
Social Networking Site Adoption in Malaysia and Indonesia

NOOR ISMAWATI JAAFAR
BOBBY DARMAWAN
University of Malaya

MOHD YAHYA MOHAMED ARIFFIN
Universiti Sains Islam Malaysia

ABSTRACT

This study employed the Model of Technology Preference (MTP) to investigate the antecedents of behaviour intention to adopt Social Networking Site (SNS) for communication after considering individual's preference factor. This study used quantitative approach where surveys were conducted in Malaysia and Indonesia. Self-administered questionnaires were distributed to SNS users in big cities of both countries that lead to a total of 1037 valid responses. The data were analysed using Structural Equation Model (SEM) to measure model fit and to conduct structural modelling. The results in general support that Attribute-Based Preference (ATRP) significantly affects Attitude-Based Preference (ATTP), which also mediates that effect with Behaviour Intention (BI) of using SNS. Nonetheless, the findings from the two countries vary with regard to the attributes that affect the ATTP and the effect of ATTP on BI and Attitude (ATT) towards SNS. Malaysians tend to use SNS for communication due to the availability of options for their preferred technology. This could be explained by the higher pragmatic and masculinity index of the Malaysian culture, which they tend to exhibit in their actions. In contrary, Indonesians tend to defer using the SNS and create another level of attitude before the actual usage.

Keywords: *Adoption, social networking site, technology preference, social presence, perceived enjoyment.*

INTRODUCTION

The antecedents of the Behavior Intention (BI) of adopting Social Networking Sites (SNS) are being influenced by the individual's behavior. Meanwhile BI itself is a function of ATT (Yu, 2012). There have been a lot of researches about SNS which mainly focus on user's eloquent investigation, the factors that motivate the usage, character arrangement, the function of SNS in social connections and confidentiality and information revelation (Wilson, Gosling & Graham, 2012). The purpose of this study is to examine the relationships between technology preference, attitude and behaviour intention towards using SNS. Moreover, it will somehow benefit and give significance to the SNS users that are chosen in the big cities of Malaysia and Indonesia since this research also disclosed about their attitude and technology preference towards using SNS. It is hoped that the societies would better understand about using SNS and improve the body of knowledge regarding social networking.

Existing frameworks to evaluate user's intention to adopt SNS are now considered inadequate (Muthitcharoen, Palvia & Grover, 2011) because frameworks such as Theory of Reasoned Action/TRA (Fishbein & Ajzen, 1975), Theory of Planned Behavior/TPB (Ajzen & Fishbein, 1980) and the Technology Acceptance Model (TAM) (Davis, 1989) did not explain

the critical matter of preferences. There should be a further development of theory to explain the role of preference in determining behavior intention to adopt SNS. Thus the research questions that the study will address are as follows:

1. What are the factors that influence the Behavior Intention (BI) of SNS adoption given the alternative technology preference among SNS users?
2. How do preference attribution factors affect Attitude (ATT) and Behavior Intention (BI) towards SNS adoption?

LITERATURE REVIEW

TAM model was proposed by (Davis, 1989) as an instrument to identify the likelihood of a new technology being adopted within a group or an organization (Turner, Kitchenham, Brereton, Charters & Budgen, 2010). TAM usually employed Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) with additional Perceived of Risk (PR) as prominent modus operandi. Nowadays the theory is saturated (Muthithcharoen et al., 2011). As an extension of existing model as in the earlier proposal, it is vital to add an unequivocal alternative contrast to define preference. Preferential decision knowledge as due to existence of superiority, a person favors one thing compared to another thing (Brown, 1984). It means that there is an alternative available. Attribute is something perceived by technology users in using a system where they can immediately detect the product's identity that form their most preferred choice. Cognitively, human value attribute as assessment prior a decision-making.

Scholars' statements cited by (Muthithcharoen et al., 2011) clarified the brief exposure of preferential behavior researches utilizing the preferential knowledge that consists of ATTP and ATRP. ATRP supports the idea that the preference structure involves comparing definite alternative attribution, whilst ATTP constitutes the general valuation of alternatives (Mantel & Karde, 1999). Users use preference evaluation prior the decision making process whether to adopt or to not adopt certain system at the explicit level. The comparison of alternatives is made for each attribute and the decision was a summative of all aspects. This summation eventually would affect the decision making at the implicit level. However, the significance of ATTP and ATRP as factors determining preferential behavior is still in need of further investigation (Figure 1). In the following section, the discussion on the attributes at the explicit level is presented.

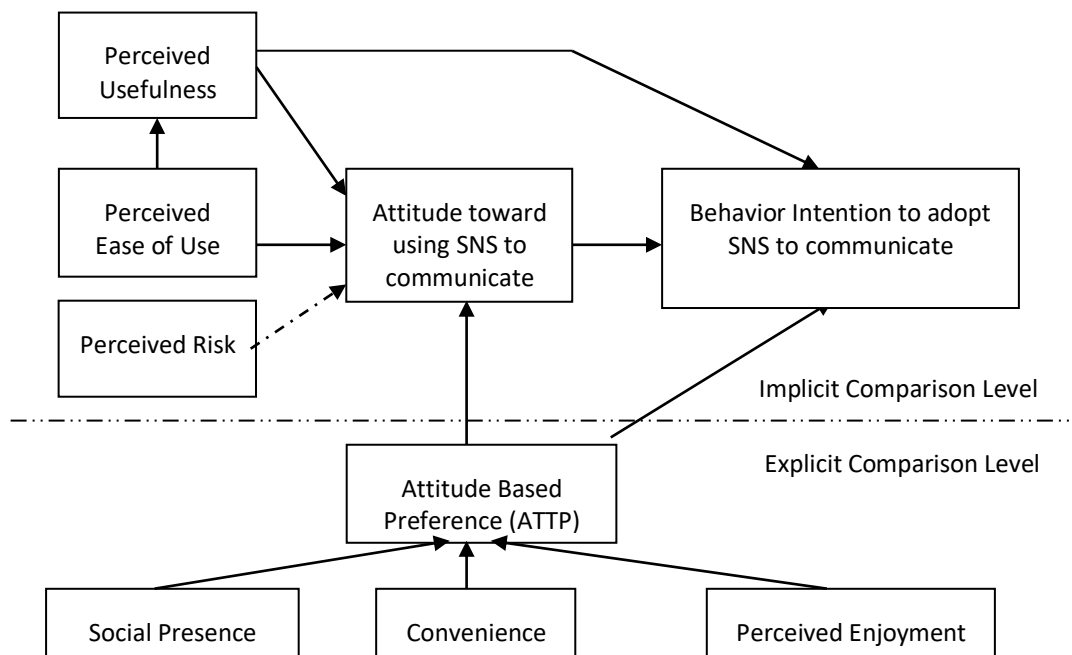


Figure 1: Research framework, adapted from Muthitcharoen et al. (2011).

Perceived Enjoyment (PE)

Perceived Enjoyment (PE) is fun and a bliss factor in exercising communication technology to expand interpersonal relationship, which in social context involving hedonic and instrumental purpose separately from whichever performance cost that could be predicted (Parboteeah, Valacich & Well, 2009). Hedonic element can be referred as “enjoyment” (Van der Heijden, 2003), experiential utilization, fun, happiness, and exhilaration (Jeyaraj & Sabherwal, 2008). A study performed by (Shin, 2007) found that online use is affected by enjoyment for entertainment intention. The importance of PE is to build interpersonal communication (Wei Wang, Hsieh and Baoxiang, 2012), to build attitude towards website and PE is an extended feature to explain the adoption of technology (Van der Heijden, 2003).

Convenience (CON)

Convenience (CON) is a customer’s perception towards the interaction efficiency with sellers (Choudhury & Karahanna, 2008). Some authors emphasized convenience as mobility to conduct online transactions in an efficient way (Jeyaraj & Sabherwal, 2008). Other scholars who investigated CON are (Szymanski & Hise, 2000) which in their qualitative study; CON is summarized as browsing easiness, time economization, information availability and satisfactory experience. All those assessments emphasized on efficiency. The perception of CON presumably affecting the ATT because when people feel convenient, it drives the ATT in a positive way (Cyr, Hassanein, Head & Ivanov, 2007).

Social Presence (SP)

Social Presence (SP) dealt with communication medium quality, the degree of SP varies in nature of medium (Short, Williams & Christie, 1976). These variations are vital in shaping the way individuals interact. The definition of SP is related with salience and recognition of others while the meaning of salience is the relative interaction significance of the others (Kehrwald, 2008). Recognition of others is not solely the issue but more forward to social

relation dynamics (Biocca, Gurgoon, Harms & Stoner, 2001). The importance of SP in online interaction refers to the alertness of another person in an interface and the consequential positive reception of an interpersonal relationship (Tu, 2002). SP is important in enhancing the website's psychological emotions to be human contact alike, sociable, and personal (Yoo & Alavi, 2001). Some researchers found that positive SP improved communication quality in virtual group (Lowry, Roberts, Romano, Cheney & Hightower, 2006).

Development of Hypotheses

According to Muthithcharoen et al., (2011), theory of IS failed to explain the affective processing system if the choices of preferences were neglected. ATTP is taken as a whole as estimation of alternatives. They also cited a study conducted by Bettman, Luce and Payne (1998) who stated that user's viewpoint in determining favoritism suggesting the mediating function of ATTP and BI. When an alternative was estimated to be superior, user would be engaged in an adoption intention of certain system. Thus the relationship between ATTP and BI to adopt SNS can be formulated as follows:

Hypothesis I: *Attitude-Based Preference (ATTP) has relationship towards Behavior Intention (BI) to use SNS.*

Previous research (Ajzen & Fishbein, 1980) found that attitudes toward a system/technology control intentions and eventually influence behavior in accordance to that system/technology, as cited by Jackson, Low & Leitch (1997). The approach that connected users' preference and mediating variable of TAM was formulated by Muthithcharoen et al., (2011). Alternatives that were compared specifically, in early stage allowed user to grow preferences towards alternatives (ATTP), which eventually affected ATT toward using SNS. The authors proposed the second hypothesis as follows:

Hypothesis II: *There is a relationship between Attitude-Based Preference (ATTP) and Attitude (ATT) toward using SNS.*

The next two hypotheses developments seek the relationship between Attribute-Based Preference (ATRP) and Attitude-Based Preference (ATTP). In terms of performing communication using FtF and SNS, PE, CON and SP were identified as ATRP factors because users could label SNS by using those categories and the properties contained by each variable ensure the preferential factors to be evaluated by users.

Inspiration of building online interaction using SNS included factors of entertainment and convenience that affected SNS user attitudes (Ya & Dong, 2011). Perceived Enjoyment as intrinsic factor represented the hedonic element of using SNS. After comparing between traditional FtF and SNS for communication in terms of hedonic factors, Perceived Enjoyment was deemed to shape user's attitudes. Thus, the authors proposed the third hypothesis as follows:

Hypothesis III: *Attitude-Based Preference (ATTP) is a function of Perceived Enjoyment (PE).*

The same thing happened with convenience. By the time users found convenience in one of the criteria that were being compared, eventually the result of comparison constituted the ATTP. This formulated the fourth hypothesis:

Hypothesis IV: *Attitude-Based Preference (ATTP) is a function of Convenience (CON).*

The importance of SP in online interaction was cited by (Tu, 2002; Walther 1995) as alertness of another person in an interface and the consequential positive reception of an interpersonal relationship. SP is important in enhancing the website’s psychological emotions to be human contact alike, sociable, and personal (Yoo & Alavi, 2001). Previous researchers (Cheung, Pui & Lee, 2011) cited several theories about how SP defined the ATTP. They mentioned that online interaction needs SP because it facilitates direct and indirect human interpersonal contact and also defines its sociability (Gefen & Straub 2004). When given the preferential factors about other’s presence, SP is representing and still reliable in defining the ATTP (Flanagin & Metzger 2001). This understanding shaped the authors’ last hypothesis as follows:

Hypothesis V: *Attitude-Based Preference (ATTP) is a function of Social Presence (SP).*

RESEARCH METHODOLOGY

Data Collection

Two surveys were conducted in Malaysia and Indonesia. Data were collected using self-administered questionnaire. The questionnaire had four parts. The first part was the introduction of the study. The second part aimed to capture respondent’s response on items on the implicit comparison level. Structured statements for the second part were prepared using a 7-Likert scale for each statement, starting from 1 to describing “strongly disagree” until 7 to indicate “strongly agree”. The third part captured the respondent’s answers on explicit comparison level. Wording structure was modified to fit the intention of the study to provide alternative preference. Each statement was given 7-Likert scales to be evaluated. As proposed by Muthicharoen et al., (2011), the modification being constructed from 1 describing the less novelty preference this is FTF to 7 as novelty way to communicate using SNS. The last part aimed to capture demographic characteristics. Table 1 shows the list of indicators which were employed in this study and their sources.

Table 1: Indicators and sources

Code	Indicators	Sources
Implicit Comparison Level		
PU1	Using SNS enables me to communicate more quickly.	Muthicharoen <i>et al.</i> (2011)
PU2	Using SNS improves my performance in communicating.	
PU3	Using SNS increases my productivity in communicating.	
PU4	Using SNS enhances my effectiveness in communicating.	
PU5	I find SNS is useful for communication.	
PU6	Using SNS is easier to communicate.	
PEU1	My interaction with SNS is clear and understandable.	Muthicharoen <i>et al.</i> (2011)
PEU2	I find SNS is easy to use for communicating.	
PEU3	Interacting with SNS to make communication does not require a great deal of my effort.	
PEU4	When communicating, I find it easy to get SNS to do what I want it to do.	
PEU6	When communicating, I find SNS is flexible to interact with.	
PR1	While making communication using SNS, my personal information is at risk.	Muthicharoen <i>et al.</i> (2011)

PR2	I would feel totally safe while providing sensitive information about myself to SNS	
PR3	Overall, SNS is a safe place to transmit sensitive information.	
ATT1	To communicate using SNS is a good idea.	Muthicharoen <i>et al.</i> (2011)
ATT2	To communicate using SNS is a wise idea.	
ATT3	I like the idea of communicating using SNS.	
ATT4	Communication using SNS is pleasant.	
BI1	I predict that I would communicate using SNS.	Muthicharoen <i>et al.</i> (2011)
BI2	I intend to communicate using SNS.	
BI4	How likely are you to communicate using SNS?	
BI5	How certain are your plans to communicate using SNS?	

Explicit Comparison Level

PE1	Which one do you think is more interesting?	Cyr <i>et al.</i> (2007)
PE2	Which one do you think is more entertaining?	
PE3	Which one do you think is more enjoyable?	
PE4	Which one do you think is more pleasant?	
C1	Which one do you think is more convenient?	Szymanski <i>et al.</i> (2000)
C2	Do you spend more time on SNS or FTF?	
C3	Which one do you think is easier to communicate with?	
SP1	Which do you think that has much greater sense of human contact?	Cyr <i>et al.</i> (2007)
SP2	Which do you think that has much greater sense of sociability?	
SP3	Which do you think that has much greater sense of human warmth?	
ATTP1	Overall feeling	Muthicharoen <i>et al.</i> (2011)
ATTP2	Overall attitude	
ATTP3	Overall preference	
ATTP4	Overall positive feeling	
ATTP5	Overall negative feeling	

***Note:**

- PU = Perceived Usefulness
- PEU = Perceived Ease of Use
- PR = Perceived Risk
- ATT = Attitude
- BI = Behavior Intention
- PE = Perceived Enjoyment
- C = Convenience
- SP = Social Presence
- ATTP = Attitude-Based Preference

Sampling Frame and Respondents

Data for the study were collected in cities in Malaysia and Indonesia. For Malaysia, SNS users in Greater Klang Valley (GKV) were targeted with the convenience sampling method. GKV is a term referring to the area around Kuala Lumpur that covers 10 municipalities. Its population is approximately 6 million people or 20% of the national population (Economic Transformation Programme: A Roadmap For Malaysia). The distributed questionnaires consisted of two types, paper based (PBA) and web based (WBA). A total of 300 PBA was distributed in public places such as shopping malls, public transportation hubs and recreational parks. Out of this, 278 questionnaires (92.66%) were returned and usable. Meanwhile, the authors also collected data through the web where the respondents targeted were from the 10 existing municipalities in GKV who have SNS accounts. The list of

respondents was acquired from the registered resident societies who have online communities within GKV. The WBA attained 236 responses. In total 514 responses were attained and used in the analysis.

As for Indonesia, the authors targeted SNS users that live in the Greater Jakarta which included the sub-urban cities around Jakarta such as Bogor, Depok, Tangerang and Bekasi. Those areas are considered as one unity called Jabodetabek (the Greater Jakarta), which is a common term used in Indonesia. Forbes (2011) reported that inhabitants of Greater Jakarta are 28 million with population density of 4.3 million/km per square. It is a mega area for the central of Indonesian cultural, business, economy, administration and politics. Based on data of the 2010 national census provided by Biro Pusat Statistik (2010), the number of population in big cities in the surrounding of Jakarta (9.6 million) is Bogor (950 thousands), Tangerang (1.7 million), Bekasi (2.3 million) and Depok (1.7 million). Therefore, respondents from these areas are considered appropriate for this study since urban people are used to SNS. A list of targeted respondents was acquired from the main residential areas in Jakarta through their residential associations. Employing online survey, a number of 350 WBA questionnaires were distributed and 311 responses were acquired. A total of 250 PBA questionnaires were distributed in public places within Jakarta. Out of 250 questionnaires, 233 questionnaires were returned (93.2% success rate). From that number, 212 questionnaires were usable (90.99% usable rate). Thus a total of 523 respondents was collected and usable rate of the questionnaire is 94.23%, which is considered good.

Data Analysis

SEM uses software of Analysis of Moment Structures (AMOS) version 19 was used to analyze the data collected from both surveys. SEM is appropriate for this study because the different allocation of relationship among independent constructs and also the separation of multiple regressions to be run together in simultaneous way are accommodated (Hair, Black, Babin & Anderson, 2006).

RESEARCH RESULTS

Descriptive Analyses

A total of 1037 sets of self-administered questionnaires were obtained to conduct statistical analysis. Out of these questionnaires, 514 were from Malaysia and the remaining 523 were from Indonesia. The following sections describe collected data for each country.

The majority of the Malaysian respondents are women (56.23%). Their age is between 20-29 years old (47.67%), their race is Malay (58.17%) and having marital status as single (52.72%). In terms of education level, majority of the respondents have bachelor degree (77.82%), majority of them work as full time student (30.35%) with monthly income below USD 629.15 (29.57%). For habit of using the Internet, most of the respondents have been using the Internet for 11-15 years (37.94%), with the frequency of using the Internet per day 1-5 times (28.99%). In terms of hours spent for Internet usage per day, majority of the respondents spend 4-6 hours (39.30%) and the hours spent for SNS per day is 1-2 hours (57.78%). Friendship type of SNS such as *Facebook* is the most selected SNS chosen by 465 respondents (31.63%), followed by *YouTube* (22.24%), *LinkedIn* (9.25%) and *Twitter* (7.07%).

For the Indonesian data, the majority of respondents are women (52.96%), their age is between 30-39 years old (49.33%), ethnicity is Javanese (30.98%), place of living and working is in the Greater Jakarta (57.74%). Marital status showed that 56.6% respondents are

married. For educational background, majority of respondents are bachelor degree (70.6%). While for occupation, 41.68% of respondents worked in the banking industry. The majority of the respondents' monthly income is below USD 511.29 (35.37%). A majority of 41.11% of respondents have been using the Internet for 6-10 years. In a day, respondents claimed to use the Internet up to 6-10 times (33.46%). Most of the respondents spent 1-3 hours in a day using the Internet (43.59%). The second majority is 4-6 hours (32.12%). With those times spent for Internet, in majority the respondents spent 1-2 hours (60.42%) for SNS. Friendship type of SNS such as *Facebook* is the number one with the 29.8%, followed by video type SNS such as *YouTube* (20.27%), Microblogging such as *Twitter* (17.26%) and business type SNS as we find on *LinkedIn* (12.66%).

Testing of Hypotheses

Table 2 summarizes the statistical results for the Malaysian data. Reliability tests measured by Cronbach's Alpha values show all variables have acceptable values more than 0.7 as suggested by Walter and Parks (2002) except for variables PR (0.36). After dropping one indicator (P1) the Cronbach's value increased up to 0.82. Referring to Standardized Regression Weights all items have an acceptable factor loading that exceeds the threshold value of 0.6 except PR1 (0.12) and ATTP5 (0.01). Hence indicators employed were reduced from 37 to 35. Confirmatory Analysis to measure Validity and Reliability based on the value of AVE and CR show all variables exceed the threshold by (Hair et al., 2006) which are CR > 0.7 and AVE > 0.5.

Measurement modelling (Figure 2) resulted a ratio value (chi square value/df) of 2.45, p value is less than 0.05. Several fitness indices showed an acceptance level of fitness based on (Hair et al., 2006) with values of CMIN/df (2.452), GFI (0.876), RMSEA (0.053), CFI (0.948), TLI (0.941) and AGFI (0.849). Only GFI does not pass the threshold ($0.876 < 0.9$). Meanwhile for structural modelling (Figure 2) the results are relatively the same, chi square value/df is 2.54, p value is less than 0.05. The values are CMIN/df (2.549), GFI (0.876), RMSEA (0.055), CFI (0.943), TLI (0.937) and AGFI (0.846). Special attention was given for the p -value which is less than 0.05 which means the acceptance of the hypothesis that there is a difference between measured and observed data. According to Hair et al. (2006), the acceptance of the null hypothesis is allowed due to the complexity of the research framework and the numbers of indicators employed (35 indicators). The Goodness of Fit on both measurement and structural modellings also supports this.

Table 2: Summary of statistical analysis and correlations for Malaysia

No	Variables	No of Items	Mean	Std. Deviation	Cronbach's Alpha	CR	AVE	1	2	3	4	5	6	7	8	9
1	Social Presence	3	2.62	1.42	0.80	0.82	0.6	0.78								
2	Perceived Usefulness	6	5.26	1.04	0.89	0.87	0.53	0.18	0.73							
3	Perceived Ease of Use	5	5.25	1.12	0.80	0.87	0.58	0.18	0.90	0.77						
4	Perceived Risk	2	4.99	1.57	0.82	0.82	0.69	-0.47	-0.27	-0.25	0.84					
5	Attitude	4	5.04	1.14	0.92	0.92	0.74	0.25	0.88	0.81	-0.38	0.87				
6	Behaviour Intention	4	5.18	1.21	0.94	0.93	0.77	0.20	0.87	0.81	-0.33	0.92	0.88			
7	Perceived Enjoyment	4	3.48	1.66	0.89	0.89	0.68	0.66	0.38	0.43	-0.35	0.43	0.42	0.83		
8	Convenience	3	4.42	1.58	0.81	0.81	0.59	0.44	0.48	0.49	-0.12	0.46	0.50	0.66	0.77	
9	Attitude Based Preference	5	3.81	1.26	0.78	0.93	0.77	0.60	0.51	0.46	-0.30	0.50	0.48	0.68	0.45	0.88

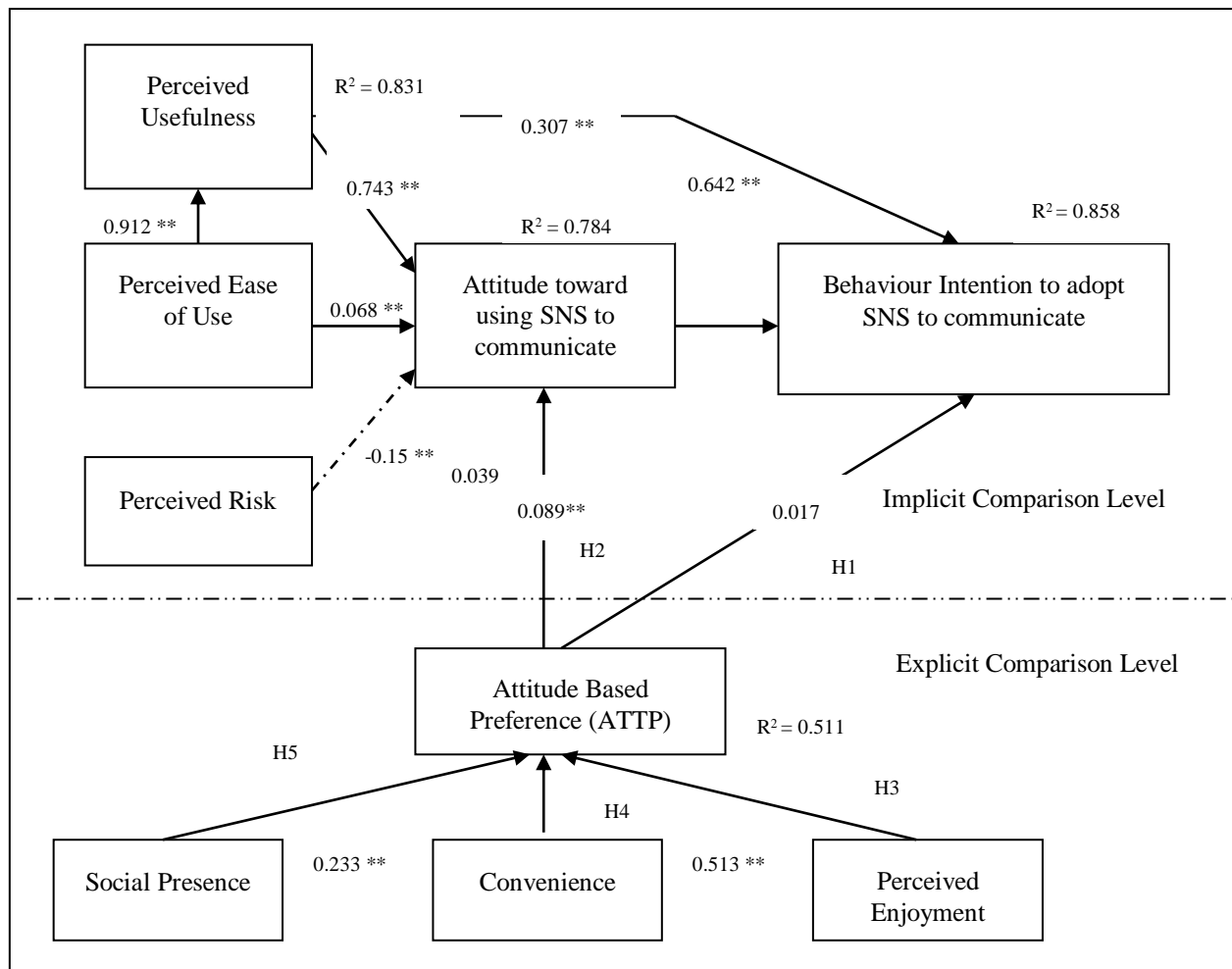


Figure 2: Path diagram for Malaysia

Similar analyses were conducted for the Indonesian data. From Table 3, all the items for each variable show Cronbach's alpha value to be greater than the threshold of 0.7 as proposed by Nunnally (1978) except for variables Perceived Risk (0.612) and Convenience (0.670). Further test on validity and reliability are based on the value of AVE and CR. The results are shown in Table 3 that Convenience construct failed to exceed the threshold of CR (0.583 < 0.7) and AVE (0.414 < 0.5). Based on the result, Convenience construct was being dropped from the estimated model. The author referred to factor loading greater than 0.6 according Hair et al. (2006). All indicators have factors loading > 0.6.

Table 3: Summary of statistical analysis and correlations for Indonesia

No	Variables	No of Items	Mean	Std. Deviation	Cronbach's Alpha	CR	AVE	1	2	3	4	5	6	7	8	9
1	Social Presence	3	1.99	1.15	0.71	0.83	0.71	0.84								
2	Perceived Usefulness	6	5.39	1.02	0.89	0.89	0.57	0.11	0.76							
3	Perceived Ease of Use	5	5.17	0.97	0.83	0.84	0.50	0.15	0.80	0.71						
4	Perceived Risk	3	5.38	1.12	0.61	0.85	0.73	-0.45	-0.25	-0.32	0.86					
5	Attitude	4	4.90	1.06	0.86	0.88	0.66	0.14	0.72	0.77	-0.37	0.82				
6	Behaviour Intention	4	5.09	1.16	0.91	0.90	0.71	0.15	0.67	0.69	-0.32	0.82	0.84			
7	Perceived Enjoyment	4	2.85	1.37	0.80	0.83	0.63	0.52	0.32	0.31	-0.33	0.32	0.35	0.80		
8	Convenience	3	3.51	1.42	0.67	0.58	0.41	0.57	0.46	0.50	-0.34	0.43	0.49	0.84	0.64	
9	Attitude Based Preference	5	3.39	1.34	0.85	0.90	0.70	0.48	0.36	0.35	-0.33	0.30	0.39	0.65	0.77	0.84

The ground base for selection was the number of respondents (n=523) and total indicators employed (32 items) on estimated model. Analysis of the measurement model generated a chi-square value/df is 2.76, ρ -value is less than 0.05 that means the covariance between observed and estimated data were different. But since the numbers of respondent and items employed were huge, significant ρ -value is acceptable (Hair et al. 2006). Several indices showed an acceptance level of fitness; CMIN/df (2.763), GFI (0.881), RMSEA (0.058), CFI (0.937), TLI (0.927) and AGFI (0.851) respectively.

Structural Modelling (Figure 3) defined the relationship among variables within the estimated model based on structural relationship. Structural parameter estimation (path estimate) empirically defines a structural relationship. General Linear Model (GLM) is extended by SEM in which multiple regressions are an element of it. To clarify fitness indices obtained from the structural model, the same threshold for measurement model was used. Analysis of the measurement model generated a chi-square value/df is 2.76, ρ -value is less than 0.05, the same result with the measurement model result. Several indices showed an acceptance level of fitness. CMIN/df (2.766), GFI (0.8766), RMSEA (0.058), CFI (0.935), TLI (0.926) and AGFI (0.852).

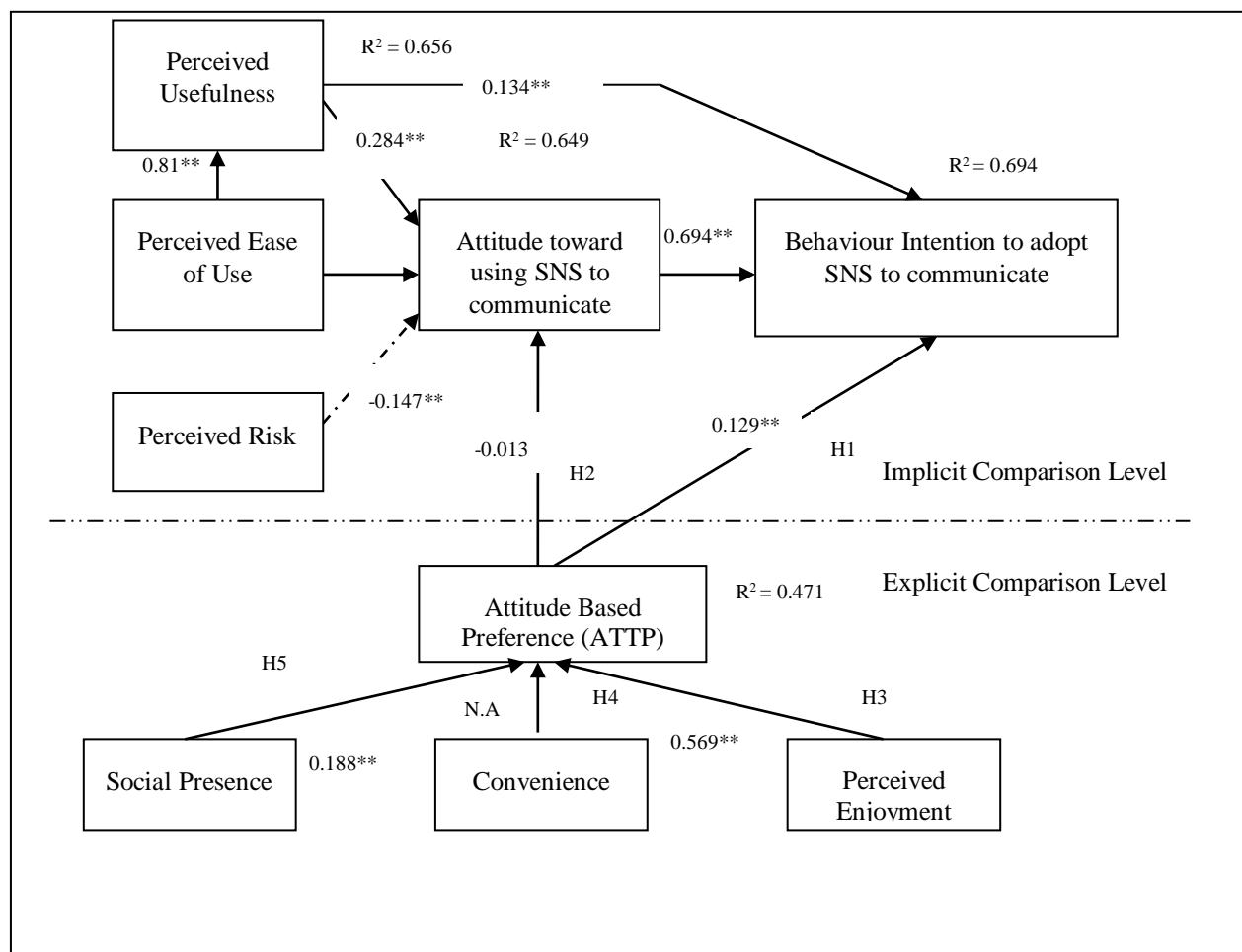


Figure 3: Path diagram for Indonesia

The structural modelling, which clarified the relationship between exogenous and endogenous constructs on estimated model for each country, are summarized in the following Table 4 and Table 5.

Table 4: Estimation for regression weight for Malaysia

Hypotheses	Exogenous Variables	Direct Path	Endogenous Variables	Estimate	P	Remark
Hypotheses I	ATTP	-->	BI	0.017	0.481	Not supported
Hypotheses II	ATTP	-->	ATT	0.089	0.003	Supported
Hypotheses III	PE	-->	ATTP	0.513	***	Supported
Hypotheses IV	C	-->	ATTP	0.039	0.476	Not supported
Hypotheses V	SP	-->	ATTP	0.233	***	Supported

For Malaysian SNS users, Table 4 shows that the results support Hypothesis II: "ATTP has relationship towards Attitude to use SNS, Hypothesis III: "Attitude-based Preference (ATTP) is a function of Perceived Enjoyment", and Hypothesis V: "ATTP is a function of Social Preference". Hypothesis I: "There is a relationship between ATTP and Behaviour Intention toward using SNS" and Hypothesis IV: "ATTP is a function of Convenience" could not be supported by the result.

Table 5: Estimation for regression weight for Indonesia

Hypotheses	Exogenous Variables	Direct Path	Endogenous Variables	Estimate	P	Remark
Hypothesis I	ATTP	-->	BI	0.129	***	Supported
Hypothesis II	ATTP	-->	ATT	-0.013	0.697	Not supported
Hypothesis III	PE	-->	ATTP	0.569	***	Supported
Hypothesis IV	C	-->	ATTP	NA	NA	Drop variable
Hypothesis V	SP	-->	ATTP	0.188	***	Supported

While for the Indonesian SNS users, it is shown in Table 5, the results support Hypothesis I: "ATTP has relationship towards Behavior Intention to use SNS, Hypothesis III: "Attitude-based Preference (ATTP) is a function of Perceived Enjoyment", and Hypothesis V: "ATTP is a function of Social Preference". Hypothesis II: "There is a relationship between ATTP and Attitude toward using SNS" could not be supported by the result. For Hypothesis III: "ATTP is a function of Convenience" could not be analysed in the structural model because the construct did not pass the statistical threshold in measurement modelling.

Table 6 summarizes the results for Malaysia. TAM performed very well in Implicit Comparison level. In Explicit Comparison level, ATTP is predicted by Perceived Enjoyment and Social Presence. The ATTP's squared multiple correlation shows 0.511 which means that 51.1% of the variance of ATTP can be described by Perceived Enjoyment and Social Presence. Meanwhile, Behavior Intention obtains greater squared multiple correlation values. In that sense 85.8% of the variance of Behavior Intention was explained by constructs in both Explicit and Implicit levels.

Table 6: Squared multiple correlations for Malaysia

Endogenous Constructs	Estimate
ATTP	0.511
PU	0.831
BI	0.858
ATT	0.784

Table 7 summarizes the results for Indonesia. TAM performed very well in Implicit Comparison level. In Explicit Comparison level, ATTP is predicted by Perceived Enjoyment and Social Presence. The ATTP's squared multiple correlation shows 0.471 which means that 471.1% of the variance of ATTP can be described by Perceived Enjoyment and Social Presence. Meanwhile, Behavior Intention obtains greater squared multiple correlation values. In that sense 69.4% of the variance of Behavior Intention was explained by constructs in both Explicit and Implicit levels.

Table 7: Squared multiple correlations for Indonesia

Endogenous Constructs	Estimate
ATTP	0.471
PU	0.656
BI	0.694
ATT	0.649

DISCUSSION

In this study, TAM performed very well in Implicit Comparison Level for both countries. All exogenous and endogenous loaded perfectly as suggested and passed validity and reliability test without any reduced items. The causal relationships are also significant as being proposed by TAM (Davis et al., 1989) excluding there is no relationship between PU to BI. In Explicit Comparison Level, ATTP is predicted by Perceived Enjoyment and Social Presence for both countries.

The importance of Perceived Enjoyment in building interpersonal communication and as an extended feature to explain the adoption of technology is supported by this research results (Wei Wang et al., 2012; Van der Heijden, 2003). As online interaction is a novel way of communication (Walther & Parks, 2002), hedonic role plays its part in defining the user's evaluation towards performing communication via SNS. When users are faced with alternative availability especially with enjoyment, SNS users believe that factors of entertainment exist that finally shape their attitudes (Ya & Dong, 2011).

Social Presence has always been the attention of IS scholar in explaining the online medium interaction. It is believed that social presence, supported by Media Richness Theory (Daft & Lengel 1986), is a factor that enables online communication (Biocca et al., 2001; Hassanein & Head, 2007; Walther et al., 2010). In relation with preferential factors, in the earlier data analysis, Social Presence is skewed to the left, meaning that users prefer FtF communication compared to SNS. But still the condition enables variable of Social Presence to have a significant effect on ATTP. This is because the other's presence evaluation is reliable in defining the ATTP (Flanagin & Metzger 2001).

The preferential factor is important because it shows favouritism (Brown, 1984). When comparing two alternatives between FtF and SNS to have an interpersonal communication, a user uses preferential decision knowledge that labels the product's identity. In this study, preference is represented by ATTP as the general evaluation of alternatives and ATRP that shows the preference structure involving comparison of alternative attribution (Mantel & Kardes, 1999; Muthicharoen et al., 2011). ATTP is predicted to have a relationship with Behavior Intention to adopt SNS for communication because of the superiority chosen between FtF and SNS communication makes user interested in engaging with Behavior Intention to adopt SNS (Bettman et al., 1998; Reibstein, 1978) as cited by Muthicharoen et al., (2011). This is the best explanation on the result, which supported Hypothesis I for Malaysia.

In terms of relationship between ATTP and Attitude in using SNS, the findings are similar to the previous findings for Indonesia. As being mentioned by Einhorn (1971) in Muthicharoen et al.'s (2011) article that by the time user perceives that a more advanced alternative was greater compared to the current one, there might be a chance that user expands the attitude to the next level. This is because the preferential factor mediated by ATTP directly move forward to Behaviour Intention. The user believes that after deeming alternative superiority of performing communication between FtF and SNS, there is an urge to formulate another attitude. This could best explain the result that supports Hypothesis II for Indonesia.

All in all, Malaysians are more likely tend to use the SNS for communication due to the availability of options to choose their preferred technology. This could be explained by the higher pragmatic and masculinity index of the Malaysian culture, which tend to exhibit in executing their actions. In contrary, Indonesians tend to defer using the SNS and create another level of attitude before the actual SNS usage. This could be due to the fact that Indonesians tend to be highly collective (Jones (2007) as compared to Malaysians with respect to Hofstede's six cultural dimensions. To them, they will be team-oriented and group motivated. An individual's achievement will be attached to the whole group. As a result, they would seek the others' opinion first before deciding to use any technology, in this case SNS, for communication.

CONCLUSION

In this study, the MTP research framework has also passed the two stages of data analysis of SEM which were measurement and structural modelling with moderate and acceptable results. By evaluating the alternatives availability, the strength of existing TAM variables by (Davis, 1989) is also increasing. The idea of ATRP brings the choice to users prior decision made to adopt SNS, they must consider certain attributes that being labelled to SNS based on certain criteria. This study succeeded to incorporate variables of Perceived Enjoyment and Social Presence into MTP.

Consequently, SNS practitioners can use the findings of this research for their interest especially to lure SNS users optimize their existence in using SNS. Having known that intrinsic and hedonic factors determine users' special attitude after considering preference, SNS developer can increase the features SNS that bring enjoyment for users. The SNS practitioner must ensure the factors of entertainment, entertaining and joyful to be perceived by SNS users by the time they communicate with others. Meanwhile the

significance of social presence in explaining adoption of SNS strengthens the capability of online interaction to bring other's salience.

The study has a few limitations. Firstly, the sample used in the study was from only highest Internet penetration area with 10 municipalities. Thus, the findings are not generalizable to the total population of SNS account users. In addition, there are only three attributes that were used in the study although there are many more attributes that affect the attitude of SNS account users. Despite the limitations occurred on this study, the adequate squared multiple correlation for this study, which is 85.8% is a proof that exogenous constructs employed were proper to explain the variance of BI to adopt SNS for communication in Malaysia. Similarly, despite the limitation occurred on this study, the adequate squared multiple correlations for this study, which is 69.4%, is a proof that exogenous constructs employed were proper to explain the variance of Behaviour Intention to adopt SNS for communication in Indonesia.

Further research can elaborate this preferential factor other IS artifacts in both countries or other countries. For example, a study to compare bank customers' preferences between traditional banking and mobile banking for financial transactions is still scarce. In addition, many studies can be performed on the various types of SNS. Interesting comparison would be between Facebook and LinkedIn (Papacharissi, 2009) or Facebook and MySpace (Dwyer, Hiltz & Passerini, 2007). Comparison between two SNSs also can be done based on the features contained in each SNS that enable users to have online interaction such as instant messaging, email, blogs, message boards, online forums, bulletin boards, video and photo-sharing, comment posting and even video conferencing (Cho & Cheon, 2005; Holzwarth, Janiszewski & Neumann, 2007; Lee, Vogel & Limayem, 2003; Miranda & Saunders, 2003). All of these could be studied in the different countries or region.

ACKNOWLEDGMENT

This research was funded by research grant RG146-12SBS, received from University of Malaya.

BIODATA

Noor Ismawati Jaafar is an Associate Professor in the Department of Operations and MIS, Faculty of Business and Accountancy, University of Malaya. She obtained her Doctor of Business Administration (DBA) qualification from Macquarie University in Sydney, Australia. Her research interest is in the area of information technology governance and social media. Email: Isma_jaafar@um.edu.my

Mohd Yahya Mohamed Ariffin is a Professor and Dean in the Faculty of Leadership and Management, Universiti Sains Islam Malaysia. He obtained his PhD qualification from University of Malaya. His research interest is in the area of public relation and journalism. Email: mohdyma@usim.edu.my

Bobby Darmawan is currently working in Bank BJB, Indonesia as Micro and Small Medium Enterprise Banking Credit Team Leader. He was an MBA student in the Faculty of Business and Accountancy, University of Malaya. Email: bobbydrmw@gmail.com

REFERENCES

- Abdullah, M. Y., Salman, A., Razak, N. A., Noor, N. F. M., & Malek, J. A. (2012). Issues affecting the use of information and communication technology among the elderly: A case study on JENII. *Jurnal Komunikasi, Malaysian Journal of Communication*, 28(1), 89-96.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Badan Pusat Statistik. (2010). Jumlah dan distribusi penduduk. Diperoleh dari <http://sp2010.bps.go.id/>
- Bettman, J. R., Luce, M. F., & Payne, J. W. (1998). Constructive consumer choice processes. *Journal of Consumer Research*, 25, 187-217.
- Brown, T. C. (1984). The concept of value in resource allocation. *Land Economics*, 60, 231-246.
- Cheung, C. M., Pui, Y. C., & Lee, M. K. (2011). Online social networks: Why do students use facebook? *Computers in Human Behavior*, 27, 1337-1343.
- Cho, C. H., & Cheon, H. J. (2005). Cross-cultural comparisons of interactivity on corporate web sites. *Journal of Advertising*, 34(2), 99-115.
- Choudhury, V., & Karahanna, E. (2008). The relative advantage of electronic channels: A multidimensional view. *MIS Quarterly*, 32, 179-200.
- Cyr, D., Hassanein, K., Head, M., & Ivanov, A. (2007). The role of social presence in establishing loyalty in e-service environments. *Interacting with Computers*, 19, 43-56.
- Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness, and structural determinants. *Management Science*, 32, 554-571.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-339.
- Dwyer, C., Hiltz, S. R., & Passerini, K. (2007). Trust and privacy concern within social networking sites: A comparison of Facebook and MySpace. *Proceedings of AMCIS* (pp. 1-12).
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Flanagin, A. J., & Metzger, M. J. (2001). Internet use in the contemporary media environment. *Human Communication Research*, 27(1), 153-181.
- Florenthal, B., & Shoham, A. (2010). Four-mode channel interactivity concept and channel preferences. *Journal of Services Marketing*, 24(1), 29-41.
- Gefen, D., & Straub, D. W. (2004). Consumer trust in B2C e-commerce and the importance of social presence: Experiments in e-products and e-services. *Omega*, 32(6), 407-424.
- Hair, J. F., Black, W. C., Babin, B. B., & Anderson, R. E. (2006). *Multivariate data analysis with readings* (Vol. 6). New Jersey: Pearson Educational, Inc.
- Hashim, K. F., Zamani, M. A., Othman, M. A., & Azhar, A. (2015). Social media adoption in higher education: A case study of Universiti Utara Malaysia. *Jurnal Teknologi*, 77(4), 33-39.
- Hassanein, K., & Head, M. (2007). Manipulating perceived social presence through the web interface and its impact on attitude towards online shopping. *International Journal of Human-Computer Interaction*, 65, 689-708.
- Holzwarth, M., Janiszewski, C., & Neumann, M. M. (2007). Can are tail website be social? *Journal of Marketing*, 71, 143-57.

- Index Mundi*. (2012). Retrieved at http://www.indexmundi.com/indonesia/internet_users.html.
- Jackson, C. M., Chow, S., & Leitch, R. A. (1997). Toward an Understanding of the Behavioral Intention to Use an Information System. *Decision Sciences*, 28(2), 357-389.
- Jeyaraj, A., & Sabherwal, R. (2008). Adoption of information systems innovations by individuals: A study of processes involving contextual, adopter, and influencer actions. *Information and Organization*, 18, 205–234.
- Jones, M. L. (2007). *Hofstede - culturally questionable?*. Paper presented at Oxford Business and Economics Conference (24-26 June), Oxford, UK. Retrieved at <http://ro.uow.edu.au/commpapers/37>
- Kehrwald, B. (2008). Understanding social presence in text-based online learning environments. *Distance Education*, 29(1), 89–106.
- Lee, F., Vogel, D., & Limayem, M. (2003). Virtual community informatics: A review and research agenda. *Journal of Information Technology and Application*, 5(1), 47–61.
- Lowry, P., Roberts, T. L., Romano, N. C., Cheney, P., & Hightower, R. T. (2006). The impact of group size and social presence on small-group communication: Does computer-mediated communication make a difference? *Small Group Research*, 37, 631–661.
- Lu, J., Yao, J. E., & Yua, C-S. (2015). Personal innovativeness, social influences and adoption of wireless Internet services via mobile technology. *Journal of Strategic Information Systems*, 14, 245–268.
- Mantel, S. P., & Kardes, F. R. (1999). The role of direction of comparison, attribute based processing, and attitude-based processing in consumer preference. *Journal of Consumer Research*, 25(4), 335–352.
- Media Indonesia (2011). Retrieved at <http://www.mediaindonesia.com/read/2011/07/21/243912/292/7/Pengguna-Internet-di-Indonesia-Didominasi-Anak-Muda>
- Miranda, S. M., & Saunders, C. S. (2003). The social construction of meaning: An alternative perspective on information sharing. *Information Systems Research*, 14, 87–106.
- Muthitcharoen, A., Palvia, P. C., & Grover, V. (2011). Building a model of technology preference: The case of channel choices. *Decision Sciences*, 42(1), 205-237.
- Novak, T. P., Hoffman, D. L., & Yung, Y. F. (2000). Measuring the customer experience in online environments: A structural modeling approach. *Marketing Science*, 19 (Winter), 22-42.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Parveen, F., Jaafar, N. I., & Ainin, S. (2015). Social media usage and organizational performance: Reflections of Malaysian social media managers. *Telematics and Informatics*, 32(1), 67-78. doi: 10.1016/j.tele.2014.03.001
- Papacharissi, Z. (2009). The virtual geographies of social networks: A comparative analysis of Facebook, LinkedIn and ASmallWorld. *New Media and Society*, 199-220.
- Parboteeah, D. V., Valacich, J. S., & Wells, J. D. (2009). The influence of website characteristics on a consumer's urge to buy impulsively. *Information Systems Research*, 20, 60-78.
- Poushter, J. (2016). Smartphone ownership and internet usage continues to climb in emerging economies. Retrieved July 11, 2017, at <http://www.pewglobal.org/2016/02/22/smartphone-ownership-and-internet-usage-continues-to-climb-in-emerging-economies/>

- Setianto, Y. P. (2015). Media policy in the context of global media flows, the Internet, and piracy: An historical analysis of media regulation in Indonesia. *Jurnal Komunikasi, Malaysian Journal of Communication*, 31(2), 371-388.
- Shin, D. (2007). User acceptance of mobile internet: Implication for convergence technologies. *Interacting with Computers*, 19, 472-83.
- Short, J. A., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. New York: John Wiley and Sons.
- Szymanski, D. M., & Hise, R. T. (2000). e-Satisfaction: An initial examination. *Journal of Retailing*, 76(3), 309-322.
- The World Bank. (2012). The World Bank. Retrieved at http://data.worldbank.org/indicator/IT.NET.USER.P2/countries?page=3&order=wbapi_data_value_2008%20wbapi_data_value%20wbapi_data_value-first&sort=asc&display=default
- Tu, C-H. (2002). The impacts of text-based CMC on online social presence. *The Journal of Interactive Online Learning*, 1(2), 1-24. Retrieved at <http://www.ncolr.org/jiol/issues/pdf/1.2.6.pdf>
- Turner, M., Kitchenham, B., Brereton, P., Charters, S., & Budgen, D. (2010). Does the technology acceptance model predict actual use? A systematic literature review. *Information and Software Technology*, 52(5), 463-479.
- Van der Heijden, H. (2003). Factors influencing the usage of websites: The case of ageneric portal in The Netherlands. *Information and Management*, 40(6), 541-549.
- Walther, J., & Parks, M. (2002). Cues filtered out, cues filtered in: Computer-mediated communication and relationships. In G. R. Miller (Ed.), *Handbook of Interpersonal Communication*. Thousand Oaks: Sage.
- Walther, J. B., Carr, C. T., Choi, S. S., DeAndrea, D. C., Kim, J. T., & Heide, V. D. (2010). *Interaction of interpersonal, peer, and media influence sources online: A research agenda for technology convergence*. (Papachariss, Ed.). New York: Routledge.
- Walther, J. B. (1995). Relational aspects of aomputer-mediated communications: Experimental observations over time. *Organization Science*, 6(2), 182-203.
- Wei Wan, J. J., Hsieh, J. P.-A., & Baoxiang, S. (2012). Understanding user satisfaction with instant messaging: An empirical survey study. *International Journal of Human-Computer Interaction*, 28(3), 153-162.
- Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). A review of facebook research in the social sciences. *Perspectives on Psychological Science*, 7(3) 203-220.
- Wok, S., Hashim, J., & Abdullah, K., (2016). Social media influence on Malay family resilience towards challenges of the Internet. *Jurnal Komunikasi, Malaysian Journal of Communication*, 32(2), 648-669.
- World Bank. (2013). Retrieved at http://data.worldbank.org/indicator/NY.GNP.PCAP.CD/countries/MY-4E-XT?order=wbapi_data_value_2011%20wbapi_data_value%20wbapi_data_value-last&sort=asc&display=graph
- Ya, P. C., & Dong, H. Z. (2011). Understanding social networking sites adoption in China: A comparison of pre-adoption and post-adoption. *Computers in Human Behavior*, 27, 1840-1848.

- Yoo, Y., & Alavi, M. (2001). Media and group cohesion: Relative influences on social presence, task participation, and group consensus. *MIS Quarterly*, 25(3), 371–390.
- Yu, C. S. (2012). Factors affecting individuals to adopt mobile banking: Empirical. *Journal of Electronic Commerce Research*, 13(2), 104-121.