Determinants of Social Networking Software Acceptance: A Multi-Theoretical Approach

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ABSTRACT

Understanding reasons why students use social media has become a major preoccupation of researchers in recent time due to the rate of its adoption among the present generation of students. Some of the few study on social media phenomenon employed a single theory as a framework in order to understand the factors that influence the acceptance of it among the students. However, in this study, acceptance to use social network software was research into through a multi-theoretical approach. Factors from innovation diffusion theory, technology acceptance model, and social influence theory were used as a conceptual framework of this study. 500 undergraduate students participated in the study. Survey questionnaires were administered on the participants. Structural equation modeling was use to analyzed the data generated from the study. A model was developed from the study known as social network software acceptance model. The findings of the study showed the interaction that exists among factors from different theories as it influences student acceptance of SNS. From the findings of this study, theoretical as well as education implications were drawn. The study concludes that acceptance of SNS is a function of interrelated factors from different theories.

Keywords: *Social networking software, Innovation diffusion theory, Technology acceptance model, social influence theory, Structural equation modeling*

INTRODUCTION

The adoption of social networking software (SNS) as a mean of communication and interaction is increasingly growing among students of institutions of higher learning in every part of the world. The ubiquitous of Internet and Information Communication Technology (ICT) facilities has been the driving force behind the usage of this emerging tool. Unlike in the industrial age, when the students did not use ICT and the Internet, the present generations of students are tagged as "Net Generation", they had never known life without the Internet. They adopt the new technology with ease. In most cases, they do not need any instructional manual in order to run an application or use most of these devices (Lorenzo & Dziuban, 2006).

The evolution of the Internet technology has changed communication landscape of people, especially the younger generations. The new technology has brought new and novel ways in information sharing through the use of web 2.0 applications (social networking software). The most popular online site on the web for example, MySpace has over 190 million users, Orkit over 62 million, LinkedIn over 11 million, and Live journal has over 5.5 million users, all these are the sites built for social networking (Mislove, Marcon, Gummadi, Drusche & Bhattacharjee, 2007).

The ubiquitous nature of Internet penetration around the world has greatly influenced the communication mode of the present generation of students, for example in Australia 88% of Internet users were the children of age 12-14 years (Kennedy, Judd, Churchward & Gray, 2008). In Malaysia, the story was almost the same, teenagers, adolescent, and young adult within the age range of 15-25 years were the majority users of the Internet, follow by adult within the age of 25-34 years old. The list users were the people above 55years old (Franz, 2009).

The study of Shamsudin (2009) attested to a growing use of social networking site among students and teenagers in Malaysia. It was reported that online social networking and teenager are becoming indivisible in the present world of connectivity. The rate of usage and the time spent needed much to be desired, therefore, as teachers and instructors, it become extremely important to be aware of this trend in order to be able to prepare in dealing with influence that ICT and Internet has brought on our students. Perhaps, it would be interesting to take advantage of this for teaching and learning functions (Shamsudin, 2009).

The embracing of social software by students has subsequently becoming the source of significant debate in education. It has been suggested that the sudden surge of interest of students in adopting these emerging technologies was because of its characteristic that allows flexibility, interactivity and collaboration. The characteristic of the emerging technology was trace to socio-cultural theories of learning, which stresses the co-construction of knowledge in a social setting (Selwwyn, Crook, Noss, & Laurillad, 2008).

A study conducted to explain the driving force behind acceptance of an innovation, posited that usefulness which entails relative advantage, need compatibility, and other social situations account for factor of accepting an innovation. Similarly, the nature of social system that involves observability, cultural compatibility, and credibility were also reported to be a determinant of SNS use. Also, ease of use, clear communication of the purpose, navigation, feedback, actions and errors, consistency in design and visual presentation, as well as clarity of language were also identified as important factors influencing acceptance of new Information System (Keeling, Macaulay, & McGoldrick 2009).

Dillon (2001) defined users' acceptance as the willingness within a user to use information technology to do a job that is design for. Rogers (2003) classified the reason for accepting technological innovation based on the following: The relative advantage, this was described as the degree to which an innovation is perceived to be better than the available tools; Compatibility, the degree to which an innovation is consistent with the existing values, past experiences and needs of the potential adopters. Complexity is the degree to which an innovation is perceive as difficult to understand and use. Triability is whether an innovation may be experiment with on a limited basis while, Observability is the degree to which the results of an innovation are visible to others (Rogers, 2003, p.265-266). In most cases, research study has reported that new technologies are often viewed to be complex, as a result, element of uncertainty beclouded the mind of decision makers with respect to adoption of these new technologies. Thus, individual always form attitudes and intentions to use it before any attempt is directed at using it (Davis, Bagozzi & Warshaw 1992). The explosion in the acceptance of social networking software among the present generation of students is creating new trends in how teaching and learning function is implemented in higher institutions of learning. Educators especially in the western world have started employing it for teaching and considerable amount of success has been recorded. Coupled with this is the argument that SNS would provide good platforms for implementing constructivist approach to teaching. McLoughlin and Lee (2007) emphasized the growing importance of emerging technology where Owen, Grant, Sayers and Facer (2006) quoted the following:

In higher education arena, there are shifts in the views of what education is for, with a growing emphasis on the need to enable and support not only the acquisition of knowledge and information, but also to develop the skills and resources necessary to engage with social and technological change, and to continue learning throughout life. (p. 1).

This is because it is observed to support a range of applications, which display qualities associated with technologies already in use at the university level. However, the study about SNS is still at its infancy. Little is known about its actual use, the purpose of is use and the factors influencing its usage among students.

Presently, there is little study about this new phenomenon in human communication. Therefore, attempt was made to extend the frontiers of knowledge in understanding acceptance and use of SNS among students. This will be in tandem with Rogers (1995) position that we should continuously increase in the awareness and understanding of what the actual usage of an innovation, so as to be able to manage it effectively and have a guide in its skillful use. McLoughlin and Lee (2007) were of the opinion that since SNS integration is gaining momentum therefore it becomes necessary to understand the how, the why, and what of its adoption. In the light of the above, this study therefore becomes important in order to provide empirical information about SNS use among the present generation of students in Malaysia. Thus, attempt was made to document empirically the determinant of acceptance of SNS among students and the use to which the student put SNS to.

CONCEPTUAL FRAMEWORK OF THE STUDY

The strength of an empirical study lies on its conceptual framework. The present study is premised upon three theories. This study integrates constructs from different but similar theories of innovation adoption to explain the rationale behind students' acceptance of SNS. Construct from Innovation diffusion theory of Rogers (2003), Technology Acceptance construct developed by Davis (1989) and construct of Social Influence Theory postulated by Kelman's (1958) were used in the study. The selection of the variable hypothesized for the study was determined from the extensive literature reviewed prior to, and during the course of the study. Variables from Innovation Diffusion Theory (IDT), Technology Acceptance Model (TAM), and Social Influence Theory were used in the study. Roger's postulated five attributes that can predict adoption of innovation; Davis postulated two factors that can determine acceptance of an innovation, and Kelman posited three factors that can be used to explain group and collective behavior (Cheung & Lee, 2010).

Chan and Ngai (2007) was of the view that Rogers' (1983, 1995) model was the most accepted model for understanding the characteristic of adoption of an innovation. The model included relative advantage, complexity, compatibility, triability, and observability. Davis (1989) explained that acceptance of information technology dependent on adopter perceived ease of use and perceived usefulness of the technology. The parsimony and yet robustness of the Davis theory attracted information system researchers for its usage in analyzing users acceptance of innovations (Masrom & Husein, 2008; Ahmad, Basha, Marzuki, Hisham, & Sahari, 2010). Relative advantage and perceived complexity in Rogers's innovation theory as well as perceived ease of use and perceived usefulness of Davis technology acceptance theory are closely related in term of meaning (Ahmad et al., 2010; Leong, 2006). Perceived complexity and perceived ease of use are relatively measuring the same psychological constructs (Benbasat, 1991; Fichman, 1992). Thus, the two constructs were excluded from the adoption attribute to be used in this study, because the degree of the two related variables (perceived of ease of use and perceived complexity) cannot be the same across different software. This attribute can only be effectively use in measuring a single case study of specific software. Thus, the present study aims at understanding holistically the acceptance and use of social networking software's, therefore, measuring perceived ease of use or perceived complexity will not serve any purpose in the study. Similarly, perceived usefulness and relative advantage were found to measure the same psychological construct (AlGahtani, 2001). In the present study perceived usefulness is included in place of relative advantage. However, innovation diffusion theory was known to be a robust theory for measuring adoption pattern of innovation but yet too complex for addressing some studies (Ahmad et al., 2010). Factors such as triability and complexity within the established information adoption were reported to be a weak influence on adoption of IT softwares. Rather, adoption of IT software is more of a function of relative advantage, compatibility and observability (Tornatsky & klein, 1982; Leong, 2006).

As earlier stated, construct from Innovation Diffusion Theory (IDT), Technology Acceptance Model (TAM), and Social Influence Theory (SIT) were the major focus through which this study aimed at gaining insights to what influence the acceptance of SNS such as (Facebook). The choice of the constructs from IDT and TAM in this study was premised upon the findings of previous study. For instance Ahmad et al. (2010) reported that Technology Acceptance Model developed by Davis (1983) was a robust theory that has experience extensive use in Information system research field. Similarly, some studies corroborated this assertion of the popular use of IDT and TAM in different field of human endeavor (Masrom & Hussein, 2008; Maziman, Usluel, & Cevik, 2009; Sao & Troshani, 2007). Though, as popular as these two theories appear, there has been a continuous extension of these theories because of their limitations for explaining user's acceptance of new innovations. Most especially, TAM was acknowledged by Davis (1983) to be insufficient in strength to measure users' behavioural intention to adopt complex system (Sao & Troshani, 2007). Reference was made of social influence in information system acceptance by Davis but the issue was not addressed in TAM (Malhortra & Galleta 1999; Cheung et al., 2009). Some other studies also supported the inclusion of more factors by way of extending the existing theory, for instance, Shafi and Weerakkody (2010) argue that integration of TAM with other Information Technology acceptance model or integrating other factor could assist to improve the specificity as well as explanatory utility in a specific area. As new technologies come into existence factors that were not considered before are now becoming an important issue to adoption. Especially, new technologies such as Internet related software. Thus, the choice of the theories and its correspondent construct used in the conceptual framework of this study was based on the nature of the phenomenon under study. The nature of the present study involves understanding the acceptance of a new phenomenon in human communication and pattern of interaction. In order to achieve the objective of this study, factors that can explain group and collective behavior would be a relevant constructs to the study. Cheung and Lee (2009) reported that SNS is majorly used for interaction and connection which invariably involve a joint action among users. Bagozzi and Lee (2002) however argued that social influence is the appropriate theory to explain group and collective behaviour because individual perception are in most case influenced by the opinion and behaviour of salient others. Drawing from literature it was observed that issue of

acceptance has been conceptualized through several ways. For instance, some studies specified that attitudinal belief consist of three salient attributes of an innovation based on theory postulated by Rogers, and these are relative advantage, compatibility, and observability (Taylor & Todd, 1995; Baraghani, 2008). Hence, the issue of SNS acceptance in this context was look at from a multiple theoretical perspective. The major dependent variable examined is SNS acceptance and use and independent variables are collective behavior factors and technology characteristic constructs. The hypothesis model illustrated in figure 1.1 shows the proposed model of the study.

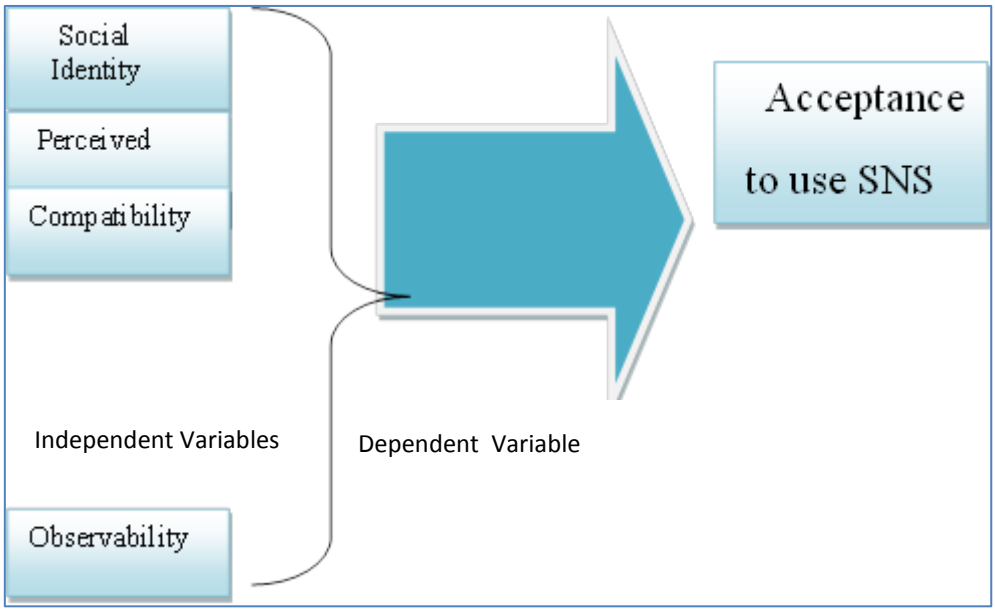

Figure 1. The Proposed Model of Students' Acceptance of Social Networking Software

Thus, based on the proposed model of the study, the following research hypotheses were formulated

RESEARCH HYPOTHESES

H1: Social Identity will significantly correlated with Group Norm

H2: Compatibility will have a direct positive influence on students' acceptance to use Social Networking Software (SNS)

H3: Social identity will have a direct positive influence on students' acceptance to use Social Networking Software (SNS)

H4: Perceived usefulness will have a direct positive influence on students'acceptance to use Social Networking Software (SNS)

H5: Group norm will have a direct positively influence on students' acceptance to use Social Networking Software.

H6: Observability will have a direct positively influence on students' acceptance to use Social Networking Software.

LITERATURE REVIEW AND RESEARCH HYPOTHESES

Perceived Compatibility: Compatibility is defined as the "measure with which an innovation is perceived as consistent with existing values, past experiences, and needs of potential adopters" (Rogers, 2003. p.223). Sahin (2006) explains that some innovation diffusion researchers view relative advantage and compatibility as similar, though they are not and they do not mean the same thing based on the conceptual meaning from the original source. Mckenzie (2000) posited that lack of compatibility in Information Technology (IT) with individual needs may affect the rate of adoption of IT by such individual. In the same token, Dedrick and West (2004) were of the view that the perception of compatibility of users may be influenced by compatibility of the study as well as the current technologies, skills and tasks or compatibility with beliefs, values and needs of the adopter (Hester, 2009).

The literature also revealed that each innovation can influence users especially teachers. Their opinions, beliefs, values, and views about teaching can be shape by the innovation if it is compatible with their needs. Thus, uncertainty about the innovation will decrease and the rate of adoption will increase (Sahin, 2006). In another study for analyzing adoption of methodologies for the improvement of software development process, the study revealed that compatibility positively influences how software developers perform their duty (Riemenscheinder, Hardgrave, & Davis 2002; Hester, 2009). Several studies have consistently reported that compatibility is one of the most influential factors when it comes to innovation adoption (Hsu, Lu, & Hsu 2007; Masrom & Huseini, 2008). For this reason, compatibility is hypothesized to have a positive influence on acceptance and use of social networking software.

Perceived Observability: Rogers (1995, 2003) defined observability as the "measure with which the results of an innovation are visible to other or the extent to which the technology output and its gain are clear to see" (p. 258). Moore and Benbasat (1991) reported an extensive effort at developing an instrument for evaluating user perceptions of Information Technology innovation. They use visibility and result demonstrability to represent the factor known as observability in Rogers theory. Visibility refers to "the ability to see other's use of the technology", while result demostrability is the "degree to which the result of using an innovation are perceived to be tangible" Moore and Benbasat, (1991) in (Masrom & Husein, 2008, p. 110). Literature has shown that observation of other users can greatly influenced sense of usability (Hester, 2009). Venkatesh and Morris (2000) view visibility as a normative pressure from peers, which is the most influential in the early stage of adoption, at this stage the adopter tends to comply with other view such as peers influence in adopting an innovation. Hester (2009) believes that observability will enable users to have a sense of belonging after they have being motivated to adopt an innovation. Sahin (2006) was of the view that perceived complexity is positively correlated with the rate of adoption just as relative advantage, compatibility and triability. Rogers (2003) argued that all the five factors of the innovation adoption attribute are crucial for understanding the rate of adoption of innovation. Thus, in this study observability is posited to have a positive influence on acceptance and use of social networking software.

Perceived Usefulness: Davis (1989) defined perceived usefulness (PU) as "the degree to which a person or a user believes in using a particular technology as well believes that the technology would enhance his/her job performance" (Masrom & Hussein, 2008, p. 52). Thus, belief, attitude, and intention have been identified to have link with perceived usefulness. However, many attempts have been made to look at perceived usefulness from users belief and attitude by stream of researchers. Belief regarding a technology explains how users perceived its usefulness. According to Hsu and Lin (2008), people belief about blogging technology usage could be developed from their participation in blogging.

Moreover, belief in certain thing influences the behavior intention toward such thing. Hsu and Lin (2008) posited that social networking site such as blog is a voluntary act that is used for social interaction, therefore, a user is expected to be intrinsically motivated, which invariably lead to forming a perception that using social networking site is useful. For instance, Silius and Miilumaki (2009) conducted a study on students' motivations for social media enhanced studying and learning, the idea behind the study was to use social networking site as a medium of interaction and study support for new students that are just gaining admission into the university. The findings of the study showed that when the students found out that the content on SNS was useful they took advantage of it and even informed others about it. In other words, if the first experience of students about a system is positive, the information about the system will spread to other students (Boyd, 2006). These findings confirmed what Davis had earlier said about perceived usefulness of an information system, that PU is a good predictor of system acceptance.

Group Norm: Group norm is a compound word that consists of the word group and norm. "A group is described as a social unit that consists of a number of individuals who stand in more or less definite status and role relationship to one another and possesses a set of values or norm of its own" (Aronson, Wilson, & Akert, 2009, p. 2). A group is also defined by Dawson and Chatman (2001) as people who share similar worldview, they interact, and they depend on each other because their goals and objectives in life are similar (p. 4). Aronson et al. (2009) explain that a group has a number of benefits and that there could be an innate need that drive group to establish bonds with other group. In addition, group tends to consist of homogeneous members, in part because groups are expected to obey certain social norms. Norm is defined in the dictionary "as a standard of behavior that a particular society expected among a particular group of people" Huang and Dou (2009) describe group norms to represent the set of shared goals, values, beliefs, and conventions understood and committed to by group members. Hogg and Terry (2000) in Huang and Dou (2009) assert that group norms in online communities have powerful and consistent influences on group member's attitude and behavior. In addition, scholars were of the view that when a strong group benefit is in place, members realize that they all share a common goal and are more likely to develop group intention (Huang & Dou, 2009).

Social Identity: Social identity refers to an individual conception of self, in terms of the relationship to another person or group. Stets and Burke (2000), explain social identity to be a person's knowledge that s/he belongs to a category class of group known as social group. The social group is a set of individual who hold a common social identification or view themselves as members of the same social category. Hogg and Abrams (1998) in Stets and Burke (2000), stated that there are two important processes involved in social identity formation; they are self-categorization and social comparison. Self categorization involves perceiving the similarity or difference that exists between self and other in-group members, while social comparison is the selective application of the noticeable effect that will result in self enhancing outcome. Specifically, one's self esteem is enhanced by evaluating the in-group and the out-group to judge positively or negatively (Turner et al., 1987). Self-esteem was observed to be a motivator for an individual to carry out a role identity, the evaluation of his or her performance would influence feeling of self-esteem. If the role was evaluated positively, the person's self-esteem would be raised. This can be connected to self-efficacy, which is a motivator for any one that perform well in a role and invariably gains a sense of control over the environment (Stets & Burke, 2000). The concept of self-identity is a person's mental, conceptual awareness, physical, psychological, and social attribute that make a person to be unique as an individual. The social attribute is classified into the followings: things that are learned, how it is organized, and the dynamic of the environmental influence. Therefore, a person identity is not static but multi-faceted (Phuemparanan & Panteli, 2009; Capozza & Brown, 2000).

The pioneer of social identity defines it as "the individual's knowledge that he/she belongs to certain social group together with some emotional and value significance to him/her within the group membership" (p. 63). Therefore, social identity theory is concerned with individual as part of a social group, how the individual is identify within a group, how he/she behave and adopt share attitude of his/her peers (Tajfel, 1978). The elements of self-identity are derived from individual personality traits and interpersonal relationship and those that are derived from belonging to a particular group. Each individual is seen to possess both personal and social identities, and each of these informs the individual of who they are and what this identity entails (Tajfel, 1978). Stet and Burke (2000) identity theorist conceptualized that a person identity is similar to social identity. A person's identity is the set of meanings that are tied to and sustain the self as an individual, the self-meaning operates across various roles and situations in the same way a person's identities pervade all the group members to which one belongs.

METHOD

SAMPLE

A survey questionnaire was used for obtaining the data of the study. Undergraduate students from four (4) research based universities in Malaysia were sample. The sample consisted of one hundred and twenty five (125) students from each of the universities. In all, a total of five hundred (500) students participated in the study. The sample size was chosen in view of the statistical and the methodology employed for conducting the study which involved using structural equation modeling (SEM) to test the research hypotheses. Table 1 show the distributions of the sample.

Distribution of Samples at Various Universities Used for the Study

Universities	Total Undergraduate Population	Number of selected samples
Universiti Malaya	18,051	125
Universiti Sains	16,476	125
Universiti Kebangsaan	17,500	125
Universiti Putra	18,193	125
Total	70,220	500

INSTRUMENT

The instrument of the study consisted of 34 items that was used for measuring the six constructs of the study, which is the acceptance of social networking software. These factors are perceived usefulness, group norm, social identity, compatibility, observability and acceptance to use. All the items were adapted but modified to meet the needs of the study. The scale of responses were based on a 5-point Likert scale of 1 to 5, with 1 being strongly disagree and 5 being strongly agree. The table 1 below presents the information about the instrument.

Table 1. Constructs Measured of social networking software acceptance

Construct	Adapted From	Likert Scale	No of items
Perceived Usefulness	Davis (1989); Ndubisi and Janta (2003)	1 to 5 (Strongly disagree → strongly Agree) 7	7
Group Norm	Shen, Cheung, Lee and Chen (2009)	" 4	4
Social Identity	Shen et al, (2009)	" 5	5
Compatibility	Masrom and Hussein (2008)	" 7	7
Observability	Masrom and Hussein (2008)	" 4	4
Acceptance to use	Hussein, Mohamed and Aditiawarman (2007)	" 4	4

MEASUREMENT MODEL

All the forty two (32) items were subjected to principal component analysis with SPPSS version 16. Prior to adaptation of the items, the items were reported to have fulfilled all the validity and reliability criterions. However, in the present study, the researcher subjected the items to principal component analysis to identify the underline dimension measure by the variable of study. After data cleansing, leaving only the items that meet all the acceptable criterion, the data was analyzed again and the reanalyzed data shows an improved measure of sampling adequacy (KMO) from the earlier 0.39 to 0.62. The Bartlett test of sphericity was statistically significant at (X^2 (180)=5.862E3, P<000). The total variance explains has reduced to six components at 68.25%. The rotated matrix loaded seven (7) items in the first component, another seven (7) items in the second component, five (5) items loaded in third component, 4,3,3 items were loaded in fourth, fifth, and six components respectively. The items were loaded on the following variables: social identity, compatibility, group norm, perceived usefulness, obsevability, and acceptance to use SNS.

Table 2. Valid Items and their Factor Loading for Social Identity

Items	Questions	Factor Loading
Q23	I use social networking software in order to identify myself with my gender group	.751
Q25	I used social networking software because it is compulsory as a member of school social group	.739
Q22	I use social networking software in order to identify myself with my discussion group	.733
Q24	I use social networking software in order to identify myself with my school social group	.696
Q21	I use social networking software in order to identify myself with my class mate	.680
Q11	It will fit well with my method of communicating with my friend	.609

Q19	Most of my classmates believe that using social networking software to share ideas meant that one is digital native	.564

Total cronbach's alpha reliability was 0.68

Valid Items and their factor loading for Compatibility

Items	Questions	Factor Loading
Q20	I use social networking software in order to identify myself with my age group	.783
Q13	SNS would fit well with the way I will like to make collaboration	.722
Q14	It would fit well with the way I will like to express my feeling to my social group	.705
Q15	Most people who are important to me expect me to use social networking software	.677
Q3	Social networking software will enable me to make new friends	.623
Q4	Social networking software will enable me to share my thoughts and ideas with my friends and other people	.621
Q12	It will fit well with the way I would share my ideas with my classmate	.554

Total cronbach's alpha reliability was 0.90

Valid Items and their factor loading for Group norm

Items	Questions	Factor Loading
Q10	It would fit my preference for posting my profile on the net	.813
Q29	I found social networking enjoyable	.773
Q27	I used social networking software because it is good for collaborating with my peers	.756
Q28	I used social networking software because it is interesting for achieving a learning goal	.662
Q26	I used social networking software because it is compulsory as a member of a discussion group	.618

Total cronbach's alpha reliability was 0.80

Valid Items and their factor loading for Perceived Usefulness

Items	Questions	Factor Loading
Q9	I belief accepting to use SNS would fit well with the way of my life	.747
Q2	Social networking software will enhance my writing skills	.744
Q6	Social networking software is an efficient method of communication	.715
Q5	Social networking software will improve my social skill	.602

Total cronbach's alpha reliability was 0.75

Valid Items and their factor loading for Obsevability

Items	Questions	Factor Loading
Q40	It will enable me to observe my friend progress	.879
Q32	I found social networking very interesting	.726
Q41	It will enable me to observe every activities of all those I have connection with	.649

Total cronbach's alpha reliability was 0.71

Valid Items and their factor loading for Acceptance to use SNS

Items	Questions	Factor Loading
Q36	I would engage in collaborative activities with social networking software	.777
Q38	I would enjoy my peers to use SNS	.758

Total cronbach's alpha reliability was 0.70

Disreminant and Convergents Validity

The construct validity comprising convergent and discriminant validity was analyzed and the result of it is in (Table 3).

Table 3. Average Variance Explain versus Construct Validity

Component	1	2	3	4	5	6
1	0.664					
2	0.093	0.587				
3	0.131	0.166	0.653			
4	0.17	0.182	-0.012	0.558		
5	0.215	0.057	0.077	0.129	0.501	
6	0.228	0.235	0.03	0.145	0.153	0.611

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

THE HYPOTHESIZED SOCIAL NETWORKING SOFTWARE ACCEPTANCE MODEL

Several confirmatory factor analysis were conducted which enables the researcher to look for offending estimate upon which the measurement was free from, negative error variances, standardized coefficients exceeding 1.00. After a series of confirmatory factor analysis, only 17 items were selected out of the 32 items, other offending items were deleted.

The researcher thereafter assessed the hypothesized model so as to determine the extent to which the model fit the sample data. This was evaluated by the following fit measures: the Chi-square, the goodness of fit index (GFI), the comparative fit index (CFI), the root mean square error of approximation (RMSEA). The result of the fit indexes supported the proposed model. The result of the model adequacy as a whole indicated a model fit with a non significant chi-square statistics; X^2 (*df= 108*) 270.594, ρ= .000 (ρ> 0.001), RMSEA= 0.059, GFI= 0.930, CFI= 0.907, IFI= 0.909 (Figure 4.1). The relative chi-square where the chi-square fit is divided with the degree of freedom (CMIN/*df*) was estimated to be 2.505 the result fell below the threshold point of 3.000 (Kline, 2005). After fitting the model, the individual parameter was evaluated, while other parameters were significant it was observed that two of the parameter was not significant (perceived usefulness →acceptance to use SNS and social identity →acceptance to use) were found to be insignificant.

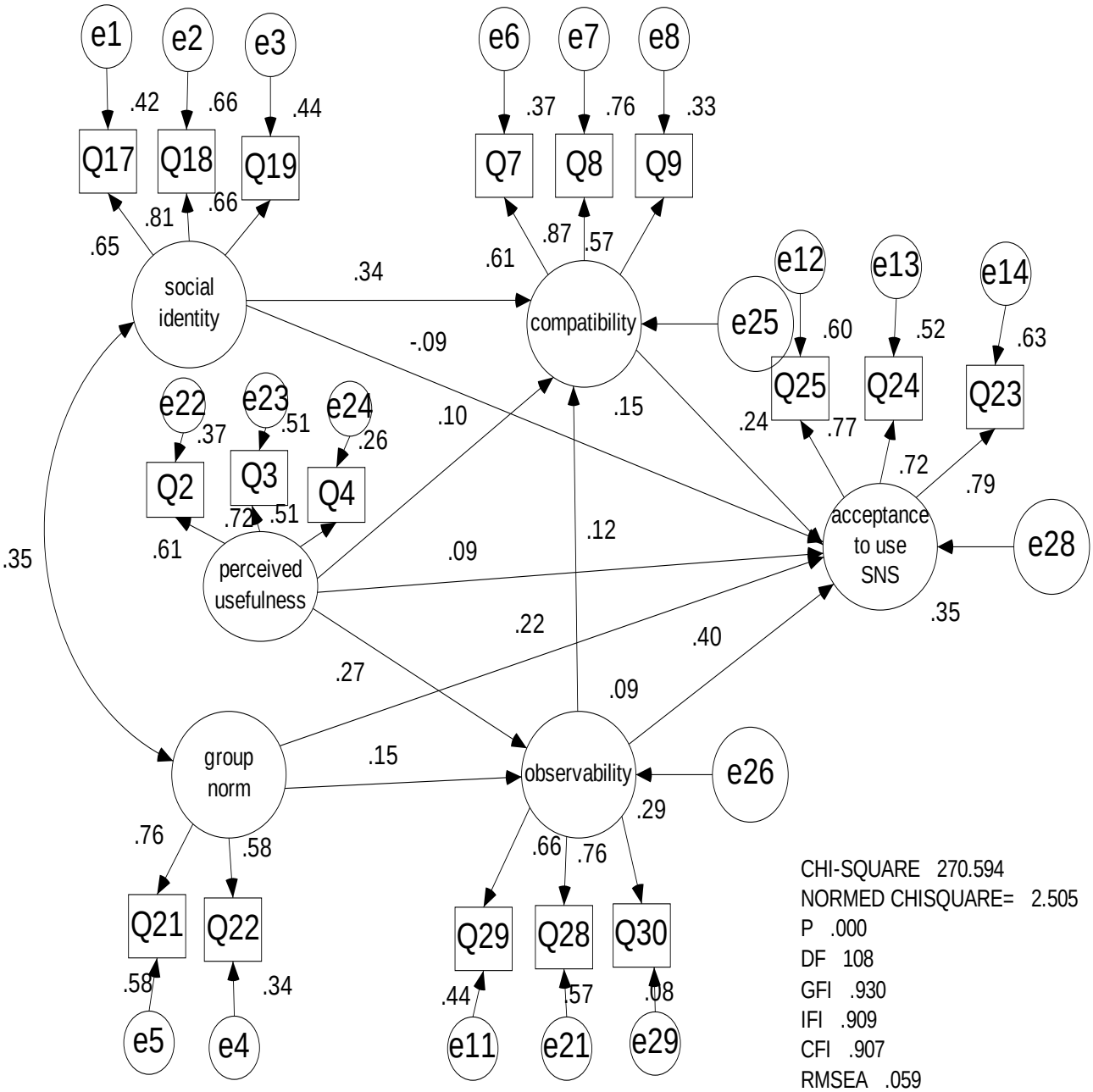

Figure 2. The Hypothesized Model of Social Networking Software Acceptance

RESULTS

H1: Social Identity will Significantly Correlated with Group Norm

Based on the findings of the regression weight in SEM analysis (Figure 1), the correlation between social identity and group norm is significant (CR>1.96) with the standardized path coefficients of 0.339. Therefore, the hypothesis is supported, which means that social identity has positive correlation with group norm. Moreover, based on Kline (2005) interpretation of path coefficient, the effect size between social identity and group norm indicated a "good" effects, the effect was statistically and practically significant. The findings confirmed the earlier findings on the theoretical correlation between the two factors (Kelman, 1958; Cheung & Lee, 2010) it also show that students participation in online social networking was in conformity with social norms be it group or an attempt to identify with their peers. Thus, group norm and social identity are related in the context of SNS usage among students.

H2: Compatibility will have a direct positive influence on students' acceptance to use social networking software (SNS)

The regression weight of Structural Equation Model analysis showed that compatibility positively influences social networking acceptance. The influence was statistically significant (CR>1.96) with the standardized direct effects of 0.233, which implied that the hypothesis was supported. The finding indicated that students found SNS compatible as a platform for identifying with friends and peers. The effects show a "good" effect size based on Kline (2005) recommendation.

H3: Social identity will have a direct positive influence on students' acceptance to use social networking software (SNS)

The regression weight of Structural Equation Model analysis showed that social identity does not positively influences acceptance to use social networking software. The hypothesis is not supported because the influence was statistically insignificant with the standardized direct effect of -.092 at (CR>1.96).

H4: Perceived usefulness will have a direct positive influence on students'acceptance to use social networking software (SNS)

The regression weight of Structural Equation Model analysis showed that perceived usefulness does not positively influence acceptance to use social networking software. The influence was statistically insignificant with the standardized direct effect of 0.082 at (CR>1.96) see Figure 1. With this finding the hypothesis was not supported. The finding indicated that students do not perceived social networking software to be useful before they decided to use it.

H5: Group norm will have a direct positively influence on students' acceptance to use social networking software.

The regression weight of Structural Equation Model analysis showed that group norm positively influences acceptance to use social networking software. The influence was statistically significant with the standardized direct effects of 0.177 at (CR>1.96) see Figure 1. With the finding the hypothesis was supported. The finding indicates that group norms were an important determinant of SNS usage among students.

H6: Observability will have a direct positively influence on students' acceptance to use social networking software.

The regression weight of Structural Equation Model analysis showed that observability positively influences acceptance to use social networking software. The influence was statistically significant with the standardized direct effect of 0.444 at (CR>1.96). With these findings the hypothesis was supported. This factor was the strongest determinant of SNS acceptance among the students, which indicated that SNS is a good platform through which they observe all those they directly or indirectly connected to.

Supported and non supported hypotheses of the study

H1	Social identity will significantly correlated with group norm	Supported
H2	Compatibility will have a direct positive influence on students' acceptance to use social networking software (SNS)	Supported
H3	Social identity will have a direct positive influence on students' acceptance to use social networking software (SNS)	Non-Supported
H4	Perceived usefulness will have a direct positive influence on students' acceptance to use social networking software (SNS)	Non-Supported
H5	Group norm will have a direct positively influence on students' acceptance to use social networking software.	Supported
H6	Observability will have a direct positively influence on students' acceptance to use social networking software.	Supported

DISCUSSION

The analysis from this study showed that the path between observability → acceptance to use SNS, has a regression weight of 0.44 the path appears to be the strongest paths of the model. The path between social identity →compatibility was the next strongest paths with regression weight 0.36 in the model. Also, the regression path between perceived usefulness → observability revealed a weight of 0.28. Similarly the path between compatibility → acceptances to use SNS revealed a weight of 0.23. The path between group norm → acceptances to use SNS revealed a weight of 0.18. The paths between observability → compatibility was 0.154, perceived usefulness → acceptances to use SNS was 0.134, as well as the regression path between perceived usefulness → compatibility revealed the weight of 0.097. The finding also revealed a strong correlation between social identity and group norm with a beta weight of 0.338. The total variance of the combine effect of social influence and perceived usefulness on compatibility was 0.14%, while the total variance explain of the effect of perceived usefulness and group norm on observability was 0.10%. Lastly, the combine effects of compatibility, group norm, and observability on acceptance to use SNS was 0.33%. Some of the findings of this study especially the hypothesis that social identity will positively correlated with group norm was validated and this was in congruent with the earlier finding of Lee et al. (2003) that reported that there is correlation between social influence and group satisfaction in social networking for distance learning. Also, the hypotheses that stated that observability and compatibility will have a positive influence on acceptance to use social networking software stand validated. This finding was in congruent with the finding of Rogers (1995); Grandson, Alshare and Kwun, (2005) that reported that acceptance to adopt an innovation are majorly a function of compatibility and observability. Contrary to the practical importance of perceive usefulness as a determinant of IS acceptance as reported by Davis, (1989, 1993); Chismar and Wiley-Petton (2000); Dasgupta, Granger, and Mcgarry (2002); Ndubuisi and Jantan (2003); Lee, Cho, Gay, Davidson and Ingraffa (2003); Wahid (2007); and Ahmad et al. (2010), in this present study the coefficient between perceived usefulness and acceptance to use social networking software was found to be insignificant. However, perceived usefulness was found to have indirect influence on acceptance to use SNS through observability. The finding corroborates the finding of Grandson, Alshare and Kwun (2005) that reported that perceived usefulness may indirectly influence acceptance through other factors. Similarly, this finding supported the finding of Usluel, Askar, & Bas (2008), the study revealed that compatibility through perceived attribute is the strongest factor predicting ICT usage in higher institution of learning. The finding was in accord with Olusegun et al. (2009) finding on diffusion of innovation in social networking sites among university students. The study reported that obsevability and compatibility appears to be the strongest factor predicting student adoption of SNS in Nigeria.

The hypothesis that stated that social identity will positively influence acceptance of SNS was not supported because social identity does not have positive direct influence on acceptance to use SNS. The finding was in congruent with the earlier study of Hsu and Lin (2008) on knowledge sharing among bloggers that reported that social norm does not have any direct influence on user intention to blog. However this was in contrary to the finding of a study on the creation of social identity through weblogging by Pluempavarn and Panteli (2007) that reported that a feeling of identity in most cases influences why a blogger attached him/herselves to a group. Pluempavan and Panteli (2007) finding also reported that creating of weblog is a function of social identity and by extension if it is compatible with bloggers interest.

The result of this study also supported the finding of Yih (2009) on investigation of student acceptance to writing web logs in Malaysia, the finding revealed that perceived usefulness had indirect effect on students intention to write web logs while perceives ease of use was insignificant in that study. The link between Yih (2009) study and this present study is that PU was found to be statistical insignificant in predicting information system usage of student in Malaysia. Moreover, the finding in this present study revealed the significant importance of group norm which has direct as well as indirect influence on SNS use among students. However, in Hsu & Lin (2007) study of acceptance of blog: the role of TAM and Social influence revealed that social norm was insignificant in predicting user intention to blog.

THEORETICAL IMPLICATION OF THIS STUDY

This study has shed more light on users' advances on accepting to use the social networking software (SNS). The study has increased the frontier of knowledge on the SNS phenomenon, though variables from three theories

were integrated for accomplishing the study. With the result of the study, the present findings has supported the efficacy of Innovation diffusion theory of Rogers', Technology acceptance model of Davis' as well as Social influence theory developed by Kelman. Though, the original TAM developed by Davis theorized that perceived usefulness will have a direct positive influence on information system acceptance, but this study showed that perceived usefulness does not have direct influence on the acceptance of the SNS. One important finding of the study was that perceived usefulness was found to have indirect influence on the SNS acceptance through compatibility and observability. The findings of the study also demonstrated that social identity does not have direct influence on the acceptance and use of the SNS as earlier documented by Shen et al. (2009) but social identity indirectly influenced the acceptance and use of the SNS through compatibility. The study also found out that group norm has direct positive influence on SNS acceptance which is consistent with the finding of the Cheung et al. (2010) on theoretical model of social networking in online class. Moreover, group norm was also found to have indirect influence on acceptance to use the SNS through observability. One of the significant implication of the study to theories and model of web 2.0 application was that variables from different theories could be synergized together in order to get a detailed understanding of the actual factor that influence the trend of SNS usage among the present generation of students as suggested by Taylor and Todd's (1995). The study was able to establish the influence that all the factors has on each other as it related to social networking software acceptance. Lastly, the study has revealed the interrelatedness of these theories, the correlation that exist among the factors of the study. The study has also documented empirical information about SNS phenomenon from utilitarian factors to system characteristic, group and collective behavior factor in an online social networking site usage. In other words, acceptance of the SNS is a function of multiple factors that cut across different but related theories. Taking a cursory look at the findings of this study by way of analyzing the results of the hypotheses formulated for the study, the findings of the study underscores the importance of Innovation diffusion theory, Technology Acceptance Model, and Social Influence Theory for explaining the determinant of the SNS acceptance and use by the students.

CONCLUSION

The finding of this study has brought to light factors that influence the students to accept to use SNS almost on a daily basis. Based on these findings, the researcher concludes that SNS has become an indispensable tool for student's daily practice. It has also reflected the high level of students' digital literacy skill as well as their social engagement and interaction among their peers. Therefore, faculty members are encouraged as a matter of necessity to take advantage of this by adding the SNS to their teaching tool box. They should figure out how to utilize the tool in a more productive ways so as to encourage peer-construction of knowledge, thereby leverage collective intelligence among the students rather than allowing the SNS to take advantage of the students through its usage for unproductive activities.

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