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Analyzing the Emergency and Disaster Preparedness Perception of the Undergraduate Students Living in Student Housings Around the City of Manila

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Abstract

This study analyzed the perceptions of undergraduate students living in student housing in the City of Manila regarding emergency and disaster preparedness as they faced various challenges when it comes to emergency response, given the nature of their living arrangement. The researchers examined how these perceptions affect their responses to emergencies, focusing on factors such as personal experiences, prior training, climate change awareness, and the roles of local governments and universities in disaster response and management. Using stratified random sampling, surveys were distributed online and on-site, with data analyzed through structural equation modeling (SEM). Findings reveal that while students recognize the importance of preparedness, many lack confidence in their ability to respond effectively. Factors such as the frequency and type of training received, familiarity with local emergency protocols, and understanding of climate-related risks significantly influence their perceived preparedness. The study emphasizes the need for improved training programs and stronger collaboration between universities and local governments to enhance disaster preparedness.

Based on the results, the researchers recommend strengthening training programs, improving student awareness, and developing partnerships between academic institutions and disaster management authorities that will ultimately boost the overall disaster readiness and response of the students. Additionally, this study stresses the need for targeted strategies to bridge preparedness gaps, specifically among students in temporary housing near universities, and calls for further studies to address these critical issues.

Keywords

Disaster Preparedness, Student Housing, Undergraduate Students, Structural Equation Modelling, Emergency Response

1. Introduction

Natural and man-made disasters, including typhoons, earthquakes, and fires, are recurring threats worldwide, with the Philippines being one of the most disaster-prone countries due to its geographic location and vulnerability to such events (Bollettino et al. 2017). According to the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA n.d.), the Philippines experiences an average of 20 typhoons annually, along with frequent earthquakes (ARDC n.d.), making disaster preparedness an ongoing necessity. Despite various community-based programs and government initiatives, a significant quantity of the Filipino population remains poorly prepared for emergencies (Bollettino et. al. 2020). This is particularly true for those who live away from their families, as they are often more vulnerable. Undergraduate students in Metro Manila, many of whom reside in student housing near their universities for convenience (Diosio et al. 2021), are specifically at risk due to the nature of their living arrangements, given the reality is that disasters and emergencies can occur at any time and in any place (Lee 2024). When selecting accommodation, students tend to prioritize factors such as location, facilities, and cost, often overlooking crucial aspects such as emergency evacuation plans and disaster response protocols (Alcaraz et. al. 2020). This lack of preparedness poses a significant risk during natural and man-made disasters, which can escalate the harm they cause.

Bottellino et. al. (2020) found that Filipinos who prepared a plan for disaster preparedness consist of only up to 53.1%, which is relatively low considering that the Philippines is considered to be one of the most disaster-prone countries. Disaster preparedness, being the effective countermeasure for these natural phenomena, is important to have, and it is equally important in understanding how undergraduate students perceive the existing disaster preparedness plans that are set out by their respective universities and local government units. This research focuses on the preparedness levels of undergraduate students living in short-term student housing in the City of Manila, where the transient nature of their living conditions complicates their ability to respond effectively during emergencies.

The study examines the factors that influence students' awareness and preparedness, including prior disaster training, knowledge of local government initiatives, and personal experience with past disasters. These factors served as the determining variable to assess and emphasize the need for improved disaster preparedness strategies among the undergraduate students residing in student housing in the City of Manila, ultimately contributing to improved disaster resilience for the student population in the city.

1.1 Objectives

The primary objective of this study was to assess the emergency and disaster preparedness perceptions of undergraduate students residing in student housing in Manila. Specifically, the study aimed to identify factors influencing students' preparedness, such as personal experience, training, and awareness, while also evaluating both their perceived and actual preparedness levels. To achieve this, the study sought to:

- Evaluate whether the factors identified in existing literature influence the perceived emergency and disaster preparedness of undergraduate students in student housing.
- Collect data through the distribution of structured survey questionnaires to the target population and systematically compile the responses.
- Analyze the collected data using Structural Equation Modeling (SEM) and draw conclusions based on the findings.
- Examine the correlation between students' perceived preparedness and their actual preparedness levels, providing recommendations to help institutions enhance student response for emergencies and guide future research.

2. Literature Review

Filipino resilience is a defining characteristic that significantly influences disaster preparedness. Studies highlight the ability of Filipinos to endure and recover from disasters, shaped by several factors such as past experiences and the effectiveness of government policies (Garay et al. 2020). However, Alcayna et al. (2018) identified gaps in disaster preparedness frameworks, specifically the lack of clear risk reduction strategies and coordinated efforts at the local level. These outcomes emphasize the need for better preparedness programs that go beyond immediate disaster response, focusing on proactive measures to reduce the overall impact of disasters.

Students living away from home in student housing face unique challenges that affect their overall well-being (Nguheim et al. 2021). Studies show that while living independently in student housing offers students more freedom and convenience, it likewise introduces vulnerabilities, particularly in terms of social, emotional, and environmental

factors (Garcia 2016). Research indicates that although dormitory living does not negatively affect academic performance, these living situations may present heightened stress and feelings of isolation, which could affect students' response to disasters (Dioso and Iglesia 2021).

Furthermore, the impact of disasters on students' academic performance and emotional well-being is fundamental, as those directly exposed often experience a decline in academic performance (Vandette 2020). Evidence suggests that climate-related disasters, such as wildfires, flash floods, and cyclones, are becoming more frequent and intense, which makes this tendency more concerning (Chuang 2020). Research also indicates that students who have encountered disasters may suffer long-term psychological effects, such as post-traumatic stress, which can hinder their academic success (Neria et. al. 2007). Moreover, a study conducted by Matunhay et. al. (2022) found that disaster preparedness is essential for reducing casualties during catastrophes, yet gaps in knowledge and readiness remain. The negative consequences of disasters on education can be reduced by developing backup plans, investigating alternative teaching strategies, and offering psychological support (Hebebci 2023) hence, some studies highlight the need to integrate disaster risk reduction education into school curricula to enhance students' awareness and practical preparedness (Ventura and Madrigal 2020).

3. Methods

3.1 Research Design

A nonexperimental quantitative research design was used in this research, aiming to investigate the relationships between the variables and providing a description of the links in an effort to identify the outcome variable, the study's proposed causes were examined in this research. Aligned with the study's objective, the variables are identified as:

Table 1. Research Design Variables

Variable	Definition of Variable and Description of Relationship
Budget Allocation	Wealthier households are more likely to invest in disaster preparedness materials (Bolletino 2017)
Direct Experience with Disasters	Personal disaster experience increases engagement in preparedness activities (Bolletino et al. 2020)
Government and University Responsibility	Students feel safer when governments and universities implement proper disaster protocols (Patel et al., 2023).
Compulsory Disaster Courses	Integrating disaster knowledge courses into curricula is recommended to improve preparedness (Matunhay, 2020).
Disaster Training	Students who undergo disaster training have more positive views on preparedness (Matunhay, 2020).
Knowledge of Climate Change	A person's knowledge of climate change correlates with their disaster preparedness level (Bolletino, 2020).
Impact of Climate Change on Individuals	The impact of climate change is a major factor influencing disaster preparedness (Bolletino, 2020).
General Effects of Climate Change	The general effects of climate change significantly influence disaster preparedness efforts (Bolletino, 2020).
Actual Preparedness	Actual preparedness is assessed based on hazard, vulnerability, and recovery capability (Granberg, 2012).
Perceived Preparedness	Students often perceive themselves as more prepared than they actually are (Tkachuck, 2018).

Disaster risk reduction education is essential, as students are among the most vulnerable in emergencies (Kermanshachi et al. 2020). In a study, Nipa et al. (2020) stated that incorporating practical disaster preparedness activities into academic curricula, particularly in fields like construction, significantly improves students' ability to respond to emergencies. While students generally understand disaster-related concepts, studies show the need for more hands-on training to guarantee they can apply their knowledge in real-life scenarios (Orbe et al. 2022). This shows that theoretical knowledge alone is insufficient and practical preparedness activities are necessary for improving students' overall disaster readiness (Sharma and Patil 2023).To mitigate these challenges, disaster preparedness

programs must be strengthened to equip students with both the knowledge and practical skills necessary for effective disaster response. Enhancing disaster preparedness among students requires more than resilience and theory. Addressing their vulnerabilities through practical training and stronger established support is vital for building proper disaster resilience.

3.2 Subjects and Study Site

The study participants are members of Generation Z, specifically Filipino men and women aged 18 to 26, currently enrolled in undergraduate programs and residing in student housing within a 1-kilometer radius of universities in the City of Manila. This age range is based on Philippine Statistics Authority (PSA) records, which indicate that students pursuing undergraduate degrees typically fall within this age bracket. Whereas the 1-kilometer radius was chosen based on the common preference among students to live nearby, as it offers convenience and accessibility. This proximity allows students to walk or bike to campus, minimizing both time and transportation costs while also providing the flexibility to attend late classes or events without the burden of long commutes (Sigua et. al. 2022).
The number of respondents required in the data-gathering process was calculated through the use of an online sample calculator for Structural Equation Modeling, bearing a minimum recommended sample size of 190. There are ten (10) latent variables with nine (9) independent variables, one (1) dependent variable, and an additional observable variable that is tested for its correlation with the dependent variable.

Table 2. Conceptual Framework

INPUT	PROCESS	OUTPUT
Independent Variables Budget Allocation Direct Experience with Disasters Government and Universities' Responsibilities Compulsory Disaster Courses Disaster Training Knowledge of Climate Change Impact of Climate Change on Individuals General Effects of Climate Change **Observable Variables** Actual Preparedness **Dependent Variables** Perceived Preparedness **Profile of Respondents** Undergraduate students residing in student housing in the City of Manila	Survey Deployment Data Collection Data Preparation Descriptive Statistics Statistical Analysis Synthesizing Results Reporting Results	Structural Equation Model (SEM) of the study Descriptive statistics of actual and perceived preparedness levels. Model Analysis and Recommendations

The figure presented shows the conceptual framework that displays the relevant information included in the input, process, and output of the study. Additionally, the study used Structural Equation Modeling (SEM) to analyze key variables relevant to disaster preparedness among undergraduate students in student housing. These variables include budget allocation, direct experience with disasters, government and university responsibilities, compulsory disaster courses, disaster training, knowledge of climate change, its impact on individuals and the environment, and perceived and actual preparedness. The research assessed how these factors contribute to students' preparedness for disasters. Actual preparedness was measured through descriptive statistics, it is not included in the SEM analysis. Data was analyzed using WARPPLS software. The findings shall provide recommendations for improving disaster preparedness and guide future research in this field.

4. Data Collection

The researchers used a combination of paper and online surveys to gather data from students living in student housing. The questionnaire included profiling questions about demographics and items assessing attitudes and behaviors toward disaster preparedness. Surveys were distributed via online platforms like Facebook, Instagram, and Messenger,

allowing respondents to complete them at their own pace, while face-to-face distributions were offered for those who preferred that method. The collected data was then used in the structural equation model to analyze factors related to disaster preparedness and awareness through the use of the WarpPLS software.

5. Results and Discussion

5.1 Results of Data Collection

After consolidating all the data collected from the participants living in student housing, it was found that out of the 319 participants, only 245 (73.7%) were qualified, while the remaining 84 (26.3%) were deemed not qualified and were therefore excluded from the data collection. The data collected revealed that the qualified participants acknowledged the fact that it is important to improve their emergency preparedness because of their personal experiences with disasters. Most of the participants who acknowledged the importance of improving their emergency preparedness took action into actually improving their preparedness during disasters. However, some of the participants said that they took no action which might've been caused by a lack of capability to do so or neglect.

5.2 Numerical Results

Table 3. Initial Factor Loading Analysis Values

	BA	DT	CDC	KCC	ICCI	GECC	DE	GUR	PP
A. Budget Allocation, BA (AVE: 1.00)									
BA	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
B. Disaster Training, DT (AVE: 0.57)									
DT1	-0.025	0.579	0.857	-0.33	1.078	-0.616	0.044	-0.514	-0.096
DT2	0.045	0.861	-0.538	0.188	-0.382	0.582	-0.022	0.286	0.007
DT3	0.297	0.659	0.565	0.17	-0.18	-0.514	0.053	-0.258	-0.049
DT4	-0.181	0.81	-0.098	0.182	-0.58	-0.049	-0.029	-0.104	0.036
DT5	-0.089	0.825	-0.396	-0.279	0.356	0.283	-0.023	0.37	0.063
C. Compulsory Disaster Courses, CDC (AVE: 0.66)									
CDC1	-0.319	0.687	0.731	-0.326	0.177	0.476	-0.057	-0.028	0.018
CDC2	0.044	-0.988	0.766	0.300	-0.088	-0.236	0.033	-0.755	-0.021
CDC3	0.063	-0.418	0.722	0.133	0.370	-0.536	0.031	-0.661	-0.040
CDC4	-0.078	0.425	0.928	-0.118	-0.138	-0.023	-0.020	0.360	0.000
CDC5	0.253	0.182	0.895	0.024	-0.225	0.270	0.015	0.829	0.036
D. Knowledge of Climate Change, KCC (AVE: 0.59)									
KCC1	0.258	-0.338	-0.497	0.596	-1.407	0.297	-0.026	0.677	0.058
KCC2	-0.144	-0.119	0.075	0.913	0.231	-0.123	-0.045	0.184	0.06
KCC3	-0.035	-0.085	0.329	0.937	0.556	-0.079	-0.019	-0.245	-0.011
KCC4	-0.135	0.104	0.306	0.852	0.785	-0.041	0.041	-0.546	-0.113
KCC5	0.3	0.721	-0.815	0.417	-1.345	0.106	0.095	0.296	0.039

It was also found that the participants' firsthand experiences with disasters had a significant contribution to their preparedness since it gave them a much better understanding of how to properly respond during emergencies caused by natural disasters. The participants also believed that climate change goes hand in hand with the frequency and intensity of the natural disasters that occur. This information is what drove some of the participants into taking action towards improving their emergency preparedness. According to the collected data, the majority of the participants believed that the efforts of the government and their respective universities in providing support and rescue during and after disasters and emergencies were not only observable but also efficacious. The majority of the participants also said that they were aware of the disaster protocols that the government and their universities were implementing which also improved their views on how the assistance that is being given to individuals has a huge impact.

Table 3.1 . Initial Factor Loading Analysis Values

E. Impact of Climate Change on Individuals, ICCI (AVE: 0.80)									
ICCI1	-0.005	-0.009	0.098	0.269	0.925	0.091	0.023	-0.355	-0.118
ICCI2	0.006	-0.129	0.362	-0.001	0.939	-0.048	0.022	-0.426	-0.114
ICCI3	-0.005	0.021	-0.253	0.303	0.901	0.199	-0.013	0.325	0.072
ICCI4	-0.094	0.282	-0.111	-0.496	0.928	0.105	-0.02	0.025	0.038
ICCI5	0.12	-0.2	-0.131	-0.08	0.757	-0.417	-0.016	0.544	0.154
F. General Effects of Climate Change, GECC (AVE: 0.52)									
GECC1	0.157	0.742	-1.474	0.118	-0.741	0.846	0.018	0.69	0.008
GECC2	0.158	0.379	-0.897	-0.058	0.137	0.871	0.028	0.421	-0.077
GECC3	-0.074	0.414	-0.86	-0.228	0.171	0.831	-0.04	0.729	0.06
GECC4	-0.281	-1.167	2.714	0.128	0.651	0.444	-0.024	-1.748	0.063
GECC5	-0.169	-1.564	3.068	0.165	0.151	0.500	0.008	-1.555	-0.035
G. Direct Experience, DE (AVE: 0.79)									
DE1	-0.061	0.074	0.199	-0.168	0.153	-0.08	0.896	-0.189	-0.02
DE2	-0.097	-0.128	0.352	0.053	-0.015	-0.116	0.901	-0.261	0.01
DE3	0.004	0.004	0.008	-0.08	0.133	-0.055	0.892	0.1	0.001
DE4	0.046	0.094	-0.393	0.099	-0.134	0.132	0.893	0.231	0.026
DE5	0.114	-0.046	-0.179	0.101	-0.144	0.127	0.85	0.128	-0.018
G. Government and University Responsibility, GUR (AVE: 0.63)									
GUR1	-0.158	-0.243	0.205	0.497	-0.684	-0.18	-0.048	0.797	0.076
GUR2	-0.435	-1.368	2.81	-0.157	0.884	-0.375	-0.071	0.428	-0.01
GUR3	0.208	0.145	-0.378	0.398	-0.574	0.177	0.008	0.876	-0.013
GUR4	0.07	0.477	-0.985	-0.204	0.136	0.165	0.023	0.904	0.023
GUR5	0.078	0.257	-0.167	-0.576	0.639	0	0.048	0.856	-0.076
H. Perceived Preparedness, PP (AVE: 0.43)									
PP1	0.064	0.231	0.171	-0.031	0.145	-0.053	0.062	-0.515	0.722
PP2	0.045	-0.264	0.236	-0.023	-0.039	0.059	-0.105	0.02	0.634
PP3	-0.09	0.681	-1.451	0.011	-0.192	0.259	-0.061	0.518	0.545
PP4	-0.016	-0.459	0.573	0.292	-0.203	-0.132	0.003	-0.085	0.658
PP5	-0.022	-0.098	0.202	-0.232	0.228	-0.076	0.077	0.192	0.695

Applying these principles, the factors highlighted in orange were identified as having factor loadings below the acceptable threshold or showing insufficient differentiation across constructs. The values with the green text are the factor loadings of each question that were considered under their respective factors. Furthermore, variables that demonstrated no statistical significance in the model were also excluded, as their lack of contribution to explaining variance undermines the overall effectiveness of the analysis, according to Heinze, G., & Dunkler, D. (2017). By removing these low-loading and insignificant variables, the revised model achieves greater statistical robustness and ensures that the retained items align with the theoretical constructs under investigation.

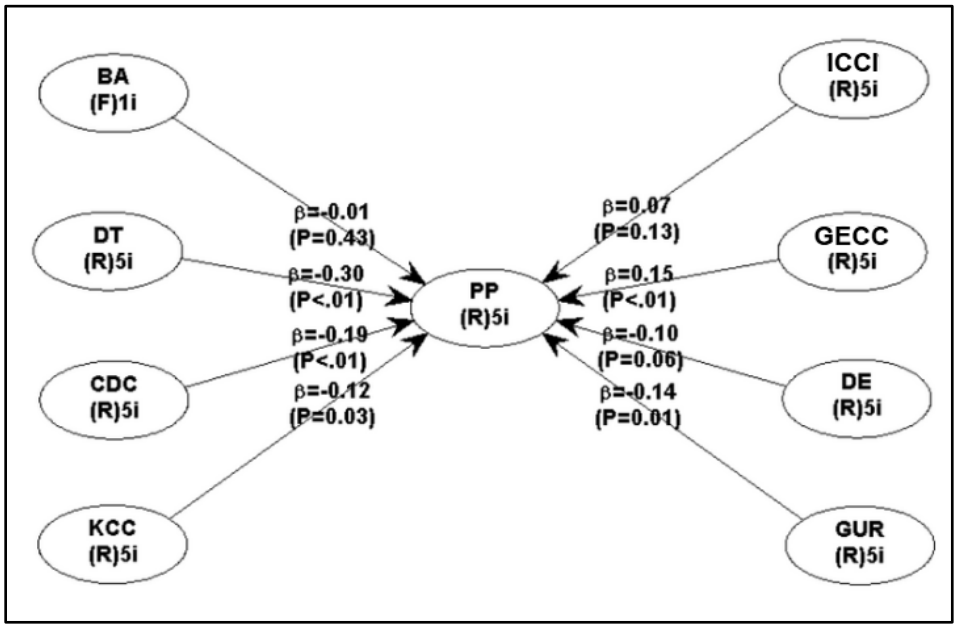
Table 4. Initial Discriminant Validity Statistics

	BA	DT	CDC	KCC	ICCI	ECCG	DE	GUR	PP
BA	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DT	0.03	0.57	0.30	0.06	0.36	0.21	0.00	0.11	0.00
CDC	0.04	0.37	0.66	0.05	0.05	0.13	0.00	0.36	0.00
KCC	0.04	0.13	0.22	0.59	0.95	0.02	0.00	0.19	0.00
ICCI	0.00	0.03	0.05	0.08	0.80	0.05	0.00	0.14	0.01
GECC	0.03	0.93	4.10	0.02	0.21	0.52	0.00	1.33	0.00
DE	0.01	0.01	0.07	0.01	0.02	0.01	0.79	0.04	0.00
GUR	0.05	0.45	1.82	0.16	0.40	0.05	0.00	0.63	0.00
PP	0.00	0.16	0.51	0.03	0.03	0.02	0.00	0.12	0.43

Based on the initial SEM run results, some factors were found to violate this criterion, indicating issues with discriminant validity. As a result, these factors were removed from the model to improve the overall validity of the constructs. This step helps refine the model and ensure that the remaining factors are sufficiently distinct, leading to a more reliable and valid structural model.

5.3 Graphical Results

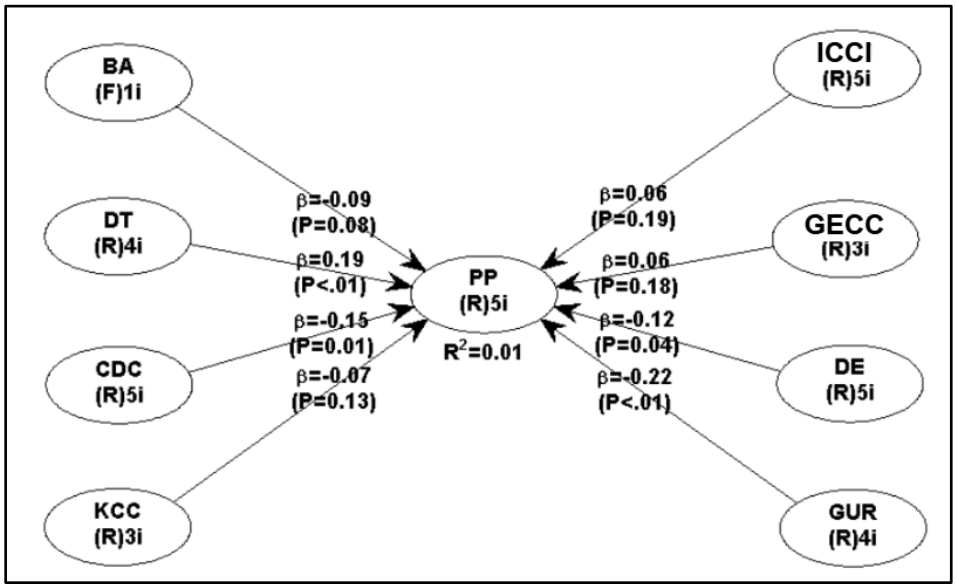
Table 5. Initial SEM Model Analysis



This figure is an initial analysis of the WARPPLS software. We can see that there are already factors which showcase an acceptable value for significance, but by cleaning the data gathered, most of these factors were ultimately removed due to their elements holding no statistical significance. Based on Matsunaga's (2010) recommendations, a systematic approach was adopted to refine the model, considering only the highest loadings for each item and cutoff values. The conventional minimum threshold is a loading of 0.40, with values set at 0.60 or 0.70 for stricter criteria. Additionally, some studies recommend examining the highest and the second-highest factor loadings to assess the relative strength of associations.

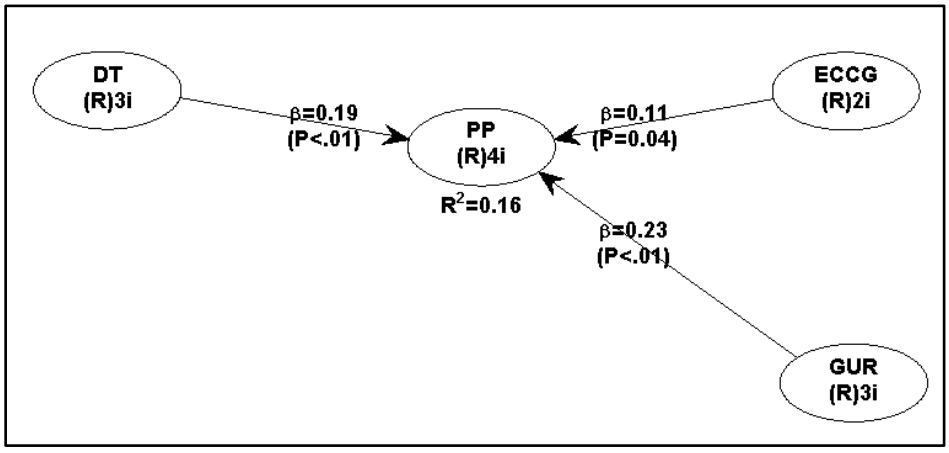
5.4 Proposed Improvements

Table 6. Second Run SEM Model Analysis



During the second run of the model, to further improve the data, the variables with low factor loadings were carefully identified and subsequently removed from the model. Low factor loadings indicate weak correlations between the variables and the underlying factors, which can compromise the overall reliability and validity of the model. By eliminating these variables, the refined model achieved improved accuracy, better alignment with the data structure, and more robust results for analysis.

Table 7. Final Run SEM Model Analysis



The figure presented illustrates a Structural Equation Modeling (SEM) diagram for the study, showcasing the relationships among various latent variables along with their standardized regression coefficients (β values) and corresponding p-values. The central variable, labeled "PP (R)4i," appears to be a primary dependent or mediating variable, with multiple pathways leading to and from it.

5.5 Validation

Table 8. Convergent Validity: Factor Loadings

	DT	GECC	GUR	PP	SE	P value
A. Disaster Training, DT (AVE: 0.64)						
DT3	**0.775**	-0.402	-0.09	-0.118	0.055	<0.001
DT4	**0.902**	-0.06	0.039	0.069	0.057	<0.001
DT5	**0.718**	0.509	0.048	0.041	0.056	<0.001
B. General Effects of Climate Change, GECC (AVE: 0.85)						
GECC1	0.049	**0.92**	-0.08	-0.022	0.056	<0.001
GECC3	-0.049	**0.92**	0.08	0.022	0.056	<0.001
C. Government and University Responsibility, GUR (AVE: 0.79)						
GUR1	-0.241	-0.295	**0.88**	0.137	0.056	<0.001
GUR3	0.045	-0.024	**0.93**	-0.068	0.059	<0.001
GUR4	0.198	0.33	**0.855**	-0.067	0.056	<0.001
D. Perceived Preparedness, PP (AVE: 0.44)						
PP2	-0.058	0.031	-0.004	**0.69**	0.058	<0.001
PP3	0.128	0.22	-0.455	**0.51**	0.059	<0.001
PP4	-0.121	-0.199	0.229	**0.687**	0.058	<0.001
PP5	0.077	0.004	0.104	**0.75**	0.058	<0.001

An equal number of questions were asked for each latent variable to ensure its validity and reliability. This method allows for more exact measurement of correlations between variables, as well as consistent and dependable results. The researchers followed the recommendations for determining significance suggested by Hair et al. (2021). Factor loadings show the amount to which a question corresponds to a concept, with greater loadings being better. Loadings between 0.30-0.40 are considered the minimum for interpretation, while those above 0.50 are deemed practically significant. Loadings greater than 0.70 indicate a strong link and are regarded as optimal.

Table 9. Discriminant Validity Statistics

	DT	GECC	GUR	PP
DT	**0.64**	0.14	0.00	0.01
GECC	0.00	**0.85**	0.01	0.00
GUR	0.03	0.07	**0.79**	0.01
PP	0.01	0.02	0.07	**0.44**

The use of discriminant validity statistics serves as evidence to support that there is uniqueness between the latent variables utilized in the model. The researchers have used the method of the Fornell-Larcker Criterion to check the correlation value between latent variables and to ensure that other constructs do not represent the exact circumstance of other variables. Shown in table 9 are the highlighted extracted square roots of the AVE with the correlation coefficient yielding a value that does not compromise the values of the AVE. Hair, et. al. (2021) supposed that the values of the square root of the extracted AVE should be greater than the correlation variables to establish that there is truly a distinction in between constructs.

5.6 SEM Assumptions

Table 10. Model Fit and Indices

	Value	p-Value	Criteria	Remark	Reference
Average path coefficient	0.176	0.001	p value should be less than 0.05	Acceptable. P value is significant.	Grant et. al, 2014 ; Stone, 2021; Hooper, 2008 ; Kang et. al. 2021
Average R-squared (ARS)	0.157	0.004	p value should be less than 0.05	Acceptable. P value is significant.	
Average adjusted R-squared (AARS)	0.146	0.006	p value should be less than 0.05	Acceptable. P value is significant.	
Average block VIF (AVIF)	1.194	N/A	acceptable if <= 5, ideally <= 3.3	Acceptable.	
Average full collinearity VIF (AFVIF)	1.783	N/A	acceptable if <= 5, ideally <= 3.3	Acceptable.	
Tenenhaus GoF (GoF)	0.327	N/A	small >= 0.1, medium >= 0.25, large >= 0.36	Medium	
Simpson's paradox ratio (SPR)	1.000	N/A	acceptable if >= 0.7, ideally = 1	Acceptable	
R-squared contribution ratio (RSCR)	1.000	N/A	acceptable if >= 0.9, ideally = 1	Acceptable	
Statistical suppression ratio (SSR)	1.000	N/A	acceptable if >= 0.7	Acceptable	
Nonlinear bivariate causality direction ratio (NLBCDR)	0.833	N/A	acceptable if >= 0.7	Acceptable	

A well-fitting model not only strengthens the credibility of the data but also enhances the robustness of the findings by accounting for dependent variable variances (Stone 2021). Furthermore, it provides a foundation for future research, offering a framework that can be expanded and refined in subsequent studies. A strong structural model adds to the overall quality of the study, ensuring that the relationships between variables were carefully considered and rigorously tested (Hooper et al. 2008).

6. Conclusion

This study assessed the disaster preparedness perceptions of undergraduate students in Manila's student housing, focusing on the factors that influence their preparedness levels. It found that while many students felt confident in their preparedness, there were gaps between their perceived and actual ability to respond effectively to emergencies. Key factors such as compulsory disaster courses and knowledge of climate change were found to improve preparedness, while personal experiences and institutional safety measures had less impact. The study highlights the importance of education and training in disaster preparedness, offering recommendations for universities and local authorities to enhance programs and better equip students for emergencies. With this, the study may provide concerned authorities with the knowledge required to reinforce existing emergency preparedness tools that are taught or disseminated through various channels that ensure that members of the community can make informed decisions during emergencies.

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Biography

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Royce Carl R. Chung is a fourth-year industrial engineering student at the University of Santo Tomas. His interest in different fields led him to try out multiple engineering organizations within the four walls of the university. He also recently finished his internship at Polyfoam-RGC International Corporation, where he gained further experience in operations management and process improvement. With a strong passion for problem-solving, they are eager to pursue a logistics and data analytics career to drive efficiency and innovation in supply chain management.

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