THE PERCEPTIVE USERS ACCEPTANCE OF NEW MOBILE SOCIAL NETWORKING SERVICES IN MALAYSIA

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ABSTRACT

This purpose of this paper is to explore the user behaviours that influencing the acceptance of new localised mobile social network in Malaysia. This paper will tabulate some recommendation for the mobile social network provider to further enhance their product. This paper adopt and adapt the Social networking application post adoptive use model (SNAPUM) to analyse the factor contribute to user acceptance of mobile social network. A quantitative survey conducted through online and the responses analyse using STATA 13 software. The outcome of the study shows that all variables are significantly positively connected each others. Those highly correlated variables were identified. This paper supported the existing frameworks and contributed some recommendation to the mobile social network developer on their operational strategies and initiatives.

Keywords: Mobile social network, SNAPUM, TAM, UTATA, MSN

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1. Introduction

Mobile social networks, it's a platform where the mobile users interact and interchange data among their circle of influence. These programs require a user interface application, a middleware architectures and trustable protocols. The fundamental issues that required a continuous exploration of the user behaviour are the incentive mechanism, identity management, trust, reputation and privacy, energy efficiency, methods for social network metrics estimation and community detection, content distribution and sharing protocols, and precise localization techniques for geographic and semantic spaces (Jin, Chen, & Wang, 2013). This study focusing to explore the user behaviours that influencing the acceptance of new localised mobile social network in Malaysia.

In the context of Malaysia, hand phone user survey 2012 conducted by Malaysian Communications and Multimedia Commission states 68.8% of Smartphone users accessed the internet through their Smartphones and 21.2% of Smartphone users are logged in mobile apps on an everyday basis. Most of the usages are entertainments, instant messaging, internet browsing and email (Osman, Talib, Sanusi, Shiang-yen, & Alwi, 2012)**.** A standardized view on the internet user in 2012, shows that about 14.3% are not accessing any social networks. One of the reasons for not accessing to social networks was the matter of trust and security of the social nets.

The outcome of this study will be beneficial to the MSNs service provider on understanding the user acceptance. Thus, allow the MSNs service provider lay their strategies in order to capture the market segment. A clear strategies will save the firms from any unfavourable conditions in future undertaking.
Besides, this findings will contribute to the existing literatures and further develop new concepts in technology acceptance model (TAM) and unified theory of acceptance and use of technology (UTATA).

2.   Aims and objectives of the study

The aim of this study to develop a research model examining the prospective mobile users' behaviour on acceptance of a new mobile social network application through social value (sv), utilitarian value (uv) and hedonic value (hv). The work will look into the impact of each of these values along the user's satisfaction (sat), attitude (att), continuance intention (ci) and post adaptive use function (pau). The remaining objectives of this study are still underway:

a) To research the impact of the social, utilitarian and hedonic values on the MSNs user satisfaction.
b) To research the impact of the social, utilitarian and hedonic values on the MSNs users' attitude.
c) To research the impact of the social, utilitarian and hedonic values on the MSNs user's continuance intention.

The remaining sections of the paper will present the literature review related to the MSNs services providers challenges in part II, research methodology in part III and expected outcome and summery in part IV.

3.   MSNs Challenges

Several researches has been made to identify the issues related to the application, architectures and protocol of the MSNs. The earlier challenges were the energy management, security and cooperation, quality of services, network simulation (Chlamtac, Conti, & Liu, 2003) poor connectivity and small screen (Ziv & Mulloth, 2006). Some of these issues has been addressed over the years with the innovation and upgradation of Symbian and Androids phones (Miluzzo, Lane, & Fodor, 2008). But issues such as interaction design, communication services, data mining, privacy are on going and still requires research and development. The most challenging issues in the mobile application of the MSNs are the integration and consolidation of social network, the mitigation between the traditional and semantic web technology, and the management of the information shared in MSN (Rana, Kristiansson, Hallberg, & Synnes, 2009). Even though several attempts to resolve these issues has been made, the mobile social networks are still lags in low accessibility, low quality and low interface (Dinh & Lee, 2013).

MSN should become virtual community centers, provide business community, transformative effect on urban environment by understanding the segment, population and potential impact of future environment (Ziv & Mulloth, 2006). Besides, its should be user interface, better dealing with the inaccurate/ confliting information, provide webframe and middleware as well as new user interface, consolidate more advance orchestration, provide semantic web, privacy(Rana et al., 2009) and more social interactions (Yang, Zhang, & Dai, 2010).

4.   Research Methodology

Technology acceptance model (TAM) suggests perceived usefulness and perceived ease of use as the factors contribute to the user acceptance and usage of any new technology (Constantinides & Lorenzo-Romero, 2013). This model was further expanded with the user intention to use and subsequent usage behaviour in unified theory of acceptance and use of technology (UTATA). The key element of this UTATA model are performance expectancy, effort expectancy, social influence, facilitating conditions, voluntariness of use, self-efficacy and anxiety.

The external factors for the user to have the intention to adopts is dependent on the perceived usefulness, facilitating conditions, social influence, system complexity, perceive ease of use, trust environment (Lu, Lu, & Yao, n.d.), personal innovativeness in information technology (Lu, Yao, & Yu, 2005), perceived credibility, perceived costs, peer influence and attitude (Kim, Shin, & Kim, 2011).

Very recently, cultural factors, social factors, economic factors and motives are applied in study to understand the intention to use global main social network platform (Choi, Jung, & Lee, 2013). Social networking application post adoptive use model (SNAPUM) was used to study the effect of the social capital, hedonic enjoyment and perceive usefulness toward post adoptive use (Magro, Ryan, & Prybutok, 2013) (Yu, Zo, Kee Choi, & P. Ciganek, 2013).
In order to achieve the the objectives of this study, the SNAPUM was adopt and adapt as illustrated in figure 1.

Figure 1: Research framework
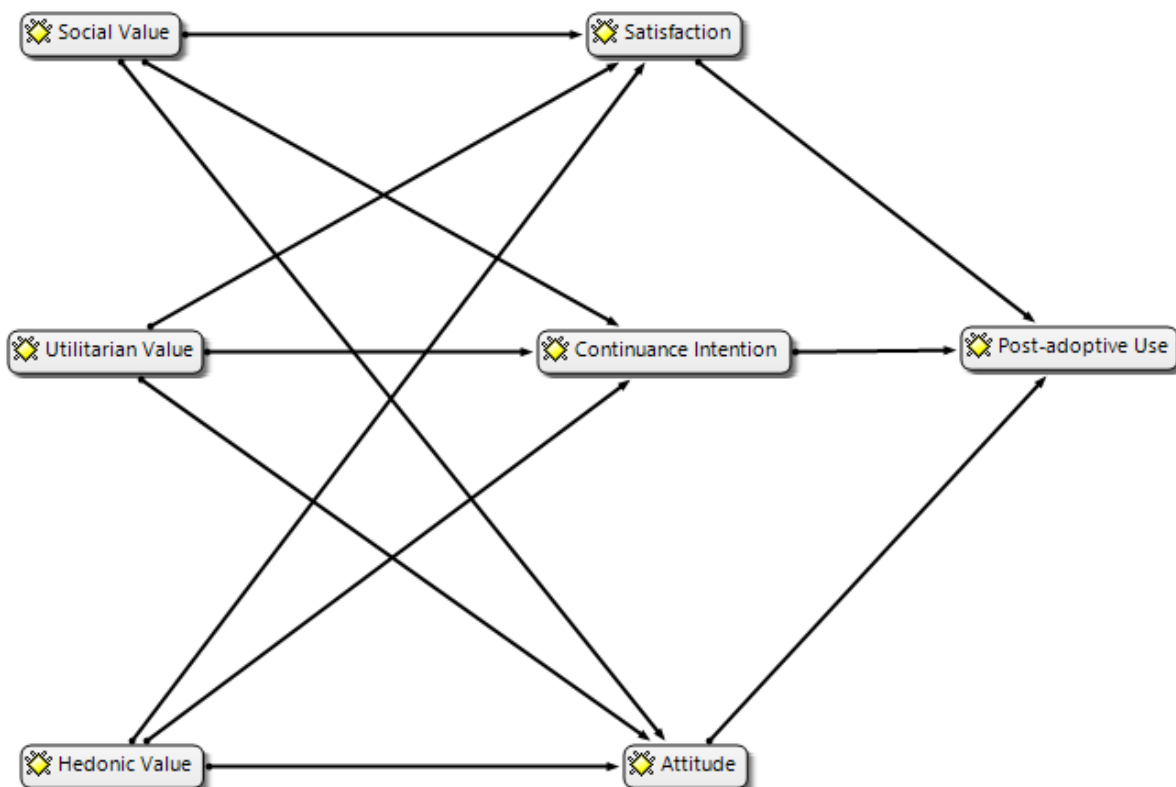
 Based on above model, the hypotheses are constructed as follow:

Hypothesis 1: Satisfaction (SAT) has significant relationship with social value (SV), utilitarian value (UV) and hedonic value (HV).
Hypothesis 2: Continuance intention (CI) has significant relationship with social value (SV), utilitarian value (UV) and hedonic value (HV).
Hypothesis 3: Attitude (ATT) has significant relationship with social value (SV), utilitarian value (UV) and hedonic value (HV).
Hypothesis 4: Post adoptive use (PAU) has significant relationship with user satisfaction (SAT), continuance intention (CI) and attitude (ATT).

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All research involves five major stages. First is the problem identification. In this stage the background of the problem, research objectives and the significance of the study will be identified. Secondly, the literature review. The literature review will identify and synthetize the related theories, antecedents and the dimensions of the research framework. The third stage is the framework and methodology. The building up hypotheses, design the research and questionnaire will be carried out at this stage. The important stage of the research is the data analysis. In this stage, factor analysis, reliability analysis and the test of results will be done. Finally the discussion and the conclusion stage where summary, implication and limitation will be drawn. This research will be using this guideline.

The complete research targeted to be completed within 5 months to 7 months. The first month is spent to identify the research problem. Following month is focused on literature review related to the problem. The framework and methodology process will take in the third month after the literature review. The actual field work starting after this. The questionnaire distribution and collection will take place here. This process expected to be completed within three months. Lastly the discussion and conclusion will be drawn.

This research will be applying the quantitative approach. The questionnaires will be adopted and adapt from existing literature. The developed questionnaires will be sent for peer review with academician on the same field. A pilot study will be conducted by the non-targeted mobile social network users for validation. Any omission and correction will be made before the actual survey. The survey form will be distributed through online and paper and pencil method. All variables will be measured in seven point Likert-type scale; strongly disagree, disagree, somewhat disagree, neither agree nor disagree, somewhat agree, agree, strongly agree. The responds are randomly selected. All collected data will analysis on the correlation method using the STATA 13 software.

5.   Findings

The objective of the this study was to obtain the Malaysian mobile phone users' views regarding their acceptance of new mobile social network application. The questionnaire for this study was created, distributed and data collected on electronic mode. This will avoid any bias and any manipulation of the data. The questionnaires were created on free Web ware, surveymonkey.com. Appendix A illustrates the final questionnaires. The questionnaires were shared with the audience through email communication, posting on Facebook, shared in whatsapp community and advertised in Google Adwords.

The focus of this study to cover as much as possible responds within the survey time frame. Total 700 emails were sent to anonymous recipients, posted weekly on Facebook and whatsapp community, and advertised daily on Google search engine. In return, 137 mobile users responded to the questionnaires, but only 89 were completed fully and these data were used in correlation analysis.

The respondents were 48.3% from the central region (Perak, Selangor, KL), 28.1% from the south region (Negeri Sembilan, Melaka, Johor), 11.2% from the east coast region (Pahang, Terengganu, Kelantan), 7.9% from the east Malaysia region (Sarawak, Sabah, Labuan) and 4.5 from the north region (Perlis, Kedah, Penang). The study was male dominated as only 27% of female participated. This survey gets a fair amount of participation from all races; Malay 51.7%, Indian 19.1%, Chinese 9% and the other 20.2 %. Most of the respondents were young, below 24 years old.

All the respondents having an account on a social networking website. The haft of the respondents was logging into their social network account more than once a day. Facebook is the most often social networking websites. Most of them having contacts more than 100 and they met most of their social network contacts. The detail of the respondent social network activities illustrated in appendix D.

The suggested model was empirically proven and all four proposed hypotheses were confirmed. The data demonstrate that satisfaction, continuance intention and attitudes have direct and significant relationship with post-adoptive use of mobile social network. Attitudes are the major contributor for the post-adoptive usage of the mobile social network. Whatever growth in user attitude will contribute increase in the post-adoptive use about 48%. Respondents believe the utilization of mobile social network is a wise and good idea, yields positive results, beneficial and it is a must for this epoch. While the gain in satisfaction and continuance intention will increase post-adoptive usage about 28% and 29% respectively.

The results also indicated a direct and significant relationship between satisfaction, hedonic value, utilitarian value and social value. Any growth in the hedonic value, utilitarian value and social value will increase the satisfaction by 39%, 43% and 14 % respectively. Respondent's experience using a mobile social network is a fun, good time passing, gives more enjoyment and their aim to extend the use.

The continuance intention of mobile social networks in depends on the hedonic value, utilitarian value and social value too. The outcome supports a direct and significant relationship with these variables. Usefulness of the mobile social networks is highly related to the continuance intention of the mobile social networks. 28% of the changes in continuance intention is contributed from utilitarian value. While others, hedonic value and social value are contributing about 24% and 22% respectively. Respondent states that using mobile social networks assisted them in bearing out their day to day tasks efficiently and effectively.

As major contribute to the post adoptive usage, the attitude is also directly and significantly related to the hedonic value, utilitarian value and social value. Again, the utilitarian value is the highest contributor for attitude. Increase in attitudes is came 38% from utilitarian value, 27% of hedonic value and social value each. Social value such as people influence, reputation and others impression are important to the respondents. The current work support and validate the existing literature. Figure 2 illustrates the structural relationship of the model.

Figure 2: Estimated Structural Equation Model
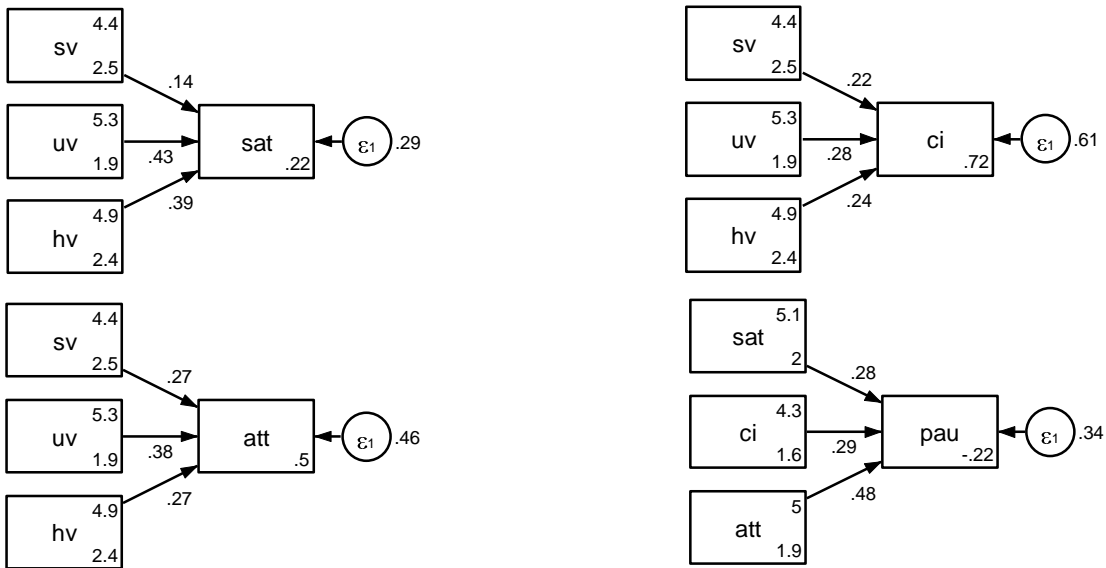
As an ICT company, whom intent to venture and develop new mobile social networks shall consider the relationship between variables in this study. Post-adoptive use is highly correlated with attitude, attitude and continuance intention are highly correlated with utilitarian value, and satisfaction is highly correlated with the hedonic value. Developing a new mobile social network shall give high proposition to these variables.

This study reveals a market gap of 50.6%, whom actively looking for more mobile social networks. Beside, 32.6% of the respondents testify that they will discontinue their current social mobile network due to the satisfaction and attitudes. This a golden opportunity for the mobile social network developers. New mobile social network developers shall target this group for their new products.

The new mobile social networks shall provide varied services to increase the satisfaction and attitudes of the users. Its should more fun to use, good time passing, give a sense of enjoyment and more pleasures. Besides, it should able to assist user to do multitask whenever, wherever with more effectively and efficiently.

6.   Conclusion

This study was conducted to address the research question: What are the factors related to new mobile social networks acceptance in Malaysia? The SNAPUM model was adopted and adapted to underline the factors for post-adoptive use of mobile social network. The research model and all four hypotheses were supported. The outcomes prove the theoretical account is significant at 5% confidence level. The factors such as hedonic value, utilitarian value and social value are effected satisfaction, continuance intention and attitude directly. The relationship within the variables as follow:

$$SAT = 0.22 + 0.14SV^{***} + 0.43UV^{***} + 0.39HV^{***} + 0.29\varepsilon$$
$$CI = 0.72 + 0.22SV^{***} + 0.28UV^{***} + 0.24HV^{***} + 0.61\varepsilon$$
$$ATT = 0.50 + 0.27SV^{***} + 0.38UV^{***} + 0.27HV^{***} + 0.46\varepsilon$$
$$PAU = -0.22 + 0.28SAT^{***} + 0.29CI^{***} + 0.48ATT^{***} + 0.34\varepsilon$$

*** Significant at 0.01 level

The utilitarian value is the critical factor that contributes to attitude and the continuance intention. Besides of the mobile social web is to communication, it should likewise offer a platform for the users to carry out their everyday jobs. The social network application shall bring the real meaning of the mobility; wherever and whenever.

This subject area has its own restrictions. Firstly, the demographic of the survey is unbalanced. Most of the respondents are from the central region of Malaysia. Very few respondents are from the north region. The future research shall focus on expanding the survey to all regions rationally. Secondly, the lack of generalizability of the consequences due to limited number of respondents. It will be a good research if the scale of the survey is expended to more permissible numbers. Lastly, this study does not capture those did not have any social web accounts. This survey just conducted with the population whom having a mobile phone and social network account. Likewise, the reason for not sustaining a social network account shall be evaluated in future researches to address the weakness of social network accounts.

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