Examining the Fit of Social Media as a Tool to Share Disaster-Related Knowledge: From the Perspective of Task-Technology Fit Theory

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ABSTRACT

ICT is emerging as a process of knowledge-sharing without any physical and geographical constraints. ICT has successfully been used to disseminate knowledge during a constrained situation (i.e. disaster). In other words, ICT can be used to connect the public during a time of crisis. In Malaysia, the National Security Council (NSC) is one of the agencies responsible for managing disasters. Having a reputation as being a "champion of agencies", the NSC is responsible for providing a social media by which to share disaster-related knowledge with the public. Nevertheless, to what extent this social media actually supports the knowledge-sharing process is unknown. Hence, the purpose of this study is to determine the extent to which a social media actually supports the knowledge-sharing process; a theory known as Task-Technology Fit (TTF) is adopted. The data will be collected by distributing questionnaires to the users who have experience in accessing the social media tools of the NSC to acquire disaster-related knowledge during the occurrence of a disaster (i.e. flood). Structural Equation Modelling (SEM) will be used to analyze the data. The development of a theoretical research model will assist the agencies involved in disaster management to predict user evaluation of the social media tool in order to gather knowledge/information related to disasters.

Keywords: Disaster Management, Flood in Malaysia, Knowledge Sharing, Task-Technology Fit (TTF) Theory.

1 INTRODUCTION

Knowledge-sharing is a process of disseminating knowledge to persons (i.e., individuals or groups) that may require them. The process of knowledge-sharing would be made significantly easier when using ICT as a tool of communication, as it can connect individuals to knowledge without the burden of any physical or geographical constraints. Through ICT, an individual can share knowledge almost anytime, anywhere. In disaster management, ICT has emerged as one of the most important tools used to share knowledge/information with the wider public. For instance, ICT (i.e., social media) is identified as an important communication technology used for disaster response (Yates & Paquatte, 2011). According to these authors, ICT can effectively play its role as an emergency knowledge management technology during an event of disaster. For example during the 2010 Haiti earthquake, US government together with United Nations and local authorities have used wikis and online collaborative spaces to collect, distribute and re-use knowledge for decision making purposes. These tools have been found useful in sharing knowledge and it only required minimal transformation and supervision in term of implementation. Besides, Shklovski, Palen, and Sutton (2008) also advocated the use of ICT to disseminate knowledge to the public during disaster events. They believe that ICT can facilitate public access to obtaining disaster-related knowledge during disaster events. Hence, this knowledge can be seen to be of assistance to the public before, during and after disaster events. Through the use of ICT, knowledge can be shared not limited only to text-based knowledge, but also via the use of audio visual-based knowledge. For example, using ICT, an organization can share in a visual form the method by which to perform CPR upon victims of a disaster event.

Malaysia has been identified as one of the Asian countries prone to natural disasters (i.e., floods) (Shaluf & Ahmadun, 2006). Over the past few years, Malaysia has been badly affected by floods. For instance, recently in December 2012, two people died and 14,000 more were forced to flee their homes and seek shelter at relief centres due to monsoon rains (Relief Web, 2012). In Malaysia, agencies involved in managing flood disasters make use of ICT tools to facilitate sharing of information knowledge/information to the wider public; however, to what extent these ICT tools fit the task of sharing knowledge is unknown. Thus, examining the fitness of ICT tools as an important medium to share knowledge requires further attention.

Previous works in technology fit literature have examined this issue using a wide variety of ICT tools and tasks. For instance, Tjahjono, Fakun, Greenough, and Kay(2001) examined the fit of using a task

support system in improving manufacturing performance; Lee, Cheng and Cheng (2007) examined the fit of using mobile technology in supporting insurance-related activities; Teo and Men (2008) examined the use of portals to support knowledge management activities and Pai (2012) investigated the fit of e-business in knowledge integration activities. However, to the best of our knowledge, to date, there has been lack of studies carried out to examine the fit of using an ICT tool (i.e., social media) to share knowledge in the event of a natural disaster (i.e., flood).

Three research objectives were dealt with in this research, namely: to bridge the gap of the research; to design a theoretical model and to subsequently evaluate the designed model. Accordingly, this paper focuses on the second objective, which relates to designing a theoretical model having the capability to examine the social media in order to share disaster-related knowledge during the occurrence of disasters (i.e., flood) based on Task-Technology Fit (TTF) theory. In section 2, we will present the theoretical model. An overview of current research direction will be provided in section 3. Subsequently, in section 4 we will propose research contributions that the study can provide. The research will end with conclusions and future work recommendations in section 5.

II THEORETICAL BACKGROUND AND RESEARCH MODEL

This study will adopt Task- Technology Fit (TTF) Theory as an underlying theory. Nine constructs have been identified and will be explained in detail in the next section.

A. Task-Technology Fit (TTF) Theory

Goodhue and Thompson (1995) developed a Task-Technology Fit (TTF) theory which aims to explain how technology leads to performance impact. They believe that TTF will result in the utilization and performance impact of technology when the technology fits the task requirements. In other words, the technology is considered as being fit when it is appropriate to perform a certain task (Dishaw &Strong, 1998). Nevertheless, Lippert and Forman (2006) point out that TTF is 'the extent to which technology provides features and fits the requirements of the task' (p. 275). TTF theory can also be defined as the use of Information System (IS), with performance benefit being attained when IS is considered to be well-suited to the task to be performed (Furneaux, 2012).

According to (Furneaux, 2012), TTF theory has been used at both individual and group level; but most TTF research has been conducted at the individual user level. Goodhue and Thompson (1995) proposed a model which leads to performance impact at an individual level (D'Ambra & Wilson, 2004; Dishaw & Strong, 1999; Klopping & McKinney, 2004; Lin & Huang, 2008; Lippert & Forman, 2006). However, Zigurs and Buckland (1998) suggested a model at group level by developing TTF in the Group Support Systems (GSS) environment (Zigurs, Buckland, Connolly &Wilson, 1999). Subsequently, TTF theory has become popular among researchers in IS literature. A search on Google Scholar found 2148 citations of Goodhue and Thompson (1995)(Dishaw & Strong, 1998; Gagnon & McCharthy, 2004; Lee et al., 2007; Lin & Huang, 2008; Pai, 2012). This has been widely used in a variety of technology applications and tasks, including mobile commerce in the insurance industry (Lee et al., 2007). In addition, Tjahjono et al. (2001) examined the fit of using task support system in improving manufacturing performance; Lee et al. (2007) examined the fit of using mobile technology in supporting insurance-related activities; Teo and Men (2008) examined the use of portals to support knowledge management activities; Gagnon and McCharthy (2004) observed the fit of administrative support system in a university environment and Pai (2012)investigated the fit of e-business into knowledge integration activities.

TTF theory has also been integrated with the Theory Acceptance Model (TAM) for the purpose of exploring factors that explain software utilization and its links with user performance. It has been found that their integrated model provides more explanatory power than either model alone (Dishaw & Strong, 1999). This is supported by Klopping and McKinney (2004) when they combined these models in electronic-commerce. Conversely, Lin and Huang (2008) proposed an integrated model of TTF and Social Cognitive Theory (SCT) to investigate the potential antecedents to KMS usage for knowledge-sharing. Further, TTF is integrated with the Theory of Planned Behaviour (TPB) to investigate the potential antecedents to usage of Electronic Knowledge Repository (EKR) for knowledge-seeking (Kankanhalli, Tan & Wei, 2005).

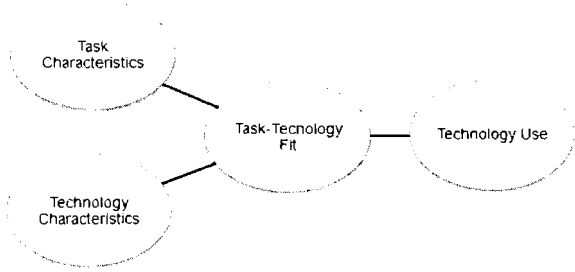

Figure 1. General Model Of Task-Technology Fit

Figure 1 illustrates the key components of TTF. There were four components of the TTF theory, namely: task

characteristics, technology characteristics, task-technology fit and technology use. According to this theory, technology use can be predicted when the task characteristics and technology characteristics fit; whereas indirectly, technology use is influenced by task and technology characteristics through task technology fit. Goodhue and Thompson (1995) viewed task-technology fit as "the degree to which technology assists an individual in performing his or her portfolio of tasks". The "fit" between technology and task refers to the extent to which a social media is appropriate for carrying out a knowledge-sharing task (Dishaw & Strong, 1998). Technology refers to the tools that have been used to carry out the task (e.g., social media). In the broad description of TTF, task refers to the actions carried out by individuals in turning inputs to outputs to satisfy their information needs (e.g., knowledge-sharing). Meanwhile, technology use refers to the behaviour of employing technology to complete tasks (e.g. knowledge-sharing intention). According to Goodhue and Thompson (1995), the technology must offer advantages otherwise it will not be used. Thus, the technology must have a good fit to the related tasks and be able to influence the technology users.

In this study, researchers have used TTF theory to fit the social media and use knowledge-sharing in the occurrence of a disaster (i.e., flood). TTF theory will be used because this theory is established and has become popular among IS researchers to fit the requirements of a variety of technology and tasks. In the context of disaster, social media has emerged as an important tool by which to disseminate knowledge to the public. The public can obtain disaster-related knowledge by accessing the National Security Council (NSC) social media; as this is one of the agencies responsible for managing national disasters and relief efforts in Malaysia. Thus, the NSC social media must have an adequate fit to the necessary knowledge-sharing tasks in order to share the knowledge during a disaster event. Hence, this study seeks to predict the effectiveness of knowledge-sharing between the wider public and agencies involved in managing floods in Malaysia.

B. Hypothesis

The concept of the research model for this study is based on the Task-Technology Fit (TTF) theory developed by Goodhue and Thompson (1995). Nine constructs have been identified and will be explained in detail in the next section. This study will develop a research model as shown in Figure 2. Based on this model, one-eighth of the construct is positively related to the fit of the social media in order to share knowledge during the occurrence of a disaster, while one is negatively related to it. Detailed explanations will be discussed below:

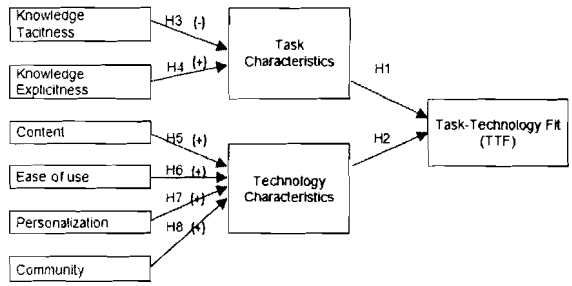

Figure 2. A theoretical model

According to TTF theory, the technology is known as "fit" when the ability of the technology is able to match the task characteristics. Fit of technology refers to the matching of the capabilities of the technologies so as to perform the tasks in demand. In other words, according to TTF theory, the technology is considered as fit when it is appropriate to perform a certain task (Dishaw & Strong, 1998). This is also supported by Benford and Hunton (2000) who also stated that task performance is optimized when there is a proper matching between task requirement and the use of technology. According to D'ambra and Wilson (2004), an individual who believes that the use of technology is able to help them perform a task will have a higher sense of the fitness existing between tasks and technology (Gagnon & McCarthy, 2004; Lin & Huang, 2008). Therefore, this study suggests that the perceived fitness of the National Security Council (NSC) social media is determined by its ability to match knowledge-sharing tasks.

H1: Perceived task-technology fit is influenced by knowledge-sharing task characteristics.

In addition to task characteristics, individual perception of task-technology fit is also determined by the technology characteristics (Benslimane, Plaisent, & Bernard, 2002; Benford & Hunton,2000; Goodhue & Thompson, 1995; Lin & Huang, 2008). According to Lin and Huang (2008), an individual will have a higher insight into task-technology fit if the technology characteristics can meet their expectations. According to Venkatesh and Davis (2000), technology characteristics refer to how well a particular technological system can perform its task. These authors point out that 'given a choice set containing multiple relevant systems, one would be inclined to choose a system that delivers the highest output quality' (p.192). The evaluation of the system will decide whether the technology in use is able to support the tasks. Therefore, this study suggests that the perceived fitness of the National Security Council (NSC) social media is determined by its technology characteristics to support knowledge-sharing activities accordingly.

H2: Perceived task-technology fit is influenced by technology characteristics

In the broad aspect of TTF theory, the technology (i.e. social media) is considered to be fit when the ability of technology is able to match with the task characteristics (i.e. knowledge-sharing task). In the knowledge-sharing context, knowledge-sharing tasks are influenced by both tacit and explicit knowledge. Traditionally, tacit knowledge can be acquired from direct experience and is usually shared through highly interactive dealings, storytelling and shared experiences (Zack,1999). However, with the advent of social technologies, there is a new way to share tacit knowledge which is through social media. Social media enables synchronizes communication by discussion and chatting (Panahi, Watson & Partridge, 2013). Based on Kankanhalli et al. (2005) one important feature of a knowledge-sharing task is knowledge tacit (Lin & Huang, 2008; Teo & Men, 2008). This task is likely to amplify or dampen the impact of technology on knowledge-sharing. Knowledge tacit is difficult to formalize and articulate (Nonaka, 1994). When tacit knowledge is stated in an ambiguous way, it needs more time to read and understand the shared knowledge (Teo &Men, 2008). If tacit knowledge is difficult to understand, we assume that it has a high level of tacit and will influence knowledge-sharing activities. Thus, in the context of disaster, tacit knowledge will have an influence on knowledge-sharing activities. Therefore, this study suggests that knowledge tacit is influenced by knowledge-sharing activities during the disaster.

H3: Knowledge-sharing tasks are negatively influenced by knowledge tacitness.

Besides knowledge tacitness, knowledge-sharing tasks are also influenced by knowledge explicitness (Luo, 2009). According to this author, knowledge explicitness has a positive effect upon attitudes towards knowledge-sharing. Knowledge that has high knowledge explicitness is easy to codify and observable (Nonaka, 1994). Nonaka (1994) stated that explicit knowledge is transmittable in form and it must be able to be in a written form (e.g. document, database). Lai and Chu (2000) stated that explicit knowledge can be stored and shared through IT as a channel to distribute and share the knowledge. Explicit knowledge can be shared through technology-driven avenues such as electronic-mail (e-mail), electronic discussions and forums(Smith, 2001). However, in order to share knowledge through these technologies, the knowledge must be clearly stated; that is, expressed without any ambiguity (Bollinger& Smith, 2001). Teo and Men (2008) also believe that when the knowledge is explicitly in detail, the process needed to acquire it tends to be easy and relatively time-saving. The knowledge can be shared quickly if the knowledge can be easily understood (Zander & Kogut, 1995). Thus in the context of disaster, explicit knowledge is influenced by knowledge-sharing tasks, since its offers an advantage to the wider public to understand and easily acquire the knowledge from the National Security Council (NSC) social media. Therefore, this study suggests that knowledge explicitness is influenced by knowledge-sharing activities during the disaster.

H4: Knowledge-sharing tasks are positively influenced by knowledge explicitness.

Technology attributes can affect both usage and user perception of the technology (D'ambra & Wilson, 2004). According to Ong and Lai (2004), the technology attributes that contribute to knowledge-sharing should consist of four attributes, specifically: content, ease of use, personalization and community. These authors stated further that content is representative of the knowledge and hence it must be endorsed by the professionals and experts in order to avoid a potential misuse. Moreover, the content provided must be up-to-date, accurate and relevant to the content (i.e., disaster) (Zhou & Zhang, 2009).Poor content on the social media will affect both agency and users and lead to misunderstanding between them (Parker, Moleshe & Harpe, 2006). Hence, the content provided must be easy to both find and evaluate alternative offerings since this will satisfy the users and they would be more likely to return to use the social media (Gummerus, Liljander, Pura & Van Riel,2004). In the disaster context, social media has emerged as an important tool by which to disseminate knowledge to the public in the event of a disaster (Shklovski et al., 2008). Thus, it is crucial that the content of the social media satisfies users' information needs and will, accordingly, encourage them to use the social media. Therefore, the content of the social media can affect both usage and user perception of the technology.

H5: Social media characteristic is positively influenced by content.

In addition to content, technology attributes are also contributed to by ease of use. Ease of use is essential on asocial media because it is one of the quality dimensions for sites (Kim & Stoel, 2004). According to Ranganathan and Ganapathy (2002) ease of use refers to the design of the social media. These authors believe that the design of the social media must consist of ease of navigation and response time. This statement is supported by Kaynama and Black (2000) when they stated that ease of navigation of the social media will improve the social media service quality. In addition, response time in a social media is essential to influence the user to continue using this technology; they do not like to wait too long when accessing information. The previous study shows that the tolerable waiting time for simple information retrieval is roughly 2 seconds (Nah,2004).). Thus, in the context of disaster, the social media offered must

be easy to use in terms of ease of navigation and response time. Therefore, the ease of use of the social media can affect usage and user perception of the technology.

H6: Social media characteristic is positively influenced by ease of use.

In addition, technology attributes are also contributed to by personalization (Ong & Lai, 2004). According to Bowman (2006), personalization is a view of repository contents relevant to a particular job title. This author stated that personalization can reduce complexity and can help the public to focus on related contents of their job. If the NSC's social media can personalize the repository of knowledge according to the public's needs, then the public will be more inclined to use this social media. Thus, in the context of disaster, personalization is important so as to motivate the public to share knowledge pertaining to a flood emergency. Therefore, personalization can affect both usage and users' perception of the technology.

H7: Social media characteristic is positively influenced by personalization.

Finally, technology attributes are contributed to by community attitudes (Ong & Lai, 2004). According to this author, collaboration among the public is important because it enables the public to communicate freely without fear of criticism. The technology (i.e. social media) encourages process-sharing and collaboration among the public (Bollinger & Smith, 2001). These authors stated that the public will be more inclined to share knowledge amongst them. When there is collaboration within the social media, the public will be more inclined to share knowledge. Thus, in a disaster situation, community involvement is essential in the social media to support knowledge-sharing activities during the occurrence of a disaster (i.e., flood). They must be supportive in entering knowledge pertaining to the particular disaster (i.e., flood). Therefore, a community can have a considerable effect upon usage and user perception of the technology.

H8: Social media characteristic is positively influenced by community.

III CURRENT RESEARCH DIRECTION

The sample population of this research in progress will be the users of the National Security Council (NSC) social media particularly Facebook. The respondents will be the users who acquire disaster-related knowledge by using the NSC social media during the occurrence of a disaster (i.e., flood). This study will adapt a quantitative approach to collect data from respondents. Since the focus of this study is to examine social media users, adopting a web survey as a tool for data collection was viewed as the most appropriate option in this study. An online questionnaire will be used as the medium by which to deliver the survey questions to the respondents. The hyperlink of the survey will be put in the Facebook and the users who have experience in using it will be invited to answer. Then, this research will use a Structural Equation Modelling (SEM) approach to test the model. To be specific, Partial Least Squares (PLS) will be used as an analysis technique to analyse the collected data. SmartPLS 2.0 and SPSS 19.0 will be used as the analysis tools by which to analyse the data in this research.

IV RESEARCH CONTRIBUTION

This research will propose a theoretical model to examine the fit of the NSC social media as a tool by which to share knowledge during the occurrence of a flood in Malaysia. Hopefully, the TTF theory used to fit the task requirement (knowledge-sharing) and technology functionality (the NSC social media) will lead the fitness between knowledge-sharing and the NSCs social media. The research will close by offering a theoretical research model that will assist the government agencies involved in disaster management to predict user evaluation of the ICT tools offered by the government in order to gather knowledge/information related to disaster management.

V CONCLUSION AND FUTURE WORK

ICT has emerged as a compilation of important tools by which to disseminate knowledge during disaster events. The process of knowledge-sharing would be facilitated when using the ICT as a tool of communication since it can connect individuals with knowledge without the burden of any physical or geographical constraints and an individual can share knowledge almost anytime, anywhere. In the context of disaster, the public can acquire disaster-related knowledge by accessing the ICT (i.e., social media). Thus, a social media must fit the need of the task being performed (i.e., knowledge-sharing). The "fit" between technology and task refers to the extent to which a social media is appropriate for performing a knowledge-sharing task. Hence, the researcher used the TTF theory to fit the social media and knowledge-sharing tasks specifically related to the occurrence of a disaster (i.e., flood). Knowledge-sharing tasks are influenced by both knowledge tacitness and knowledge explicitness. In the context of knowledge-sharing, knowledge which is explicitly articulated without ambiguity tends to ease the public into better understanding of the knowledge. Meanwhile, technology attributes are influenced by content, ease of use, personalization and community. These

attributes will directly affect usage and user perception of the technology.

Our proposed future work in this study seeks to obtain primary data from respondents, namely, the users who acquire disaster-related knowledge by using the NSC social media during a disaster event (i.e., flood). We will use the data to empirically evaluate the reliability and validity of the research hypothesis, as well as to design a theoretical model to examine the fit of social media as a tool by which to share knowledge during the occurrence of floods in Malaysia. We hope this will provide an interesting result.

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REFERENCES

Benford, T.L.& Hunton, J.E. (2000). Incorporating Information Technology Considerations into an Expanded Model of Judgment and Decision Making in Accounting. Accounting Information Systems (1), 54-65.

Benslimane, Y., Plaisent, M.& Bernard, P. (2002). Applying the Task-Technology Fit Model to WWW-based Procurement: Conceptualization and Measurement. Hawaii International Conference.

Bollinger, A.S.& Smith, R.D. (2001). Managing Organizational Knowledge as a Strategic Asset. Knowledge Management, 5(1), 8-18.

Bowmen, B.J. (2002). Building Knowledge Management Systems. Information Systems Management 19(3), 32-40.

D'Ambra, J.& Wilson, C.S. (2004). Use of the World Wide Web for International Travel: Integrating the Construct of Uncertainty in Information Seeking and the Task-Technology Fit (TTF) Model. American Society for Information Science and Technology, 55(8),731-742.

Dishaw, M.T.& Strong, D.M. (1998). Supporting Software Maintenance with Software Engineering Tools: A Computed Task-Technology Fit Analysis. Systems and Software (44), 107-120.

Furneaux, B. (2012). Task-Technology Fit Theory: A Survey and Synopsis of the Literature. Information System (1), 87-106.

Gagnon, E. & McCarthy, R.V. (2004). User Acceptance of Tactical Technology: An Evaluation of Administrative Support Systems within Higher Education. Information System, 4(1),131-137.

Goodhue, D.L.& Thompson, R.L. (1995). Task-Technology Fit and Individual Performance. Management Information System Quarterly, 19(2),213-236.

Gummerus, J., Liljander, V., Pura, M.& Van Riel, A. (2004). Customer Loyalty to Content-Based Web Sites: The Case of an Online Health-care Service. Journal of Services Marketing, 18(3), 175-186.

Kankanhalli, A., Tan, B.C.Y. & Wei, K.-K. (2005). Understanding Seeking From Electronic Knowledge Repositories: An Empirical Study. Journal of the American Society for Information Science and Technology, 56(11),1156-1166.

Kaynama, S.A.& Black, C.I. (2000). A Proposal to Assess the Service Quality of Online Travel Agencies: An Exploratory Study. Journal of Professional Services Marketing, 21(1),63-88.

Kim, S.& Stoel, L. (2004). Dimensional Hierarchy of Retail Website Quality. Information & Management, (41), 619-633.

Klopping, I.M.& McKinney, E. (2004). Extending the Technology Acceptance Model and the Task- Technology Fit Model to Consumer E-Commerce. Information Technology, Learning and Performance, 22(1),35-48.

Lee, C.-C., Cheng, H.K.& Cheng, H.-H. (2007). An Empirical Study of Mobile Commerce in Insurance Industry: Task-Technology Fit and Individual Differences. Decision Support System (43), 95-110.

Lin, T.-C.& Huang, C.-C. (2008). Understanding Knowledge Management System Usage Antecedents: An Integration of Social Cognitive Theory and Task Technology Fit. Information & Management, (45), 410-417.

Lippert, S.K.& Forman, H. (2006). A Supply Chain Study of Technology Trust and Antecedents to Technology Internalization Consequences. Physical Distribution & Logistic Management, 36(4), 271-288.

Luo, H. (2009). Determinants of Knowledge Sharing in University Academic Team. 260-263.

Nah, F. (2004). A study on Tolerable Waiting Time: How Long are Web Users Willing to Wait?. Behaviour & Information Technology.

Nonaka, I. (1995). A Dynamic Theory of Organizational Knowledge Creation. Organization Science, 5(1), 14-37.

Ong, C.-S.& Lai, J.-U. (2007). Measuring User Satisfaction with Knowledge Management Systems: Scale Development, Purification, and Initial Test. Computer in Human Behavior (23),1329-1346.

Pai, J.-C. (2012). Knowledge Integration, Task-Technology Fit and E-Business Implementation: An Empirical Study.Journal of Business Management, 6(47), 11610-11615.

Panahi, S., Watson, J., & Partridge, H. (2013). Towards Tacit Knowledge Sharing over Social Web Tools. Journal of Knowledge Management, 17(3), 379-397.

Parker, M., Moleshe, V. & Harpe, R. (2006). An Evaluation of Information Quality Frameworks For TheWorld Wide Web. 1-11.

Ranganathan, C.& Ganapathy, S. (2002). Key Dimensions of Business-to-Consumer Web Sites. Information & Management, 39, 457-465.

Relief Web. (2012). Thousands Flee Malaysia Floods, Dam Wall Broken. Retrieved 14 April 2013 from http://reliefweb.int/report/malaysia/thousands-flee-malaysia-floods-dam-wall-broken

Shaluf, I.& Ahmadun, F. (2006). Disaster Types in Malaysia: An Overview. Disaster Prevention and Management, 15(1),286-298.

Shklovski, I., Palen, L.& Sutton, J. (2008). Finding Community through Information and Communication Technology during Disaster Events.

Teo, T.S.H.& Men, B. (2008). Knowledge Portals in Chinese Consulting Firms: A Task-Technology Fit Perspective. Journal of Information System (17),557-574.

Tjahjono, B., Fakun, D., Greenough, R. & Kay, J. (2001, 30 March - 3 April). Evaluation of a Manufacturing Task Support System Using the Task-Technology Fit Model. Proceeding of the 12th Annual Conference of the Production and Operations Management Society, Orlando FL.

Venkatesh, V.& Davis, F.D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. Management Science, 46(2),186-204.

Yates, D. & Paquette, S. (2011). Emergency Knowledge Management and Social Media Technologies: A Case Study of the 2010 Haitian Earthquake. International Journal of Information Management, 31, 6-13.

Zander, U.& Kogut, B. (1995). Knowledge and the Speed of the Transfer and Imitation of Organizational Capabilities: An Empirical Test," Organization Science, 6(1), 76-92.

Zhou, T.& Zhang, S. (2009). Examining the Effect of E-Commerce Website Quality on User Satisfaction. 418-421.

Zigurs, I., Buckland, B.K, Connolly, J.R.& Wilson, E.V. (1999). A Test of Task-Technology Fit Theory for Group Support Systems. Information System. 30(3, 4), 34-50.

Zigurs, I.& Buckland, B. (1998). A Theory of Task/Technology Fit and Group Support Systems Effectiveness. Management Information System Quarterly, 22(3), 313-334.