

COMMUNITY ROLES AND DISASTER AWARENESS AT COMMUNITY OF PETALING DISTRICT, SELANGOR

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ABSTRACT

This study examines the correlation between community roles (community attitude and community knowledge) and disaster awareness in the community using a sample of 150 usable questionnaires gathered from experience disaster flood household communities in the Petaling District, Selangor, Malaysia. The data was generated using the Statistical Package for Social Sciences (SPSS) version 21.0 and Structural Equation Modeling (SEM) SmartPLS version 3.2.5. The results of confirmatory factor analysis (CFA) confirmed the measurement scales satisfactorily met the standard of validity and reliability analysis. Further, the outcomes of SmartPLS path model showed two important findings: firstly, the community attitude significantly correlated with disaster awareness in the community. Second, community knowledge significantly correlated with disaster awareness in the community. Statistically, this result confirms that the ability of experience disaster flood household communities in the Petaling District, Selangor, Malaysia to properly implement the community attitude, and community knowledge in practicing the community base disaster response management have been important determinants for the disaster awareness in the studied community. Further, this study will be thoroughly offer discussion, and conclusion.

Keywords: *Disaster awareness, community attitude, community knowledge, SmartPLS.*

INTRODUCTION

Disaster as an event that cause people loss their life, properties, resources and also give a psychological impact. Different communities experience disasters differently. Community has a

good local knowledge of the region so that the disaster management conducted by the local community will be more effective and efficient (Binja Anjasni, 2013). Community defined as a social, religious, occupational, or other group sharing common characteristics or interests and perceived or perceiving itself as distinct in some respect from the larger society within which it exists (Civil Defence, 2010). Communities are aware of vulnerable elements of the community and consider their needs in the development of programs and plans. Davoodi et al. (2004) regard public education as the core of any disaster planning because individuals are the basic units of communities. Community knowledge is fundamental to enabling everyone in the community to determine their hazards and risks, and to inform preparation and mitigation measures. The objectives of this study are: first, is to examine the relationship between the community attitude and disaster awareness. Second, is to examine the relationship between the community knowledge and disaster awareness.

LITERATURE REVIEW

Community awareness is one of the main components of national disaster management strategy of Malaysia by develop a national approach to fostering and enhancing the community's awareness of risks, and encourage involvement in prevention/mitigation, preparedness, response and recovery strategy (Ahmad Azan et al., 2011). United Nations (2005) described community knowledge of risk as the starting point for reducing disaster risk and for promoting a culture of disaster resilience lies in the knowledge of the hazards and the physical, social, economic and environmental vulnerabilities to disasters that most societies face, and of the ways in which hazards and vulnerabilities are changing in the short and long term, followed by action taken on the basis of that knowledge. Community with right attitude and better education leads to better information, which in turn has been associated with higher levels of environmental awareness (Arcury, 1990).

Relationship between the Community Attitude, Community Knowledge and Disaster Awareness.

A previous study was conducted by Ahmad Azan et al., (2016) with 318 samples of the Bukit Antarabangsa community at Ampang Jaya Municipal in Malaysia, and studied by Rustam et al., (2013) to 211 coastal communities at Kota Kuala Muda situated in the state of Kedah, Malaysia focused on community knowledge and community awareness. Studied by Harunsalee, Denpaiboon and Kanegae (2013) to 153 community surround Thammasat University, Bangkok, Thailand. This measurement focused on community attitude and community awareness. From the study, it was found that there is a positive relationship between community attitude and community awareness in providing support during the floods in Thailand. According to Twigg et al. (2000), the Expand-Contract Model used in local communities, which assumes that disaster intervention measures of disaster prevention, mitigation, response and recovery can be carried out at all times in a disaster-prone community. The study showed that the knowledge being exposed to the community was given by government helps them improve their awareness about

disaster in their community areas. This literature was used to develop the hypothesis for this study as follows:

H1: There is a positive relationship between community attitude and disaster awareness.

H2: There is a positive relationship between community knowledge and disaster awareness.

METHODOLOGY

This study used a cross-sectional research design which allowed the researchers to integrate community roles literature, a pilot study and the actual survey to gather data for the study. The use of this data collection method reduces bias and ensures high-quality data (Cresswell, 2012; Sekaran & Bougie, 2013). This study gathered data from the Petaling District community at the state of Selangor, Malaysia. At the initial stage, an interview was conducted via a survey questionnaire with five local community lived more than 10 years of experience with adequate knowledge living in the study area helped to develop the survey questionnaire for the actual research.

The survey questionnaire had four sections. First, demographic variables had 8 items were used as the controlling variables that focused on household community characteristics. Second, community attitude had 3 items. Third, community knowledge had 4 items. Fourth, community awareness had 5 items. All these items were measured using a seven-point scale ranging. A convenient sampling technique was used to distribute the survey questionnaires. The participation of local community was completely voluntary. A total of 150 usable questionnaires were returned to the researchers, yielding a 90% response rate. The SmartPLS version 3.2.5 was employed to analyzed the survey questionnaires by testing the confirmatory factor analysis and test the research hypotheses (Hair et al., 2017; Henseler et al., 2009).

RESULTS

In terms of samples profile N=150, most respondents are males (65%), Malay (97%), ages above 31 years old (46%), married status (57%), ethnic group Malay (97%), self-employed (38%), 6-10 years residing (23%), and experience with flood (71%).

The outcomes of confirmatory factor analysis were shown in Tables 1 and 2. Table 1 shows that community roles, and disaster awareness had the values of average variance extracted (AVE) larger than 0.5, indicating that they met the acceptable standard of convergent validity (Fornell, & Larker, 1981). The diagonal values of \sqrt{AVE} were greater than the squared correlation with other constructs in off diagonal, showing that all constructs met the acceptable standard of discriminant validity (Henseler et al., 2009).

Table 1: The Results of Convergent and Discriminant Validity Analyses

Construct	AVE	Community Attitudes	Disaster Awareness	Community Knowledge
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Community Attitudes	0.700664	0.837		
Disaster Awareness	0.675243	0.737604	0.875	
Community Knowledge	0.677368	0.520848	0.665939	0.823

Note: $\sqrt{\text{AVE}}$ shows in diagonal

Table 2 shows all constructs loaded exceeding the specified minimum, 0.7, showing that the validity of measurement model met the criteria (Fornell & Larker, 1981). The composite reliability and Cronbach's Alpha had values greater than 0.8, indicating that the instrument used maintained high internal consistency (Henseler et al., 2009).

Table 2: The Results of Cross Loadings for Different Constructs and Construct Reliability Analysis

Construct	Number of Item	Cross Factor Loadings	Composite Reliability	Cronbach Alpha
Community Attitudes	3	0.708 – 0.859	0.846	0.892
Disaster Awareness	5	0.785 – 0.861	0.900	0.841
Community Knowledge	4	0.785 – 0.861	0.828	0.840

Figure 1 shows the outcomes of testing SmartPLS path model. The value of R^2 is used as an indicator of the overall predictive strength of the model. In this model testing, the inclusion of community attitude and community knowledge in the analysis had explained 23.4 percent and 12.7 percent respectively of the variance in disaster awareness. The results of SmartPLS path model analysis revealed two important findings as shown in Figure 1. All the hypothesis H1, and H2 are significantly correlated, therefore all are supported. In overall, this result demonstrates that community roles (community attitude and community knowledge) are an important determinant of disaster awareness in the studied organization.

Relationship	β	t value	R^2	Result
H1: Community Attitude ----> Disaster Awareness	0.484***	12.468	0.234	Significant
H1: Community Knowledge ----> Disaster Awareness	0.357***	8.058	0.127	Significant

Note: Significant at $*t \geq 1.96$

Figure 1: Outcomes of Testing SmartPLS Path Model

DISCUSSION AND CONCLUSION

The findings of this study had confirmed that community roles (community attitude and community knowledge) in studied organization does act as an important determinant of community disaster awareness. In the context of this study, well exposed community with proper knowledge and right attitude in the studied community contributes to better community disaster awareness. According to the majority of the respondents, the levels of community attitude, community knowledge and community disaster awareness are substantial. This situation posits that majority of respondents feel that proper planning on community roles will increase community interest on disaster awareness and enhance disaster response. With proper community roles programme are given more attention, it's may help the community heads to manage their community both individually and groups to enhance better community disaster awareness. As a result, the studied community need to put maximum community roles (community attitude and community knowledge) into practice as it ensures the ultimate and the continuous success on disaster awareness of the studied community.

ACKNOWLEDGEMENTS

This work was supported in part by NRGs Grant under NRGs/2013/UPNM/PK/P2.

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