

Disaster And Risk Reduction Practices Among Employees of Accredited Hotels and Restaurants in Batangas Province: Basis for Disaster Management Plan

Ms. Greslie Gail A. Pepito LPT, MIHM¹, Ms. Sofia April Hernandez MIHM, CHP, CGSP²
gresliegail.atijon@ub.edu.ph¹, sofiaapril.hernandez@ub.edu.ph²
Orchid Id Number: 0000-0001-9833-5789²

Abstract

Disaster risk reduction and management plans are beneficial for hotels and restaurants in Batangas Province. This study aims to evaluate the disaster and risk reduction practices of the accredited hotels and restaurants in Batangas Province. The researchers utilized exploratory sequential method of research, using researcher-made questionnaire to 253 employees and managers of 21 accredited hotels and restaurants in Batangas selected through simple random sampling. The statistical tools used are frequency, percentage, weighted mean, composite mean, Pearson-r and ranking to analyze and interpret the data gathered. Findings reveal that the majority of the respondents are female, between 21-30 years old, and most employees are working in the industry are single, while in terms of business, the majority of the businesses is 16-20 years in operation. Moreover, majority of the respondents are in permanent position as well. Prevention, assessment, analysis, and monitoring of community-based scientific disaster risk reduction and management was identified to be practiced in great extent by the respondents, while in terms of preparedness, providing the employees with the required skills and capabilities to deal with calamities is identified to be practiced with great extent. Additionally, in terms of response, respondents identified search, rescue and retrieval capacity to be practiced in great extent while during recovery period, respondents identified stimulate economic activity and enhance or extend it if possible, as at most practiced indicator. Furthermore, inadequate emergency funds is one of the difficulties they encountered when dealing with disaster risk and reduction measures during emergencies. Employees showed strong awareness of search and rescue practices during disasters, but there is a need for better mental health support. Recovery efforts focused on stimulating economic activity, indicating an understanding of the importance of recovery planning. A significant challenge remains the lack of disaster literacy, and preparedness is positively correlated with the number of years in business. Hence, the researchers recommended disaster management plan to address the difficulties encountered by the employees in practicing disaster risk and reduction measures.

KEYWORDS: *Disaster Risk Reduction Practices, Disaster Management Plan, Prevention, Preparedness, Response, Recover*

1.) INTRODUCTION:

Hotel and restaurant industry development has evolved into a major undertaking that not only generates revenue but also has an impact on people's lives. This aided the rapid growth witnessed in many countries throughout the world, as well as a few industry-related difficulties. On both domestic and international levels, the hotel and restaurant industries have been declared viable.

However, hotel and restaurant industry development is greatly influenced by a variety of variables and factors, including ambient ones that are unrelated to this industry. Natural catastrophes and unforeseen occurrences are ideal examples of such deciding variables, as they have far-reaching consequences on individuals and society, and hence have the ability to alter the hotel and restaurant establishment flow significantly.

Earthquakes, volcanic eruptions, tsunamis, floods, wildfires, storms, droughts, and extreme weather events have all happened in the past. These occurrences are part of larger adaptive measures that humans have learned to handle and cope with. However, according to Ruane (2022), crises can take many forms, including natural disasters, data breaches, terrorism, or, as we're currently experiencing, a severe pandemic. Each crisis brings financial implications for organizations, whether through property damage or decreased sales. Additionally, there are intangible costs, like reputational harm, which can take years to recover from.

The type of disturbance and the resilience of the afflicted system determine the form and intensity of the consequences (OECD, 2014). Borbon et al. (2022) stressed that having contingency plans is essential for unexpected situations. Restaurant managers should develop effective strategies to create a safe

environment for both employees and customers. Restaurant staff must prioritize their health and safety to provide the best service possible. Additionally, local governments should consistently monitor restaurants to ensure they remain safe spaces for everyone. Unsurprisingly, risk management and catastrophe mitigation and practices are becoming topics of concern in tourism and business studies.

Meanwhile, hotels and restaurants, just like any other type of business can be affected by natural catastrophes in a particular place, with serious and long-term implications. The hotel and restaurant industries are particularly vulnerable to property loss or full destruction. Apart from the physical harm, there is also the economic danger that the tourism sector would suffer as travelers avoid disaster-affected areas. As a result, hotels and restaurants in disaster-prone locations must guarantee that they are resilient enough to survive the turbulence until normal business levels resume.

Polinar et al. (2023) found that the risk management process among establishments showed a "slightly high level" of implementation, indicating vulnerability to risks that could harm the organization. Companies should not underestimate any risks, regardless of their severity or likelihood, as all present potential threats. If risks are not effectively managed, they can worsen or increase in probability. Additionally, a comprehensive risk management plan is necessary to establish a more structured and systematic approach. Those disastrous impacts cannot be prevented, but they may be reduced if disaster and risk measures are properly practiced, saving property and, most importantly, human lives. Natural catastrophes can also be mitigated if they are effectively controlled. With numerous types of risks, restaurant safety and security are critical in preventing death and injury for guests and personnel, while guests' safety is a top priority.

Managers have been driven to think more deliberately because of these negative events. They understood the need to adhere to disaster prevention rules, regulations, and practices to make their hotels and restaurants more resilient, as well as develop internal processes to ensure the safety of guests and staff. However, not all managers are aware of this, therefore companies' resilience, awareness, and practices in the face of natural catastrophes vary.

Moreover, training and seminar on disaster management is vital. Tsai et al. (2020) aimed to develop an effective measure of hotel staff literacy in disaster prevention. The research was conducted in two stages. First, in-depth interviews and two rounds of the modified Delphi method were utilized to identify the items and dimensions of hotel disaster prevention literacy, resulting in four key dimensions: disaster prevention knowledge, attitude, skills, and services. In the second stage, a one-group pretest-posttest experimental design assessed the effectiveness of disaster prevention training for hotel staff using the developed literacy scale. The findings showed that participants in the training demonstrated a significantly higher level of disaster prevention literacy across all four dimensions compared to those who did not participate. These results offer valuable theoretical and practical insights for disaster prevention management in the hotel industry.

Training hotel staff in disaster management is crucial for several reasons. First, it equips employees with essential knowledge and skills, enabling them to respond effectively during emergencies. Training significantly improved disaster prevention literacy across key dimensions, highlighting the effectiveness of structured training programs. Moreover, well-trained staff can foster a proactive disaster prevention attitude, ensuring a safer environment for both guests and employees. This preparedness not only enhances operational resilience but also strengthens the hotel's reputation and trustworthiness in the eyes of customers. Investing in staff training on disaster management is vital for maintaining safety standards and effectively managing risks within the hospitality industry.

Furthermore, according to section 27 of the Disaster Management Act of 2002, the objectives of these directions is to establish an environment that combats and mitigates the spread of COVID-19, for the benefit of employers, employees, guests, visitors, passengers, and customers in the following tourism sectors such as restaurants, fast food outlets and coffee shops, lodges, bed and breakfast, time-share facilities and resorts and guest houses. This also discusses the steps necessary to prevent an escalation of the disaster or to alleviate, contain, and minimize the effects of the disaster.

Moreover, in a disaster-prone country like the Philippines, much is expected from the local governments, which are considered the core of a community. A local government unit (LGU) remains integral across phases – before, during, and after disasters – as mandated by the Local Government Code of 1991. It outlined the basic roles of the local government in facilitating the community during a disaster. The LGU must be able to assess the vulnerabilities of the area and its constituents and instill basic knowledge of natural disasters and their possible impacts. They also conduct an information and education campaign

(IEC) on disaster mitigation, coordinate with officials in charge of planning, construction, health, and welfare, (5) conduct first-aid training, partner with educational institutions to broaden awareness and support existing knowledge and build evacuation centers and determine safe locations for those affected. According to the Pandemic and All-Hazards Preparedness Act of 2006, this bill gives the Department of Health the mandate to undertake measures, such as evaluation, planning, organizing, and training, to improve national preparedness for public health emergencies. It also improves the nation and tourism industry's public health and medical preparedness and response capabilities for emergencies, whether deliberate, accidental, or natural.

With this, the Philippine government established policies, frameworks, and event strategic plans concerning Disaster Risk Reduction (DRR), through which focuses on resilience can be grounded. One of the founding legal laws concerning disaster management is the DRRM Law commonly known as the Philippine Disaster Risk Reduction and Management Act of 2010. This act establishes local councils at the regional, provincial, municipal, as well as community levels that replicate the National Disaster Risk Reduction and Management Council's (NDRRMC) responsibilities. resort management must consider various factors in disaster risk preparedness and the challenges they face in addressing potential hazards. Effective disaster risk management requires strong coordination and communication among key tourism players, necessitating the development of a comprehensive directory of these stakeholders for emergency situations. However, this is complicated by the fact that local councils are often understaffed and lack professionalization, highlighting a significant gap in oversight capabilities across the Philippines. This underscores the need for better collaboration and support systems to enhance disaster preparedness in the tourism sector (Estores and Sangat, 2023).

The study is heavily guided with Disaster Preparedness Theory (Lindell & Prater) which emphasizes the importance of proactive measures in preparing for potential disasters. It focuses on understanding risk perceptions, developing clear emergency plans, and conducting regular training and drills to ensure staff readiness. By engaging with local communities, hotels can foster collaboration and enhance overall preparedness, ultimately minimizing the impact of disasters on their operations and guests. Additionally, Crisis Management Theory (Coombs) examines how organizations respond to crises to protect their reputation and maintain stakeholder trust. This theory highlights the significance of timely and transparent communication during a crisis, employing appropriate response strategies based on the situation. By prioritizing reputation management and conducting post-crisis evaluations, hotels can not only navigate immediate challenges but also strengthen their resilience and improve future preparedness efforts.

As for the conceptual framework, as an input of the study, this study begins with a thorough assessment of the respondents' profiles, including sex, age, civil status, years in business, years in service, and employment position. Additionally, it evaluates the extent of employees' disaster and risk reduction practices across key emergency management measures: prevention, preparedness, response, and recovery. By gathering this data through a researcher-made questionnaire, the framework establishes a solid foundation for analyzing the current state of disaster management within the hotel context. For the output of the study, the analysis aims to identify significant correlations between employees' disaster and risk reduction practices and their demographic profiles. This led to a deeper understanding of the difficulties encountered in implementing these measures. Ultimately, the findings informed the development of a comprehensive disaster management plan designed to address identified challenges and enhance the effectiveness of risk reduction practices within the hotel environment, ensuring the safety and resilience of both employees and guests.

In this matter, the researchers are prompted to conduct this study to evaluate the disaster and risk reduction practices and resilience of the accredited hotels and restaurants in Batangas Province. The results of the study gathered upon data gathering served as bases for developing a disaster management plan and eventually help them to strategically improve their response to any possible disaster, and address the difficulties encountered in practicing the disaster and risk reduction measures.

This study generally aims to evaluate the disaster and risk reduction practices of accredited hotels and restaurants in Batangas Province. The results of the study was used as the basis for developing a disaster management plan.

It specifically seeks to achieve the following objectives:

1. Identify the profile of respondents in terms of:
 - 1.1. sex;

- 1.2. age;
- 1.3. civil status;
- 1.4. number of years in the business;
- 1.5. number of years in the service; and
- 1.6. employment position.
2. Evaluate the extent of the employees' disaster and risk reduction practices relative to the emergency management measures such as:
 - 3.1. prevention;
 - 3.2. preparedness;
 - 3.3. response; and
 - 3.4. recovery.
3. Assess the significant correlation between the extent of the employees' disaster and risk reduction practices when grouped according to the profile variables.
4. Determine the difficulties encountered by the respondents in practicing the disaster and risk reduction measures.
5. Propose a disaster management plan to address the difficulties encountered in practicing the disaster and risk reduction measures.

2.) METHODS AND METHODOLOGY:

The researchers used the exploratory sequential method of research in the collection of data to answer the questions concerning the status of the study. This method involves the procedure of initially gathering qualitative data to explore a phenomenon and then collecting quantitative data to explain relationships found in the qualitative data. According to Fetters, Curry, and Creswell (2013), an exploratory sequential design is a mixed method study design, where the quantitative phase of data collection and analysis follows the qualitative phase of data collection and analysis.

This research undertaking involved the participation of the employees and managers of 21 accredited hotels and restaurants in Batangas Province. There are 922 employees and managers as its total population. From this, the main sample size is 253, which was computed using a Raosoft sample size calculator with a 5% margin of error. The said sample size served as the main respondents who answered the research instrument to gather the necessary data for this study. Furthermore, the main participants from the sample size were identified using simple random sampling, which is a subset of a statistical population where each member of the subset has an equal probability of being chosen. A simple random sample is meant to be an unbiased representation of a group.

Moreover, the researchers used a self-made questionnaire as the major data-gathering instrument. This served as the main tool to generate data necessary for this research study. This questionnaire covered three important parts such as the profile of respondents, the extent of employees' disaster and risk reduction practices, and the difficulties encountered by the respondents in practicing the disaster and risk reduction measures (4 - Great Extent; 3 - Moderate Extent; 2 - Slight Extent; 1 - Least Extent). To assess the difficulties encountered by respondents in practicing disaster and risk reduction measures, a Likert scale was utilized, with values ranging from 1 to 4. Respondents will rate their experiences, where a score of 4 indicates "Strongly Agree" that a significant challenge exists, reflecting substantial barriers to effective implementation. To assess the difficulties encountered by respondents in practicing disaster and risk reduction measures, a Likert scale will be utilized, with values ranging from 1 to 4. Respondents will rate their experiences, where a score of 4 indicates "Strongly Agree" that a significant challenge exists, reflecting substantial barriers to effective implementation.

The researchers prepared a survey for the study's quantitative component, with weights allocated to the quantitative information on the participants' perceptions of their understanding of the course material. The quantitative phase came after the qualitative phase, focusing more on the challenges faced by the respondents in the disaster and risk reduction measures. A copy of the questionnaire was sent to different internal and external validators to ensure its validity. After the validation process, the instrument was sent to all the respondents through Google form for ease of distribution and accessibility.

The researcher made sure to provide the respondents with the informed consent form discussing the purpose of the study, duration of their participation, procedures, discomforts and inconveniences, and the risks and benefits of their participation. The research protocol was followed for the appropriate review before data gathering. All the data gathered were not disclosed to any person, solely for research purposes,

and strictly adhered to the ethical standards of the Data Privacy Act of 2012. For those respondents who are non-compliant, follow-up procedures and reminders were provided, however, those who don't want to participate were respected. Therefore, researchers explained and encouraged others to participate, and the benefits of their participation. Moreover, in terms of collusion, the researchers made sure to explain to the respondents the importance of honesty in their responses, and their responses generally help in arriving at a reliable and definite answer/result.

The statistical tools used are frequency, percentage, weighted mean, composite mean, Pearson-r, and ranking to analyze and interpret the data that gathered. To analyze the data collected from the respondents, various statistical tools will be employed to provide a comprehensive understanding of the findings. First, frequency and percentage were used to profile the respondents by sex, age, civil status, years in business, years in service, and employment position, allowing for a clear demographic overview. Following this, weighted mean and composite mean evaluated the extent of employees' disaster and risk reduction practices across the four emergency management measures: prevention, preparedness, response, and recovery. To explore relationships between the extent of these practices and respondent profiles, Pearson correlation (Pearson-r) assessed significant correlations, providing insights into how demographic factors influence disaster management behaviors. Lastly, ranking identified the most pressing difficulties encountered by employees in implementing disaster and risk reduction measures, enabling targeted interventions for improvement. This multifaceted approach ensured a robust analysis of the data, supporting the research objectives effectively.

3.0 RESULTS AND DISCUSSION

In today's world, where unforeseen disasters and emergencies can strike at any moment, the importance of disaster and risk reduction practices cannot be overstated. For industries closely tied to hospitality, such as hotels and restaurants, the need for comprehensive preparedness and safety measures is particularly critical. These establishments not only house and serve guests but also employ a substantial workforce. Consequently, ensuring the safety of employees, and visitors, and the continuity of business operations during times of crisis is of paramount importance.

Profile of the Respondents

Table 1.1 Profile of the Respondents in Terms of Sex

Sex	Frequency	Percent	Rank
Female	143	56.5	1
Male	110	43.5	2
Total	253	100.0	

Table 1.1 presents the profile of the respondents in terms of sex. Based on the table, a total of 253 respondents shows that the majority of the respondents are female workers which ranks first with a percentage of 56.5% while male workers got a percentage of 43.5%. The sample demographics show that more women are working in the hospitality industry than men. In the first two decades of the 21st century, the percentage of women working in the hotel sector rose to nearly 70%, according to Aynalem et al., (2016). Like this, Petrovic et al. (2014) discovered that the gender mix of workers in the hotel business has significantly altered, and the number of women working in this industry is rising, following numerous periods of organizational shift. Notably, the profile of respondents is relevant to the focus of the study because it provides essential context for understanding how demographic factors, such as sex, influence disaster risk reduction practices within the hospitality industry. Analyzing these profiles helps identify trends and potential disparities in preparedness and response measures among different groups of employees.

Table 1.2: Profile of the Respondents in terms of Age

Age	Frequency	Percent	Rank
20 below	32	12.6	5
21 - 30	66	26.1	1
31 - 40	42	16.6	3
41 - 50	55	21.7	2
51 - 60	37	14.6	4

61 and above	21	8.3	6
Total	253	100.0	

Table 1.2 presents the profile of the respondents in terms of age. Based on the results, 26.1% or 66 of the respondents were between the age of 21-30 years old, next was 41-50 years old with a total percentage of 21.7% or 55. While 31-40-year-olds got a total percentage of 16.6% or 42. Moreover, 51-60 years got a percentage of 14.6% or 37, and lastly, 61 years old and above only accounts for 8.3% or 21 of the total respondents. The ratio of younger workers to older workers in the hospitality industry can be attributed to various factors, which combine to create a distinct demographic composition within this sector. Entry-level positions, seasonal nature, physical demands, flexibility in the workforce, and compensation opportunities can be some of the factors. Age diversity in the hospitality industry, like in any other sector, can bring both advantages and challenges. Younger workers bring energy and fresh perspectives, while older workers contribute valuable experience and stability. Cabuga et al. (2023) indicated a strong relationship that age is an important factor in influencing disaster management.

Similarly, Galzote and Castino (2023) revealed that there was a proportional number of male and female respondents of which majority of them belong to adult aged group. The age profile of respondents is crucial for understanding the dynamics within the hospitality industry, as it reflects a workforce primarily composed of younger individuals, with 26.1% aged 21-30. This predominance of younger workers can influence disaster risk reduction practices, as they may be more adaptable and open to new training methods, while older employees offer valuable experience and stability, creating a balanced workforce that can enhance emergency preparedness and response. Furthermore, the age diversity noted in the findings aligns with the trends observed by Galzote and Castino (2023), indicating a proportional representation of male and female respondents within adult age groups. This demographic composition not only enriches the hospitality environment but also underscores the importance of tailoring disaster management strategies to cater to the varied perspectives and capabilities of employees across different age groups, ultimately leading to more effective risk reduction practices.

Table 1.3: Profile of the Respondents in terms of Civil Status

Civil Status	Frequency	Percent	Rank
Single	108	42.7	1
Married	67	26.5	2
Divorced	2	8	5
Separated	53	20.9	3
Widowed	23	9.1	4
Total	253	100.0	

Table 1.3 presents the profile of respondents in terms of civil status. It can be gleaned from the table below that single workers ranked first with 42.7% or 108, while married workers ranked second with 26.5% or 67. It was also shown that separated workers account to 20.9% or 53 and widowed workers account to 9.1% or 23 of the total respondents. Meanwhile, divorced workers are 8% of the total population which is 2. It is essential to note that the hospitality industry does employ workers of all marital statuses. However, some factors might affect this, contributing to a higher proportion of single individuals working in this sector.

Remarkably, Garingan (2021) found out that age, civil status, ethnic affiliation and occupation affects the disaster preparedness and management in case of emergencies. Additionally, the findings align with Garingan's (2021) assertion that civil status influences disaster preparedness and management. The varied civil statuses within the workforce imply that different support systems and motivations may exist among employees. For instance, single workers may have fewer personal obligations, allowing them to engage more actively in preparedness initiatives, while married or separated individuals might face additional challenges that could affect their participation. Understanding these dynamics is essential for developing targeted training and support programs that accommodate the diverse needs of all employees in the hospitality sector.

Table 1.4: Profile of the Respondents in terms of Number of Years in Business

Number of years in business	Frequency	Percent	Rank
1 – 5	43	17.0	3
6 – 10	59	23.3	2
11 – 15	41	16.2	4
16 – 20	67	26.5	1
21 – 25	26	10.3	5
26 above	17	6.7	6
Total	253	100.0	

Table 1.4 presents the profile of the respondents in terms of number of years in business. As shown in the table below, 16-20 years in business ranks first with a percentage of 26.5% or 67, next is 6-10 years with a percentage of 23.3% or 59. Meanwhile, 17%, or 43 rank third with 1-5 years in business while 16.2% or 41 for 11-15 years in business. The table also reveals that 10.3% or 26 were 21-25 years in business and 6.7% or 17 were 26 and above years in business. Based on the results, it can be gleaned that most of the hotels and restaurants in Batangas have been in operation for about 16-20 years already, whereas some have already been in operation for more than 25 years. It's a good indicator that these establishments were able to operate for that long means it has an effective management strategy that is working with their targeted market in the province. Many factors might contribute to this which helps them to stay in the business for this long.

According to Zhang and Enemark (2016) business performance, as determined by employee turnover, is impacted by several factors, including firm internal dynamics, external demand and economic conditions, geographic location, and agglomeration. The findings demonstrate a positive relationship between the business performance of hotels and restaurants and conventional explanatory variables, including profits, level of investment of firms, the productivity of hotels and restaurants within their respective regions, and firm concentration.

Table 1.5: Profile of the Respondents in terms of Number of Years in Service

Number of years in service	Frequency	Percent	Rank
1 – 5	68	26.9	1
6 – 10	55	21.7	3
11 – 15	62	24.5	2
16 – 20	42	16.6	4
21 – 25	18	7.1	5
26 above	8	3.2	6
Total	253	100.0	

Table 1.5 presents the profile of the respondents in terms of years in service. It was revealed in the table below that 1-5 years got 26.9% or 68 ranks first while 11-15 years got 24.5% or 62 and ranked second. On the other hand, 6-10 years rank third and got 21.7% or 55 while 26 years and above got 3.2% or 8. It is clear based on the results that most of the respondents have been in the industry for 1-5 years already and 11-15 years. Being with an employer for this period may show that the respondents were enjoying their work life, or they were given a good salary and benefits in their present jobs to stay for that long. Many factors may contribute to employee retention. As stated by Halim et.al. (2020), findings show that factors that significantly affect employee retention include the work environment, income, supervisor support, rewards and recognition, and work performance. Ritter et.al. (2011) mentioned that a workplace with a culture that values professional development, effective communication among coworkers, and leadership as well as a good work atmosphere is necessary for keeping staff.

Profiling respondents in terms of years in service is crucial for effective disaster management within the hospitality industry. Understanding the tenure of employees helps identify varying levels of experience and familiarity with disaster protocols, which can influence preparedness and response capabilities. For instance, newer employees (1-5 years) may require more training and guidance, while those with longer service (11-15 years) might possess valuable insights into past incidents and established practices. This information allows management to tailor training programs and emergency drills to address the specific needs of different employee groups, enhancing overall organizational resilience.

Additionally, profiling contributes to understanding employee retention factors, which are vital in maintaining a knowledgeable workforce during emergencies. As highlighted by Halim et al. (2020), aspects such as work environment, supervisor support, and professional development play significant roles in employee satisfaction and retention. By fostering a supportive workplace culture, organizations can ensure that employees remain engaged and committed to disaster risk reduction practices. This retention ultimately leads to a more prepared and responsive team, capable of effectively managing crises and ensuring the safety of both staff and guests.

Table 1.6: Profile of the Respondents in terms of Employment Position

Employment Position	Frequency	Percent	Rank
Part-time	16	6.3	4
Full - time	52	20.6	2
Probationary	26	10.3	3
Permanent	159	62.8	1
Total	253	100.0	

Extent of Employees' Disaster and Risk Reduction Practices

Table 2.1 Extent of Employees' Disaster and Risk Reduction Practices Relative to Emergency Management Measures such as Prevention

Prevention	WM	VI	Rank
1. Enhance building construction and design choices	3.21	GE	2
2. Assess, analyze, and monitor community-based scientific disaster risk reduction and management, as well as the environmental adaptation	3.22	GE	1
3. Perform hazard operational procedures	3.12	GE	5
4. Create public awareness initiatives	3.06	GE	7.5
5. Create disaster preparedness and literacy initiatives	3.07	GE	6
6. Improve resiliency of infrastructure systems	3.03	GE	10
7. Make infrastructural or service enhancements	3.05	GE	9
8. Reduce disaster risk and prepare for climate change through	3.14	GE	4

development strategies, plans, and budgets			
9. Improve monitoring, forecasting and hazard warning	3.06	GE	7.5
10. Provide effective and useful disaster risk financing and insurance	3.15	GE	3
Composite Mean	3.19	GE	

Legend: 4 - Great Extent; 3 - Moderate Extent; 2 - Slight Extent; 1 - Least Extent

Table 2.1 presents the extent of employees' disaster risk and reduction practices in terms of prevention. Based on the table below, assess, analyze, and monitor community-based scientific disaster risk reduction and management, as well as the environmental adaptation ranks first with a weighted mean of 3.22, while enhanced building construction and design choices rank second with a weighted mean of 3.21 where both statements were verbally interpreted great extent. Both statements have almost the same gravity on the respondents which shows that assessing first and analyzing community risk reduction management plans is a proactive approach among employees to prevent disasters. It empowers employees and business owners to understand and mitigate risks, adapt to their environment, and build resilience, ultimately reducing the impact of disasters.

As supported by the study of Hemachandra et al. (2021), a disaster management strategy is supported with scientific data for estimating disaster risks for all hazards. An emergency plan makes sure that staff members have ample time to learn procedures and follow all the plan's instructions. Building an emergency plan and preparing beforehand can assist in minimizing property damage, avoiding injuries, and even saving lives.

Moreover, reducing disaster risk and preparing for climate change through development strategies, plans, and budgets ranks fourth with a weighted mean of 3.14 while performing hazard operational procedures ranks fifth with a weighted mean of 3.12, where both statements are verbally interpreted to a great extent. This shows that respondents practice with great extent these hazard operational procedures which encompass risk identification, preventive measures, training, monitoring, stakeholder engagement, and business continuity. When effectively implemented, can significantly reduce the associated disasters in the hospitality industry. Likewise, Tayco (2021) revealed that that most of the respondent's self-efficacy belief in their preparedness for a disaster is very satisfactory. The respondents have confidence in their capabilities to act on their preparedness before, during, and after the disaster. That is, those respondents who have a higher level of self-efficacy are more likely to prepare for disasters and believe that they will respond effectively in a disaster situation.

On the other hand, the least weighted mean of 3.03 is improved resiliency of infrastructure systems with a verbal interpretation of great extent. This means that respondents are less likely to practice this in the hospitality industry. Brown et al. (2017) concluded that Resilience to disasters in the hotel industry refers to the organization's ability, alongside its stakeholders, to evaluate, innovate, adapt, and manage potential disruptions caused by disasters. Building disaster resilience involves implementing risk reduction strategies that include both structural and non-structural analyses, addressing operational and service factors from a comprehensive hazard perspective, along with preparedness measures. It's essential to critically evaluate the sustainability of hotel policies and actions. Enhancing resilience involves developing adaptive capacities, fostering flexible organizations, and cultivating a workplace culture that encourages self-efficacy, innovation, and challenges existing norms. To effectively build resilience, the involvement of all stakeholders at every level is crucial, as collaborative idea exchanges enhance social capital and strengthen overall resilience.

Finally, the results showed a composite mean of 3.19 and verbally interpreted great extent. This indicates that employees of hotels and restaurants in the province of Batangas practice preventive measures when it largely comes to disaster risk and reduction practices. Preventive measures for disaster risk and reduction are critically important for employees of hotels and restaurants because they can help reduce the likelihood of and severity of disasters. This is also integral to the safety, financial sustainability, and

reputation of hotels and restaurants. These practices not only protect lives and assets but also fulfill the duty of the industry to prioritize safe community engagement. According to Ritchie (2009), all tourism organizations must evaluate their vulnerabilities and dangers, with a growing emphasis on planning and prevention as opposed to the more typical emphasis on response and recovery measures. Businesses must think about how they are increasing or producing risks and take steps to reduce these consequences. Estores and Sangat (2023) similarly concluded that Resort management must take various factors into account for disaster risk management preparedness, as well as the challenges they may face when preparing for hazards. To effectively manage disaster risks, resort management should ensure strong coordination and communication among key tourism stakeholders by creating a comprehensive directory of these players to assist during emergencies.

Table 2.2 presents the extent of employees' disaster risk and reduction practices in terms of preparedness.

As presented in Table 2.2 it can be deduced that the statement provides the employees with the required skills and capabilities to deal with calamities got the highest weighted mean of 3.33 and verbally interpreted to a great extent ranked first. It was followed by the statements deciding the correct fire exits and evacuation routes and collaborating to local DRRM Councils and Offices at all levels to manage disaster risk and adapt to climate change tied up to the second rank with a weighted mean of 3.32 and verbally interpreted great extent. This means that employees highly regard the importance of providing skills development in the industry to prepare themselves in the event of disasters. It can also be gleaned from the study that collaboration within the local DRRM units is practiced to a great extent by the employees. The collaboration between the industry and the community creates preparedness benefits not only to the individual organization but to the broader community as well. Disaster risk management preparedness in the tourism industry is significant for social change, reducing disaster-induced fear and removing the adverse effects of crises on the lives of individuals and communities (Todman-Lewis, 2017).

Table 2.2 Extent of Employees' Disaster and Risk Reduction Practices Relative to Emergency Management Measures such as Preparedness

Preparedness	Mean	VI	Rank
1. Provide the employees with the required skills and capabilities to deal with calamities	3.33	GE	1
2. Learn CPR and basic first aid techniques	3.28	GE	4.5
3. Decide the correct fire exits and evacuation routes	3.32	GE	2.5
4. Collaborate to local DRRM Councils and Offices at all levels to manage disaster risk and adapt to climate change	3.32	GE	2.5
5. Train staff and employees how to use a fire extinguisher and where they may get one	3.25	GE	8
6. Improve awareness and capacity to deal with disaster hazards, threats, and effects	3.26	GE	6.5

7. Boost collaboration and coordination between all major parties and stakeholders	3.26	GE	6.5
8. Determine safe locations for each form of calamity	3.22	GE	9
9. Build an emergency supply kit	3.28	GE	4.5
10. Formulate policies, plans, and processes for complete readiness and response	3.18	GE	10
Total Weighted Mean	3.33	GE	

Legend: 4 - Great Extent; 3 - Moderate Extent; 2 - Slight Extent; 1 - Least Extent

To respond quickly to disasters and during the event in developing and putting into practice marketing strategies to accelerate tourism to promote medium- and long-term recovery, Orchiston and Higham (2016) stressed the necessity of management and knowledge as well as for effective cooperation and communication between agencies. This emphasizes the critical role that marketing-based initiatives must play in the rebuilding process and ongoing efforts to reduce indirect tourism losses outside of the disaster zone. Furthermore, Yasar and Pratt (2023) mentioned that to increase knowledge and enhance security awareness among its members and constituents, including management and staff, training should be made available to individuals. To aid in the dissemination of knowledge on preventative measures against current or impending tragedies, announcements must be made. Rules for the efficient application and fusion of security instruments for incident detection and prevention are needed. It is necessary to create a cooperative connection with other organizations, including law enforcement, service providers, and telephone companies.

Moreover, statements 'learn CPR and basic first aid techniques and Build an Emergency Supply Kit ranked third and fourth and both got a weighted mean of 3.28 and were verbally interpreted great extent. This means that the respondents are practicing to a great extent the basic first aid techniques and building emergency supply kits in preparation for unprecedented events and calamities. It is an integral component of a comprehensive safety and disaster preparedness strategy in the hotel and restaurant industry. It contributes to the safety of the guests, and employees, and the organization's ability to respond effectively to a wide range of emergencies. Meanwhile, improving awareness and capacity to deal with disaster hazards, threats, and effects and boost collaboration and coordination between all major parties and stakeholders ranks six and seven respectively with a weighted mean of 3.26 and verbally interpreted great extent. Working in an industry that caters to services to people needs greater attention and awareness, especially in dealing with hazards and threats in the environment. Practicing coordination and building collaboration within the community leads to improved safety, efficiency, and service quality and a great community engagement can help the industry better meet the needs of the guests and employees as well. On the other hand, determining safe locations for each form of calamity ranks ninth with a weighted mean of 3.22 while formulating policies, plans, and processes for complete readiness and response got the lowest weighted mean of 3.18. Both largely have verbal interpretations. Based on the result, it was revealed that respondents are not familiar with places or locations around the vicinity that will serve as safe locations during calamity. This can be an indicator that establishments lack this aspect of being prepared during disaster planning considering, that this is a big factor when it comes to emergency preparation. Determining the safest place that individuals will be evacuated during emergencies. On the other hand, respondents also revealed that when it comes to formulating policies and plans for complete readiness and response is not something that they practice as part of the organization. More commonly than not, establishments have their planned layout without the participation of the employees. As stated by Wisner (2006), although disaster education is beneficial at every stage of a crisis, its influence is greatest when it comes to preparedness. Thus, at this point, more educational preparation ought to be considered.

Disaster education when it comes to preparedness is very important. Moreover, UNISDR (2009), stated that To help national governments and communities manage the risks of ongoing threats from natural and intentional hazards, disaster prevention and preparedness measures and techniques, such as risk assessment and interdisciplinary management strategies at all system levels, are essential.

In conclusion, the result showed a composite mean of 3.33 and was verbally interpreted great extent. The hotel and restaurant industry is a dynamic and ever-evolving sector that faces an array of challenges, some of which are beyond its control. Disasters and calamities, ranging from natural events like earthquakes and typhoons to health crises like pandemics, can strike at any time posing a significant threat to the industry's operations. In this context, preparedness is not merely a prudent approach but an imperative, a lifeline that ensures the industry's resilience, and its ability to protect lives, safeguard assets, and maintain business continuity. Edbauer (2016) acknowledged that comprehensive training in various aspects of emergency and disaster management is essential for enhancing the resilience of hotels and resorts. The key outcome of the training needs analysis was the creation and validation of an outline for core and advanced training programs in emergency and disaster risk management. This outline is designed to strengthen the capacity of hotels and resorts to prepare for, respond to, and recover from disasters. It includes 19 training activities divided into six components: first response, fire safety, evacuation, disaster risk management, crisis communication, and business continuity planning.

Table 2.3 Extent of Employees' Disaster and Risk Reduction Practices Relative to Emergency Management Measures Such as Response

Based on the table below, it can be gleaned that maintaining a physical and mental state of the workforce ranks first with a weighted mean of 3.38 followed by performing search and rescue efforts and evacuations rank second with a weighted mean of 3.35, where both statements verbally interpreted great extent. This means that employees regard the importance of being physically and mentally ready for calamities and disasters were preparing themselves both in terms of physical fitness and mental resilience top effectively cope with and respond to disasters and emergencies. Practicing proactive measures to ensure both body and mind are prepared to face unexpected distressing situations.

Table 2.3 presents the extent of employees' disaster risk and reduction practices in terms of response.

Response	Mean	VI	Rank
1. Maintain a physical and mental state of the workforce	3.38	GE	1
2. Boost food system resilience during disasters and calamities	3.30	GE	5
3. Perform search and rescue efforts and evacuations	3.35	GE	2
4. Assist with medical emergencies	3.31	GE	3
5. Assess needs and damages at all levels	3.29	GE	7
6. Provide temporary shelter and assistance	3.26	GE	9
7. Adhere to a well-established disaster response procedure	3.27	GE	8
8. Provide affected employees access to basic social services	3.30	GE	5
9. Evacuate affected establishments in a safe and timely manner	3.30	GE	5

10. Integrate search, rescue, and retrieval capacity	3.24	GE	10
Total Weighted Mean	3.36	GE	

Legend: 4 - Great Extent; 3 - Moderate Extent; 2 - Slight Extent; 1 - Least Extent

Furthermore, assisting with medical emergencies ranked third with a weighted mean of 3.31, and boosting food system resilience during disasters and calamities, evacuating affected establishments in a safe and timely manner, and providing affected employees access to basic social services got a weighted mean of 3.30 and verbally interpreted great extent. Unprecedented disasters and calamities need an immediate and quick response. This means that respondents are largely doing this practice. Evacuation plans given to communities and stakeholders are very important to safeguard the community in times of disaster. Hotels and restaurants need to give importance to this matter as well to ensure the safety of the clients and other stakeholders.

Meanwhile, providing temporary shelter and assistance and integrating search, rescue, and retrieval capacity got the lowest weighted mean of 3.26 and 3.24 respectively, and verbally interpreted great extent. The respondents take into consideration the importance of being ready in times of disasters and emergencies, and it conveys the commitment to offering immediate support in the form of both shelter and aid. But this matter needs to be under the management initiative on how far the establishment can go when it comes to responding to the needs of the community.

In conclusion, the result revealed a composite mean of 3.36 and was verbally interpreted great extent. Employees active involvement and response in disaster risk and reduction practices is not just a matter of safety and compliance but it is a strategic imperative for the hospitality industry. It ensures the protection of lives, properties, and reputation, while also fulfilling the responsibility of these establishments as responsible community members. Emergency preparedness and the pressing need for better. The results indicated a composite mean of 3.36, interpreted as a "great extent," demonstrating that employees are actively involved in disaster risk reduction practices. This active engagement is essential not only for safety and compliance but also as a strategic necessity for the hospitality industry. By prioritizing disaster preparedness, organizations protect lives, safeguard assets, and maintain their reputations while fulfilling their responsibilities to the community. This aligns with the findings of Adikaram and Nawarathna (2018), which emphasize the critical importance of emergency preparedness in ensuring the resilience and sustainability of the hospitality sector.

Table 2.4 Extent of Employees' Disaster and Risk Reduction Practices Relative to Emergency Management Measures such as Recovery

Based on the table below, stimulate economic activity, and enhance or extend it if possible, rank first with a weighted mean of 3.42 followed by address the establishment's long-term needs and issues that render it susceptible ranking second with a weighted mean of 3.39, and both verbally interpreted great extent. This means that employees' first measure to take into consideration when talking about recovery after a disaster is to stimulate economic activity, where in taking measures to recover as fast as the industry could to lessen losses in the future. Third and fourth in rank with a weighted mean of 3.37 is creating essential infrastructure, institutions, and services and evaluating the establishment's damages, losses, and needs. After disasters strike a business entity, one of the first things to be taken into consideration is to identify the damages and losses that result from the disaster. It is critical for safety, recovery, financial planning, and resource allocation. This can also help in a smoother recovery process and also for the long-term resilience of the establishments.

Moreover, design infrastructure that is catastrophe and climate change resistant ranked seventh with a weighted mean of 3.30 followed by allowing improving society's ability to cope and lessen the danger of future emergencies and disasters got eighth rank and a weighted mean of 3.28 and both verbally interpreted great extent. With disasters and calamities' unprecedented status, recovery after a calamity should include plans of improvement and development based on the identified damages and losses. Based on the study of Lopez Jr et al., (2022), there is a need to enhance the disaster risk and reduction management plan and strengthen the programs, projects, and activities to increase households' adaptive capacity and involvement toward disaster preparedness. Furthermore, crafting the disaster risk and reduction management plan must be treated differently according to the situation and location to address priority areas (Badajon & Caelian, 2019).

Table 2.4 presents the extent of employees' disaster risk and reduction practices in terms of recovery.

Recovery	Mean	VI	Rank
1. Evaluate the establishment's damages, losses, and needs	3.37	GE	3.5
2. Give opportunity to improve society's ability to cope and lessen the danger of future emergencies and disasters	3.28	GE	8
3. Address the establishment's long-term needs and issues that render it susceptible	3.39	GE	2
4. Create essential infrastructure, institutions, and services	3.37	GE	3.5
5. Analyze existing and anticipated risks and events	3.32	GE	5.5
6. Design infrastructure that is a catastrophe and climate change resistant	3.30	GE	7
7. Stimulate economic activity, and enhance or extend it if possible	3.42	GE	1
8. Improve a mentally healthy, safe, and secure populace that is protected from disasters and can return to normal functioning after each calamity	3.26	GE	9
9. Rebuild production equipment that has been destroyed or rendered inoperable due to a disaster	3.32	GE	5.5
10. Enhance disaster risk mitigation and management, as well as climate change adaptation	3.23	GE	10
Total Weighted Mean	3.42	GE	

Legend: 4 - Great Extent; 3 - Moderate Extent; 2 - Slight Extent; 1 - Least Extent

However, improving a mentally healthy, safe, and secure populace that is protected from disasters and can return to normal functioning after each calamity and enhancing disaster risk mitigation and management, as well as climate change adaptation got the lowest weighted mean of 3.26 and 3.23 respectively and falls on the ninth and tenth rank with both verbally interpreted great extent. After disasters happen in a certain community or region, it is expected that the local government units will take responsibility for the greater population, thus the respondents reveal based on the result that it's the least of their practice in terms of recovery. Many regional administrations have prioritized dealing with their local citizens when it comes to catastrophe management. In terms of public policy, it is in many ways very natural for them to act in this way. However, many regional administrations still find it difficult to look after their citizens amid a crisis (Tang & Feng 2018). Furthermore, it was explained by Ahmad et al. (2014), that the negative effects of hazardous events could be reduced through effective planning and the urgent need for better cooperation, coordination, and awareness efforts among industry stakeholders, governmental organizations, and local communities. This would enable organizations to draw lessons from the past to avoid experiencing the same effects in the future.

In conclusion, the result revealed a composite mean of 3.32 and was verbally interpreted great extent. This means that the respondents practice the following indicators as part of their disaster risk and reduction practices in the hospitality industry. The recovery stage is a crucial part after a disaster strikes a community or region. It will determine how prepared the business is in terms of recovering from disasters and calamities. It is not only a matter of addressing post-disaster challenges but are strategic imperatives. These plans ensure the safety of guests and employees, protect assets and promote the continuity of operations.

Table 3. Significant Correlation Between the Extent of The Employees' Disaster and Risk Reduction Practices When Grouped According to The Profile Variables

Practi ces	Pro file	X ²	d f	p- va 	Dec isio n	Interp retatio n
---------------	-------------	----------------	--------	--------------	------------------	------------------------

				lu e		
Prevention	Sex	0.082	2	0.960	Failed to Reject	Not Significant
	Age	10.478	10	0.400	Failed to Reject	Not Significant
	Civil Status	4.685	8	0.791	Failed to Reject	Not Significant
	No. of Years	11.273	10	0.337	Failed to Reject	Not Significant
	Years in service	4.071	10	0.944	Failed to Reject	Not Significant
	Position	0.955	6	0.987	Failed to Reject	Not Significant
Preparedness	Sex	1.078	2	0.585	Failed to Reject	Not Significant
	Age	15.797	10	0.106	Failed to Reject	Not Significant
	Civil Status	8.070	8	0.427	Failed to Reject	Not Significant
	No. of Years	20.299	10	0.027	Reject	Significant
	Years in	13.240	10	0.211	Failed to	Not Significant

	serv ice				Rej ect	
	Pos itio n	1.7 46	6	0. 94 1	Fail ed to Rej ect	Not Signifi cant
Respo nse	Sex	1.2 31	2	0. 54 0	Fail ed to Rej ect	Not Signifi cant
	Age	11. 76 3	1 0	0. 30 1	Fail ed to Rej ect	Not Signifi cant
	Civ il Stat us	9.3 50	8	0. 31 4	Fail ed to Rej ect	Not Signifi cant
	No. of Yea rs	12. 66 7	1 0	0. 24 3	Fail ed to Rej ect	Not Signifi cant
	Yea rs in serv ice	4.3 01	1 0	0. 93 3	Fail ed to Rej ect	Not Signifi cant
	Pos itio n	5.7 56	6	0. 45 1	Fail ed to Rej ect	Not Signifi cant
Recov ery	Sex	5.2 21	3	0. 15 6	Fail ed to Rej ect	Not Signifi cant
	Age	15. 00 8	1 5	0. 45 1	Fail ed to Rej ect	Not Signifi cant
	Civ il Stat us	7.0 24	1 2	0. 85 6	Fail ed to Rej ect	Not Signifi cant

	No. of Years	15.113	15	0.443	Failed to Reject	Not Significant
	Years in service	10.208	15	0.806	Failed to Reject	Not Significant
	Position	10.868	9	0.285	Failed to Reject	Not Significant

Table 6 presents the significant correlation between significant correlation between the extent of the employees' disaster and risk reduction practices when grouped according to the profile variables.

Based on the table above, it can be gleaned that there is no significant correlation between prevention and the profile of the respondents. The result shows that the p-value is higher than the significance level ($\alpha=0.05$). In terms of sex (p-value = 0.960), age (p-value = 0.400), civil status (p-value = 0.791), number of years in business (p-value = 0.337), number of years in service (p-value = 0.944), and employment position (p-value = 0.987) shows that there is no significant correlation between the extent of employees disaster risk and reduction practices when grouped according to profile.

Moreover, in preparedness, it shows that there is no significant correlation when it comes to sex (p-value=0.585), age (p-value=0.106), civil status (p-value = 0.427), years in service (p-value= 0.211), and employment position (p-value= 0.941). This is contrary with the study of Cabuga et al. (2023) who indicated a strong relationship that age is an important factor in influencing disaster management.

On the other hand, several years in business (p-value= 0.027) shows a significant correlation between the extent of employee's disaster risk and reduction practices when it comes to preparedness. Similarly, in a study of Borbon et al. (2022) which revealed that most business have been operating for five years or less, with a similar number from Batangas City, Lipa City, and Tanuan. The majority can accommodate 21 to 40 individuals, and most businesses are classified as small enterprises. Restaurant businesses should continue to enhance their 3P's (Planning, Prevention, and Preparedness) and adapt to the New Normal. Having contingency plans in place is essential for unexpected situations. The impact of COVID-19 is constantly evolving, requiring ongoing adjustments. Restaurant managers need to develop effective strategies to ensure a safe environment for employees and customers. Similarly, restaurant employees should prioritize their health and safety to provide the best service possible.

The relationship between years in business and disaster preparedness is critical for understanding how experience influences risk management practices. The significant correlation (p-value = 0.027) indicates that businesses with more years of operation tend to have more extensive disaster risk reduction practices in place. This is particularly relevant for the majority of respondents in the study, who have been operating for five years or less, highlighting the need for ongoing training and development in disaster preparedness. For restaurants in Batangas City, Lipa City, and Tanuan, many of which are small enterprises with limited seating capacity, focusing on enhancing their 3P's (Planning, Prevention, and Preparedness) is essential. Given the evolving impact of COVID-19, these businesses must implement effective contingency plans to address unexpected situations.

As newer establishments may lack the experience of their longer-established counterparts, restaurant managers must prioritize developing strategies that ensure safety for both employees and customers. Continuous training in disaster preparedness will help newer businesses build resilience and improve their response capabilities over time, ultimately fostering a safer environment in the hospitality industry.

Furthermore, table 3 reveals that there is no significant correlation between the profile of the respondents and the disaster risk and reduction practices when it comes to a response where the table

shows sex (p-value= 0.540), age (p-value= 0.301), civil status (0.314), number of years in business (p-value= 0.243), number of years in service (p-value= 0.933) and employment position (p-value= 0.451).

Lastly, the table also indicates that there is no significant correlation between the profile of the respondents and the disaster risk and reduction practices when it comes to recovery. The table depicts the following values where sex (p-value = 0.156), age (p-value= 0.451), civil status (p-value= 0.856), number of years in business (p-value= 0.443), number of years in service (0.806), and employment position (p-value= 0.285).

Table 4. Difficulties Encountered in Practicing Disaster and Risk Reduction Measures

Table 4 presents the difficulties encountered in practicing disaster and risk reduction measures.

Based from the table below, it was revealed that inadequate emergency funds rank first with a weighted mean of 3.28 followed by lack of infrastructure, equipment, and tools with a weighted mean of 3.23 and both verbally interpreted agree. The respondents identified that lack of emergency funds is the biggest difficulty encountered in practicing disaster and risk reduction measures. To be able to conduct recovery and response measures, money or simply funds is needed by all stakeholders involved. The lack of funds simply means that they will not be able to provide the necessary actions needed such as buying food, materials, medicines, and other things needed to be provided to respond to such cases. It can impede emergency response and recovery efforts, affecting the safety of individuals. According to Nguyen, Imamura, and Iuchi (2018), to better understand various facets of disaster preparedness, researched hotels in three Japanese cities. They discovered that obstacles to readiness included difficulties with funding disaster management initiatives, holding staff training sessions, and informing visitors of local risks.

Statements	Mean	VI	Rank
1. Inadequate emergency funds	3.28	Agree	1
2. Absence of relief and emergency response policy	3.22	Agree	3
3. Lack of infrastructure, equipment, and tools	3.23	Agree	2
4. Inconsistent implementation of the laws	3.18	Agree	6
5. Lack of disaster literacy	3.02	Agree	10
6. Unstable security situation	3.09	Agree	9
7. Poor urban planning and mindset	3.12	Agree	8
8. Inadequate technical knowledge and training	3.13	Agree	7
9. Lack of disaster capacity and coordination	3.20	Agree	4
10. Limited public and staff education about disaster risks	3.19	Agree	5
Total Weighted Mean	3.20	Agree	

Legend: 4 - Strongly Agree; 3 - Agree; 2 - Disagree; 1 - Strongly Disagree

Meanwhile, the absence of relief and emergency response policy ranks third with a weighted mean of 3.22 while lack of disaster capacity and coordination ranks fourth with a weighted mean of 3.20, and both verbally interpreted agree. As stated by Jiang and Ritchie (2017), although there are a variety of stakeholder connections, successful collaborations are essential for reducing the negative effects of natural disasters, implementing emergency preparedness, and rebuilding local communities. With an eye toward strategies for dealing with long-term destination recovery and sustainability of the businesses, stakeholders in the tourism sectors may connect various players of the impacted destination by combining individual efforts (Granville et al., 2016).

It can also be gleaned from the table that limited public and staff education about disaster risks and inconsistent implementation of the laws rank fifth and sixth and got a weighted mean of 3.19 and 3.18 respectively and both verbally interpreted agree. Moreover, inadequate technical knowledge and training

rank seventh with a weighted mean of 3.13 and verbally interpreted agree. Disaster education attempts to arm people with the knowledge they need to act to lessen their vulnerability to catastrophes. The question of how well-trained people can be prepared for disasters and respond has received a lot of attention over the past few decades. According to the findings, disaster education is a practical, useful, and affordable risk management technique. According to some data, vulnerable-minded people must be informed about calamities. There are various approaches to educating the vulnerable, but none of them is superior to others. Training improves one's ability to defend oneself and others.

Likewise, Torani et al. (2021) indicated that disaster education is a practical, operational, and cost-effective strategy for risk management. It is crucial for vulnerable communities to understand disaster risks, and while various educational methods exist, no single method is superior. Individuals who receive training are better able to protect themselves and others, underscoring the need for comprehensive educational programs to prepare communities for disasters.

Furthermore, poor urban planning and mindset ranked eighth with a weighted mean of 3.12, while unstable security situation ranked ninth with a weighted mean of 3.09 were both statements verbally interpreted and agreed upon by the respondents. Addressing challenges requires comprehensive urban planning that emphasizes disaster risk reduction, resilience, and sustainability. It also involves a shift in mindset to prioritize safety and preparedness, along with education and awareness programs to inform stakeholders about disaster risks and reduction practices, in urban areas, the consequences of poor planning and mindset can be particularly severe during disasters, emphasizing the importance of proactive mitigation and preparedness efforts.

It was also revealed that lack of disaster literacy got the least weighted mean of 3.02 and ranked tenth. This means that the respondents identified the lack of literacy when it comes to disasters as the leading difficulty encountered in practicing disaster risk reduction measures. When dealing with disasters and calamities, individuals who are well-informed and trained when it comes to these matters can adapt greatly to these disasters. Dealing with such will be leading to a more efficient workforce that can aid the industry in faster recovery and less difficulty. Addressing this lack of disaster literacy in the hospitality industry requires training and education programs for all stalls at all levels. An informed workforce is better equipped to protect the safety of guests, maintain the reputation of the establishment, and contribute to overall disaster resilience.

In conclusion, the result revealed a composite mean of 3.20 and verbally interpreted agree. Addressing the difficulties encountered in practicing disaster risk and reduction measures in the hospitality industry is of paramount importance because it is essential for ensuring safety and well-being during emergencies as well as helping in continuous business operations during emergencies. Hospitality establishments all play a crucial role in supporting local communities during disasters. Proper professional development training and seminars empower employees to effectively respond in emergencies. It is not only a matter of short-term safety but also contributing to the overall resilience and sustainability of the industry in the face of evolving disaster risks.

Propose a Disaster Management Plan to Address the Difficulties Encountered in Practicing the Disaster and Risk Reduction Measures

Activity	Objectives	Persons Involved	Indicator
Risk Assessment Workshop	Conduct regular workshops to assess and identify potential disaster risks specific to the location and type of	Management Officials Employees Local DRRM	The employees and staff will be able to identify potential risks of different kinds of establishments and gain insights to

	establishment.		local disaster risks of the community.
	Collaborate with experts and local authorities to gain insights into local disaster risks.		Community by having attended at least 2 workshops annually.
Emergency Response Training	Provide comprehensive training for staff on emergency response procedures, including evacuation, first aid, and handling specific disasters (e.g., fire, earthquake, pandemics).	Employees Staffs Local DRRM	The employees and staff will be trained on how they need to respond to different emergencies, how to apply first aid, and handle disasters. Handle disaster by undergoing at least 2 trainings annually.
Regular Safety Inspections	Implement regular safety inspections to identify and rectify potential hazards. Ensure that safety protocols and infrastructure are up to date and compliant	Employees Local DRRM Fire Bureau	The employees and staff as well as the management will be aware of the potential hazards in the work area and ensure that the establishment, they are

	with local safety standards.		working in is compliant with local safety standards.
Regular Review and Updates	<p>Establish a schedule for reviewing and updating the disaster management plan.</p> <p>Include stakeholders from various departments in the review process to gain diverse insights.</p>	<p>Management Officials</p> <p>Safety Officers</p> <p>Employees</p> <p>Local DRRM</p>	<p>Establishments will be updated on the disaster plans of the community to protect themselves and their business during emergencies.</p> <p>Annual collaboration of the establishment to the LGU and NDRRMC to be able to be competent in the disaster.</p>
Community Engagement	<p>Collaborate with local disaster response agencies and community organizations to foster cooperation and support in times of disaster.</p> <p>Participate in</p>	<p>Management Officials</p> <p>Employees</p> <p>Safety Officers</p> <p>Local Government Unit</p>	<p>The establishments involve will have a good community relationship where they can work hand in hand towards dealing with disasters and will be</p>

community disaster preparedness events and initiatives.

able to protect each other in times of need.

Annual involvement of the establishments in the community towards disaster management to strengthen the disaster risk management preparedness within the area.

Guest and Staff Well-Being

Develop programs and resources to support the well-being and mental health of guests and staff during and after disasters.

Employees
 Safety Officers
 Management Officials

Hotel and restaurant staff will be able to develop positive character and mentally healthy well-being towards dealing with disasters.

Ensure that staff have access to counseling and support services.

Hotel and Restaurant staff will be able to develop positive character and mental health well-being towards dealing with

disaster
reorientati
on and
counseling
program

ross- Training	Cross-train staff in various emergency response roles to ensure flexibility and redundanc y in case some staff members are unavailable during a disaster.	Employe es Safety Officers Local DRRM	Hotel and restaurant staff will learn the basics that they need to know to be able to respond to any kind of emergency during disasters. Play different roles to help each member of the communit y at any instances needed. Having attended t least 1 training annually, implement ed by the safety officer of the establishm ent.
---------------------------	---	--	---



Disaster Management Plan

A well-structured disaster management plan ensures the safety of employees, guests, and the business in case of emergencies.

- 

1 Risk Assessment

Regularly identify potential risks specific to your location, like earthquakes, floods, or fire hazards.
- 

2 Emergency Training

Train staff on how to respond to emergencies, including evacuation procedures, first aid, and handling specific disasters.
- 

3 Safety Inspections

Conduct regular safety inspections to identify and rectify potential hazards, ensuring compliance with local safety standards.
- 

4 Plan Updates

Review and update the disaster management plan regularly, incorporating feedback from various departments and stakeholders.
- 

5 Community Ties

Collaborate with local disaster response agencies and community organizations for support during emergencies.
- 

6 Well-being Support

Provide mental health support programs and resources for guests and staff during and after disasters.
- 

7 Cross-Training

Train staff in various emergency response roles, ensuring flexibility and redundancy in case of staff unavailability.



Preparedness is Key

A comprehensive disaster management plan protects your business and people by minimizing risks, enhancing response, and promoting well-being.

4.0 Conclusion and Directions for Future Use

Based on the findings, the following conclusions were drawn:

1. Among the hotel and restaurant staff surveyed, the majority are female which is 143 out of 253 respondents. Moreover, based on the profile of the respondents in terms of age, most of the respondents are between 21-30 years old followed by 41-50 years old. In terms of civil status, most of the employees working in the industry are single, while in terms of years in business, most of the businesses are 16-20 years in operation already. It was also revealed that most of the respondents working in the establishment are between 1-5 years followed by 11-15 years. And lastly, it was shown that most of the respondents are in permanent positions.

2. In terms of prevention, assess, analysis, and monitoring community-based scientific disaster risk reduction and management, as well as environmental adaptation is practiced by the employees and got the highest weighted mean while improved resiliency of infrastructure systems got the least weighted mean. But it does not necessarily mean that they are not practicing the other indicators. On the other hand, in terms of preparedness, providing the employees with the required skills and capabilities to deal with calamities is identified to be practiced to a great extent by the respondents while formulating policies, plans, and processes for complete readiness and response got the least weighted mean.

3. When it comes to response, employees identified search, rescue, and retrieval capacity to be practiced to a great extent as the indicator that got the highest weighted mean. It implies that the employees were fully aware of this practice when it comes to disaster risk and reduction practices. However, maintaining the physical and mental state of the workforce ranks least among the indicators. This means that employers need to work on programs that will help their employees in dealing with their mental state during emergencies and disasters. Moreover, when it comes to recovery employees identified that stimulating economic activity and enhancing or extending it if possible was the most practice during the recovery period from a disaster. It shows that they have an understanding of how important it is to have a recovery plan after a disaster.

4. Based on the difficulties encountered by the respondents, it was evident that lack of disaster literacy poses a significant challenge to effective disaster preparedness and response efforts. Without a basic understanding of potential hazards, proper safety protocols, and emergency procedures, individuals and communities are more vulnerable to the devastating impacts of disasters. Governments, organizations, and educational institutions must prioritize disaster literacy initiatives to empower individuals with the knowledge and skills needed to protect themselves and others during emergencies. By increasing awareness and education about disaster preparedness, we can build more resilient communities and reduce the overall impact of disasters on society.

5. There is no significant correlation between disaster risk and reduction practices when it comes to prevention, response, and recovery among employees of hotels and restaurants when grouped according to the profile of the respondents such as sex, age, civil status, number of years in the business, number of years in service, and employment position. However, there was a significant correlation when it comes to preparedness and the number of years in business.

6. Some of the proposed disaster management plans to address the difficulties encountered by the employees in practicing disaster risk and reduction measures. risk assessment workshops, emergency response training, regular safety inspections, regular reviews and updates, community engagement, guest and staff well-being, and cross-training programs with the local DRRM, employees can collaborate more effectively during emergencies leading to improved disaster management practices within the hospitality industry.

Based on the results and conclusions derived from the study, the researchers recommend the following:

1. The employees may be provided with seminars, training, and workshops that would help them be prepared to act during emergency response procedures.

2. Employees should be given a chance to participate in community events that tackle and discuss disaster risks and reduction practices of the community.

3. Integration of disaster risk and reduction practices literacy program should be given during employee orientation and monthly updates should be provided for the employees as well.

4. Cross-training and mental health counseling programs should be included in the company's yearly program for all its employees.

5. The establishment should dedicate a safety officer assigned to planning, implementing, and evaluating disaster risk management. Workplace.

6. Drills for emergency plans should be practiced by the employees semi-annually to be practiced for any calamities or risks that may occur.

7. Future researchers may broaden the scope of this study.

REFERENCES

1. Adem, Mark Daevid & Ylagan, Alex. (2022). Framework on crisis management during the pandemic of hotels in National Capital Region. *International Journal of Research Studies in Management*. 10. 10.5861/ijrsm.2022.14.
- 2.) Ahmad, A., Som, A. P. M., & Helalat, A. (2014). Higher dissatisfaction higher turnover in the hospitality industry. *International Journal of Academic Research in Business & Social Sciences*, 4(2). <https://doi.org/10.6007/ijarbss/v4-i2/591>
- 3.) Albattat, A. & Puad, A. Disaster Preparedness of Hotel Industry Abroad: A Comparative Analysis. School of Housing, Building and Planning, Universiti Sains Malaysia.
- 4.) Alcayna, T., Bollettino, V., Dy, P., & Vinck, P. (2016). Resilience and Disaster Trends in the Philippines: Opportunities for National and Local Capacity Building. *PLoS Currents*, 8.
- 5.) Alim, S., Kawabata, M., & Nakazawa, M. (2015). Evaluation of disaster preparedness training and disaster drill for nursing students. *Nurse Education Today*, 35(1).
- 6.) Aynalem, S. et al. (2016). Employment opportunities and Challenges in tourism and Hospitality sectors. *Journal of Tourism & Hospitality*.
- 7.) Badajos, M. A. C. B., & Caelian, M. V. (2019). Vulnerability and risk assessment of a state university in the Philippines. *Philippine Social Science Journal*, 2(2), 9-22. <https://doi.org/10.52006/main.v2i2.78>
- 8.) Becken, S., & Hughey, K. F. (2013). Linking tourism into emergency management structures to enhance disaster risk reduction. *Tourism Management*, 36, 77-85. <https://doi.org/10.1016/j.tourman.2012.11.006>
- 9.) Becken, S., Mahon, R., Rennie, H., & Shakeela, A. (2014). The Tourism Disaster Vulnerability Framework: An application to tourism in small island destinations. *Natural Hazards*, 71(1), 955-972.
- 10.)Boutelle, C. (2017). Some solo workers are feeling singled out. Retrieved from: <https://workforce.com/news/solo-workers-feeling-singled>
- 11.)Brown, C. H. et al. (2017). An overview of research and evaluation designs for dissemination and implementation. *Annual Review of Public Health*, 38(1), 1-22. <https://doi.org/10.1146/annurev-publhealth-031816-044215>
- 12.)Brown, Nancy et al. (2017). Exploring Disaster Resilience within the Hotel Sector: A Systematic Review of Literature. *International Journal of Disaster Risk Reduction*, 22. <https://doi.org/10.1016/j.ijdr.2017.02.005>
- 13.)Collyer, H. (2009). Are Single, Childless Workers Shortchanged by Benefit Plans?. Retrieved from: <https://hrdailyadvisor.blr.com/2009/08/01/are-single-childless-workers-shortchanged-by-benefit-plans/>
- 14.)Edbauer, Lukas. (2016). Capacity and Needs in Emergency and Disaster Risk Management Training for Hotels and Resorts. A Training Needs Analysis with focus on the Philippines. 10.13140/RG.2.2.25994.47042.
- 15.)Estores, Kristin Iris & Sangat, Joyce. (2023). Disaster Risk Management Preparedness and Challenges of a Local Beach and Dive Resort in Southern Negros Occidental
- 16.)Galzote, Arvin & Castino, John. (2023). Disaster Resilience and Preparedness Program Evaluation for Enhancement. *International Journal of Scientific Research and Management (IJSRM)*, 11, 5631-5661. 10.18535/ijrsm/v11i12.em12.
- 17.)Fetters, M. D., Curry, L., & Creswell, J. W. (2013). Achieving Integration in Mixed Methods Designs—Principles and Practices. *Health Services Research*, 48(6pt2), 2134-2156. <https://doi.org/10.1111/1475-6773.12117>.
- 18.)Granville, F., Mehta, A., & Pike, S. (2016). Destinations, disasters, and public relations: Stakeholder engagement in multi-phase disaster management. *Journal of Hospitality and Tourism Management*, 28, 73-79. <https://doi.org/10.1016/j.jhtm.2016.02.001>
- 19.)Halim, Z., Ali, O., & Khan, G. (2020). On the efficient representation of datasets as graphs to mine maximal frequent itemsets. *IEEE Trans Knowl Data Eng*. <https://doi.org/10.1109/TKDE.2019.2945573>
- 20.)Hemachandra, K., Haigh, R., & Amaratunga, D. (2021). Increasing the capacity of higher education to strengthen multi-hazard early warning in Asia. In *Multi-Hazard Early Warning and Disaster Risks*, pp. 517-528. <https://doi.org/10.1007/978-3-030->
- 21.)Jiang, Y., & Ritchie, B. W. (2017). Disaster collaboration in tourism: Motives, impediments and success factors. *Journal of Hospitality and Tourism Management*, 31, 70-82. <https://doi.org/10.1016/j.jhtm.2016.09.004>.
- 22.)Kash, T.J., & Darling, J.R. (2011). Crisis management: prevention, diagnosis, and intervention. *Leadership & Organization Development Journal*, 19, 4, 179-186
- 23.)Liwana, Emma et al. (2024). Hotel Receptionists' Perspective on Crisis Management Preparedness and Practices in Select Hotels in Calapan City. *American Journal of Tourism and Hospitality*, 2, 35-45. 10.54536/ajth.v2i1.2465.
- 24.)Lopez Jr, G. P. et al. (2022). Disaster preparedness practices of low and middle-income households in the coastal communities in Negros Occidental, Philippines. *Philippine Social Science Journal*, 5(2), 40-50. <https://doi.org/10.52006/main.v5i2.495>.
- 25.)Mitchell, V., Mountinho, M. & Lewis, B. (2003). Risk Reduction in Purchasing Organizational Professional Services. *The Service Industries Journal*, 1-19.
- 26.)Nguyen, D.N. et al. (2018). Barriers towards hotel disaster preparedness: Case studies of post 2011 Tsunami, Japan. *International Journal of Disaster Risk Reduction*.
- 27.)Orchiston, C. (2012). Seismic risk scenario planning and sustainable tourism management: Christchurch and the Alpine Fault zone, South Island, New Zealand. *Journal of Sustainable Tourism*.
- 28.)Orchiston, C., & Higham, J. E. S. (2016). Knowledge management and tourism recovery (de)marketing: The Christchurch earthquakes 2010-2011. *Current Issues in Tourism*, 19(1), 64-84. <https://doi.org/10.1080/13683500.2014.990424>.
- 29.)Petrovic, M. et al. (2014). Why should gender differences in hospitality really matter? A study of personnel service orientation and job satisfaction in hotels. *Economic Research-Ekonomska Istraživanja*, 27:1, 799-817. DOI: 10.1080/1331677X.2014.975516.
- 30.)Polinar, Mark Anthony et al. (2023). Risk Management Practices Among Accommodation Facilities in Ormoc City. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4, 1310-1320. 10.11594/ijmaber.04.04.26

- 31.)Ritchie, B.W. (2009). *Crisis and Disaster Management for Tourism*. Channel View Publications; Bristol, UK; Buffalo, NY.
- 32.)Ruane, J. (2022, October 19). *The Complete Guide to Business Crisis Management*. Beekeeper. Retrieved from <https://www.beekeeper.io/blog/what-is-crisis-management/>
- 33.)Scholarios, D. & Taylor, P. (2014). Decommissioned vessels – performance management and older workers in technologically intensive service work. *Technological Forecasting and Social Change*, 89, 333-342.
- 34.)Solnet, D., Baum, T., Robinson, R., & Lockstone-Binney, L. (2016). What about the workers? Roles and skills for employees in hotels of the future. *Journal of Vacation Marketing*, 22(3), 212-226.
- 35.)Tayco, Ryan. (2021). Self-Efficacy of Hotel Industry Personnel to Disaster in Dumaguete City, Philippines. *International Journal of Research in Business and Technology*, 12, 164-171.
- 36.)Tang, J.S. & Fend, J.Y. (2018). Residents' disaster preparedness after the Meinong Taiwan earthquake: a test of protection motivation theory. *International Journal of Environmental Research and Public Health*, 15(7):1434. <https://doi.org/10.3390/ijerph15071434>.
- 37.)Todman-Lewis, C. (2017). Strategies for crisis preparedness of tourist destinations. Retrieved from <https://core.ac.uk/download/pdf/147837393.pdf>.
- 38.)Tsai, Chung-Hung et al. (2020). Disaster prevention management in the hotel industry: Hotel disaster prevention literacy. *Journal of Hospitality and Tourism Management*, 45, 444-455. <https://doi.org/10.1016/j.jhtm.2020.09.008>.
- 39.)UNISDR terminology on disaster risk reduction. (June, 2021). https://www.unisdr.org/files/7817_UNISDRTerminologyEnglish.pdf.
- 40.)Wisner, B. (2006). *A Review of the Role of Education and Knowledge in Disaster Risk Reduction*.
- 41.)Yasar, K., & Pratt, M. K. (2023, October 12). Security awareness training. Security. <https://www.techtarget.com/searchsecurity/definition/security-awareness-training>.
- 42.)Zhang, J. & Enemark, A. (2016). Factors Influencing Business Performance in Hotels and Restaurants. Centre for Regional and Tourism Research, Denmark. *Asia-Pacific Journal of Innovation in Hospitality and Tourism*, 5(1), 1-20.