们的安保部负责。人力资源部只是起到一个协同和安排的作用。

R：你们酒店的培训和发展计划中是否涵盖不同职位的灾害管理？

I：这个在现阶段还没有实现针对不同职位实现不同的灾害培训。也许以后会慢慢

改进。因为我们通过此次疫情总结的经验，针对不同职位设定专属的培训还是很有必要的。因为每个岗位的职责不同，了解的信息也不同，工作范围也不同，所以还是需要更综合性一些的培训。

R: 您平均多久进行一次灾难相关的培训?

I: 大概是半年一次。一年两次左右。

R: 您能详细说一下在培训中具体做些什么吗?

I: 第一，讲解培训，讲述灾害的相关情况，主要是针对火灾。第二，演练，在特定的环境下，练习在遭遇火灾的情况下的应变能力和紧急处置能力，演练后集体讨论演练过程中正确的操作和对错误方面进行总结和纠正。第三，总结经验。

R: 培训开展后，你们如何监控员工的表现?

I: 我们会随机性抽查，按照培训时间延后不定时随机抽查员工的消化程度，根据员工的解答及处理判定员工的应变能力的表现。我们有时还会组织知识竞赛，来考验员工是否掌握培训中所涉及的知识内容。

R: 您对酒店提供的人力资源支持和管理水平满意吗?

I: 我基本满意，但是还有很多需要改进的地方。我觉得我们酒店的结构需要在很大程度上进行优化。我们的人力资源管理并不完整，即使在一些方面是有提供支持，但整体结构是需要改善的。比如说，我们刚才提到的灾难培训并没有纳入完整地到人资的系统中，这就是我们未来需要改善的结构的一方面。还有一点我认为也很重要，关于招聘这方面的。我们在招聘的时候很大程度并没有考虑到灾害应对方面的能力，这其中的一个原因也是这样的人并不好找。还有就是，受过这方面教育的人少之又少，以我为例，我是旅游管理本科毕业，但在我整个大学期间，我并没有接触过关于酒店或旅游灾害管理方面的系统学习。所以我认为，这方面可能还没有

很被重视。

R: 在您看来, 您面对灾害的韧性与人力资源管理在提升酒店灾害韧性方面的关系是什么?

I: 我觉得我的韧性或者说管理者的韧性可能会帮助酒店的人力资源管理更进一步的改善, 也就是结构的优化, 所以也可以说是建立酒店灾难韧性的助推力。而人力资源管理则是员工和管理者应对灾难的能力的提升的一个平台和支持, 如果两者结合, 我个人认为会在人这方面让酒店提升灾害韧性。

R: 你认为 ER 和 HRM 谁更重要还是同样重要?

I: 我觉得他们俩是一样重要的, 就像我刚才说的, 他俩都是关于人的, 而人又是酒店的核心, 所以如果这两个可以完美的融合到一起, 共同朝一个方向努力, 那就会让酒店在人这方面提升灾害韧性, 那酒店在面对灾害时也就成功了一大部分了。

R: 那您认为像您这样的管理者的韧性与酒店的人力资源管理如何共同促进有效的酒店灾难管理?

I: 员工和管理者的能力和技能与酒店的人力资源管理属于相互适应, 相互促进的关系。员工和管理者可以根据实际情况更新人力资源管理系统, 而反过来, 员工和经理还要按照酒店的人力资源管理执行。所以彼此适应, 促进才能更好的有效的进行酒店的灾难管理, 才能优化出属于这个酒店的灾害韧性。

R: 在您的酒店的灾难管理计划中, 是否有关于提高经理或员工的能力和技能以及人力资源管理(一起或分开)的政策?

I: 目前还没有。我们的灾难计划是根据实际情况更新的, 且我们酒店对于灾难是有针对性的培训, 大方向是按照国家的指示进行。

R: 您建议如何平衡管理者的韧性与酒店的人力资源管理, 才能更好地增强酒店的

灾害韧性?

I: 酒店的人力资源管理是为酒店的人服务的, 而管理者和员工作为酒店中的一员应该更好的了解酒店的人力资源管理, 并且实时的提出合理的更适合提升酒店灾害韧性的建议; 而酒店人力资源管理能更好的规范经理及员工并提高他们的能力, 所以让经理和员工们的能力和技能和酒店的人力资源管理更匹配的同时使结构更优化, 从而让两者相互适应并更新。同时, 在投资于酒店管理人员的能力的同时, 不要忘记投资于人力资源管理系统。

R: 您的酒店在人力资源政策和实践中是否注入了灾难管理的经验?

I: 在现阶段还没有。但未来可能会更关注这方面。

R: 你是否同意以下灾难韧性描述方案?

I: 是的, 同意。这看起来挺有意思。

R: 那您觉得哪个方案来描述您的酒店比较准确?

I: 五分熟的灾难韧性更准确吧。从我个人的角度来说, 我对自己的评价是有基本的应对灾害的韧性, 我觉得我具备一些必备的素质, 但我需要更多的学习来让我自己羽翼更加丰满, 经验再丰富一些, 尤其是在应对灾害这方面。而我们酒店的人资系统也有基本的结构和支持, 但是需要有更好的优化, 需要更加完善一些, 有些方面还没有完全考虑到, 就比如说如何让把灾害处理这方面明确地表现在人资政策中等等。所以我觉得是五分熟。

R: 在提高员工与管理者的韧性方面, 您认为应该制定哪些政策才能有效提高酒店的灾害韧性?

I: 我觉得可以制定关于灾难应对方面培训计划和评估培训需求, 及时了解员工在哪方面有能力的缺失, 及时补救, 及时提升。我们还可以组织更加频繁的针对多种

灾难场景的情景演练，让员工了解更多的信息，知识面更广泛一些，还可以提高相互协作的能力。还有一点我觉得也可以，就是要听听大家的声音。我们可以让全体员工定期提交关于应对灾害的相关建议和自己需要的培训需求，不限条数，这样才能更好的了解大家真实的灾害处理能力的情况，而且可以让我们的 hr 更有针对性的组织开展培训。

R: 你认为人力资源管理的哪些方面需要改进才能有效地管理与应对灾害?

I: 我觉得主要是政策方面没有明确的指导和约束。如果在这方面要是相关的改进的话，应该会让管理者和员工对灾害管理更加重视。但是，在当前疫情情况下，不建议更改，但这可以作为准备性条件来稍作调整，在疫情登记来说为保证等级人员的准确性可以使用系统扫面（条件允许的情况下）或者身份证实名登记，避免部分人员胡编乱造，便于更方便更准确的追踪。

R: 为了更好地提高酒店的灾害韧性，您对未来需要做的改变有什么建议?

I: 首先，应该从政策上进行约束和指导。可以制定相关制度，面对灾难情况做好相应的防控及准备。其次，需要更多关于灾害管理方面的教育，无论是员工还是管理者，所有的酒店从业者应该意识到灾害管理的重要性，并接受更多这方面的教育和知识储备。

Appendix 5 Thematic Framework Analysis

Location 1

Theme 1 General resilience of hotels

Sub-theme 1.3 Skills and qualities required for the position

- Strategic thinking and planning
- Leadership
- Persistence
- Ability to work under pressure
- Professional management knowledge
- Educational level
- Communication skills
- Timely supplement and maintenance of human resources
- Expansion of own knowledge (learning) and experience

Sub-theme 1.4 Place of disaster management in daily operation

- General responsibility—fire prevention, COVID-19
- Central group asks to do
- Should be general responsibility

Sub-theme 1.5 Key concerns in disaster management

- Response>recovery>planning and preparedness

Sub-theme 1.6 Previous disaster management experience

- Not really experienced disasters before COVID-19
- Uncommonly experienced fire, earthquake, typhoon and snowstorm, but no

impact on hotels

Sub-theme 1.7 Participation in resilience team

- Leader of resilience team for handling emergency
- Director and coordinator of emergency team to prevent fire
- Not a member of resilience team because there is no prearranged resilient team for disasters

Sub-theme 1.8 Views on the level of hotel resilience to disasters

- Not resilient enough since there are many aspects need to improve
- For pandemics e.g. Covid-19, not resilient at all.
- It is resilient.

Sub-theme 1.9 Reasons for hotel resilience to disasters

- Changing disasters to opportunities: in an innovative way to make benefits especially during Covid-19 (e.g. Live commerce)
- Human resource: employees can support and coordinate each other during difficult time
- Emergency plan
- Government support

Theme 2 Entrepreneurial resilience of hotel agents

Sub-theme 2.1 Most important aspects of building hotel resilience to disasters

- People are priority
- Achieve disaster handling capabilities for all employees from the top to the bottom
- Disaster awareness
- Leadership skills
- Decision making

- Educational level
- A prediction of the consequences of a disaster
- Ability to learn
- Breadth of vision
- Reasonable human resource reserve and personnel allocation

Sub-theme 2.2 Managers contribution to hotel resilience

- Decisive and leading role to hotel resilience
- Improve comprehensive capabilities and learn from other successful cases
- Educational and guided role for staff to increase their abilities
- Develop a reasonable anti-disaster plan and effectively supervise its implementation
- Capital accumulation
- Establish hotel culture and human resource plan

Sub-theme 2.3 Staff contribution to hotel resilience

- Cooperate and participate in the training required by the superiors
- Retention and support of core employees

Sub-theme 2.4 Managers roles and responsibilities for dealing disasters

- Pillar and decision-maker of the hotel
- Explorer
- Reflector
- Planner

Sub-theme 2.5 Managers skills and abilities to handling disasters

- Common sense of disasters

- Demand on HRM
- Effective communication
- Ability to make strategic planning
- Leadership

Sub-theme 2.6 Ways to improve managers skills and abilities

- Learn more related knowledge
- Information exchanges and sharing
- Training and education
- Summarise from past experience

Sub-theme 2.7 Influencing factors of managers skills and abilities on dealing disaster

- Actual conditions and relevant policies
- Awareness, knowledge and experience on disaster
- Human resource training

Sub-theme 2.8 Training and development of managers received

- Training: organisations are invited to conduct training and exercises for all staff.
- Required training for managers
- All ‘training’ from actual experience and cases

Sub-theme 2.9 Lesson learned from disaster-related training

- Learned a lot of escape skills from fire.
- Learned how to deal with earthquakes, floods, fires and other disasters and evacuation skills

Sub-theme 2.10 Leadership skills of managers for handling disasters

- Formulate strategy

- Innovative thinking
- Flexibility

Sub-theme 2.11 Role and influence of entrepreneurial resilience in hotel resilience and disaster management

- ER determines disaster resilience and management in hotel
- ER is the basis of the innovative disaster management of hotel
- ER and hotel disaster management are complementary

Sub-theme 2.12 Training and development for hotel employees to dealing disasters

- Disaster-related training for employees
- Epidemic prevention training
- No training specifically for disasters

Sub-theme 2.13 Key actions and processes taken for building hotel resilience

- Regular training
- Case studies
- Disaster simulation exercise and knowledge contest

Sub-theme 2.14 Level of skills and training in handling disasters

- Have the skills but no training

Theme 3 Human resource management for hotel resilience

Sub-theme 3.1 Relevant human resource policies for hotel resilience

- Improve basic salary and performance wage
- Recruiting security must have relevant certificates and qualification
- No human resource policies related to hotel resilience to disasters in actual work

Sub-theme 3.2 Importance of experience and abilities of new employees in dealing with disasters

- Very important—bonus points for most positions
- Not very important

Sub-theme 3.3 Demand on employees with relevant experience and skills for dealing disasters

- No specific demand on disaster dealing

Sub-theme 3.4 Formal and specific criteria regarding handling disasters in job analysis and description

- No specific criteria regarding disasters

Sub-theme 3.5 Preparation tools included in human resource development for dealing disasters

- Simulation exercises
- Knowledge lecture
- Training for fire and earthquake
- No disaster preparation tools are included in HRD

Sub-theme 3.6 Training and development covering disaster management for different positions

- No DM training programmes specifically for different positions
- For hotel managers and security positions, more DM training and development is involved, but more about Fire.

Sub-theme 3.7 Frequency of disaster-related training

- Once a year
- Twice a year

Sub-theme 3.8 Actions taken for disaster management training

- Case studies
- Relevant policies updates
- Lectures/Teaching

- Experience sharing

Sub-theme 3.9 Way to monitor the performance of disaster-related training

- Post-training exam
- Select outstanding employees based on exercise and drill performance

Sub-theme 3.10 Level of HRM support for hotel resilience

- Do not have the right support or the right structures of HRM
- Have the right support, but need better structures of HRM
Some individual interviewees believe that they have the right human resources support, but the hotel's human resources structure needs further improvement.

Theme 4 Relationship between ER and HRM

Sub-theme 4.1 Relationship between ER and HRM in building hotel resilience

- ER is proportional to HRM
- ER and HRM are complementary. Any one of them is indispensable.

Sub-theme 4.2 Contribution of ER together with HRM to effective hotel disaster management

- Mostly, ER and HRM are equally important. $ER + HRM = HFIHR$
- ER is more important in some hotels with fewer employees contributing to effective hotel disaster management

Sub-theme 4.3 Policies included in disaster plan regarding ER and HRM

- Not really a disaster plan existed
- No actual policies regarding ER and HRM included in the disaster plan

Sub-theme 4.4 Way to balance ER and HRM

- Strengthen the communication between the manager and the human resources department
- Increase staff appraisal

- Monitor and learn from each other
- When investing in ER, investing HRM as well

Sub-theme 4.5 The infusion of disaster management experience in HRM

- No infusion in HRM because of no awareness and lack of experience
- Disasters management is not involved in the actual work because they rarely happen.
- Disaster management experience will be fed into HRM in the near future due to Covid-19.

Theme 5 Recommendations and scenarios

Sub-theme 5.1 Descriptions of human factors in hotel resilience

- Agree with the scenarios
- Medium rare
- Medium
- Medium-well

Sub-theme 5.2 Recommended policies for hotel agents to improve hotel resilience

- Develop effective disaster plans for managers and update them on a regular basis
- Set up specific funds for disaster management
- Regular knowledge popularization and simulation drills
- Professional training for senior managers
- Policies for managers with relevant skills certificates in order to motivate them to learn more

Sub-theme 5.3 Aspects of HRM need to be improved for effective disaster management

- Focus on recruiting people who can deal with disasters or hold relevant skills certificates

- List the ability to deal with disasters as one of the evaluation conditions for job promotion
- Vertical and horizontal management runs in parallel to ensure effective implementation at various levels.
- Clear system to ensure timely sharing of disaster management information

Sub-theme 5.4 Future changes needed for better improving hotel resilience

- Make a disaster plan. In the disaster plan, different disasters are subdivided, and the ways to deal with different disasters are clarified, to improve the ability to respond to different disasters.
- Diversify hotels. While ensuring the development of the hotel's core business, developing other businesses is needed in order to avoid operation stagnation during the disaster.

Appendix 6 Research Ethics Checklist

About Your Checklist

Ethics ID	22313
Date Created	19/09/2018 19:44:21
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Researcher Details

Name	Yue Zhang
Faculty	BU Business School
Status	Postgraduate Research (MRes, MPhil, PhD, DProf, EngD, EdD)
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Have you received funding to support this research project?	No

Project Details

Title	Evaluating Hotel Resilience: Understanding Effective Disaster Management of Hotels in China?
Start Date of Project	16/04/2018
End Date of Project	16/04/2022
Proposed Start Date of Data Collection	30/04/2020
Original Supervisor	Lee Miles
Approver	Michael Silk

Summary - no more than 600 words (including detail on background methodology, sample, outcomes, etc.)

Human agency plays a critically important role to effectively interpret disasters and make preparedness to reduce negative disastrous impacts (Eiser et al 2012). Although there is growing interest in resilience and tourism crisis and disaster management, resilience within the context of hotels remains a research gap to be explored. Especially, what mechanisms facilitate enhancing human factors in hotel resilience are still not well-developed. This study refines the focus on human factors to discuss how the contribution of human agents to effective hotel resilience to disasters is shaped by two elements: (i) the evaluation of entrepreneurial resilience (ER) abilities and processes of hotel agents including entrepreneurs, general managers, line managers and; (ii) the level and provision of effective human resource management (HRM) operating within and available to respective hotel establishments. By examining this relationship, this thesis seeks to develop further understanding of how human factors in hotel resilience (HFIHR) can be better achieved in order to effectively enhance hotel disaster management.

This research utilises deep, open semi-structured interviews to collect qualitative data from hotel senior managers in three cities of China via online applications (Skype, zoom etc). The sample cities of Chengdu, Shenzhen and Shenyang are chosen using contextual criteria

that takes account of representative times, space and significance of recent disasters in China. A total of 20 participants including hotel senior managers (operation managers, HR managers, Security managers) from three cities (Chengdu, Shenyang and Shenzhen) in China are interviewed in order to build more detailed depth concept, demonstration and analysis of hotel resilience and disaster management. Meanwhile, three representative cities are chosen to find out what the broader China prospectively might be and a deeper perception toward how ER and HRM play a significant role to enhance respective hotel resilience.

This study makes contributions to both academic and practical field by identifying key elements to build hotel resilience, which provides propositions and managerial suggestions to hotel agents and practitioners in China or global hotel industry to have effective disaster management.

Filter Question: Does your study involve Human Participants?

Participants	
Describe the number of participants and specify any inclusion/exclusion criteria to be used	
A total of 20 participants including hotel senior managers (e.g. operation managers, HR managers, Security managers) from three cities (Chengdu, Shenyang and Shenzhen) in China are chosen based on the criteria for selecting participants designed by the researcher and supervisory team, which includes 1) hotel type and location that you manage, 2) your position in the hotel, 3) gender, 4) nationality, 5) prior working experience.	
Do your participants include minors (under 16)?	No
Are your participants considered adults who are competent to give consent but considered vulnerable?	No
Is a Disclosure and Barring Service (DBS) check required for the research activity?	No

Recruitment	
Please provide details on intended recruitment methods, include copies of any advertisements.	
20 participants are recruited by telephone call and emails based on the snowball sampling technique.	
Do you need a Gatekeeper to access your participants?	No

Data Collection Activity	
Will the research involve questionnaire/online survey? If yes, don't forget to attach a copy of the questionnaire/survey or sample of questions.	No
Will the research involve interviews? If Yes, don't forget to attach a copy of the interview questions or sample of questions	Yes
Please provide details e.g. where will the interviews take place. Will you be conducting the interviews or someone else?	
The researcher will conduct online semi-structured interviews via Skype or Go-to-meeting at home in the UK.	
Will the research involve a focus group? If yes, don't forget to attach a copy of the focus group questions or sample of questions.	No
Will the research involve the collection of audio materials?	Yes
Will your research involve the collection of photographic materials?	No
Will your research involve the collection of video materials/film?	No
Will any audio recordings (or non-anonymised transcript), photographs, video recordings or film be used in any outputs or otherwise made publicly available?	No

Will the study involve discussions of sensitive topics (e.g. sexual activity, drug use, criminal activity)?	No
Will any drugs, placebos or other substances (e.g. food substances, vitamins) be administered to the participants?	No
Will the study involve invasive, intrusive or potential harmful procedures of any kind?	No
Could your research induce psychological stress or anxiety, cause harm or have negative consequences for the participants or researchers (beyond the risks encountered in normal life)?	No
Will your research involve prolonged or repetitive testing?	No

Consent

Describe the process that you will be using to obtain valid consent for participation in the research activities. If consent is not to be obtained explain why.

All the participants are informed consent and no risking harm in this research, which means they have their freedom of choice and reserve the right to take part in, reject or withdraw this research. Moreover, the participant information sheet will be provided for potential participants to give them sufficient information to make an informed decision. The nature and aims of this research will be clearly and honestly explained to the participants. Simultaneously, the researcher will clearly describe the benefits for participants and demonstrate the importance of the research. More importantly, all the participants are assured that their identity will be anonymous and data gathered will be maintained privately and backup confidentially in the device of researcher and also stored anonymously that no other people have access to them. If they do decide to take part, they will be given the participant information sheet to keep and be asked to sign a participant agreement form.

Do your participants include adults who lack/may lack capacity to give consent (at any point in the study)?	No
Will it be necessary for participants to take part in your study without their knowledge and consent?	No

Participant Withdrawal

At what point and how will it be possible for participants to exercise their rights to withdraw from the study?

Participants can withdraw from participation at any time during the data collection activities without giving a reason.

If a participant withdraws from the study, what will be done with their data?

If they do decide to withdraw, the researcher will remove any data collected about them from the study. After they decide to withdraw from the study, the researcher will not collect any further information from or about them. As regards information the researcher has already collected before this point, their rights to access, change or move that information are limited. This is because we need to manage their information in specific ways in order for the research to be reliable and accurate.

Participant Compensation

Will participants receive financial compensation (or course credits) for their participation?	No
Will financial or other inducements (other than reasonable expenses) be offered to participants?	No

Research Data

Will identifiable personal information be collected, i.e. at an individualised level in a form that identifies or could enable identification of the participant?	Yes

Please give details of the types of information to be collected, e.g. personal characteristics, education, work role, opinions or experiences

work role, opinions and experiences

Will the personal data collected include any special category data, or any information about actual or alleged criminal activity or criminal convictions which are not already in the public domain?	No
Will the information be anonymised/de-identified at any stage during the study?	Yes
Will research outputs include any identifiable personal information i.e. data at an individualised level in a form which identifies or could enable identification of the individual?	No

Storage, Access and Disposal of Research Data

During the study, what data relating to the participants will be stored and where?	The interviews will be recorded to help the researcher accurately capture the extra information not written down during the interview and to avoid missing any valuable comments to be transcribed during data analysis for a final written thesis. Bournemouth University (BU) is the organisation with overall responsibility for this study and the Data Controller of your personal information, which means that we are responsible for looking after information and using it appropriately. Research is a task that we perform in the public interest, as part of our core function as a university. All the information the researcher collect about participants during the research will be kept strictly in accordance with current data protection legislation (Ethical requirements, Current data protection laws). BU will hold the information we collect about you in hard copy in a secure location and on a BU password protected secure network where held electronically.
How long will the data relating to participants be stored?	The data will be kept for a period of 5 years after completion of the research study. Although published research outputs are anonymised, we need to retain underlying data collected for the study in a non-anonymised form to enable the research to be audited and/or to enable the research findings to be verified.
During the study, who will have access to the data relating to participants?	Personal information which has not been anonymised will be accessed and used only by appropriate, authorised individuals and when this is necessary for the purposes of the research or another purpose identified in the Privacy Notice. This may include giving access to BU staff or others responsible for monitoring and/or audit of the study, who need to ensure that the research is complying with applicable regulations. In any other situations, any data collected from participants will be anonymised in this study if there is no authorisation of participants.
After the study has finished, what data relating to participants will be stored and where? Please indicate whether data will be retained in identifiable form.	We keep copies of signed participant agreements for a long period after completion of the research so that we have records of how we conducted the research and who took part. The only personal information in this documentation will be your name and signature, and we will not be able to link this to any anonymised research results.
After the study has finished, how long will data relating to participants be stored?	Data collected from participants will not be stored longer than the researcher need it. After the researcher is awarded, the data will be erased and destroyed.
After the study has finished, who will have access to the data relating to participants?	Bournemouth University will hold the information collected about participants in hard copy and electronically in a password-protected secure network. Only the research team will have access to the data. After that, the data will be destroyed under Bournemouth University policies, to guarantee the security and safety of data.
Will any identifiable participant data be transferred outside of the European Economic Area (EEA)?	No
How and when will the data relating to participants be deleted/destroyed?	After completion of the research study and the researcher is awarded, the data will be destroyed under Bournemouth University policies, to guarantee the security and safety of data.
Once your project completes, will any anonymised research data be stored on BU's Online Research Data Repository "BORDaR"?	Yes

Dissemination Plans

How do you intend to report and disseminate the results of the study?

Peer reviewed journals, Internal Report, Conference presentation

Will you inform participants of the results?

Yes

If Yes or No, please give details of how you will inform participants or justify if not doing so

Research results will be published in the thesis and may be used to support other research projects in the future, including future publications, reports, or presentations. Data collected from participants will not be able to be identified in any reports or publications about the research without their specific consent. Otherwise your information will only be included in these materials in an anonymous form, i.e. you will not be identifiable.

Final Review**Are there any other ethical considerations relating to your project which have not been covered above?**

No

Risk Assessment**Have you undertaken an appropriate Risk Assessment?**

Yes

Attached documents

Participant agreement form-V1.docx - attached on 06/04/2020 23:52:31

Participant information sheet-V2.doc - attached on 06/04/2020 23:52:37

Interview Guide v2.docx - attached on 06/04/2020 23:52:42