The Impact of Perceived Value on Continued usage Intention in Social Networking Sites

Yung-Shen Yen

Department of Computer Science and Information Management, Providence University, Taichung, Taiwan
e-mail: ysyen@pu.edu.tw

Abstract-The purpose of this study is to examine how perceived value (PV) affects continued usage intention (CUI) for users in social networking sites (SNS), and how end user satisfaction (EUS) mediates the relationship between PV and CUI. Mediated regression analysis was used and 205 savvy Facebook users in Taiwan were investigated. The findings reveal that PV, including information value, sociable value, and hedonic value, has a positive impact on CUI, but the mediation effect of EUS is only significant to social value and hedonic value, excluding information value.

Keywords-perceived value; end user satisfaction; continued usage intention; social networking sites.

1. Introduction

Nowadays, perceived value (PV) has gained much attention from marketers and researchers because of the important role it plays in predicting purchase behavior and achieving sustainable competitive advantage [12]. Theoretically, PV is a primary customer motivation for buying or using a certain product or service, which involves a 'get' component (e.g., the benefits a buyer derives from a seller's offering) and a 'give' component (e.g., the buyer's monetary and non-monetary costs in acquiring the offering) [23]. The understanding of PV is an important issue for service providers to survive in the marketplace. However, SNS exhibits different characteristics from other services. In SNS, interaction between users is an exchange process which shares valuable information, individual contribute and exchanges their knowledge with others, which result in higher information value (IV) for users [8]. Also, users can extend their social network that connect old friends or find the strangers in SNS for sociability. Through the reciprocal connection with friend lists, they can easily socialize their friends or other unknown users with the permission. Social value (SV) hence is an important motivation for users using SNS. Moreover, users enjoy the fun by playing online games in SNS, such as happy farm, coffee bar, and word challenge in Taiwan. They can invite the friends or strangers to the games or join the games. Hedonic value (HV) is also a critical factor for uses using SNS. As a result, we can expect that IV, SV, and HV are three components of PV for users using SNS.

In addition, the relationship of PV, customer satisfaction, and customer loyalty has been examined by previous studies, specifically for online shopping [9,10]. Chang et al. argue that PV is a moderator between customer satisfaction and customer loyalty for customers shopping on the internet [10]. When both customer satisfaction and perceived value are high, website owners will have high customer loyalty. However, SNS are indeed different from shopping websites. Firstly, the users of SNS almost are voluntary to share their knowledge in SNS, but the customers of online shopping may not [8]. Scholars believe SNS, like blogs, can encourage users to share their knowledge. Secondly, continued usage intention (CUI) is adequate for users in the situation of using SNS, instead of usage intention in the future. In general, users prefer using multiple methods of communication to stay in touch with friends and family day by day, but they would not purchase online continuously [15]. Thirdly, the motivations of both are varied. SNS mainly focuses on sociability (e.g., information, social, hedonic), but online shopping may emphasize utilitarian (e.g., shopping). Therefore, we

may ask "How does PV influence CUI for users using SNS?", "Does end user satisfaction (EUS) play an important role to influence the relationship of PV and CUI in SNS?" That is, "Whether users with high PV, but do not highly satisfy or dissatisfy the services, will they repatronize it continually?" The field has not yet provided direct investigation.

2. Literature Review and Hypotheses

2.1 IV influences CUI

In SNS, users can share the opinions, photos and videos with others by an intuitive, user-friendly upload interface. On the other hand, users archive information from SNS, such as the messages from friends or family. Also they can ask the questions to the SNS for giving support. Thus, this kind of information obtained from SNS is more unique and beneficial for users. From social influence perspective, if users can get more information they want, such as opinions, photos, or videos, they will be more likely to visit the SNS and spend more time viewing the media [8]. Therefore, the more the user perceives IV is, the more the CUI in SNS. Therefore, this study brings forth the following hypothesis (H1).

H1. IV positively associates with CUI for SNS users.

2.2 SV influences CUI

The social perspective of PV denotes that people perceive the multitude of sociable roles when they use the services. The consuming behavior represents a social act where symbolic meanings, social codes, relationships, and the consumer's identity and self may be produced and reproduced [13]. Theoretically, social cognitive theory provides a framework for investigating interactions between behaviour, personal factors and the environment. Wolfinbarger and Gilly argue that the emergence of the virtual community shifts the social benefits from friends and relatives to friends known through the internet [27]. Users can interact with those who have the same interest online. Online experience also becomes the subject of conversations to give a user pleasure. As such, SV involves the interaction between behavior and environment for the users. Therefore, this study brings forth the second hypothesis (H2):

H2. SV positively associates with CUI in SNS.

2.3 HV influences CUI

The hedonic perspective of PV refers to the service gives the customer fantasies, feelings and fun. Therefore, HV is characterized as self-cognitive [3]. Similar to SV, HV also comes from interacting with other users but they may be unknown. Through the interaction of playing, users enjoy the game and immerse in the atmosphere. Therefore, we can assume that HV positively associates with CUI for SNS users. The more the user perceives HV in SNS, the more the CUI. Therefore, this study brings forth the third hypothesis (H3):

H3. HV positively associates with CUI in SNS.

2.4 The mediation effect of EUS

As discussed previously, we recognize that PV is related to CUI in SNS. This recognition leads to the argument that users may concern the PV from SNS to commit their loyalty. On the other hand, PV has a positive impact on EUS from the literature review [11, 20]. The reason is that if the users satisfy the services, this implies the valuable service has been successfully delivered to them [20]. Sweeney & Soutar also agree that PV is different from satisfaction, but is related to it.

In addition, prior studies has been examined that satisfaction positively associates with customer loyalty, such as repurchase and word-of-mouth intentions. The reason is that satisfy customers likely acquire repeat business and positive word of mouth. According to these arguments, we assume that PV may have direct or indirect impacts on CUI. That is, users perceive IV, SV and HV in SNS, but they may satisfy or dissatisfy the services, depending on the individual demands and feelings of what they want in SNS. If users highly satisfy the service, this implies they will be a loyalist for it [2]; but if they do not satisfy or dissatisfy the service, even though it is valuable for them, they may drop it, and then switch to others. Hence, EUS could be a mediator to

interfere with the relationship of PV and CUI in SNS. Therefore, this study brings forth the fourth hypothesis (H4):

H4. EUS mediates the PV (e.g., IV, SV and HV) and CUI relationships in SNS. That is, the indirect effect is greater than the direct effect between PV and CUI.

Fig. 1 depicts the conceptual model of this study, in terms of the literature has established before.
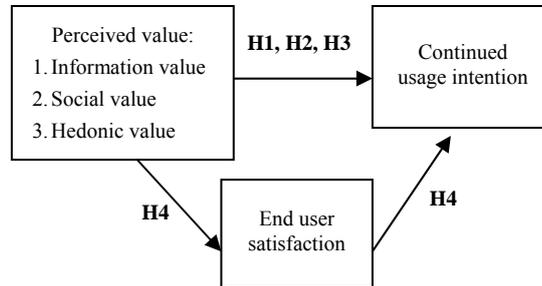

Figure 1.   Conceptual model of the study.

3.   Research Method

3.1 Subjects

Although SNS can distinguish between people focused (e.g. Facebook, Myspace) and activity focused (e.g. Flickr, del.icio.us, Lavalife, and Youtube), Facebook is more robust and representative than others. The reason is that Facebook has more than 500 million active users spent 41.1 million minutes on the site in August 2010 [12], and this number exceedingly surpasses time spent on other social websites. Thus, this study used Facebook as the target of SNS.

In addition, Keng and Ting report most blog readers in Taiwan are aged less than 29 years and the largest group is students, accounting for 32 to 46 percent of users [16]. Therefore, this study conducted a convenience sampling where subjects were drawn from undergraduate students of a renowned private university in Taiwan, and those who major in Information Management, Cosmetic Science, Computer Engineering, and English Language and Literature. Data were collected on the class. A total of 212 subjects responded, of which 7 were deleted due to sub standard data, such as missing data, regular answer. Hence, there were 205 valid subjects in total. The sample, as shown in Table 1, includes males (41.5%) and females (58.5%). The ratio of male to female in the study is similar to it in the chosen school (4:6), thus sampling bias can be ignored [21]. The majors in Information Management (26.3%), Cosmetic Science (25.9%), Computer Engineer (22.4%), English Language and Literature (25.4%) are equally distributed. The weekly hours of use are mostly more than 15 (40%). Most subjects have the experience of Facebook less than one year (45.4%).

TABLE I.   RESPONDENTS' DEMOGRAPHY AND USAGE BEHAVIOR

Measure	Item	N	%
Gender	Male	85	41.5
	Female	120	58.5
Major	Information Management	54	26.3
	Cosmetic Science	53	25.9
	Computer Engineering	46	22.4
	English Language and Literature	52	25.4
Weekly hours of use Facebook	Less than 1	34	16.6
	1 - 7	42	20.5
	8 - 15	47	22.9
	More than 15	82	40.0
Length of use Facebook (months)	Less than 12	93	45.4
	13 - 24	52	25.4
	25 - 36	28	13.6
	More than 36	32	15.6

Note: Valid N=205

3.2 Measuring Instruments

The design of the instruments is adopted from the previous results in the literature with appropriate modifications for Facebook (e.g., the terminologies). The scale of IV was revised from To, Liao, and Lin [24] and Korgaonkar and Wolin [18], which includes three items. The scale of SV was revised from Arnold and Reynold [1], which includes four items, and the scale of HV was revised from Rintamäki, Kanto, Kuusela, and Spence [22], which includes three items. In addition, the scales of EUS and CUI revised from Yang and Lee [28] include four items and three items respectively. All of the items were measured on a seven-point Likert-type scale, where possible answers ranged from strongly disagree (1) to strongly agree (7).

To examine the preliminary instrument for face validity, this study will invite three e-marketing experts, including professors and practitioners to refine the survey. They found that the fourth item of EUS, "I really enjoyed myself at …..", is highly associated with HV. As thus, we removed this item from the original instrument. Table 2 shows the revised instrument of the study.

TABLE II.   THE INSTRUMENT OF THIS STUDY

Construct	Measurement items
IV	1. I can get information easily on Facebook.
	2. Information obtained from Facebook is useful.
	3. Facebook makes acquiring information easily.
SV	1. I can contact with friends on Facebook.
	2. I can share experiences with others on Facebook.
	3. I can develop friendships with other users on Facebook.
	4. I can extend personal relationship on Facebook.
HV	1.I enjoy Facebook itself, not just because I am able to use se the service.
	2. I have fun on Facebook.
	3. In my opinion, surfing Facebook is a pleasant way to spend leisure time.
EUS	1. I am satisfied with the services on Facebook.
	2. The overall feeling I used Facebook is satisfied.
	3. The overall feeling I used Facebook puts me in a good mood
CUI	1. I would like to use Facebook continuously.
	2. I would recommend Facebook to my friends or others.
	3. I would more frequently use Facebook.

4.   Analysis of Empirical Results

4.1 Verification of the hypotheses

For testing the mediation effect of EUS, this study conducted mediated regression analysis. The empirical result is shown in Table 3. Firstly, the direct effect of PV, without EUS, reveals that IV (β= 0.17, p= 0.03), SV (β= 0.18, p= 0.03), and HV (β= 0.62, p= 0.00) positively associated with CUI, as shown in Model 1. The explanation of total variance is 59%. Hence, H1, H2 and H3 have been supported.

TABLE III.   RESULTS OF MEDIATED REGRESSION ANALYSIS

	Model 1	Model 2	Model 3
Dependent variables	**CUI**	**EUS**	**CUI**
	β-value (p-value)	β-value (p-value)	β-value (p-value)
Control variables:			
Gender	0.07 (0.19)	0.18** (0.00)	-0.03 (0.47)
Major	0.04 (0.56)	-0.03 (0.58)	0.05 (0.30)
Weekly hours of use	0.07 (0.16)	0.14** (0.00)	0.07 (0.10)
Length of use	0.04 (0.49)	0.09 (0.13)	0.01 (0.87)
PV :			
IV	0.17**	0.07	0.21**

	(0.03)	(0.21)	(0.00)
SV	0.18**	0.23**	0.05
	(0.03)	(0.00)	(0.28)
HV	0.62**	0.67**	0.23**
	(0.00)	(0.00)	(0.00)
EUS			0.57**
			(0.00)
Adjusted R²	0.59	0.62	0.71
F	36.35	41.34	55.40
	(p<0.001)	(p<0.001)	(p<0.001)

Note: Significant at ** $p<0.01$

Secondly, the effect of PV alone on EUS is shown in Model 2. SV (β= 0.23, p= 0.00) and HV (β= 0.67, p= 0.00) positively associated with EUS, but the relationship of IV and EUS was not significant (β= 0.07, p= 0.21). The explanation of total variance is 62%.

Thirdly, the mediation role of EUS was analyzed in Model 3, which conducted the regression with PV and EUS on CUI. Compared to Model 1, the incremental change in adjusted R-squared was significant. This implies that EUS had a strong direct effect on CUI (β= 0.57, p= 0.00). In addition, Model 3 also shows that IV (β= 0.21, p= 0.00) and HV (β= 0.23, p= 0.00) positively associated with CUI, but SV was not significant (β= 0.05, p= 0.28). Therefore, the effect of SV on CUI in Model 3 was weaker than that in Model 1 due to the mediation effect of EUS. In other words, the association of SV with CUI was fully mediated by EUS, because it was no longer significant when EUS was included in Model 3 [4]. The relationship of HV and CUI was partially mediated by EUS, because the strength of the relationship was reduced but remained statistically significant in Model 3. However, EUS cannot mediate the relationship of IV and CUI because the relationship of IV and EUS was not significant. Hence, hypothesis H4 has partially been supported.

4.2 The implications for research and practice

The results of the study provide both theoretical and practical benefits. First, theoretically, this study integrates three constructs (IV, SV, and HV) into PV for SNS users. The reason is that customers in SNS are more self-disclosure [17]. For example, Facebook attempts to create an experience to encourage users to upload personal media and share detailed contact information. It will also scour their email accounts to add current users and invite new users to Facebook with their permission. Practically speaking, the results can help marketers have a better understanding of PV on CUI for SNS users.

Secondly, the findings of this study indicate that the social aspects of customer value have a perfect mediation of EUS, thereby play a greater role in the relationship of EUS and CUI in SNS. In other words, the interaction with other users experience might be more aptly described as a strong social-oriented [5]. Therefore, marketing activities in SNS should focus on facilitating efficient social experiences, for example, Facebook currently provides an in-browser instant messenger client allowing users to chat instantly with any friends online.

Thirdly, EUS also partially mediates the relationship of HV and CUI. This finding reveals that HV not only directly affects CUI, but also can indirectly influence CUI via EUS. Hence, EUS is also important for users with HV. The practitioners thereby should focus on EUS coming from SV and HV in SNS. For example, if users enjoy high HV on Facebook, they will be more loyal to use it. However, if they do not satisfy or dissatisfy the service, the relationship between HV and CUI will be varied. As such, marketers need sincerely concern the importance of EUS when users perceive the values in SNS, especially for SV and HV.

Fourthly, this study also finds that although its impact is not significant on EUS, IV for Facebook users still significantly influences CUI. This result implies that the information aspect of value should not be ignored. In other words, information is a significant predictor of PV for users [26]. Therefore, the practitioners should develop specific strategies for users achieving more useful and customized information in SNS.

5. Conclusion and Suggestion

The primary contributions of this study start with a conceptual formulation of how EUS mediates the relationship of PV and CUI. On this basis, the study explores some formal hypotheses about the relationship of PV and CUI, towards forming a competitive strategy to manage customer retention. An empirical study

verifies the relationships with 205 savvy Facebook users and confirmed the above ideas. The findings of this study could be helpful for practitioners to design their customer retention strategies in SNS.

Although the analysis was applied in SNS, it is expected to be valid to other genres of services, such as the telecommunication sector [2]. For example, it would be high PV for android mobile phone customers while the number of android mobile phone customers is increased in the service [14]. The more the customers are, the more the app software is provided from the suppliers. Hence, customers using android system will have more satisfactory than they using other systems. The positive feedback of customer satisfaction will further encourage customers continually uses of the system. The network externality effect makes android mobile phone customers widely load mobile phone programs and enhance the satisfaction, which in turn increase their CUI to the service [7]. Therefore, the service providers shall integrate PV management and customer satisfaction into its customer retention policy portfolio in mobile phone services.

This study contains some limitations. First, scholars have different opinions for measuring PV, such as Zeithaml's [29] "get-versus-give" model that broads the concept of PV by linking it to a wide array of antecedents that represent not only what consumers give but also what they get from the consumption experience. However, this study only considers three "get" values, ignoring "give", for measuring PV. For example, Lu and Su argue that anxiety has a significantly negative influence on information system adoption [19]. Hence, subsequent research can further explore the "give" components of PV for SNS users.

Secondly, this study concerns the customers' motivation how to affect their CUI, but the situational factors, such as customer involvement, still are important. For example, Varki and Wong indicate that high involvement customers are more interested in maintaining a long-term relationship with a service provider [25]. In general, high involvement customers in SNS may have high PV and EUS, but how do low involvement customers have the negative results? Subsequent research can explore customer involvement how it moderates the relationship of PV and CUI in SNS.

6. References

[1] M.J. Arnold and K.E. Reynolds Hedonic shopping motivations, Journal of Retailing, vol. 79, no.1, 2003, pp. 77-95.

[2] S. Aydin and G. Özer, The analysis of antecedents of customer loyalty in the Turkish mobile telecommunication market, European Journal of Marketing, vol. 39, no. 7/8, 2005, pp. 910-925.

[3] B.J. Babin, W.R. Darden and M. Griffin, Work and/or fun: measuring hedonic and utilitarian shopping value, Journal of Consumer Research, vol. 20, no.4, 1994, pp. 644-656.

[4] R.M. Baron and D.A. Kenny, The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations, Journal of Personality and Social Psychology, vol. 51, no.6, 1986, pp. 1173-1182.

[5] R.W. Belk, Possessions and the extended self, Journal of Consumer Research, vol. 15, no. 2, 1988, pp. 139-168.

[6] R.N. Bolton and J.H. Drew A multistage model of customers' assessments of service quality and value, Journal of Consumer Research, vol. 17, no. 4, 1991, pp. 875-84.

[7] Brynjolfsson and C.F. Kemerer, Network externalities in microcomputer software: an econometric analysis of the spreadsheet market, Management Science, vol. 42, no. 12, 1996, pp. 1627-1647.

[8] S. Chai and M. Kim, What makes bloggers share knowledge? An investigation on the role of trust, International Journal of Information Management, vol. 30, 2010, pp. 408-415.

[9] H.H. Chang and H. Wang, The moderating effect of customer perceived value on online shopping behavior, Online Information Review, vol. 35, no. 3, 2010, pp. 333-359.

[10] H. H. Chang, Y. Wang, and W. Yang, The impact of e-service quality, customer satisfaction and loyalty on e-marketing: Moderating effect of perceived value, Total Quality Management & Business Excellence, vol. 20, no. 4, 2009, pp. 423-443.

[11] Y. Ekinci, P.L. Dawes and G.R. Massey, An extended model of the antecedents and consequences of consumer satisfaction for hospitality services, European Journal of Marketing, vol. 42, no. 1/2, 2008, pp. 35-68.

[12] C.R. Farina, P. Miller, M.J. Newhart and R. Vernon, Rulemaking in 140 Characters or Less: Social Networking and Public Participation in Rulemaking, available at: http://ssrn.com/abstract=1702501, accessed December 29, 2010.

[13] F.A. Firat and A. Venkatesh, Postmodernity: the age of marketing, International Journal of Research in Marketing, vol. 10, no. 3, 1993, pp. 227-248.

[14] R. Godwin-Jones, Emerging technologies mobile-computing trends: lighter, faster, smarter, Language Learning & Technology, vol. 12, no. 3, 2008, pp. 3-9.

[15] S. Jones, C.Johnson-Yale, S. Millermaier and F.S. Perez, Everyday life, online: U.S. college students' use of the Internet, First Monday, vol. 14, no. 10, 2009, http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2649/2301.

[16] C. Keng and H. Ting, The acceptance of blogs: using a customer experiential value perspective, Internet Research, vol. 19, no. 5, 2009, pp. 479-495.

[17] H. Ko and F. Kuo, Can blogging enhance subjective well-being through self-disclosure?, CyberPsychology & Behavior, vol. 12, no. 1, 2009, pp. 75-79.

[18] P.K. Korgaonka and L.D. Wolin, A multivariate analysis of web usage, Journal of Advertising Research, vol. 39, no. 2, 1999, pp. 53-68.

[19] H. Lu, and P.Y. Su, Factors affecting purchase intention on mobile shopping web sites, Internet Research, vol.19, no.4, 2009, pp. 442-458.

[20] G.H.G. McDougall and T. Levesque, Customer satisfaction with services: putting perceived value into the equation, Journal of Services Marketing, vol. 14, no. 3, 2000, pp. 92-110.

[21] S. Panzeri, C. Magri and L. Carraro, Sampling bias, Scholarpedia, vol. 3, no. 9, 2008, p. 4258.

[22] T. Rintamäki, A. Kanto, H. Kuusela and M.T. Spence, Decomposing the value of department store shopping into utilitarian, hedonic and social dimensions, International Journal of Retail & Distribution Management, vol. 34, no. 1, 2006, pp. 6-24.

[23] M. Sigala, Mass customization implementation models and customer value in mobile phones services, Managing Service Quality, vol. 16, no. 4, 2006, pp. 395-420.

[24] P. To, C. Liao and T. Lin, Shopping motivations on Internet: A study based on utilitarian and hedonic value, Technovation, vol. 27, no. 12, 2007, pp. 774-787.

[25] S. Varki and S. Wong, Consumer involvement in relationship marketing of services, Journal of Service Research, vol. 6. no. 1, 2003, pp. 83-92.

[26] S. Wang and J.C. Lin, The effect of social influence on bloggers' usage intention, Online Information Review, vol. 35, no. 1, 2011, pp. 50-65.

[27] M. Wolfinbarger and M. Gilly, Shopping online for freedom, control and fun. California Management Review, vol. 43, no. 2, 2001, pp. 34–55.

[28] K. Yang and H. Lee, Gender differences in using mobile data services: utilitarian and hedonic value approaches, Journal of Research in Interactive Marketing, vol. 4, no. 2, 2010, pp. 142-156.

[29] V.A. Zeithaml, Customer perceptions of price, quality, and value: a means-end and synthesis of evidence, Journal of Marketing, vol. 52, 1988, pp. 2-22.