

END-USER SATISFACTION FOR SOCIAL MEDIA – THE CASE OF FACEBOOK

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ABSTRACT

The current study focuses on developing a theoretical model, social media user satisfaction or SMUS, to understand the key drivers of user satisfaction from the perspective of end users. Using a sample size of 398 from the users of Facebook, we would be empirically investigating the proposed SMUS model. In our model, we hypothesize value to the social media user, content of social media, critical mass of the social media user, capability, timeliness, perceived privacy, ease of use, and format of a social media site are positively related to social media user satisfaction.

Keywords: end-user satisfaction, Facebook, social media

INTRODUCTION

Webster online dictionary defines social media as forms of electronic communication (as web sites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other contents (as videos). By removing the barrier of time and geographical distances in creating a virtual place, social media sites such as Twitter, Facebook, YouTube, LinkedIn, and Flickr are enabling individuals of all age groups to be a part of communities of users and share and converse in an open and participatory environment. According to one of the more popularized theories in user satisfaction of a computer based application or system, user satisfaction is defined as the affective attitude towards a specific computer application by someone who interacts with the application directly (Doll and Torkzadeh, 1988, p. 261). Social media is about people engaging and therefore revisiting such theories helps understand the popular usage of social media sites. As a starting point in understanding and developing theories on what is driving the popularity of usage of social media by the end users, we revisit and extend the EUCS model popularized by Doll and Torkzadeh (1988).

One of the objectives of this paper is to revise and extend the end-user computing satisfaction models of Doll and Torkzadeh (1988) that has been tested in various types of information systems and applications, including e-commerce. The second objective of this study is to explore and identify key drivers of social media user satisfaction. We develop and empirically investigate the new dimensions for social media user satisfaction using the primary data collected from Facebook users. We define social media *user satisfaction* (or SMUS) as the overall affective evaluation that an active end-user of social media has. In the current study the terms user and end user are used interchangeably.

THEORY DEVELOPMENT

Since the late 1990's several different types of social media sites have been launched. Each social media site provides a different type of service and purpose to its users. Overall, these social media sites powered by users and user-generated content can be classified based on their functionalities. According to the number one popular social media site, Facebook, the number of *active* users in 2011 has crossed 800 million. Official statistics of Facebook (Facebook, 2011) also report that more than 50% of its active users log on to its site each day and interact with more than 900 million objects (pages, groups, events, community pages, etc.). Such intense and hyperpersonal communication (Walther, 1996) of usage behavior and number of users should be related to an overall positive experience of these users.

Several decades of research efforts have been invested in theorizing and empirically validating the user satisfaction research models in the context of technology usage. Collectively, these studies clearly point out that different end-users react differently when introduced to new tools and technologies and that, the benefit from a tool or technology cannot be realized until it is actually accepted and correctly used by the "critical mass". As the critical mass continues to use social media to meet personal (e.g. Flickr and Facebook) and professional (e.g., LinkedIn) needs, the current study is undertaken to explore the drivers of user satisfaction of social media.

Value of social media to its users is defined in this research as the overall attitude of the social media user towards utility and hedonic experience provided by the social media sites. Literature in consumer behavior and social psychology identify two distinct types of values or utility- utilitarian value and hedonic value related to the conceptualization of Stephenson (1967) as "mixing work and play." Utilitarian value of social media for its users refers to the goal oriented usage of the social media site which is cognitively driven, instrumental, goal oriented, and accomplishes a functional or practical task (Dhar and Wartenbroch, 2000). On the other hand, hedonic value relates to the multisensory, fantasy and emotional aspects of a consumer's experience with products. Such a hedonic (Hirschman and Holbrook, 1982) or pleasure oriented experience and consumption is expected to be motivated by the desire for pleasure, fantasy, and fun (Strahilevitz et al. 1998). A social media user would be satisfied if the user finds their experience is both useful (utility), and enjoyable (hedonic) at the same time. Therefore, we propose,

H1: Value of a social media for its user is related positively with user satisfaction.

The value for a user on any of these social media sites will be determined by the extent to which these sites are able to serve the needs of its members. If social media is about user-generated and shared information, the characteristics of this information need to be captured in the respective contents that the site supports. The first construct that we identify as a determinant of social media value for its user is content, or the ranges of the type of information that is supported on the social media site. Content refers to the characteristics of commonly shared information among the network members of a social media user on these sites. Content is one of the five variables included in measuring end user satisfaction of an information system in Doll and Torozadeh's model (1988). Since users with different utilitarian and hedonic needs may have

different types of information needed to support the information exchange, the content of the social media site seems to be an important driver of the value that the social media site provides to its users. Therefore,

H2: Content of social media is positively related to the value of social media for its users.

The value of user generated information is further enhanced if the users have the necessary social media applications and tools. The growing usage and popularity of social media sites can be attributed to the availability and effectiveness of online community tools and features to meet the users need for connecting people to one another and helping to share contents. We define social media *capabilities* in terms of the site's features, applications, and social media tools to meet the user's needs for social media activities. In addition to supporting various types of information content, social media can add value to its users with proper capabilities. We propose,

H3: Capability of social media is positively related to the value of social media for its users.

Another defining characteristic of social media tends to be the sheer number of users. We define *critical mass* of social media users as the extent of the membership of people that matters most in a user's social media network. Social media usage involves sharing user-generated information with the social network or community. The value proposition of social media must be tied to other users and the information that is produced and shared among the members of the network. Social media users frequently communicate with those people who are already a part of their extended social network offline and, thus, are the people in the user's online network that are more closer. Social media related activities, for example, sharing pictures and news, are characteristics of being engaged with the critical mass. We therefore propose,

H4: Critical mass of a social media user is positively related to generating information for the social media content.

Social media sites can employ various levels of security features to reduce a user's privacy concerns, and build trust. However given the end users perspective, such measures may still hold subjective beliefs and concerns regarding how users feel that their information shared on the social media site would be handled. *Perceived privacy* is the subjective belief of the social media user regarding restriction to the access of personal information and postings by other people not in the network. As social media users create and share their personal profile, comments, and contents, and many spends hours on social media sites, the protection of privacy should be an important determinant to the user's satisfaction. Therefore, we propose

H5: Perceived privacy on the social media site is positively related to user satisfaction.

The next three constructs in our proposed SMUS model- format, timeliness, and ease of use, are based on the EUCS model of Doll and Torkzadeh (1988). *Timeliness* in our model addresses the social media user's concerns about whether the information and content posted by the user on the site is up-to-date or not (Katerattanakul, 2002; Madu and Madu, 2002; Kim and Lim, 2001). It

indicates the capability of the site for facilitating real-time interactivity and instantaneous information exchange among the social media users. We define *ease of use* as the degree to which the social media site is “user-friendly” (Doll and Torkazadeh, 1988). The concept of ease of use relates to Zipf’s (1949) principle of *least effort* that states that each individual will adopt a course of action that will involve the least average work from the person. This principle of least effort can be extended to predict that a social media user will be more appreciative of the minimum effort required to learn features, use the applications, and perform social media related activities such as uploading and sharing a video or finding a friend on the site. *Format* of the social media site reflects the information presentation and the layouts structured in the social media site. It is important to provide relevant information in a format on a site that makes the navigation easy (Palmer, 2002; Molla and Licker, 2001). Balancing large quantities of information and contents in a manner that is both organized and aesthetically appealing for its users can be difficult, but an important issue in the context of social media. Thus,

H6: Timeliness of social media site is positively related to user satisfaction.

H7: Ease of use of a social media site is positively related to user satisfaction.

H8: Format of social media site is positively related to user satisfaction.

Figure 1 represents our hypothetical model of SMUS that identifies the relationships of various constructs that our literature review has identified as important drivers of social media user satisfaction.

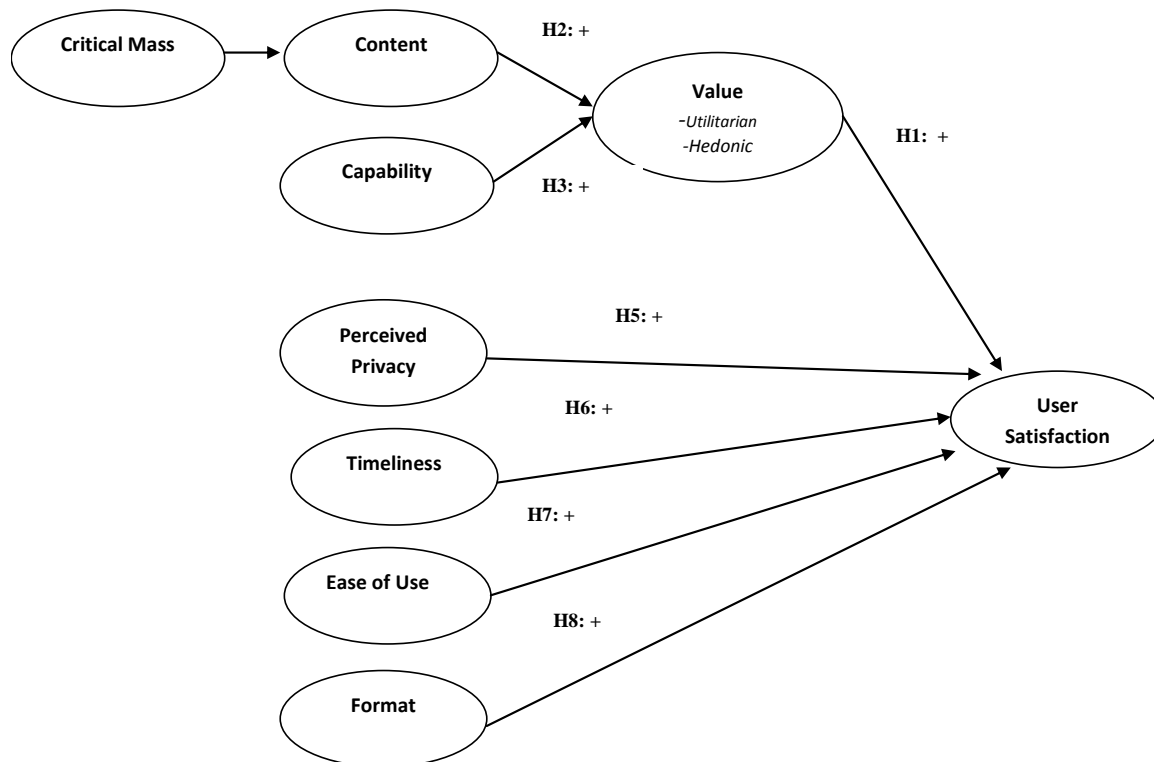


Figure 1: Proposed research model on social media user satisfaction (SMUS)

RESEARCH METHOD AND RESULTS

An extensive review was performed of the theoretical and empirical literature in the areas of EUCS, the user information system (UIS), and the information system success model (ISSM). These were followed by structured interviews with one corporate social media manager responsible for the corporate accounts on Facebook, Twitter, and LinkedIn, and three students who use social media sites (Facebook, MySpace, YouTube, LinkedIn, Flickr, Wikipedia, and Twitter) on a daily basis. Additionally, one university professor teaching e-business related courses in a large size Midwest US university helped us to define the domain of constructs and facilitate item generations. Of the finalized 37 items, three items measured social media user satisfaction (US), four items measured hedonic value (HV), three measured utilitarian value (UV), four items measured content (CN), three items measured capability (CP), three items measured critical mass (CM), three items measured perceived privacy (PP), four items measured timeliness (TM), five items measured ease of use (EU), and five items measured format (FM). A five-point Likert scale was used where 1 = strongly disagree and 5 = strongly agree to identify the responses for each items. Besides, some demographic items were also included in the questionnaire that used different measurement scales.

For our empirical study, a total of 900 full-time students from three business schools (belonging to one public university and one private university) in the US were simultaneously requested for their participation on our online survey regarding this study. Our online survey asked respondents to answer the survey in reference to their experience(s) from regular usage of Facebook. Out of total 440 responses collected during the two waves of survey request, 51 responses were dropped because of multiple (more than 5) missing responses in the survey. The final sample for our study stood at 389; corresponding to a response rate of 43.2% (389/900). The characteristic of our sample respondents is provided in Table 1.

<u>Gender</u>		<u>Number of Friends on Facebook</u>	
Male	43%	0-74	7%
Female	57%	75-149	10%
		150-224	14%
<u>Age</u>		225-299	10%
20 or under	51%	Above 300	59%
21 to 30	10%		
31 and above	39%	<u>Member of Fan Pages or Groups</u>	
		0-5	47%
<u>Employment</u>		6-10	20%
Not employed	46%	11-14	10%
Part-time	39%	More than 15	23%
Full-time	15%		
<u>Marital Status</u>		<u>Frequency of Using Facebook</u>	
Single	83%	Less than 5 hrs./week	3%
Married	16%	About 10 hrs./week	13%
Other	1%	About 15 hrs./week	29%
		More than 15 hrshrs./week	55%

Table 1: Sample Characteristics ($n = 389$)

To evaluate early/late respondent bias of the sample, a χ^2 -test of differences between observed and expected (population) frequencies for gender (male and female) was analyzed. The χ^2 -test showed that the distribution of our sample fits very well with the distribution of population (calculated $\chi^2 < \text{critical } \chi^2$). Initial item purification was done with factor analysis using principal component analysis in SPSS 20. All the items for each construct loaded on their respective factor and no cross-loadings were found. Consistent with the recommendations of Dillon and Goldstein (1985) that item loading should be at least 0.60, all our item loadings were found to be above 0.70; except for US4 (= 0.673) and CP3 (=0.600). Next, as per the recommendations of Bollen (1989) and Kamata, Turhan, and Darandar (2003), we assessed reliability of our instruments by calculating composite factor reliability scores (CFR). All CFR scores of our constructs were found to be above the cutoff value of 0.70 suggesting that the underlying items of our constructs were sufficiently representative of their respective constructs and were reliable.

At the time of the writing of this manuscript, we are still conducting the data analysis using the structural equation modeling in AMOS. Following Gerbing and Anderson's (1988) paradigm of testing SEM models, the measurement model is tested first followed by the complete structural model of Figure 1.

CONCLUSION

This study makes strives to make some significant contribution in extending past studies and developing an instrument for measuring social media user satisfaction. The empirical study in the context of social media makes the current study valuable despite its several limitations. One major limitation of the current study is that the data used in the current study is limited to the users of Facebook. Overall, the importance and relevance of proposed user satisfaction model in other types of social media, such as Twitter, YouTube, etc. needs to be empirically validated before the findings of the current study can be generalized for social media. This study has conceptually defined the key domain of the user satisfaction for social media, operationally designed the initial SMUS item list, and is empirically validating the instrument. Our preliminary analyses shows that the instruments indicate adequate reliability and validity across a diverse sample of Facebook users. However, the survey for this study was conducted with student population from USA based universities. Usage of a new technology and satisfaction from the usage may contain other factors that may be characteristic of profession and cultural elements of a social media user. Future studies can do a cross-cultural comparison of our study and survey social media users from all walks of life. As scientific research in the area of social media is still rare, we encourage practitioners and researchers to seek out new research questions in developing future theories in the area of social media

REFERENCE

References available upon request from Rupak Rauniar, rauniarr@uhv.edu .