CHALLENGES AND COPING STRATEGIES OF SELECTED RESTAURANTS AFFECTED BY THE TAAL VOLCANO ERUPTION

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Abstract: Taal Volcano suddenly erupted last January 12, 2020, affecting different industries around the area of the eruption. These unforeseen scenarios have an adverse effect on restaurants located in Tagaytay City. The researchers aim to know the challenges that the restaurants encountered and what coping strategies they did to cope with the damages and losses that the Taal volcano eruption bring. The study is a qualitative type of research and used a snowball sampling technique to gather information about the study. The researchers interviewed 5 participants. The results of the study reveal that businesses lost a lot of income and some restaurants reduced their employees to cope with this, restaurants adapted to the situation and move forward to make strategies that would help them to recover the damages or losses. Online selling and deliveries became their call back to recover from the damages that the eruption brought.

Keywords: Taal Volcano, Volcano Eruption, Natural Disaster, Restaurants, Tagaytay City, Coping Strategies, Research.

I. INTRODUCTION

The study aims to provide insights into relevant and significant issues around us and address real-world challenges that can affect people's lives and enhance their abilities. Our goal is to provide insight and insight into relevant and significant issues that we encounter in our daily lives. Also, in partial fulfillment of the requirements of Research 1 in the course of Bachelor of Science in Hotel and Restaurants Management, correlating with having the business area concerned with natural disasters that arise from geological, hydrological, and atmospheric factors, which can result in deaths, social disruption, and property damage.

The Taal Volcano eruption that occurred last January 12, 2020, from 42 years being dormant with only incidents of volcanic unrest 2011, 2012, and 2014 (Rappler.com, n.d.) affected an estimated number of 376,000 people to either evacuate or relocate, caused large scale fish deaths and devastated it's good renown coffee and pineapple industry (Yap, C., & Calonzo, A., 2020) the damages caused in the agricultural damage is climbing around ₱3.06 billion (Staff, C., n.d.) Authorities have established lockdowns on 15 municipalities within the 14km-radius as ordered by the DILG (Sennyah & Goh, 2020) that closed down major roads and canceled the flow of supplies and tourism, what used to be a place to unwind, relax and enjoy the view while eating delicious food became a ghost town where it is believed that the damage cost is around P86.5 million and losses of P123.2 million (Ganzon-Ozaeta, 2020).

One of the affected industries is the restaurants that are dependent on the customers that are essential to their growth and for some small or starting businesses, survival. However, the government can also help to minimize the loss of the victims, according to Republic Act no. 766 (Diaz, n.d.). Additionally, Republic Act 766 offers protection against volcanic

Vol. 10, Issue 1, pp: (56-64), Month: April 2022 - September 2022, Available at: www.researchpublish.com

eruptions, as well as natural hazards. the strategies that can help to cope with the research study is to give an advance awareness of notice and actions to tourists, employees, owners of businesses, and to the affected areas against volcanic eruption that closed to human habitation and private business properties. Furthermore, this can help to control and limit the possibilities of volcanic risk and hazard readiness that may or can overlap the health and wellness of the people. Also, to emerge the educational benefits upon understanding the insights of safeness and security against volcanic eruption.

Act No. 10121 or the Philippine Disaster Reduction and Management Act protects the Philippines from natural disasters., is a comprehensive law enacted by the Philippine government to strengthen the country's disaster and risk management system. It includes provisions related to economic activities during disaster events. Disasters are bad for business, they can cause physical damage on your property and can also cause a disruption in the supply of your goods used in your business due to a temporary closure of roads, and can also cause State of Calamity in your area of business or restaurant that can abrupt the cash flow of your business.

After further research, we have discovered that this law can help in preparing businesses for the possible effects and impacts of disasters to reduce damage and losses, which makes this law very important. Republic Act No. 10639, which shall also be known as "The Free Mobile Disaster Alerts Act", will mandate the provision of message alerts in cases of natural disasters. Republic Act No. 10639, which shall also be known as "The Free Mobile Disaster Alerts Act", will mandate the provision of message alerts in cases of natural disasters. This act is meant to notify and inform the customers and employees of the restaurant for their safety. In addition, The Republic Act no. 10639 (NDRRMC,2013) or The Free Mobile Disasters Alert Act is one of the fastest mobile telecommunication alerts that can help people to reach out a timely update of information from respected and relevant agencies which can be sent directly to registered users located near or in the affected areas. Thus, (SMS) or text message, telecommunication, and other social media platforms are the most effective way to transmit information or respond to and from (NDRRMC) or Natural Disaster Reduction and Management Council at no cost.

RESEARCH OBJECTIVES

The study aims to show the challenges faced by the selected restaurants and how this volcanic eruption does affect the economic and social state of businesses. Also, it aims to know the coping strategies of the restaurants to know how they cope with the unforeseen scenario.

CONCEPTUAL FRAMEWORK

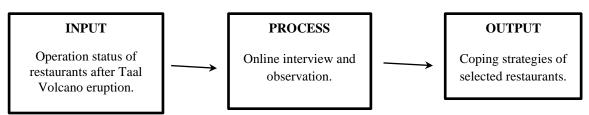


Figure 1#. The illustration above shows what is the main purpose of research and what it seeks to find.

To find out what is the status of the restaurants after the Taal Volcano eruption, the researchers conducted an online interview with five respondents and also, observed their circumstances during that time. The researchers of this study also seek to find out how they cope with the problem that they've encountered when the eruption takes place.

SCOPE AND LIMITATIONS

The study will focus on the challenges given by the Taal Volcano eruption on January 12 to selected restaurants and what coping strategies they came up with to alleviate these effects until June 12 (6 months). The restaurants will be found in the area of Tagaytay and these are "Redbuck's Cafe and Resto", "Entrada restaurant", "Dahon at Mesa", "Kristine's", and "Sol Victorias".

LITERATURE REVIEW

Natural disasters are more hazardous than terrorism because of their effect on the overall vulnerability of a state. Short-term effects can lead the homeowners and insurance companies to billions and raise the cost of living of the people because prices of foods and gas will go up because of the damages that the natural disaster brought. Also, it can lower the

Vol. 10, Issue 1, pp: (56-64), Month: April 2022 - September 2022, Available at: www.researchpublish.com

family income; lower housing rents, and reduce firm productivity. While the long-term effect of these disasters can make your economic growth slow for decades, utilities will be destroyed, homeowners. These unforeseen events can destroy the assets of such establishments and businesses, as well as the human capital (Ono, n.d). There are various points wherein a natural disaster affects one field; it can be in the industry, a group of organizations that cater services or goods (The Editors of Encyclopedia Britannica, 2020). Agricultural, mining, and other natural resource industries are also included in this term. The unforeseen circumstances that lead to disasters can disrupt businesses. A study by Adikaram & Nawarathna (2018) points out that a lack of balance in the environment is causing more natural disasters. In some cases, human activities indirectly cause it. Due to the development of technology, the technological crisis was also exacerbated. Many disasters cannot be controlled by humans because their causes are beyond our control. Therefore, Disaster Management is viewed as a vital module in every aspect of modern society. Social scientists, emergency managers, and policymakers typically organize disaster loss reduction around four phases: preparedness, response, recovery, and mitigation. As part of the preparation, activities are generally undertaken to improve response activities and cope with crises. Preparedness is essential because some businesses become directly involved in crisis-related activities during disasters. Companies can also participate actively in disaster response through contracts and mutual aid agreements. Further analysis and evaluation should be performed of the disaster risks to business and the importance of preparations to mitigate losses.

Economic and Financial Impacts

According to Benson and Clay (April 2003), Major natural disasters have short and long-term negative economic impacts that affect economic growth and development that could reduce poverty, but these are inevitable. Due to economic transformation and public actions for disaster reduction, there is evidence of diminishing sensitivity and increased resilience in the Caribbean and Bangladesh. As a result of natural disasters, there can be financial crises that can be difficult to manage, and reallocating resources can have both short- and long-term impacts. 18-24 months after a major disaster should take place, a full analysis of the economic and financial impact should be conducted, and it should be part of the annual review of the short-term economic performance and assistance strategy.

Social Impact of Natural Disasters Revealed

Approximately \$33 billion a year in social impacts, including family violence, mental health issues, alcohol misuse, and chronic diseases, will be incurred in real terms by 2050, according to Pro Bono Australia. A new Deloitte Access Economics report shows that natural disasters are often associated with social devastation and infrastructure damage, according to IAG CEO and Roundtable member Peter Harmer. The Economic Cost of the Social Impact of Natural Disasters states that the real cost of a natural disaster is at least 50% higher. Property destruction has about the same social costs as social destruction, according to these reports. Three separate studies examined floods that occurred in Queensland in 2010-2011, the Black Saturday bushfires in Victoria in 2009, and the earthquake that struck Newcastle in 1989.

Coping Strategies of Restaurants after a Disaster

When a natural disaster occurs, it can cause a significant amount of stress and anxiety because of the traumatic event that results in so many damages like the destruction of property, loss of income, or financial loss. Social support is a crucial component of coping with these issues, as it can provide a sense of agency, control, and empowerment to the person (Tull, 2020). Schwarzer (1996) proposes four coping behaviors in a crisis: Reactive coping (e.g., compensating for a loss or reducing harm), adaptive coping (e.g., avoiding danger), and positive coping (e.g., avoiding harm). Next is, Anticipatory coping in which its strategy is to deal with an imminent

According to Morrish, S.C. (2020), Morrish, S.C., claims that Small business recovery (2020) necessitates local entrepreneurs dealing with disasters' immediate aftermath. For a firm to survive, an entrepreneur may need to adopt a particular set of activities and processes. By evaluating the immediate impact on business operations and environmental aspects, as well as the business's proximity to the affected area, we can predict business recovery within the short run. When business operations are halted due to damaged or inaccessible premises, location and space become critical considerations. Furthermore, according to a study conducted by the Federal Emergency Management Agency (FEMA), small businesses have only a 60% chance of surviving when hit by a natural disaster. To reduce casualties or losses, businesses should focus on physical damage, which is the most visible effect of a natural disaster and can be easily seen in the affected area or location. Infrastructure damage can trigger major disasters and can cause electrical outages, contamination of water or water shortage, transportation issues that may cause some delay to the delivery of goods and services. Also, employees and customers may not be able to travel to their business location. Lastly, a drop in sales because it is one of the major problems of businesses when a natural disaster happens and can cause catastrophic results.

Vol. 10, Issue 1, pp: (56-64), Month: April 2022 - September 2022, Available at: www.researchpublish.com

Authorities often create new business zones after a large-scale eviction to allow displaced businesses to move. Businesses recover more quickly after a disaster if they have access to resources, especially capital. It's possible that capital isn't enough in certain sectors. In addition, supply chains that are disrupted as a result of natural disasters are affected. Although most businesses recover from disasters, popular belief holds that many businesses will fail after a disaster. To respond to the challenges disasters pose on the road to recovery, businesses must look into factors that reduce risk and improve preparedness

Law

Republic Act No. 766 is a law that can protect lives and property from volcanic eruptions by establishing a commission and providing assistance or relief to victims of the disaster. The government shall be repaying for the loss of the owners' properties by grants of public lands, the area of which shall be determined by the value of the property abandoned by them (Diaz, n.d.).

To strengthen disaster risk reduction and management in the Philippines, the Philippine Disaster Risk Reduction and Management Act, Republic Act No. 10121, was enacted. As a result of the development and implementation of a national disaster risk reduction and management plan (NDRRMP) at the national and local levels, national and local government units will be able to expand their resilience to disasters, and partner stakeholders will be able to institutionalize arrangements that will improve disaster preparedness, reduce disaster risks, and enhance response capabilities. (NDCC, 2010).

The Republic Act no. 10639 (NDMRC, 2013) or The Free Mobile Disasters Alerts Act states that the use of alerts through different telecommunication devices is needed to give proper alerts to the citizens and give them proper time to react against disasters. The Republic Act gives the hotel owners, hotel management, and employees ample time to do precautionary measures against the incoming disaster. This will include fortifying the establishment, setting up proper evacuation, and readying the actions after the disaster occurs. These amber alerts also help the restaurants to be ready in case they want to aid the supply giving in case the disaster happens.

II. METHODOLOGY

A. Page Layout and Font Used

The researchers used Qualitative research because it describes and explains the social world and can develop theories that can be used for future purposes. In this study, the researchers used the Phenomenological Observation approach, which highlights the commonalities of an individual's lived experience within a specific group. As part of the approach, other types of data such as art, observations, and documents are used to describe the nature of the phenomenon. The form of data that the researchers will use is observation since the study involves observing and describing the behavior of the researcher's participant without influencing and affecting the topic.

B. Respondents of Study

In this study, data will be collected from five Tagaytay business owners, including men and women of the same age and gender, describing the challenges faced and coping strategies they employed after the Taal Volcano eruption. The researchers selected restaurants are "Redbuck's Cafe and Resto", "Entrada restaurant", "Dahon at Mesa", "Kristine's", and "Sol Victorias". Selected restaurants that the researchers chose are based on their findings in Tagaytay and websites. (Tripadvisor and The Official Website of The Province of Cavite).

C. Research Locale

The study will be conducted at selected restaurants in Tagaytay namely "Redbuck's Cafe and Resto", "Entrada restaurant", "Dahon at Mesa", "Kristine's", and "Sol Victorias". The chosen targets are the owners or any representative of the selected restaurants who experienced a volcanic eruption crisis. The researchers are Second Year students from the Hotel and Restaurant Management course.

D. Sampling Technique

The sampling technique that will be used in research is Snowball Sampling. It is applied when the researchers would be having a difficult time accessing subjects with target characteristics. It is also called the "Chain Method" since the existing subject would require other subjects among their acquaintances and lead to other samples and grows like a Snowball. It only takes a little time but also allows the researchers to communicate with their samples better. Snowball Sampling

Vol. 10, Issue 1, pp: (56-64), Month: April 2022 - September 2022, Available at: www.researchpublish.com

Technique can also help the researchers identify unknown characteristics of the respondents by observing and analyzing them. (Stephanie, 2020).

E. Data Gathering Procedure

Online interview is a technique that involves. The researchers first chose the respondents, namely "Redbuck's Cafe and Resto", "Entrada restaurant", "Dahon at Mesa", "Kristine's", and "Sol Victorias". Messenger or Zoom application will be the platform to be used on the interview. In gathering data, this study will be using a Question Guide and Script to the owners of the selected restaurants in Tagaytay. The researchers will make sure that the questions do not violate any management protocols. Furthermore, researchers ask the establishment for permission to engage in an online interview by sending them e-mail letters informing them that they will need information from the establishment for a study. Respondents will be interviewed once permission has been granted.

F. Data Treatment and Analysis

This study will use coding, clustering, and data transcription for the analysis of data gathered ed. Researchers will analyze the data by coding information to find the correlation between the gathered data from the interviewees (Cessda, n.d). Once the information is coded, researchers will cluster the data to segregate similar or different opinions or perceptions of the respondents to easily help the researchers summarize the interview (Saurav KaushikSaurav, 2020). After that, researchers will transcript the data wherein the testimonies of the selected respondents will be written to fully analyze the data given by the owners of the selected restaurants (What is Data Transcription? 2019).

III. RESULTS AND DISCUSSION

Demographic Profile

The data reveals that most of the respondents were located around Tagaytay City and were fairly experienced in the foodservice industry as their experience ranged from 1 to 2 years. As said by respondent 5 "Almost two years". The restaurant's employee numbers ranged from 10 to 30. As said by respondent 1 "10 employees". The restaurant size does not necessarily indicate the ability of the restaurant to recover post-disaster (Josephson, 2017). None of the restaurants have a very long existence as none of them exceeded 10 years of existence. The age of the restaurant may contribute to its recovery; older restaurants can have the ability to recover better (Sydnor, 2016). Their establishments served a variety of cuisine ranging from Filipino food, Asian food, and fast food. The specific type of cuisine served did not have any literature to suggest that it may affect the outcome of the post-disaster recovery.

The Situation before the Eruption

The study reveals that (Q1) before the eruption took place last January 12, 2020, the restaurants and other businesses were doing fine. As stated by respondent 5, they can have 200 customers per day which means tourism in Tagaytay City is doing pretty well because this city attracts a lot of foreign and as well as local tourists. People in Manila were going here because of the cooler climate, fresh air, and enjoying their own space with the beautiful view in Tagaytay (Cornell, 2020). With a lot of tourists roaming around Tagaytay businesses are doing well in their sales. When asked their estimated monthly sales (Q2), respondent 2 stated "We did 1.6 million last 2019 before the eruption. December of 2019." Therefore, before the eruption happened, restaurants were doing well with their business.

Economic Challenges and Responses

Economic challenges and responses were summarized. All the restaurants experienced a large amount of loss of sales.

The study reveals the restaurant's damages or losses. (Q4) When asked "Did you suffer from a lot of losses when the eruption takes place" respondent 2 answered, "Because it falls in the middle of January, it causes a lot of loss in terms of sales." Most of the restaurants lost capital because of the disaster; the damages that they've experienced may affect the ability of the restaurant to recover. (Syndor, 2016)

Various changes happened because of the Taal Volcano eruption. As respondent 1 said (Q3) "Customers and sales from our restaurant decreases". This means that because of the unforeseen scenario that can affect the tourists in Tagaytay it disrupts businesses located in the area. (Writer, 2020) Also, the study shows (Q5) that only two restaurants raised their prices which ranged from 20%-80%. When asked "To recover from the damages that the eruption brought, did you raise the price of the foods in this restaurant?" respondent 4 replied "Yes but not that much. We still offer foods that are affordable to the customers."

Vol. 10, Issue 1, pp: (56-64), Month: April 2022 - September 2022, Available at: www.researchpublish.com

The study shows (Q6) that because of the damages that the eruption brought, restaurants tried their best to make the situation better. When asked "How did you try to make the situation better in favor of both the establishment and customers?" respondent 1 stated, "We treat our customers as family and friends, even our employees. We always make them feel comfortable." With all the losses they all had their way of coping with the disaster; some resorted to waiting for the holidays, some adapted, and some relied on strong customer bonds that had been built. (Watson, 2020)

Also, when asked about their recovery (Q7), respondent 2 stated "From the Taal eruption, yes." The recovery and ability to accumulate emergency funds to alleviate the damages in the physical structure and the working conditions were mixed some said they were able to accumulate funds while some answered that they could not. This could be because of the damages in the households of the customers as well. If the households of the customers are damaged in the disaster the businesses that rely on those customers are negatively affected as well (Watson, 2020).

All of the restaurants lost capital because of the disaster. The amount of loss can greatly affect the ability to recover a restaurant. Things such as physical damage to the structure, inventory damage, and equipment damage can have a huge effect on the recovery (Sydnor, 2016). When asked if they thought they were ready to withstand another disaster from an economic sense (Q8) the most common answer would be faith, adaptation, and strong bonds. The ability to adapt is a great indicator of preparedness for disasters and recovery (Josephson, 2019).

Social Challenges

The social effects and responses were summarized. The study reveals (Q9) that there is an effect caused by the Taal Volcano eruption on employees. As respondent 2 said, "For the employees, definitely no salary for about half a month. With the support of the company we give help to the employees". Due to the Taal eruption, a lot of businesses in Tagaytay are highly affected, and also, the employees. Owners of the restaurant generously gave some help to their employees in consideration amid the crisis. The study also shows (Q10) that the effects on the employees are due to the nature of a small restaurant. A small restaurant is more vulnerable to the effects of a natural disaster (Marshal, 2015). This leads to economic as well as social loss which includes the loss of employees due to downsizing as well as personal issues of the employees post-disaster. When asked "Because of the unforeseen scenario that happened and caused you some or a lot of damages or losses, did you reduce your employees?" respondent 5 replied "Our employees had their own decision with resigning to the restaurant because they were offered by other establishments a much better opportunity. We did not reduce our employees instead; the employees were the ones who took the initiative"

The loss of employees can negatively affect the restaurants' ability to recover as the capacity to do labor will be reduced (Sydnor, 2016). As the capacity to do labor is reduced the restaurant must adopt new ways to market and sell their product to improve recovery and compensate for the loss of capital (Alos-Dos-Santos, 2019). The customers still were generally satisfied with the service provided despite the disaster that happened which is good in terms of recovering from a disaster (Watson, 2020). The customer base being negatively affected can hinder the ability of a restaurant to recover (Sydnor, 2016).

Recovery of the Restaurants and Plans Post-disaster

The study reveals (Q11) that the recovery of a restaurant has a lot to do with the ability to adapt (Alos-Dos-Santos, 2019). This ability to adapt to new situations will be a good indicator of the future endeavors of the restaurant moving forward when faced with another disaster. Though according to Josephson (2019) when already dealing with a disaster a restaurant may be less likely to create a disaster plan. This is contradictory to the statement given by respondent 1: "There is no other answer than being strong and knowing how to make strategies"

This would indicate a willingness to adapt as times change. This preparedness for future disasters can indicate a better ability to recover from a disaster. If sufficient precautions are met beforehand and a plan is made, one can assume that these restaurants will survive (Josephson, 2019). The study also shows their situation in this time of the pandemic. (Q12) As stated by respondent 5, "If the Taal Volcano eruption was the hardest problem that the restaurant encountered, the pandemic was a major one". After the Taal Volcano eruption that happened last January 12, 2020. The next problem that businesses encountered was the Coronavirus pandemic. Because of the implemented lockdown that prohibits people to go outside, tourists in Tagaytay decreased which caused a major problem for businesses (Duddu, 2020).

In the data that researchers gathered, all respondents did an online selling. (Q14) As respondent 1 said "Yes. Through our Facebook page." We have our contact information there and customers who would like to order from us can message us directly to our page or through text and call. We only cater to customers living in Tagaytay and we have our delivery

Vol. 10, Issue 1, pp: (56-64), Month: April 2022 - September 2022, Available at: www.researchpublish.com

transportation. We don't use food panda or Lalamove". Online selling is beneficial for both customers and restaurants because it can provide convenience to customers and safety for both parties. (Alexander, 2020)

IV. CONCLUSION

The study shows that before the Taal Volcano eruption, the city was packed with a lot of tourists. That's why the restaurants are doing well in their business and have good sales. However, after the eruption takes place, restaurants in the area suffer a lot of losses specifically in terms of sales that cause very negative effects on their business economically and socially. It does not necessarily indicate the ability of the restaurants to recover post-disaster.

Businesses tried their best to make the situation better by treating their customers and employees like family and friends. They also waited for the holidays to come, some adopted and relied on customer bonds. They also believed that to withstand another major disaster, they must have strong faith, the ability to adapt and maintain strong bonds to customers and as well as to their employees.

Adaptations were made to meet the challenges posed by the eruption. Losses came in the form of physical structures as ash fell on the restaurants but other losses such as the loss of the employees and customers contribute to the negative effect of the disaster on the restaurants. Small businesses are most at risk of not being able to recover (Marshall, 2017). So the ability to adapt as a response to disasters should be a primary objective after a disaster. As well as the ability to prepare for disasters. With preparedness pre-disaster as well as adaptation post-disaster a small business can withstand the slow death that can be caused by the effects of a disaster (Sydnor, 2016). Restaurants are also finding new ways to run their business by making strategies. Online selling and deliveries became their call back when fewer customers are coming to restaurants.

V. RECOMMENDATIONS

The capability of the restaurant to adapt is a must. Employees should also adapt to every situation so that they will know how to handle unforeseen scenarios that might affect the business. Also, owners of the restaurant should provide their employees with insurance because it can boost employee satisfaction and it can be a recruiting tool for businesses. In addition, businesses should also have a post-disaster plan to prepare for unforeseen scenarios that might happen in the future. Further long-term research about the recovery of business and longevity post-disaster would be optimal. Categorizing questions into more specific classifications would be optimal to identify specific indicators of problems that can happen before and after a disaster.

Coping Strategies of the selected Restaurants

The Taal Volcano eruption had a significant impact on the establishment and sales of the restaurants that were chosen. They have raised their sales to cope with the devastation caused by the eruption. Because without them increasing their sales, they will not have enough budgets to cope with their restaurant's loss and even to give salary to their workers. Lockdown within the area has been declared and with that walk-in customers are not allowed instead, restaurants did an online selling and booking within their area as for their coping strategies economically and socially.

REFERENCES

- [1] Alexander (2020, March 06). "Pros and cons of Restaurant online food delivery Services: Fridge. Retrieved May 02, 2021 from http://thefridgeagency.com/blog/pros-cons-online-food-deliery-services/
- [2] Alfonso-Dos-Santos, M., & Llanos-Contreras, O. (2019). "Family business performance in a post-disaster scenario: The influence of socio-emotional wealth importance and entrepreneurial orientation". Journal of Business Research, 101, 492-498. doi:10.1016/j.jbusres.2018.12.057
- [3] Cessda. (n.d.). Qualitative coding cessda training. Retrieved May 02, 2021, from https://www.cessda.eu/Training/Training-Resources/Library/Data-Management-Expert-Guide/3.-Process/Qualitative-coding
- [4] Cornell. (2020, January 21). "'Quiet and Unspoilt': Remembering the taal VOLCANO before its eruption". Retrieved May 02, 2021, from https://www.thenationalnews.com/lifestyle/travel/quiet-and-unspoilt-remembering-the-taal-volcano-before-its-eruption-1.967507
- [5] Crossman, A. (n.d.). "What You Need to Understand About Purposive Sampling". Retrieved July 31, 2020, from https://www.thoughtco.com/purposive-sampling-3026727

Vol. 10, Issue 1, pp: (56-64), Month: April 2022 - September 2022, Available at: www.researchpublish.com

- [6] Duddu, P. (n.d.). "Coronavirus in Philippines: How the COVID-19 affects Philippines". Retrieved May 02, 2021, from https://www.pharmaceutical-technology.com/features/coronavirus-affected-countries-philippines-measures-impact-tourism-economy/
- [7] Ganzon-Ozaeta, T. (2020, February 29). "Batangas suffers P123 million in TOURISM losses due To Taal eruption". Retrieved May 02, 2021, from https://www.rappler.com/nation/252989-batangas-tourism-losses-taal-eruption
- [8] Israel, Danilo C.; Briones, Roehlano M. (2014). "Disasters, Poverty, and Coping Strategies: The Framework and Empirical Evidence from Micro/Household Data Philippine Case". PIDS Discussion Paper Series, No. 2014-06, Philippine Institute for Development Studies (PIDS), Makati City
- [9] JoJosephson, A., Schrank, H., & Marshall, M. (2017). "Assessing preparedness of small businesses for hurricane disasters: Analysis of pre-disaster owner, business and location characteristics". International Journal of Disaster Risk Reduction, 23, 25-35. doi:10.1016/j.ijdrr.2017.03.013
- [10] M. Saini, A., Thorne, S., F. Toye, K., Sandelowski, M., Quinn-Patton, M., D. Tranfield, D., . . . J. Noyes, A. "Purposive sampling in a qualitative evidence synthesis: A worked example from a synthesis on parental perceptions of vaccination communication". Retrieved July 31, 2020, from https://bmcmedresmethodol.biomedcentral.com/articles/10.1186/s12874-019-0665-4
- [11] Marshall, M. I., Niehm, L. S., Sydnor, S. B., & Schrank, H. L. (2015). "Predicting small business demise after a natural disaster: An analysis of pre-existing conditions. Natural Hazards". 79(1), 331-354. doi:10.1007/s11069-015-1845-0
- [12] Matthew Tull, P. (2020, November 09). "Coping with PTSD after a natural disaster". Retrieved May 02, 2021, from https://www.verywellmind.com/coping-with-natural-disasters-2797570
- [13] Mkubukeli, Zandisile & Cronje, Johannes. (2018). "Pull and Push Elements of Entrepreneurship in South Africa: A Small-Scale Mining Perspective". Journal of Entrepreneurship & Organization Management. 07. 10.4172/2169-026X.1000252.
- [14] Natural disaster. (n.d.). Retrieved May 02, 2021, from https://www.sciencedirect.com/topics/earth-and-planetary-sciences/natural-disaster
- [15] National Disaster Coordination Council (September 2010). "Republic Act No. 10121". Retrieve from https://www.ndrrmc.gov.ph/attachments/article/95/Implementing_Rules_and_Regulartion_RA_10121.pdf?fbclid=IwAR0Wi9LMlghUbf292R_bE4e0Y5DfhXHgMiEmPVjBSetk4SAzBJOlnQPe9jE
- [16] Rappler (2020, January 16). "TIMELINE: Taal Volcano's January 2020 ERUPTION". Retrieved May 02, 2021, from https://www.rappler.com/newsbreak/iq/249503-timeline-taal-volcano-eruption-2020
- [17] Ronald Echalas Diaz, C. (n.d.). "Republic acts". Retrieved May 02, 2021, from https://www.chanrobles.com/republicacts/republicactno766.html
- [18] S. (2021, March 23). Snowball sampling: Definition, advantages, and disadvantages. Retrieved May 02, 2021, from https://www.statisticshowto.com/snowball-sampling/
- [19] Saurav KaushikSaurav is a Data Science enthusiast. (2020, October 18). Clustering: Types of clustering: Clustering applications. Retrieved May 02, 2021, from https://www.analyticsvidhya.com/blog/2016/11/an-introduction-to-clustering-and-different-methods-of-clustering/
- [20] Sennyah, P., & Goh, R. (2020, January 18). Taal eruption: Filipino municipalities Under lockdown: New Straits Times. Retrieved May 02, 2021, from https://www.nst.com.my/world/region/2020/01/557580/taal-eruptionfilipino-municipalities-under-lockdown
- [21] Staff, C. (n.d.). Agricultural damage from taal ERUPTION hits ₱3.06-b. Retrieved May 02, 2021, from https://www.cnnphilippines.com/news/2020/1/17/Taal-Volcano-eruption-agriculture-damage-3-billion.html
- [22] Staff, C. (n.d.). Taal eruption: DILG names Tagaytay city areas that can't open businesses yet. Retrieved May 02, 2021, from https://www.cnnphilippines.com/news/2020/1/21/Tagaytay-businesses-Taal-Volcano-eruption.html

Vol. 10, Issue 1, pp: (56-64), Month: April 2022 - September 2022, Available at: www.researchpublish.com

- [23] Sydnor, S., Niehm, L., Lee, Y., Marshall, M., & Schrank, H. (2016). Analysis of post-disaster damage and disruptive impacts on the operating status of small businesses after Hurricane Katrina. Natural Hazards, 85(3), 1637-1663. doi:10.1007/s11069-016-2652-y
- [24] Watson, M., Xiao, Y., Helgeson, J., & Dillard, M. (2020). Importance of Households in Business Disaster Recovery. Natural Hazards Review, 21(4), 05020008. doi:10.1061/(asce)nh.1527-6996.0000393
- [25] The Editors of Encyclopaedia Britannica. (2020, May 28). Industry. Retrieved July 20, 2020, from https://www.britannica.com/technology/industry
- [26] What is DATA Transcription? Qualitative Data Transcription Meaning. (2021, March 09). Retrieved May 02, 2021, from https://www.rev.com/blog/resources/what-is-data-transcription-qualitative-data-transcription-meaning
- [27] What is the economic sector? Definition and meaning. (n.d.). from http://www.businessdictionary.com/definition/economic-sector.html
- [28] What are the primary goals of qualitative research? (2016, January 19). Retrieved May 02, 2021, from https://interq-research.com/what-are-the-primary-goals-of-qualitative-research/
- [29] Venzon, C. (2020, January 13). Volcanic eruption disrupts philippine flights and businesses. Retrieved March 17, 2021, from https://asia.nikkei.com/Economy/Natural-disasters/Volcanic-eruption-disrupts-Philippine-flights-and-businesses
- [30] Written by Arito Ono, S. (n.d.). How do natural disasters affect the economy? Retrieved May 02, 2021, from https://www.weforum.org/agenda/2015/02/how-do-natural-disasters-affect-the-economy/
- [31] Why are independent and dependent variables important? (2020, June 26). Retrieved May 02, 2021, from https://www.scribbr.com/frequently-asked-questions/why-are-independent-and-dependent-variables-important/
- [32] Yap, C., & Calonzo, A. (2020, January 26). Philippines Lowers Taal Volcano Alert as Eruptions Wane. Retrieved June 30, 2020, from https://www.bloomberg.com/news/articles/2020-01-26/philippines-lowers-taal-volcano-alert-as-quakes-eruptions-wane