Journal of Theoretical and Applied Information Technology
30th September 2022. Vol.100. No 18

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

TOWARDS CONCEPTUAL MODEL OF SOCIAL MEDIA USE FOR FLASH FLOOD PREPAREDNESS IN KLANG VALLEY

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ABSTRACT

Flash flood seems to be one of the natural disasters prompting considerable worry throughout the globe. Malaysia, which is situated in Southeast Asia, is not immune to flash floods; in fact, it has lately suffered a rise in the frequency of flood incidents, each of which has been more severe than the previous. This flash flooding event can cause disruptions towards the economic, environmental, property and the livelihood of the people in Klang Valley, Malaysia. Nowadays, the importance of social media such as Facebook, Twitter, and Instagram as a platform for connecting individuals from all over the world is gaining prominence. Therefore, this research aims to develop a conceptual model on the factors influencing social media use towards flood disaster preparedness in the case of Klang Valley. This research has applied quantitative-deductive approach and employed PLS-SEM analysis involving a total of 98 respondents, statistically seems to be sufficient for analyzing the model. The initial factors have been reviewed and identified according to the empirical results of related studies and these are Knowledge Self-Efficacy, Subjective Norms, Attitude, Trust, Community Participation and Openness. Overall, the model can explain 44.9% of the variance in the intention to prepare using social media for flood preparedness. The evaluation of the proposed model yielded that three of the six factors which are Knowledge Self-Efficacy, Attitude, and Trust, have significant positive influence on social media use for flash flood disaster preparation in the context of Klang Valley, Malaysia.

Keywords: *Social Media, Flood Preparedness, Knowledge Self-Efficacy, Attitude, Trust*

1. INTRODUCTION

Flooding is one of the main natural disasters that has impacted many areas of the world. The disaster brought massive flooding in several countries across Asia, leading to dam collapses, rivers overtopping their banks, landslides and mudslides. Flash floods and monsoon floods are the most two important natural disasters that frequently occur in Malaysia [1,2]. However, flash flood is deemed to be more predominant and more frequent in urban areas like Kuala Lumpur [3]. According to [4], flash floods is described as a type of fluvial flooding that is characterized by the fast response of a runoff timescale, ranging from minutes up to a few hours. The occurrence of flash flood is very sudden with small lead time at unexpected time and places [3].

Flash flood in Klang Valley could cause significant harm to the citizen's livelihoods, the economy, and the environment. According to the latest DID study from 2012 (Updating the Condition of Flooding and Flood Damage Assessment in Malaysia), the area at risk of flooding is 10.1% of Malaysia's total area, potentially affecting a total of 5.7 million Malaysians. Statistics shown that Kuala Lumpur has small flooded area (13 km^2 or 5.38%) but high Average Annual Disaster (ADD) rate [5,3]. As the most populated city in a developing country, Klang Valley region consisting urban cities like Kuala Lumpur and Selangor is likely to be vulnerable to flood hazards, dealing with the unprecedented repercussions [6]. However, as revealed by [3], flash flood related studies in Malaysia are still underdeveloped.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

Moving along with technology revolution, this study focuses on the use of social media as a platform that could benefit flood disaster preparedness. In terms of information and knowledge sharing, social media's relevance is undeniable. As social media can provide real-time information, it's evident that any news or issue can be shared quickly and easily with other users. However, the information's reliability and trustworthiness are still debatable, as some users use social media to spread false news and information for personal gain. Despite the obstacles, the role of social media like Facebook, Twitter, and Instagram as a platform to connect people from various places is getting the spotlight. However, there are limited studies have been made out of the usefulness of social media in disaster preparedness. Through social media, the behaviour of the users and how they react on information or news about the disaster can be observed. Thus, this paper aims to bridge the gap by examining users' preparation behavior to news sharing and the usefulness of social media as a medium for exchanging flood information.

The objective of this study are as follows; i) to identify the factors influencing social media usage towards flood disaster preparedness, ii) to develop a conceptual model of factors influencing social media usage towards flood disaster preparedness in the case of Klang Valley, iii) to evaluate the proposed model of social media usage towards flood disaster preparedness in the case of Klang Valley. This study focuses on the factors influencing social media usage in the case of flood in the Klang Valley, classifying them into individual and social media characteristics. Furthermore, the behavioral type of model to be proposed in this study is intended to assist the community wellbeing involved in flood disaster with the aid of social media.

2. LITERATURE REVIEW

Several journals and articles from a variety of sources are reviewed and discussed in order to provide a full overview of prior research on the factors that influence social media usage in disaster preparedness. The information from previous work is captured by reviewing the definition and overview of the papers. Finally, the factors that are appropriate for the setting of this study were determined. In light of the prior research' models and the factors highlighted by those models, a proposed model for this study is constructed.

2.1 Disaster Preparedness

According to Federal Emergency Management Agency (FEMA), preparedness can be defined as "a continuous process of planning, organizing, training, equipping, exercising, evaluating and counteracting in an effort to ensure effective cooperation amidst incident response." In the same page, United Nations New York and Geneva state that preparedness is the knowledge and capacity of governments, response and recovery authorities, communities and individuals to productively predict, react to and recover from the damages due to likely, imminent or ongoing emergency events [8]. In general, disaster preparedness refers to the actions or precautionary measures that are taken to ensure the number of fatalities and injuries, also the number of damages caused by disasters can be minimized. In other words, disaster preparedness is known as actions that need to be taken prior to the disasters in term of to anticipate, to be fully equipped physically and mentally, to actively react, and at the end to regain from the consequences. The efforts is to make sure that an active response towards the disaster risk could be improved by including the establishment of preparation plan for every level of community or organization, build in an early warning system and conduct a public training [9, 10, 11, 12]. The most usual preparation that people do when there are any emergency events forecasted is reserve some food and water, keeping an emergency kit ready at home or owning an evacuation plan for the family and more [10, 13, 14, 15, 16].

To put up the correlation on education and mental health, it is found that people with little or low understanding and awareness of disaster is more likely to have a low-risk perception, therefore could lead to having a very low possibility to be prepared for disasters. In addition to that, preparedness intentions could be increased with an increase in risk perception. Nonetheless, it is not always the case because it is not proven by any studies that there is a relation between experience and future disaster preparedness. Meanwhile, significant progress has been made in developing and empirically proving social cognitive theories, and less consideration has been given to how the individual's emergency-related impact, which is likely to have an impact on preparedness decision-making, could be affected. This initiates the demand to study how emotional factors with cognitive processes can have an impact on both people's intention to prepare and how much it takes for them to convert the intentions into preparedness actions [17].

In addition to that, those actions of preparing an effective response are actually varied significantly based on personal attributes and situations. The common socio-demographic characteristics that are stated to be related to disaster preparedness includes age, sex, marital status, number of children and education. Besides that, it is believed that the level of preparedness is increasing with one financial condition like earnings and assets possession [11, 18, 19].

2.2 Social Media in Disaster Preparedness

There are a lot of studies on social media, however, but very few of them provide a specific definition of social media. Nonetheless, [20], [21], and [22] have chosen the same definition of social media as their simple idea on social media. According to them, social media can be described as a group of Web-based applications community that builds on the ideological and technological foundations of Web 2.0 and enables the production and sharing of user-generated content. [22] then added that social media as obvious as the name is a media for social interaction as a superset beyond social communication. Social media has done significant work on changing the way organizations, communities and individuals interact with each other as it is enabled by very widely accessible and scalable communication methods. In addition, social media is also a platform that allows the users to get involved, leave comments and create contents as a means of communicating with other users and the public in the interactive web.

When it comes to disaster, the most significant elements that can make a lot of difference is most likely the response time like how long it takes to respond to the emergency. For that, a good communication through social media and the commitment to utilize it upon the emergency events have to be formed to publish or post an important information that could lead to illustrate the whole situation or what they can expect from the disaster in the simplest and understandable manner for all level of community [23]. With that, the increasing usage of social media and the Internet for the past ten years has succeeded to develop access to the threat information significantly. This has resulted in strong growth to an open hunger for the public towards relevant and timely manner emergency information [24].

The growth of communication through social media during the disaster occurrences and crises enables the public to share on-the-ground information about the situation of the events [25]. Therefore, from the reviews and studies made on social media so far, it is clearly shown that social media is actually a great platform to have good communication and interaction between the authorities and individuals, especially in disaster management. Besides that, the idea of social media-based knowledge sharing and risk communication actually correlated with each other. In this case, it is obvious that knowledge sharing is about exchanging experienced knowledge, expertise and skills related to disaster management [26]. As a result, risk messages that have been conveyed can be studied, thus, eases the right authorities to enhance their awareness of time-critical situations and a better decision can be made for emergency response [25].

2.3 Previous Researcher's Model

Previous study by [26] presented a study on social media-based knowledge sharing intentions in disaster management with referring to the Theory of Planned Behavior (TPB), Social Cognitive Theory (SCT), technology acceptance model (TAM) and social exchange theory. This is because the authors want to emphasize further on the three (3) groups of organizational factors, individual factors and technology factors that are believed can facilitate voluntary social media-based knowledge sharing intention. Along with that, there are seven (7) subset independent variables which include management support, organizational reward, knowledge self-efficacy, interpersonal trust, enjoyment in helping others, perceived usefulness and perceived ease of use.

As mentioned by [13] in their research that there is no other researchers has been studied that utilizing the Theory of Planned Behavior (TPB) to discuss on the variability of Disaster Preparedness Behavior (DPB). Certain theoretical frameworks that can be used to discuss behaviors that minimize the risk of natural disasters includes Protection Motivation (PMT), Person Relative to Event Theory (PrE), Protective Action Decision Model (PADM), and Social-Cognitive Preparation Model. The main aim of this research is that the authors want to further their understanding of DPB with respect to the TPB. Based on the analysis that [13] did between two groups of people which are unprepared people and prepared people from the representative sample of Tehran people, they found out that attitudes and subjective norms and perceptions of behavioral control were found to have significant effects on

intentions. Besides that, they also found there were statistically significant differences between the prepared and unprepared people in the variables of TPB. They later concluded that DPB was found to be influenced both by intentions and perceptions of behavioral control.

[19] stated that disaster risk reduction efforts are not solely an individual effort as they can be promoted across social networks. The authors examine the determinants of and the relationships between disaster risk reduction behaviors and social participation. Through disaster risk reduction activities, the importance of community participation can be emphasized because the activities mainly depend on the partnership, participation and ownership of local communities. Community participation mentioned includes the community empowerment in supporting community-driven processes like negotiating with and engaging local and central government agencies. [19] highlighted on the social capital as the key element in the disaster risk reduction. Social capital can be both community-level and individual-level attributes in which with the help from social networks, it can be considered as a public resource that enhance the well-being of the community. Besides that, when it says social capital can be associated with the individual-level attributes and at the individual level this term is interchangeable to social participation.

Other researchers have conducted various related studies on social media in relation to the elements that influence disaster preparedness behavior. Several of the factors listed in Table 1 below have been shown to be beneficial to include in the proposed model.

Table 1: Identified Factors

Authors	Factors
[27]	Participation, openness, conversation, community, connectedness.
[28]	Trust, confidence, social cohesion.
[29]	Anxiety, risk compensation, optimism, variable outcome expectancy, self-efficacy, action coping level, empowerment.
[30]	Confidence, awareness, trust, knowledge/education.
[15]	Education, social participation.
[31]	Attitude, subjective norm, perceived behavior control.
[32]	Awareness, education, risk perception, sense of place.
[33]	Education, Awareness.
[34]	Risk perception, coping ability, experience, community participation, collective efficacy, norms, empowerment, and trust.
[35]	Attitude, awareness, perception.
[36]	Risk perception, education.

2.4 Proposed Model

The base model of this research is based on the underlying lens of Theory of Planned Behavior by [13]. The model that this study intends to present is one that takes into account the viewpoints of both individuals and social media. Therefore, based on Theory of Planned Behavior, the intention to prepare and disaster preparedness behavior would be applied to the proposed model. Intention to prepare is the relative importance of all factors in predicting the intention and the relative importance of intention in predicting behavior is expected to vary across behaviors and populations.

In addition, openness is added as one of the factors influencing social media usage towards flood disaster preparedness in the case of Klang Valley. This is because openness in social media, either through technological or cultural means, can be defined by the perceived “easiness” of giving and receiving contents, information, and comments from users of social media [27]. The openness of social media can be seen nowadays when the users let their profile or pages public and accessible by other people. Openness also can be referred to the openness of the community to discuss or debate on certain topics in which they use social media as a platform for a good cause. In addition to that, six (6) factors have been considered to be in the proposed model after reviewing the previous studies from other researchers. Figure 1 illustrates the conceptual model of factors influencing social media usage towards flood disaster preparedness in the case of Klang Valley.

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

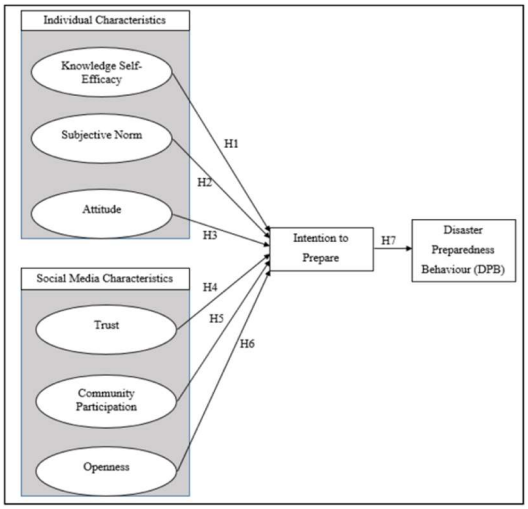

Figure 1: Proposed Model

Consequently, seven (7) hypotheses constructed based on the proposed model as outlined in Table 2 below.

Table 2: Hypotheses

No.	Hypothesis
H1	Knowledge self-efficacy significantly influence the social media users' intention towards disaster preparedness.
H2	Subjective norms significantly influence the social media users' intention towards disaster preparedness.
H3	Attitude significantly influence the social media users' intention towards disaster preparedness.
H4	Trust within the social media environment significantly influence users' intention towards disaster preparedness.
H5	The community participation within the social media environment significantly influences users' intention towards disaster preparedness.
H6	The openness within the social media environment significantly influences users' intention towards disaster preparedness.
H7	The social media users' intention towards disaster preparedness significantly influence the disaster preparedness actual behavior.

3. METHODOLOGY

We employed a deductive technique based on quantitative research design. Deductive method is focused with constructing a new theory by reconstructing the existing theory [37]. In line with the quantitative technique this study collected data from social media users in Klang Valley using online survey forms and questionnaires. The deductive method entailed examining a known theory or phenomena and testing its applicability in a specific situation. The deductive method includes the steps of reviewing the theory, deducing the hypothesis from the theory, creating the hypothesis, testing the hypothesis using the appropriate technique, and analyzing the results of the test to confirm or reject the hypothesis.

We first conducted a literature review which includes reviewing prior researchers' literature and finding the relevant factors on disaster preparedness and social media. Consequently, the factors influencing social media usage towards flood disaster preparedness were identified and outlined. The output of the review work is the development of proposed conceptual model of social media usage towards flood disaster preparedness in the case of Klang Valley.

3.1 Instrument Design

Development of semi-structured questionnaires using the Likert scale included the data gathering tasks. Since the goal of this study was to evaluate the variables affecting social media usage in relation to flood disaster preparation in Klang Valley, the target group consisted of Klang Valley citizens. The activity in this phase continues with the execution of a survey that allows respondents to be questioned about the variables affecting social media use in relation to flood catastrophe preparation in Klang Valley.

3.2 Data Collection & Analysis

This study utilizes non-probability methods namely purposive sampling. In purposive sampling, the sample is approached with a prior purpose in mind and the criteria of the elements to be included in the study are predefined [38]. The activities involved in data collection were expert reviews and the distribution of the survey instrument which consists of semi-structured questionnaires with Likert scale. Since the purpose of this research is to examine the factors influencing social media usage towards flood disaster preparedness in Klang Valley, hence, the residents of Klang Valley were the targeted population. The online survey questions consists of 37 items which was distributed across social media platforms such as Whatsapp Messenger, LinkedIn and Twitter. The online survey

link was kept active from 14th until 22nd of November 2019.

Following the rule of thumb [39], and also supported by [40], the suitable minimum sample size for this research which has six arrows pointing at a constant is 48 respondents with 5% significant level and 0.50 minimum $R2$. In total 98 respondents have submitted their feedback. Table 3 shows a summary of the research population and sampling techniques of this research.

Table 3: Research Population and Sampling

Technique	Sampling Distribution
Sampling Type	Non-probability sampling using purposive sampling.
Sampling Size	Minimum sample size recommended by Cohen (1992) is 48 respondents.
Data Collection Procedure	Online survey questionnaire using Google Form.
Target Population	Social media users in Klang Valley.
Unit of Analysis	Individual citizens using social media during a flood

Using descriptive analysis, the acquired raw data were transformed into descriptive information. This included evaluating the measurement model and structural model. The objective of the measurement model assessment is to describe the relationship between individual and social media characteristics and their respective indicators, while the objective of the structural model assessment is to evaluate the research model's predictive capabilities and to describe the relationship between disaster preparedness behaviour. The data analysis procedure employs Microsoft Excel and SmartPLS 3.0. This phase's final delivery is a tested conceptual model.

4. RESULTS

A total of 98 respondents' data were collected from the survey, which seems adequate to analyze the model. We first conducted a demographic analysis where the population is categorized into five (5) variables which are gender, age, highest academic qualification, whether the respondents are social media users or not and whether the respondents are residents of Klang Valley or not. The results revealed that the number of male respondents is significantly lower than the female respondents which male has 24 (24.5%) respondents and the female has 74 (75.5%) respondents. For the age range, the age group of 18 to 24 years old has the highest number of respondents of 64 (65.3%) respondents, followed by the 25 to 29 years old age group with 23 (23.5%) respondents. 62 (62%) respondents own a bachelor degree and 16 (16.3%) respondents have a masters' degree. From the survey 96 (98%) of the respondents are social media users and 61 (62.2%) of them are residents of Klang Valley and the remainder are those who have experienced flood tragedy in Klang Valley. There are few missing values found in the data collected and has been replaced with "0" to indicate the missing values. This action is to avoid the observation from being removed from the data file even though it is not exceeding 15% [40].

4.1 Measurement Model

In this research, the measurement model has been analyzed using SmartPLS 3.0. The model has six (6) exogenous constructs and two (2) endogenous constructs. The exogenous constructs are Knowledge Self-Efficacy (KSE), Subjective Norms (SN), Attitude (AT), Trust (TR), Community Participation (CP) and Openness (OP). Meanwhile, the endogenous constructs are Intention to Prepare (IN) and Disaster Preparedness Behavior (DPB). Intention to Prepare is part of endogenous constructs because it is both independent and dependent variable. These variables are measured by multiple indicators using Likert Scale from 1 (Strongly Disagree) to 5 (Strongly Agree). This measurement model, therefore, is justified as a reflective measurement model [40].

Figure 2 below shows the result of the path model estimation and only the outer loadings values are given since it is a reflective measurement model [40]. The PLS path model estimation results show that TR has the strongest effect on IN with 0.236, followed by KSE with 0.198. Then, AT with 0.183, CP with 0.143, SN with 0.123, and the last one is OP with 0.096. Meanwhile, the effect IN on DPB is 0.596. Overall, the research model can explain 44.9% of the variance in the IN for flood preparedness whereby DPB can be determined by 35.3% of IN. The assessment of the reflective measurement model was summarized in Table 4.

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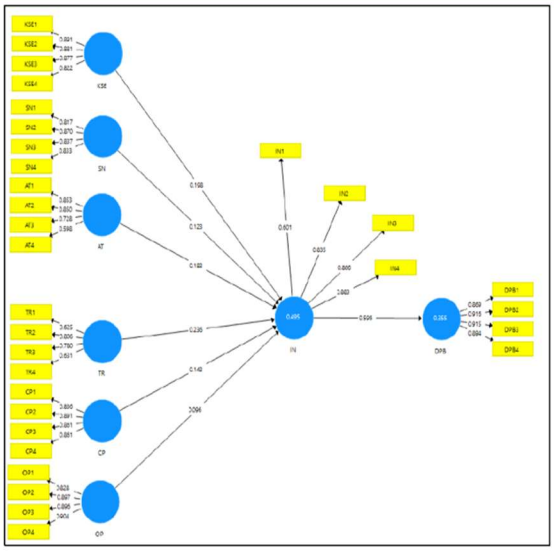

Figure 2: Path Model Estimation

Table 4: Analysis Summary of Measurement Model

No.	Rules of Thumb (Hair et al., 2014)	Result	Descriptions
1	Composite reliability value should be higher than 0.708.	All constructs met this criterion.	The constructs are highly reliable.
2	Outer loadings value should be higher than 0.708.	Most of the indicators met the criteria except for AT4, TR1, TR4 and IN1.	The indicators except for AT4, TR1, TR4, and IN1 have much in common.
3	AVE value should be higher than 0.50.	All constructs met this criterion.	The constructs explained more than half of the variance of its indicators.
4	The square root of the AVE of each of the construct should be higher than its correlation with any other construct.	All constructs met this criterion.	The constructs share more variance with its associated indicators than with any other constructs.
5	Indicator's outer loadings on a construct should be higher than all its cross-loadings with the other constructs.	All constructs met this criterion.	The constructs have discriminant validity.

4.2 Structural Model

In PLS-SEM, there are several types of the structural model such as mediating effect model, continuous moderating effect model, and higher-order or hierarchical components model (HCM) [40]. In this study, we utilize the higher-order or hierarchical components model (HCM) as the structural model. There are three layers of components in the model. The first or lower-order components include the individual and social media characteristics. For individual characteristics, there are knowledge self-efficacy, subjective norm and attitude whereas for social media characteristics, there are trust, community participation and openness. Next, the second or higher-order component is the intention to prepare and the third or highest order component for this research is the Disaster Preparedness Behavior (DPB).

The structural model for this research is HCM in which the first or lower constructs are KSE, SN, AT, TR, CP and OP, followed by the second or higher-order construct, PU. Meanwhile, the third or highest order construct is DPB. The measurement model for this research is reflective which all the indicators are caused by the same construct. In addition, path model estimation determined that TR has the strongest effect on IN with 0.236, followed by KSE with 0.198. Then, AT with 0.183, CP with 0.143, SN with 0.123, and the last one is OP with 0.096. Meanwhile, the effect of Intention to prepare IN on DPB is 0.596. There are two stages of assessment involved in PLS-SEM which are the assessment of the measurement model and the assessment of the structural model.

As a result, the summary of the structural model assessment is shown in Table 5 below.

Table 5: Analysis Summary of Structural Model

No.	Rules of Thumb (Hair et al., 2014)	Result	Descriptions
1	VIF value should be between 0.20 and 5.00.	All constructs met this criterion.	The constructs have less of collinearity problem.

2	P-value should be lower than 0.05.	KSE, AT, TR and IN are significant. SN, CP and OP are not significant.	The three constructs are significant.
3	R^2>0.75: Substantial 0.75>R^2>0.50: Moderate 0.50>R^2>0.25: Weak	R^2_{IN}=0.495 R^2_{DPB}=0.355	The exogenous constructs (KSE, AT and TR) are weak of the endogenous construct. Meanwhile, IN also weak of the DPB.
4	f^2>0.35: Large 0.35>f^2>0.15: Medium 0.15>f^2>0.02: Small f^2<0.02: No effect	KSE, AT and TR all have $f2$ value are higher than 0.02.	KSE, AT andTR have a weak effect on the endogenous construct.
5	Q^2 value should be higher than 0.00.	Q^2_{IN}=0.254 Q^2_{DPB}=0.262	The exogenous constructs have predictive relevance for the endogenous construct.
6	q^2>0.35: Large 0.35>q^2>0.15: Medium 0.15>q^2>0.02: Small q^2<0.02: No effect	q^2_{IN}=0.340 q^2_{DPB}=0.355	The exogenous constructs have medium predictive relevance for the IN construct. Meanwhile, IN has large predictive relevance for the DPB.

Overall analysis revealed that three of the six factors which are Knowledge Self-Efficacy, Attitude and Trust are relevant and significant on the social media usage towards flood disaster preparedness in the case of Klang Valley. Meanwhile, Subjective Norms, Community Participation and Openness are indicated as not significant.

5. DISCUSSION

The aim of this research is to develop a conceptual model of factors influencing social media usage towards flood disaster preparedness in the case of Klang Valley. Six factors are identified through the literature review in which categorised into two characteristics. The characteristics and factors are divided into Individual Characteristics (Knowledge Self-Efficacy, Subjective Norm, and Attitude) and Social Media Characteristics (Trust, Community Participation, and Openness).

The proposed conceptual model was examined through data analysis from the survey with findings that three of the six factors are relevant and significant on the social media usage towards flood disaster preparedness in the case Klang Valley. The factors are Knowledge Self-Efficacy, Attitude and Trust. Table 6 summarized the achievement proposition of the formulated hypothesis.

Table 6: Proposition Achievement

No.	Hypothesis	Proposition Achievement
1	H1	Knowledge self-efficacy has a significant influence on social media users' intention towards flood disaster preparedness.
2	H2	Subjective norms is not a significant influence on social media users' intention towards flood disaster preparedness.
3	H3	Attitude has a significant influence on social media users' intention towards flood disaster preparedness.
4	H4	Trust has a significant influence on social media users' intention towards flood disaster preparedness.
5	H5	The community participation is not a significant influence on social media users' intention towards flood disaster preparedness.
6	H6	The openness is not a significant influence on social media users' intention towards flood disaster preparedness.
7	H7	The intention to prepare using social media has a significant influence on disaster preparedness behavior.

As a result, Figure 3 shows the final validated model reflecting the factors influencing social media usage towards flood disaster preparedness in the case of Klang Valley. In terms of Trust factors, the result is somehow in line with others, for example by [41], the evacuation rates during flood may decrease as social media grow more important and citizens have

ISSN: 1992-8645 www.jatit.org E-ISSN: 1817-3195

more trust in information brought by social media. This indicates the need of monitoring social media in order to promptly rectify disinformation.

Even though subjective norm may directly [13] and indirectly [42] influence disaster preparation intentions, in the context of social media usage, our study indicates that this factor may not be as significant. Indeed, subjective norm is also found not significant in regard to predicting the use of social media when seeking assistance during in Florida, United State of America [43]. This may explain why subjective norms are formed socially and culturally by the real society as opposed to social media society. In certain places of Indonesia, community participation is significant since more than 50% of the community is actively engaged in flood preparation measures [44]. This is not supported by our study with regard to social media use as a form of community participation. This may indicate that the level of devotion shown by members of the community on social media is not as alive and engaging as it is in the real physical community.

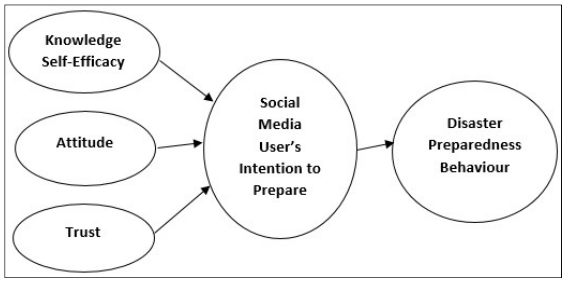

Figure 3: Final Conceptual Model of Factors Influencing Social Media Usage towards Disaster Preparedness

6. CONCLUSION, LIMITATIONS & FUTURE RESEARCH

There are substantial studies on disaster preparedness and management, but very few of them provide the explanation on how social media usage can be used to prepare for flood disaster. The study started with the identification of known key factors of disaster preparedness based on disaster management and preparedness theories and models. Even while certain factors may be suitable in the context of disaster preparation without the inclusion of social media platforms, our research demonstrates that some of these factors are irrelevant in the context of social media users' intentions to prepare for such a calamity. The findings of this research indicate that only a few factors are proven significantly in the domain of social media use for disaster preparedness. Subsequently, this study contributed to the study domain by proposing the conceptual model of factors influencing social media usage towards flood disaster preparedness in the case of Klang Valley.

As a conclusion, this study validated that three out of six factors which are Knowledge Self-Efficacy, Attitude and Trust are relevant and significant on the social media users' intention to prepare towards flood disaster preparedness. This model explains 44.9% of the variance in social media users' intention to prepare during flood preparedness. This study also revealed that 35.3% of intention to prepare can determine the actual behavior of disaster preparedness. In terms of study limitation, there are additional possible variables that may have a substantial influence on the usage of social media towards flood catastrophe preparation. The model explains 44.9 percent of the variance in the data, but there are still other potential factors. It is possible that in the future, qualitative research will provide more light on how to interpret the finding that Subjective Norms, Community Participation, and Openness do not significantly impact Intention to Prepare.

This study is based on Klang Valley residents. Therefore, it would be good to do future research on other states or citizens of other states who have experienced flooding in other part of Klang Valley. The model might serve as a reference for government agencies in and around Klang Valley to enhance their capacity to communicate with the people through social media. Although the model is developed in the context of Klang Valley, it may be insighful for other states as well for other type of disaster preparedness.

ACKNOWLEDGMENT:

We would like to thank Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia, Malaysia Administrative Modernisation and Management and Ministry of Education Malaysia under the Vote 19J48.

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