Examining Users' E-Satisfaction in the Usage of Social Networking Sites; Contribution from Utilitarian and Hedonic Information Systems

Mohd Shoki Md Ariff[1], Tay Kai Shan[1], Norhayati Zakuan[1*], Nawawi Ishak[2], Mohd. Ridzuan Wahi[2]

1 Department of Business Administration, Faculty of Management,
  Universiti Teknologi Malaysia (UTM), Skudai, Johor, Malaysia
2 Lembaga Tabung Haji Malaysia

E-mail: norhayatimz@utm.my

Abstract. E-satisfaction (eSAT) is an important success factor of online service providers such as social networking sites (SNSs). The utilitarian and hedonic information systems are crucial in determining users' eSAT of SNSs, especially among young users. The utilitarian aspect of an information system is productivity-oriented which aims to enhance the users' task performance, and it is important in measuring eSAT of SNSs. In this study, the original constructs of Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) of TAM of utilitarian information system was first developed in this research framework. The use of SNSs, such as Facebook, is pleasure-oriented, in which self-fulfilling values to the users are important in determining users' satisfaction towards the SNSs. Therefore, Perceived Enjoyment (PE) of hedonic information system is added to the framework. Thus, the research framework of this study includes both utilitarian (PEOU and PU) and hedonic (PE) aspects of information systems to determine Malaysian young users' eSAT in the usage of Facebook, a social networking site. In this framework, the effects of PEOU, PU and PE on eSAT in the usage of Facebook are examined among Facebook's users in the age of 18 – 24 years old. The effects of PEOU on PU and PE are also examined. Online questionnaire survey was employed and a total of 384 sets of questionnaires were gathered from users of Facebook. The results indicated that PEOU has positive effects on PU and PE in the context of Facebook. In addition, PEOU, PU and PE are also found to have positive effects on eSAT. PE of hedonic information system exerted higher effect on eSAT, compared to PEOU and PU of utilitarian information system, highlighting the importance of pleasure orientation in the usage of Facebook of SNSs. Managerial and theoretical implications of the study are discussed in term of measuring and enhancing users' eSAT in the usage of SNSs, particularly Facebook.

Keywords: Technology Acceptance Model; Perceived Enjoyment; E-Satisfaction; Social Networking Sites – Facebook

1.0 Introduction

The increase adoption of social networking sites (SNSs) is drawing much attention from academic and industry researchers to explore users' behavior in this area [1]. According to Zhong *et al.* [2], the advent of SNSs have drastically changed human interaction and millions of people worldwide are now spending much of their leisure time on it. Facebook which has a high popularity and a world population of about 1.11 billion users [3] is unquestionably a great research platform for researchers to study behavior and satisfaction of users. In Malaysia, Facebook is the top SNS with approximately 13 351 560 monthly active users and the largest age group using it is young users who are in the age of 18 to 24 years old - 4 607 560 users or equivalent to about 34.51% of total monthly active users [4]. However, although many researchers [5, 6, 7 and 8] had studied on the determinant factors of eSAT, there is none in the context of users of Facebook aged between 18 to 24 years old in Malaysia. Hence, more researches examining actual behavior, attitude and satisfaction of this group of users towards SNSs (Facebook) are needed.

Theoretically, the studies of information system have identified two types of information systems; utilitarian information system and hedonic information system which influence users' satisfaction. Previously, many researchers had applied Technology Acceptance Model (TAM) in investigating users' acceptance of utilitarian information system rather than hedonic information system as TAM was first developed to measure utilitarian information system. Nevertheless, due to the evolution of information system settings, many researchers had shifted their attentions from utilitarian information system to hedonic information system [9]. Although social networking site is one of the most popular hedonic information systems, there are relatively limited studies that have applied PEOU and PU of TAM in the context of SNSs. Many researchers [10 and 11] had found that PEOU increases PU in different information systems, and this led to the users' satisfaction. Sibona and Choi [7] highlighted that the same positive effects do exist in the usage of Facebook in United States, and PEOU of SNSs was found to have significant positive effect on PU in the context of university students in Malaysia [12]. On the other hand, in order to increase the validity of research framework in the context of users' satisfaction of SNSs, it is ought to include both utilitarian aspects (PEOU and PU) as well as hedonic aspects, such as perceived enjoyment (PE). Therefore, PE has been added to form hedonic information system in examining user satisfaction of SNSs. Previous researchers [13 and 14] highlighted that PEOU has positive effect on PE in various research backgrounds but relatively less in the context of SNSs. Furthermore, many studies [14, 15 and 16] have been focused on the impacts of TAM and PE on users' behavioural intentions rather than their actual behaviour such as e-satisfaction (eSAT), in which, according to Taghizadeh *et al.* [8], is one of the major component used to evaluate the success of an information system. In Malaysia, there is less research studying on the relationship between the two variables (PEOU and PU) in the context of Facebook users within 18 to 24 years old, either students or non-students. Most of the studies did not specify Facebook as the only research area but apply for all types of social networking sites available in the nation. For instance, Leng *et al.* [35] had found that perceived ease of use has significant positive effect on perceived usefulness of SNSs in the context of 283 university students in Malaysia. Hence, a study must be carried out to fill this gap by examining the effects of TAM and PE on eSAT. Therefore, a research is needed to determine the interrelationship between PEOU and PU of utilitarian information systems and PE of hedonic information system, as well as their impact on user satisfaction in the usage of SNSs (Facebook) among Malaysian young users. Thus, this study enriches the use of utilitarian and hedonic aspects in the usage of SNSs and in examining their effects on users e-SAT in Malaysia context, specifically among young users.

2.0 Literature Review

Kwon and Wen [17] defined SNS as a web-based service created based on certain meaningful and valuable relationships such as friendship and common interests. Generally, a SNS can be very useful

for individual or organizations if it is used properly. According to King and He [18], the acceptance and adoption of information systems have been studied by many researchers in various contexts such as work-related systems, general systems, SNSs and also e-commerce. Two types of information systems – utilitarian and hedonic – have been identified as major components influencing user attitude and actual behavior, such as e-satisfaction. According to van der Heijden [13], utilitarian information systems are productivity-oriented while hedonic information systems are pleasure-oriented. In other words, utilitarian information system and hedonic information system are systems with different constructs in which the former focuses on productive use while the latter focuses on the aspect of fun and enjoyment. Previously, many researchers were focusing their studies on utilitarian information systems. However, due to the emerging of hedonic information system in recent years, many researchers have shifted their attentions and interest from utilitarian information system to hedonic information system [9]. Nevertheless, most of the theories, such as Technology Acceptance Model (TAM) were originally developed to measure the technology acceptance of utilitarian information system rather than hedonic information systems [19]. Hence, there are arguments on whether the same technology acceptance theories are applicable for both utilitarian and hedonic information systems.

SNS is considered as hedonic in nature and therefore, it was unsuitable to apply utilitarian-based research model in the context of SNSs [20]. Although SNS is categorized under pleasure-oriented information system, it has consistently enhanced its features and functions so as to increase users' adoption on it. For instance, Facebook is capable of sharing a variety of information by updating status, blogs, images, videos and music [21]. Furthermore, SNSs also offer a great communication platform for all the Internet users. Therefore, SNSs are actually more than just a pleasure-oriented information system. According to Ernst *et al.* [19], Facebook is a combination of hedonic and utilitarian information system because it is able to create fun to its users and at the same time allows its users to send files, attach files and even discussion in a group. Hence, it is more appropriate for researchers to include both hedonic and utilitarian aspects when examining acceptance and satisfaction of users towards the sites.

TAM is an information systems acceptance theory which was developed by Fred Davis in 1985 to explain computer usage and the acceptance of information technology. Basically, TAM consists of two technology acceptance measures: perceived ease of use (PEOU) and perceived usefulness (PU). PEOU refers to the degree to which a user believes that using a particular system will be effortless while PU is defined as the users' perception to the extent that the use of a particular system will improve his or her job performance [22]. PEOU has been regarded as a factor that influences users' satisfaction, and it focuses on avoiding irritation in order to enable users to understand the website layout and navigation in their search for products and services that are offered at the website [37]. As PU involves users' judgment on the extent to which using an information system improve their job performance, therefore, designing a simple website with a clear structure and developing a credible fulfillment are essential [38]. Apparently, PEOU and PU were first developed to measure the acceptance of utilitarian information systems rather than hedonic information systems. Nevertheless, according to Koch et al. [23], TAM does include "external variables" that suit to any features of a particular system. Similarly, Venkatesh and Davis [24] proposed that there is a need to extend TAM to include other variables such as subjective norm, extrinsic motivations, enjoyment and et cetera in order to increase the validation of TAM in different types of information systems.

According to Oliver [29], satisfaction can be defined as the "the summary psychological state resulting when the emotion surrounding disconfirmed expectation is coupled with the consumer's prior feelings about the consumption experience." It implies that customers are satisfied if their consumption experience meets their needs and expectations [30]. In the electronic mediated environment, the extent to which users believes that an information system is capable of fulfilling their information requirements influence their e-SAT. Therefore, e-SAT is referred

to customer satisfaction in the online market-space, influenced by customers' experience and knowledge in the usage of an information system; it is about consumers' judgment of their Internet retail experience [36].

Although e-satisfaction is vital in determining the success of an information system, there are relatively less researches on the factors influencing the eSAT in social network setting. Nevertheless, most of the previous studies [25, 26, and 27] were focused on the behavioral intentions of users in social network adoption and acceptance through TAM and PE. Hence, this study attempts to fill this gap by investigating the effects of TAM and PE on eSAT. Table 1 shows the contribution of TAM and PE on the acceptance and users' eSAT in the context of SNSs.

Other than the external variables, the final version of TAM also indicates that the original constructs of TAM: PEOU and PU do have relationships among themselves, and most researches indicated that PEOU positively affect PU in the usage of information systems [7, 10, 11, 12, 25 and 26]. Thus, a hypothesis is established: H_1: PEOU has positive effect on PU of Facebook among Malaysian young users.

The main goal of hedonic information system (e.g. SNS) is to provide fun and enjoyment to its users [27]. Perceived enjoyment (PE) has been widely used as an important determinant of the acceptance and satisfaction of hedonic information systems in previous studies. PE refers to the extent to which the activity of using a computer system is perceived to be personally enjoyable in its own right aside from the instrumental value of the technology [24]. Furthermore, PE was also introduced by Venkatesh and Davis [24] as an external variable of TAM. Since hedonic information system is primarily associated with fun and pleasure, PE would be an appropriate external variable in measuring the acceptance and satisfaction of users. A number of previous studies had been focused on investigating the effect of PEOU on PE. According to Gu *et al.* [28], users who perceive that using a system is effortless will positively affect their PE. Moqbel [27] stated that the main goal of users to use SNSs is to enjoy and have fun while PEOU is an important element that helps them to attain the goal. Therefore, H2 is proposed: PEOU has positive effect on PE of Facebook among Malaysian young users.

Table 1: Contribution of PEOU and PU of TAM (Utilitarian information system) and PE (Hedonic information system) to the Acceptance and E-Satisfaction (eSAT) of Social Networking Sites (SNSs)

Previous Studies	Variables		
	PEOU	**PU**	**PE**
Kim *et al.* (2010)	√	√	√
Ong and Day (2010)			√
Curran and Lennon (2011)	√	√	√
Nistor (2011)	√	√	
Nithinant *et al.* (2011)	√	√	
Gómez-Borja *et al.* (2012)	√	√	
Gong (2012)			√
Lane and Coleman (2012)	√	√	
Murad Moqbel (2012)	√	√	√
Sibona and Choi (2012)	√	√	
Ernst *et al.* (2013)	√	√	√

Note: PEOU-Perceived Ease of Use; PU-Perceived Usefulness; PE-Perceived Enjoyment

According to Sibona and Choi [7], the Facebook users are satisfied with the site when they find it easy to use and useful, and PEOU may lead to higher eSAT. Hence, the sub hypotheses are proposed: H_{3a}: Perceived ease of use has positive effect on the users' e-satisfaction of Facebook and H_{3b}: Perceived usefulness has positive effect on the users' e- satisfaction of Facebook. Similarly, PE is also applied in numerical studies to investigate its impact to the adoption and intention

to use a system. Most of the studies [14, 15, and 16] indicated that PE is positively related to the users' intention to use a system. In addition, some researchers [5 and 6] have shown that PE is a key element in predicting users' eSAT in the usage of a particular system. Apart from these, previous studies on SNSs [13, 15, 25 and 27] highlighted the positive effect of PE on the adoption of SNSs. With these, the researchers assume another sub hypothesis of H_{3c}: Perceived enjoyment has positive effect on the users' e-satisfaction of Facebook. Lastly, the three sub hypotheses are summarized and a general hypothesis is proposed for the purpose of predicting the effects of PEOU and PU of TAM and PE on users' eSAT in the context of Facebook: H_3: PEOU and PU of TAM and PE have positive effects on the users' e-satisfaction of Facebook among Malaysian young users.

3.0 Methodology

Review of the literature indicated that a research is needed to determine the interrelationship between PEOU and PU of utilitarian information systems and PE of hedonic information system, as well as their impact on user satisfaction in the usage of SNSs (Facebook) among Malaysian young users. A questionnaire was developed to measure the utilitarian and hedonic aspects of the SNS. The utilitarian component covers:

- PEOU based on the work of Davis [22] and Liao *et al.* [11]. There are six items developed for PEOU. The items are:
  - I find it easy to learn how to use Facebook.
  - I find it easy to get Facebook to do what I want it to do.
  - My interaction with Facebook is clear and understandable.
  - I find Facebook to be flexible to interact with.
  - It is easy to remember how to use Facebook.
  - Overall, I find Facebook to be easy to use.

- PU with six items. The items developed were adopted from Davis [22], Nithinant *et al.* [31] and Gómez-Borja *et al.* [32]. The six items are:
  - I find the functions of Facebook to be useful for me.
  - I find Facebook to be a useful site for communication.
  - I find using Facebook contributes to interaction with other people.
  - I find using Facebook enables me to access a lot of information.
  - I find using Facebook improves the efficiency in sharing information with others.
  - Overall, I find Facebook to be useful.

PE was used to measure the hedonic aspect of the SNS. It covers five items of PE based on the work of Liao *et al.* [11]. The items are:
  - I find using Facebook to be interesting.
  - I find using Facebook to be enjoyable.
  - I find using Facebook is a good way to spend my leisure time.
  - A variety of applications in Facebook arouse my curiosity.
  - The process of using Facebook is pleasant.

For E-Satisfaction of users of Facebook, five items used were adopted from Ribbink *et al.* [33] and Shiau and Luo [5]. The items are:
  - I am happy with Facebook.
  - I am satisfied with the services provided by Facebook.
  - I am satisfied with my decision to sign up a Facebook account.
  - My choice to sign up a Facebook account was a wise one.

- I think I did the right thing by signing up to Facebook.

The scale of all items of PEOU, PU, PE and e-SAT were measured based on five points Likert ranging from 1-strongly disagree to 5-strongly agree.

The population of this study was all Malaysian Facebook users aged between 18 to 24 years old. With the population size of about 4 607 560 Facebook users [4], the sample size was set to be 384 Facebook users based on the sample size table recommended by Krejcie and Morgan [34]. Convenience sampling was utilized to draw the sample from population due to difficulties to apply probability sampling procedure as well as time and cost constraints. The researchers employed web-based survey by creating the online questionnaires using Google Form at https://docs.google.com/forms/d/1N5ERebWa7bjIeFvXqCRjcG6Qommx1CvAk7INv0qoqhk/viewform and the link of the questionnaires was shared and distributed in Facebook in order to make sure all the respondents were Facebook users. Furthermore, filter questions on the age and nationality of the respondents were included before the respondents could proceed to the survey in order to make sure the questionnaires reached the correct respondents. The data collected was automatically stored in Google spreadsheet and finally exported by the researchers to Statistical Package for Social Science (SPSS) for further analysis.

The Kaiser-Meyer-Olkin (KMO) measures of sampling for PEOU, PU and PE, and e-SAT were 0.948 and 0.902 respectively. Since all KMO values were above 0.70 with Bartlett's test of Sphericity of 0.000, the researchers were allowed to proceed with factor analysis [39]. The Total Variance Explained of Confirmatory Factor Analysis (CFA) indicated that there are three dimensions (PEOU, PU and PE) with eigenvalues greater than 1 have been extracted with the cumulative percentage of 79.741%. The rotated component matrix had yielded three components and all the items in each component were retained since all the factor loadings were above 0.5. For eSAT, there was only one dimension with eigenvalues greater than 1 being extracted in CFA with cumulative percentage of 80.339%. All items of eSAT were accepted with factor loadings of more than 0.5.

In order to measure the degree of consistency and correlations among the items, reliability test was performed. In this study, the alpha values for PEOU, PU, PE and eSAT were 0.942, 0.939, 0.948 and 0.938 respectively. All scores are above >0.7, thus it can be concluded that constructs of PEOU, PU, PE and e-SAT were reliable for further analysis.

4.0 Result and Analysis

The result of regression analysis on the effect of PEOU on PU is presented in Table 2. It was found that PEOU has positive effect on PU (β 0.599, t 14.637, Sig. 0.000). Therefore, H_1 is accepted. On the other hand, the R^2 value shows that 35.9% of the variation in PU is explained by the variation in PEOU.

Table 2: Results on the effect PEOU on PU

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.964	.158		6.083	.000		
	PEOU	.636	.043	.599	14.637	.000	1.000	1.000
F Statistic = 214.250								
R Square (R^2) = 0.359								
a. Dependent Variable: PU								

As shown in Table 3, the regression result indicated that PEOU has positive effect on PE (β 0.564, t 13.362, Sig. 0.000). Therefore, H_2 is accepted. The R_2 value of 0.319 indicated that 31.9% of the variation of PU is explained by the variation in PEOU.

Table 3: Results of the effect of PEOU on PE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.773	.194		3.988	.000		
	PEOU	.710	.053	.564	13.362	.000	1.000	1.000
F Statistic = 178.541								
R Square (R^2) = 0.319								
a. Dependent Variable: PE								

Multiple regression analysis was performed to determine the effect of PEOU and PU and PE on eSAT and the result is presented in Table 4. Based on Table 4, the positive effects of PEOU (β 0.084, t 2.499, Sig. 0.013), PU (β 0.320, t 7.368, Sig. 0.000) and PE (β 0.530, t 12.560, Sig. 0.000) on eSAT are observed. Therefore, H3a, H3b and H3c are accepted. In addition, the R_2 value also shows that 73.4% of the variation of eSAT is explained by the variation in PEOU, PU and PE.

Table 4: Results of the effects of PEOU and PU and PE on e-SAT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	.227	.115		1.965	.050		
	PEOU	.096	.039	.084	2.499	.013	.614	1.628
	PU	.345	.047	.320	7.368	.000	.370	2.704
	PE	.481	.038	.530	12.560	.000	.393	2.542
F Statistic = 349.665								
R Square (R^2) = 0.734								
a. Dependent Variable: eSAT								

5.0 Discussions

This study confirmed the appropriateness of applying utilitarian aspects (PEOU and PU) in predicting users' e-satisfaction (eSAT) in the usage of Facebook (a hedonic information system) among Malaysian young users. In this study, PEOU was found to have positive impact on PU (β 0.599, t 14.637, Sig. 0.000) in the usage of Facebook. The positive effect of PEOU on PU was consistent with the study of Sibona and Choi [7], Liao *et al.* [11], Kim *et al.* [25], Lane and Coleman [26]. It implies that the degree to which users' believe that using Facebook will be effortless is important in influencing their perceived performance of the site.

PEOU also exerted positive effect on PE (β 0.564, t 13.362, Sig. 0.000), denoting that ease of use in the usage of Facebook influenced the degree of fun and pleasure experienced by users. This result is consistent with what being addressed by Bruner II and Kumar [14] in the usage of internet devices, Gu *et al.* [28] in the context of multipurpose information systems and Moqbel [27] in the adoption of SNSs. It implies that the degree to which users' believe that using Facebook will be effortless is important in determining their personal pleasure in the usage this SNS.

In addition, this study revealed that PEOU and PE of TAM and PE significantly and positively affect eSAT of the users. This shows that both utilitarian and hedonic aspects are important to satisfy users' needs and wants in the context of Facebook. These results are aligned with the work of Sibona

and Choi [7] who found PEOU and PU increased eSAT in the usage of Facebook in United States and the study of Lin and Lu [6] who highlighted the positive effect of PE on eSAT in the usage of various SNSs in Taiwan. The positive impacts of PEOU and PU TAM and PE on eSAT implied that when:

- Measuring e-satisfaction of SNSs, it is important to include both utilitarian and hedonic aspects of information systems. The utilitarian aspect is expected to facilitate efficiency and productivity in using SNSs, and this will ensure users' experiencing pleasure and enjoyment.
- Developing or enhancing a SNS, it is important to include both utilitarian aspect (PEOU and PU) and hedonic aspect (PE) in order to increase users' eSAT. For instance, the service providers or developers of SNSs should ensure their sites are easy to use, navigate and communicate with, in which they will contribute to the productivity in the usage of SNSs. However, the primary focus of the service providers should still remain on hedonic aspect since PE was found to have stronger effect than PEOU and PU. Therefore, the developers of SNSs should always upgrade their sites to provide interesting and up-to-date features such as applications and games that could enhance users' experience and enjoyment.

6.0 Conclusion

The findings of this research revealed that both utilitarian and hedonic aspects of information systems, such as SNSs, are important in determining the e-satisfaction of users. PEOU and PU (TAM) of utilitarian information system and PE of hedonic utilitarian system are good predictors of e-SAT of SNSs. However, although all the results have been tested to be statistically significant, there are some limitations in this study. This research employed two variables (PEOU, PU) of utilitarian information system in determining the users' e-satisfaction in the usage of Facebook. These PEOU and PU are related to how users perceived the productivity of SNSs. In the study of electronic service quality or website quality, productivity of a website is also influenced by the functionality aspect of the site, for example efficiency, fulfilment and system availability. For instance, efficiency affect website speed and website proper work and no interruption in the usage of SNSs of system availability ensure continuity of users' business, and therefore, may influence their perceived productivity. These factors may have significant effect on the utilitarian aspect of SNSs, and therefore, may influence users' e-SAT. Thus, the inclusion of these factors in the utilitarian aspect of SNSs would be interesting to research.

Website aesthetic value may be considered to construct PE as it may influence users' feeling of entertainment, and therefore, it could mediate the relationship between PE and e-SAT in the usage of SNSs. The aesthetic value of a website deals with the website design. How attractive is a website design, for instance the appearance and beauty of the site and its visually appealing in term of graphics, layout used in the web to the users may attract them to use a SNS. Thus, the inclusion of this factor in the hedonic aspects of SNSs would be interesting to research.

References

[1]   Boyd, D. M., and Ellison, N. B. (2007). Social network sites: Definition, History and Scholarship. *Journal of Computer-Mediated Communication*, 13(1), article 11.
[2]   Zhong, B., Hardin, M., & Sun, T. (2011). Less effortful thinking leads to more social networking? The associations between the use of social network sites and personality traits. *Computers in Human Behaviour*, *27*(3), 1265-1271.
[3]   Facebook Statistics (2013). About Facebook Statistics. Retrieved May 5, 2013, from https://www.facebook.com/pages/Facebookstatistics/119768528069029?fref=ts#
[4]   Socialbakers (2013). Malaysia Facebook Statistics. Retrieved May 5, 2013, from http://www.socialbakers.com/facebook-statistics/malaysia.
[5]   Shiau, W. L., & Luo, M. M. (2010). Continuance Intention of Blog Users: The Impact of Perceived Enjoyment and User Involvement.

[6]   Lin, K.-Y., & Lu, H.-P. (2011). Why people use social networking sites: an empirical study integrating network externalities and motivation theory. Computers in Human Behavior, 27(3), 1152–1161.

[7]   Sibona, C., & Choi, J. H. (2012). Factors Affecting End-User Satisfaction on Facebook. In *Sixth International AAAI Conference on Weblogs and Social Media*.

[8]   Taghizadeh, H., Taghipourian, M. J., & Khazaei, Amir. (2013) The effect of customer satisfaction on word of mouth communication. Research Journal of Applied Sciences, Engineering and Technology 5(8): 2569-2575.

[9]   Ong, C. S., & Day, M. Y. (2010). An integrated evaluation model of user satisfaction with social media services. In *Information Reuse and Integration (IRI), 2010 IEEE International Conference on* (pp. 195-200). IEEE.

[10]   Devaraj, S., Easley, R., & Crant, J. (2008). How does personality matter? Relating the five-factor model to technology acceptance and use. *Information Systems Research*, 19 (1), 93-105.

[11]   Liao, C. H., Tsou, C. W., & Shu, Y. C. (2008). The Roles of Perceived Enjoyment and Price Perception. *International Journal of Business and Information*, 3(1).

[12]   Leng, G. S., Lada, S., Muhammad, M. Z., Ibrahim, A. A. H. A., & Amboala, T. (2011). An exploration of social networking sites (SNS) adoption in Malaysia using Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB) and intrinsic motivation. *Journal of Internet Banking and Commerce*, 16(2), 1-27.

[13]   Van der Heijden, H. (2004). User acceptance of hedonic information systems. *MIS quarterly*, 695-704.

[14]   Bruner II, G. C., & Kumar, A. (2005). Explaining consumer acceptance of handheld Internet devices. *Journal of Business Research*, 58(5), 553-558.

[15]   Curran, J. M., & Meuter, M. L. (2007). Encouraging existing customers to switch to self-service technologies: put a little fun in their lives. *The Journal of Marketing Theory and Practice*, 15(4), 283-298.

[16]   Wolfinbarger, M., & Gilly, M. C. (2011). Shopping online for freedom, control & fun. *California Management Review*, 43(2), 39-51

[17]   Kwon and Wen, (2010). An empirical study of the factors affecting social network service use. Journal Computers in Human Behaviour, Volume 26 Issue 2, March, 2010 Pages 254-263.

18]   King, W. R., & He, J. (2006). A meta-analysis of the technology acceptance model. *Information & Management*, 43(6), 740-755.

[19]   Ernst, C. P. H., Pfeiffer, J., & Rothlauf, F. (2013). Hedonic and Utilitarian Motivations of Social Network Site Adoption. Working Paper, Johannes Gutenberg University Mainz.

[20]   Pillai, A., & Mukherjee, J. (2011). User acceptance of hedonic versus utilitarian social networking web sites. Journal of Indian Business Research, 3(3), 180-191.Ramayah, T., & Ignatius, J. (2005). Impact of perceived usefulness, perceived ease of use and perceived enjoyment on intention to shop online. *ICFAI Journal of Management*, 3(3), 36-51.

[21]   Lu, H. P., & Hsiao, K. L. (2010). The influence of extro/introversion on the intention to pay for social networking sites. *Information & Management*, 47(3), 150-157.

[22]   Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technologies, MIS Quarterly 13(3), 319-340.

[23]   Koch, S., Toker, A., & Brulez, P. (2011). Extending the technology acceptance model with perceived community characteristics. *Information Research*, 16(2), 16-2.

[24]   Venkatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test*. *Decision sciences*, 27(3), 451-481.

[25]   Kim, Y., Kim, M., & Kim, K. (2010). Factors influencing the adoption of social media in the perspective of information needs. Retrieved from University of Illinois, Illinois Digital Environment for Access to Learning and Scholarship website: http://hdl.handle.net/2142/15025

[26] Lane, M., & Coleman, P. (2012). Technology Ease of Use through Social Networking Media. Journal of Technology Research, 1-12.

[27] Moqbel, M. (2012). *The Effect of the Use of Social Networking Sites in the Workplace on Job Performance*. PhD Dissertation. Texas A&M International University.

[28] Gu, J.-C., Fan, L., Suh, Y.-H., & Lee, S.-C. (2010). Comparing Utilitarian and Hedonic Usefulness to User Intention in Multipurpose Information Systems. [Article]. Cyber Psychology, Behavior & Social Networking, 13(3), 287-297.

[29] Oliver, R. L. (1981). "Measurement and evaluation of satisfaction processes in retail settings," *Journal of Retailing*, vol. 57, pp. 25-48.

[30] Su, Y. L., Lin, T. M., & Chang, S. T. (2013). Exploring the impact factor of positive word-of-mouth influences satisfied customers. Total Quality Management & Business Excellence, (ahead-of-print), 1-15.

[31] Nithinant Thammakoranonta, Chirasil Chayawan, and Nattapat Boonprakate (2011). A Study of Factors Affecting Social Network Used in Thailand. Retrieved May 7, 2013, from http://iceb.nccu.edu.tw/proceedings/APDSI/2011/web/session/astudyoffactorsaffectingsocialn etwork.pdf

[32] Gómez-Borja, M. Á., María-del-Carmen Alarcón-del-Amo and Carlota Lorenzo-Romero (2012). *African Journal of Business Management*, 6(29), 8609-8619.

[33] Ribbink, D., van Riel, A. C., Liljander, V., & Streukens, S. (2004). Comfort your online customer: quality, trust and loyalty on the internet. *Managing Service Quality*, 14(6), 446-456.

[34] Krejcie, R.V. and Morgan, D.W. (1970). Determining Sample Size for Research Activities, Education and Psychological Measurement. Vol. 30, pg. 607-610.

[35] Leng, G. S., Lada, S., Muhammad, M. Z., Ibrahim, A. A. H. A., & Amboala, T. (2011). An exploration of social networking sites (SNS) adoption in Malaysia using Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB) and intrinsic motivation. *Journal of Internet Banking and Commerce*, 16(2), 1-27.

[36] Hise, R and Szymanski, D. (2000). E-satisfaction: An initial examination. *Journal of Retailing*, **76**(3), 309-322.

[37] Erin Cho 1 and Youn-Kyung Kim, "the Effects of Website Designs, Self-Congruity, and Flow on Behavioral Intention", International journal of Design. Vol. 6, No. 2, 2012.

[38] Song, Ji Hee and George M. Zinkhan, "Designing Successful Web Sites: Some Insights from IS and Marketing Theory", Enhancing Knowledge Development in Marketing, 14 (R.B. Money and R. L. Rose, Eds.). Chicago: American Marketing Association, 236-242, 2003.

[39] Zakuan N.M., Yusof, S.M. and T. Laosirihongthong, (2008) "Reflective review of relationship between TQM and Organizational Performance", *Proceeding of the 4th International Conference on Management of Innovation and Technology, ICMIT*, pp. 444-448