Elucidating the Continual Use of Mobile Social Networking Web Sites: Case Study of Facebook Mobile

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Abstract. By selecting mobile social networking sites as the research focus, this study examines perceived values that affect the behavioral intention of users to use mobile social networking sites continuously. Exactly how external variables are considered as internal/psychological values is also addressed to provide further insight into the interactions between external variables and the internally perceived values as well as the extent to which such interactions impact behavioral intention to continuously use. Results of this study significantly contribute to the efforts of social network developers and researchers to more thoroughly understand mobile social network users.

Keywords: Mobile Social Networking Sites; Facebook.

1 Introduction

The fact that the computer (rather than a human) was TIME Magazine 1993 Person of the Year strongly suggests that the Internet will be the most influential entity of the 21st century, owing to its significant impact on human life. The Internet has dramatically transformed daily life and social network models - whether reserving a dinner table, purchasing tickets or participating in political events, in which social networks gather social support in opposition to governments [1].

A virtual community comprises individuals communicating mainly via the Internet. Such group members tend to be familiar with each other, as well as share information and maintain their relationships by participating continuously in a virtual community [2-3].

Social network sites (SNS) flourish with the pervasiveness of online usage. A wide variety of social networks are available, including Friendster, Meetspot, Sconex, Myspace, Foursquare, Twitter and Facebook, with the latter one especially popular [4]. Facebook reached one billion users on October 2012, or 1/7th of the global population [5]. According to Facebook's IPO released at the end of 2012, approximately 4.25 billion of Facebook's 8.45 billion users have logged onto the site via their mobile devices or the mobile version [6], reflecting the popularity of social networks via mobile devices.

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While the relation between virtual communities and consumers has received considerable attention, most of those studies examine either factors supporting continuous participation of virtual community members [7-9] or the extent to which community member interaction impacts knowledge sharing [10-12]. However, mobile networking communities have seldom been studied. While focusing on the mobile version of Facebook (i.e. the most popular mobile network site), this study examines how key perceived values influence the behavioral intention of users to continuously use mobile devices for social networks.

This study also describes how external variables (e.g., self-efficacy, website quality, user involvement, and social influence) affect perceived usefulness (PU) and perceived ease of use (PEOU). Exactly how these psychological factors affect user attitudes and behavior is also explained. Moreover, whether the behavioral intention of users to continuously use mobile devices for social networks can affect the stickiness and word-of-mouth nature of Facebook Mobile is also addressed.

2 Related Concepts and Hypotheses

2.1 Technology Acceptance Model (TAM)

The technology acceptance model (TAM) is characterized by the PU and PEOU concepts. While PU focuses on individual perceptions toward using a specific information technology for increasing work efficacy, PEOU concerns itself with individual perceptions toward the ease of using a specific information technology for increasing work efficacy, PEOU, concerns itself with individual perceptions toward the ease of using a specific information technology. Despite the extensive use of TAM in studying various information technologies, subsequent empirical studies have demonstrated that in addition to PEOU and PU, external factors also significantly impact the user intention of consumers. Therefore, many later studies have included other dimensions or external variables to more thoroughly investigate the behavioral intention of users [13-16]. This study examines factors affecting the behavior and intentions of mobile network users by using TAM2 and four external variables (i.e. system quality, self-efficacy, social influence and user involvement).

2.1.1 System Quality

The information system quality of a website can affect the perceived usefulness (PU) and perceived ease of use (PEOU) of website users. In particular, reliable system quality or information quality can generate improved satisfaction and level of use [17-18]. This study investigates whether Facebook Mobile information system quality significantly affects users' PEOU and PU. We thus hypothesize the following:

H1: Website quality of Facebook Mobile can positively and significantly affect PEOU.

H2: Website quality of Facebook Mobile can positively and significantly affect PU.

2.1.2 Self-efficacy

Self-efficacy refers to an individual's capabilities to perform a specific task, allowing one to evaluate an individual's level of confidence by assessing an individual's self-efficacy [19]. According to previous empirical studies, self-efficacy can positively affect PU and PEOU [20-21].

This study also examines how users' self-efficacy affect their PEOU and PU. We thus hypothesize the following:

H3: Self-efficacy of Facebook Mobile users can positively and significantly affect PEOU.

H4: Self-efficacy of Facebook Mobile users can positively and significantly affect PU.

2.1.3 Social Influence

The social life of humans begins at birth. Social influence refers to the pressure from other individuals or groups in shaping an individual's behavior or thinking.

Many empirical studies have demonstrated that social influence significantly affects user behavior [22-24]. While assuming that peer influence among youth significantly affects consumer participation in mobile social networking sites, this study examines whether peer and social influence can significantly affect users' PEOU and PU by including peer factor. We thus hypothesize the following:

H5: Peer and social influence of Facebook Mobile users can positively and significantly affect PEOU.

H6: Peer and social influence of Facebook Mobile users can positively and significantly affect PU.

2.1.4 User Involvement

An individual with a great ego is less likely to accept constructive criticism. Moreover, individuals with a great ego not only approve only of opinions similar to theirs, but also accentuate those opinions that are similar to theirs [25].

Previous studies have demonstrated that involvement levels can significantly and positively affect personal purchase behavior, involvement intention, and service satisfaction [26-29]. Therefore, for information system use, user involvement can affect the positive attitudes of users toward information system use, while the attitude can subsequently affect users' reuse intention [30]. Cumulatively, according to our results, the level of user involvement can significantly affect their PEOU and PU. We thus hypothesize the following:

H7: User involvement of Facebook Mobile users can positively and significantly affect PEOU.

H8: User involvement of Facebook Mobile users can positively and significantly affect PU.

Additionally, PEOU and PU mentioned in TAM2 impact continuous use intention. We thus hypothesize the following:

H9: PEOU can positively and significantly affect PU.

H10: PEOU can positively and significantly affect continuous use behavior.

H11: PU can positively and significantly affect continuous use behavior.

2.2 Stickiness

A successful virtual website depends on the ability of the user interface to attract users in order to browse the website and, more importantly, encourage them to return to the website in the future. To assess the performance of a website, stickiness is a good indicator. While referring to a user's loyalty to a specific website, stickiness depends on whether a user revisits a website and remains there for a relatively long time [31].

Walczuch et al. proposed three dimensions of the contents of stickiness, content depth, content breadth and update frequency [32]. A website is considered to have stickiness when a user frequently visits a website or spends a considerable amount of time on a website.

As is assumed here, continuous use intention of Facebook Mobile can positively and significantly affect stickiness of a website. We thus hypothesize the following:

H12: Behavioral intention to continuously use a website can positively and significantly affect the stickiness of Facebook users.

2.3 Word of Mouth

Word-of-mouth is an informal communication behavior between message senders and receivers; the messages are normally concerned with a specific product or service [33]. Consumers will trust this information source since it does not have a commercial intention [34]. Cumulatively, word-of-mouth has multiple functions, including offering information and influencing the ideas of other individuals [35]. Positive messages can also improve the rating from individuals and, therefore, positive messages are more easily to be accepted by others [36].

The emergence of various network platforms has ensured that word-of-mouth is no longer limited to individuals within a social circle but expanded to an entire virtual community [37].

Based on the above literature review, this study also examines whether the behavioral intention of Facebook users to continuously use this social network can positively and significantly affect the word-of-mouth of Facebook. We thus hypothesize the following:

H13: Behavioral intention to continuously use this social network can positively and significantly affect the word-of-mouth of Facebook among its users.

3 Methods

TAM2 is used as the theoretical framework of this study, in which four external factors (i.e. website system quality, self-efficacy, peers and social environment, and user involvement) are assumed to affect PEOU and PU of TAM. Consequently, based on PEOU, PU, external factors, and behavioral intention, the research dimension of perceived values is formed to examine how perceived values influence behavioral intention to continuously use Facebook.

Assume that website stickiness plays a major role in determining the success of a website. While word-of-mouth can significantly alter consumer behavior, this study incorporates stickiness and word-of-mouth to examine how they impact the behavioral intention users to continuously use Facebook Mobile. Figure 1 illustrates the research model.

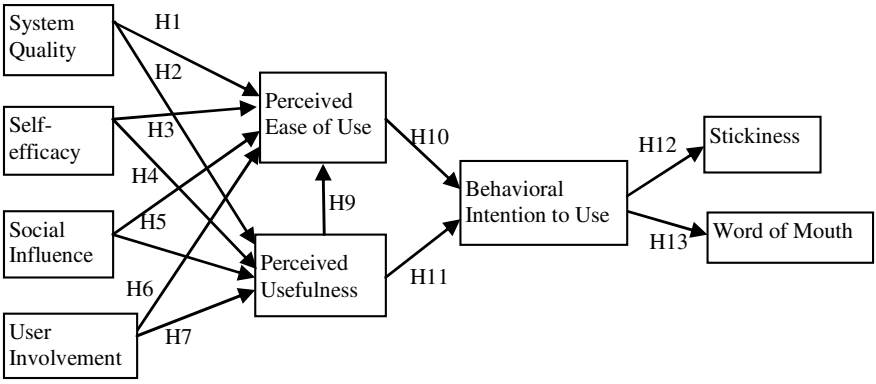

Fig. 1. Research Model

3.1 Measures

This study designed the questionnaire using the five-point Likert scale, in which the scores are 1 (highly disagree), 2 (disagree), 3 (neutral), 4 (agree), and 5 (highly agree). The formal questionnaire consisted of two sections. Section 1, the main part of the questionnaire, contains the nine research dimensions (i.e. system quality, self-efficacy, peers and social influence, user involvement, PEOU, PU, continuous use intention, stickiness, and word-of-mouth). The second part of the questionnaire collected personal information regarding the respondents for analyzing their characteristics.

3.2 Sample

3.2.1 Descriptive Statistics on the Sample

The validity and consistency of the questionnaire were ensured using a questionnaire survey method. A pre-test was performed by distributing the questionnaires among individuals who have used mobile devices for accessing the Internet. Reliability test results suggested that only two question items, system quality (4) and peer and social influence (7), had a Cronbach's α lower than 0.40. All other items had a Cronbach's α higher than 0.700, implying that the research variables had an excellent internal consistency.

Reliability of each item was tested by factor loading, and the value should be higher than 0.5. If the value is lower than 0.5, the question item should be eliminated [38]. Besides the two above-mentioned question items, all other question items had a factor loading value higher than 0.5 ($p<0.05$), implying an excellent convergent validity [39].

Descriptive statistical analysis was performed based on collected personal information of the study respondents. The study sample variables consisted of gender, age, education level, and duration for using mobile Internet service. The sample distribution was examined by preparing a frequency table, based on the acquired data; the frequency was also presented in percentage form. Next, the level of agreement was rated, i.e. ranging from highly disagree (1) to highly agree (5), by using the five-point Likert scale. The mean and SD of each variable were calculated, which represent the intention of respondents to continuously use the mobile community. The mean denotes the level in which the respondents agree with the question item, and a higher mean refers to a situation in which the respondents highly agree with the question item. SD denotes whether respondents' viewpoints on a question item were consistent with each other. A smaller SD implies highly consistent viewpoints.

3.2.2 Gender Analysis

The gender of website visitors was analyzed using the independent t-test. Those results revealed a lack of significance of gender on PU ($t=-1.22$, $p>.05$), PEOU ($t=-1.22$, $p>.05$), website system quality ($t = -1.46$, $p>.05$), peers and social influence ($t=1.95$, $p>.05$), self-efficacy ($t=-1.87$, $p>.05$), user involvement ($t=-1.54$, $p>.05$), behavioral intention to continuous use ($t=-1.12$, $p>.05$), word-of-mouth ($t=-1.69$, $p>.05$) or stickiness ($t=-1.45$, $p>.05$). Restated, gender cannot significantly affect PU, PEOU, website system quality, peers and social influence, self-efficacy, user involvement, behavioral intention to continuous use, word-of-mouth or stickiness.

3.2.3 Age Analysis

The age of Facebook Mobile users was analyzed by one-way ANOVA. Those results suggested that age was a significant factor for Facebook Mobile users' PU ($F=139.92$*, *$p<.05$), PEOU ($F=116.36$*, *$p<.05$), website system quality ($F=5.87$*, *$p<.05$), peers and social influence ($F=78.17$*, *$p<.05$), self-efficacy ($F=74.64$*, *$p<.05$), user involvement ($F=89.07$*, *$p<.05$), users' behavioral intention to continuous use ($F=84.25$*, *$p<.05$), word-of-mouth ($F=87.00$*, *$p<.05$), and stickiness ($F=79.23$*, *$p<.05$). This finding indicates that Facebook Mobile users' PU, PEOU, website system quality, peers and social influence, self-efficacy, user involvement, users' behavioral intention to continuous use, word-of-mouth and stickiness differed significantly from each other, depending on their age. Additionally, Scheffe's test was performed for post-hoc comparison, indicating that those Facebook Mobile visitors aged 15-17 displayed a significantly higher PU than those aged 18-25, 26-35, 36-49, or above 50 (including 50). Similarly, those Facebook Mobile visitors aged 18-25 or 26-35 also showed a significantly higher PU than those aged 36-49 or above 50 (including 50). Finally, Facebook Mobile visitors aged 36-49 showed a significantly higher PU than those aged 50 or older.

3.2.4 Education Level Analysis

The effect of education level of website visitors was analyzed using one-way ANOVA. According to those results, educational level significantly affected Facebook Mobile users' PU($F=57.83^*$, $^*p<.05$), PEOU ($F=59.84^*$, $^*p<.05$), website system quality ($F=5.73^*$, $^*p<.05$), peers and social influence ($F=48.71^*$, $^*p<.05$), self-efficacy ($F=50.29^*$, $^*p<.05$), user involvement ($F=55.14^*$, $^*p<.05$), behavioral intention to continuous use ($F=60.42^*$, $^*p<.05$), word-of-mouth ($F=51.79^*$, $^*p<.05$), and stickiness ($F=59.92^*$, $^*p<.05$). This finding suggests that educational level can significantly affect Facebook Mobile users' PU, PEOU, website system quality, peers and social influence, self-efficacy, user involvement, behavioral intention to continuous use, word-of-mouth, and stickiness. Additionally, the data was further analyzed using Scheffe's test for post-hoc comparison. Analysis results indicated that Facebook Mobile users with general/vocational high school education rated PEOU and PU higher than those with education of junior high school or under, college/university, or post-graduate school or above did. Additionally, Facebook Mobile users with college/university or post-graduate school or above education rated PEOU and PU higher than those with a junior high school or lower education did.

3.3 Analysis Criteria

3.3.1 Reliability Analysis

Reliability test evaluates the trustworthiness or stability of the scores of an inventory. This test represents the level of consistency of answers from the same respondent of the same inventory, but given at different time intervals. A higher inventory reliability implies an improved stability. In this study, internal consistency was determined using the most commonly used reliability coefficient Cronbach's α. According to Cronbach [40], an inventory with a reliability coefficient higher than 0.7 has an excellent reliability

3.3.2 Variance Analysis

Independent sample one-way ANOVA can determine the significance of an average of more than three groups of population. This study assessed whether age, education, and length of mobile Internet usage can significantly affect use intention.

3.3.3 Structural Equation Modeling

While consisting of measuring modeling and structural modeling, structural equation modeling (SEM) explores the correlation between latent variables and observed variables as well as the correlation among latent variables. SEM includes path analysis and confirmatory factor analysis tools. This study also analyzed the correlation among the research dimensions using SEM in order to determine the direction and level of influences of these dimensions.

4 Result

4.1 Reliability

For constructing reliability and average variance extracted, Fornell and Larcker [41] suggested that a construct reliability higher than 0.600 implies a better construct reliability of the observed variables for the latent variables. For an average variance extract to exceed 0.50, the measurement error of the observed variables for the latent variables should be smaller than 50%, implying that the observed variables have a high accuracy in determining the latent variables.

In this study, the values of construct reliability of PU, PEOU, user involvement, peers and social influence, behavioral intention to continuous use, self-efficacy, website system quality, stickiness, and word-of mouth ranged from 0.73 to 0.891 (all higher than 0.600). Therefore, the study has an excellent internal consistency. Moreover, the average variance extracted of each latent variable was between 0.605 and 0.748 (all higher than 0.500), indicating that the measurement errors of observed variables for latent variables were less than 50%. Restated, the latent variables of this study have an excellent reliability and convergent validity.

Table 1. Analysis of Construct Reliability and Average Variance Extracted (AVE)

Variables	Construct Reliability	AVE
PU	0.891	0.672
PEOU	0.857	0.667
System Quality	0.859	0.605
Social Influence	0.730	0.575
Self-efficacy	0.898	0.746
User Involvement	0.794	0.659
Continued Use Intention	0.794	0.659
Word-of-Mouth	0.855	0.748
Stickiness	0.834	0.626

1. Component reliability = (Sum of standardized factor loading)2/[(Sum of standardized factor loading)2 + Sum of Errors
2. Average variance extracted =Σ(Multiple correlation)2/Number of factors

4.2 Validity

Wixom and Watson [38] indicated that convergent validity uses confirmatory factor analysis for modularization to estimate the correlation between question items and research variables. The factor loading of recommended convergent validity should exceed 0.50 and statistically significant.

The factor loadings of latent variables of PU, PEOU, user involvement, peers and social influence, behavioral intention to continuous use, self-efficacy, website system quality, stickiness, and word-of-mouth ranged from 0.607 to 0.883 (higher than 0.50,

which is statistically significant). This finding suggests that the study's inventories on PU, PEOU, user involvement, peers and social influence, behavioral intention to continuous use, self-efficacy, website system quality, stickiness, and word-of-mouth have an excellent convergent validity.

Table 2. Convergent Validity Analysis

Variables	Measuring Items	Factor Loading	Squared Multiple Correlations	t-Value
PU	PU6	.832	.692	—
	PU5	.817	.667	37.500*
	PU 3	.786	.618	35.289*
	PU 1	.694	.481	29.474*
PEOU	PE6	.757	.574	—
	PE4	.761	.579	29.771*
	PE2	.819	.671	32.187*
System Quality	SQ6	.667	.445	—
	SQ4	.607	.369	19.284*
	SQ3	.729	.531	21.159*
	SQ2	.715	.511	20.871*
Social Influence	SI 5	.731	.534	—
	SI 2	.775	.601	29.907*
Self-efficacy	SE5	.827	.683	—
	SE 4	.843	.711	39.458*
	SE 2	.883	.779	42.681*
User Involvement	UI 4	.762	.581	—
	UI 1	.785	.616	31.240*
Continued Use Intention	CI 2	.879	.772	—
	CI 1	.789	.623	38.856*
Word-of-Mouth	WM 7	.737	.543	—
	WM 3	.810	.657	30.885*
	WM 2	.822	.676	31.260*
Stickiness	ST 4	.895	.801	—
	ST2	.795	.632	38.960*

4.3 Structural Modeling Analysis

4.3.1 Goodness of Fit of the Model

Structural modeling analysis consists of analyzing both the goodness-of-fit of the model and the explanatory power of the overall research model. Based on the results of previous studies[42-44], this study selected seven indicators for the goodness-of-test of the overall model: the ratio between $\chi 2$ and degree of freedom ($\chi 2$ /df), adjusted goodness of fit index (AGFI), normed fit index (NFI), non-normal fit index (NNFI), comparative fit index (CFI), relative fit index (RFI) and root mean square error of approximation (RMSEA).

Analysis results suggested that in addition to having a $\chi 2$/d.f. higher than the recommended value, all other indices satisfied the values recommended by majority studies. Although $\chi 2$/d.f. of the study was 6.012 (>3), Hair et al. suggested that for a sample size greater than 200, $\chi 2$ and a situation in which the degree of freedom may become over-sensitive, the ratio may be higher than 3 and other goodness-of-fit indices should be used [45]. Owing to the 576 samples in this study, the research model may still be acceptable, i.e. the study model and observed data had a reasonable goodness-of-fit.

Table 3. Goodness-of-Fit test of the Model

Goodness-of-Fit Indicator	Recommended Value	Test Value	Test Result
X2/df	≦ 3.00	6.012	Nearly Qualified
AGFI	≧ 0.80	.900	Qualified
NFI	≧ 0.90	.947	Qualified
NNFI	≧ 0.90	.944	Qualified
CFI	≧ 0.90	.955	Qualified
RFI	≧ 0.90	.933	Qualified
RMSEA	≦ 0.08	.058	Qualified

4.3.2 Pathway Analysis Results

Based on structural modeling, this study analyzed PU, PEOU, user involvement, peers and social influence, behavioral intention to continuous use, self-efficacy, website system quality, stickiness, and word-of-mouth. Those results suggested that website system quality significantly affected PEOU (β=.09*, *p<.05). Restated, the website system quality of Facebook Mobile can significantly and positively affect PEOU. The effect of self-efficacy on PU (β=.11*, *p<.05) was also statistically significant, indicating that the self-efficacy of Facebook Mobile can positively and significantly affect PU. Namely, self-efficacy of Facebook Mobile can positively and significantly affect PU. The effect of peers and social influence significantly impacted PEOU (β=.46*, *p<.05). Restated, peers and social environmental of Facebook Mobile can significantly and positively affect PEOU. The effect of user involvement was also significant on PEOU (β=.74*, *p<.05). Therefore, user involvement of Facebook Mobile can significantly and positively affect PEOU. Moreover, PEOU significantly affected PU (β=.92*, *p<.05). Therefore, PEOU of Facebook Mobile can significantly and positively affect PU. Both PU (β=.30*, *p<.05) and PEOU (β=.74*, *p<.05) significantly and positively affected behavioral intention to continuous use. Finally, behavioral intention to continuous use can positively and significantly affect stickiness (β=.92*, *p<.05) and word-of-mouth (β=.92*, *p<.05).

Table 4. Structural Modeling Pathway Analysis

Pathways	Pathway Value	t-Value	Test Result
Website system quality－> PU	.01	2.562	Accepted
Website system quality－> PEOU	.09	2.894*	Accepted
Self-efficacy－> PU	.11	3.501*	Accepted
Self-efficacy－> PEOU	.23	5.870*	Accepted
Peers and social influence－> PU	.05	2.718	Accepted
Peers and social influence－> PEOU	.46	11.238*	Accepted
User involvement－> PU	.03	2.488	Accepted
User involvement－> PEOU	.74	16.490*	Accepted
PEOU－> PU	.92	17.397*	Accepted
PEOU－> Behavioral intention to continuous use	.30	8.535*	Accepted
PEOU－>Behavioral intention to continuous use	.74	15.827*	Accepted
Behavioral intention to continuous use－> Stickiness	.92	32.455*	Accepted
Behavioral intention to continuous use－> Word-of-mouth	.92	33.979*	Accepted

5 Conclusion

The study examined the correlation between PU, PEOU, user involvement, peers and social influence, continuous use behavior intention, self-efficacy, website system quality, stickiness, and word-of-mouth of Facebook Mobile. The research model and questionnaire were examined using descriptive statistics, independent t-test, one-way ANOVA, and structural equation modeling.

The study sample displayed a medium or higher level of approval of PU, PEOU, user involvement, peers and social influence, behavioral intention to continuous use, self-efficacy, stickiness and word-of-mouth of Facebook Mobile. In terms of website system quality, the study sample displayed a medium level of approval.

Additionally, this study demonstrated that gender does not significantly affect the approval of various Facebook Mobile variables. In terms of age, analysis results indicated that a younger population would more highly approve of these variables than an older one would. Individuals between 15 and 17 years old in this study displayed the highest approval. As for education, individuals with a higher educational level in this study approved more of the study variables than those with a lower one. Individuals with general/vocational high school, college/university, or post-graduate school degrees showed the highest approval rating. As for cell phone usage experience, respondents with a longer cell phone use experience more highly approved of the study variables than those with a shorter experience. The population with one to two years of cell phone usage experience gave the highest approval rating.

Moreover, SEM analysis in this study indicated that 1) PEOU was positively and significantly related to the website system quality, self-efficacy, peers and social

influence and user involvement of Facebook Mobile; 2) PU was positively and significantly related to self-efficacy; 3) PU was positively and significantly related to PEOU of Facebook Mobile; 4) PU and PEOU of Facebook Mobile were positively and significantly related to behavioral intention to continuous use, and 5) behavioral intention to continuous use of Facebook Mobile was positively and significantly related to stickiness and word-of-mouth.

Moreover, SEM analysis in this study indicated the following: 1) PEOU was positively and significantly related to the Web site system quality, self-efficacy, peer and social influence, and user involvement in Facebook Mobile; 2) PU was positively and significantly related to self-efficacy; 3) PU was positively and significantly related to the PEOU of Facebook Mobile; 4) the PU and PEOU of Facebook Mobile were positively and significantly related to behavioral intention to use Facebook Mobile continually; and 5) the behavioral intention to use of Facebook Mobile continually was positively and significantly related to stickiness and word of mouth.

6 Limitations and Implications

6.1 Limitations

Despite its contributions, this study has certain limitations. The true population of cell phone users changes constantly, and the population is huge. Consequently, verifying the representativeness of the sample must rely on those with a more acceptable means. Owing to the impossibility of obtaining a list of the entire population of cell phone users in Taiwan, this study adopted a randomized sampling approach for the questionnaire survey. We recommend that future researcher develop improved sampling methods for the mobile business sector.

Additionally, this study performed cross-sectional analysis to explain the interactions among dimensions of this research model. Owing to possible oversimplification of the research process, we recommend that future research include theoretical, longitudinal evidence to ensure a more comprehensive explanation.
Furthermore, many studies have indicated that involvement level can affect consumers' acceptance of technological products. Therefore, consumers' technological product involvement level (high vs. low) can affect their willingness for using technological products. We recommend that subsequent studies discuss whether consumers' product involvement level (high vs. low) can affect modeling pathway association.

6.2 Implications

This study has several managerial implications for researchers and practitioners. Managers should strive to maintain the high approval ratings from younger or more educated consumers and from consumers with more experience. For other consumer segments, researchers should identify the causes for their low approval, especially those older consumers since they have higher spending power and development

potential. Therefore, researchers should more closely examine how to enhance older consumers' approval of mobile network sites.

Additionally, this study demonstrated that only website system quality was negligibly associated with PU. This finding suggests the importance of having easy operation for Facebook Mobile users. Restated, mobile social networking users do not value complex functions. Given rapid advances in information technology, easy operation should be of priority concern.

7 Discussion

Although this study did not discuss the mediating effect among variables, many studies have demonstrated that mediators play a critical role in this mediating effect. Therefore, some mediators should be considered when examining the correlations among the variables.

Additionally, owing to the lower overall score of website system quality in this study, we recommend further elucidating website system quality in future research. We further recommend adopting IPA to further analyze components warranting further improvement.

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