

DETERMINANTS OF SOCIAL MEDIA SATISFACTION AND USAGE: THE MODERATING EFFECT OF ACCESS METHOD

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ABSTRACT

Social media sites have emerged as important communication channels used by individual users. This research develops and tests a conceptual model that captures the relationships among perceived social media characteristics, social media attitude, satisfaction, and usage. This study also tests the moderating effect of the users' access method on these relationships.

Keywords: Social Media, Satisfaction, Usage

INTRODUCTION

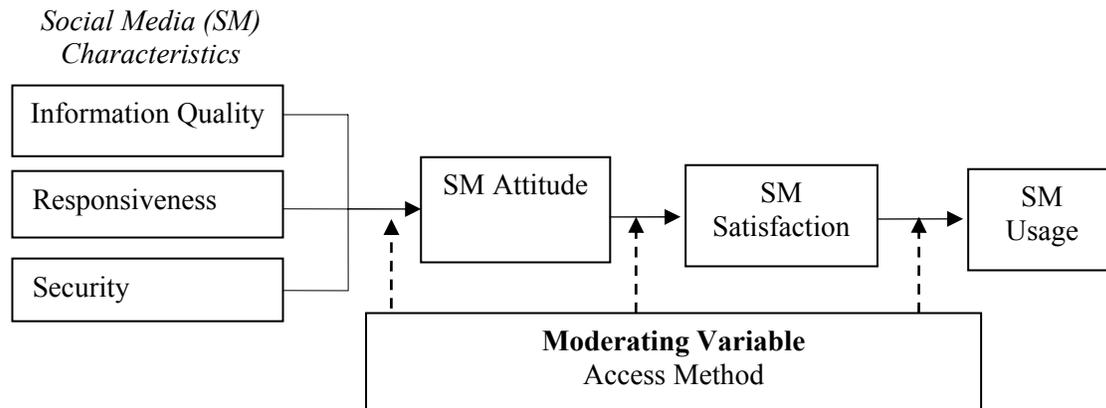
Social networking sites are emerging as important communication channels used by many individuals. The use of these online social media sites has grown dramatically with the ubiquity of internet access and the evolution of the internet. The internet has evolved from being solely a tool to facilitate information access to being an interactive social networking platform used for communication, collaboration, and access to knowledge (Bodendorf & Kaiser, 2009; Singh). With the increased use of mobile devices accessing social media sites, organizations are redesigning their social media sites to make them mobile-device friendly and easy-to-access using those mobile devices. It is important for organizations to understand how the use of mobile devices would influence the individual's social media site evaluation, satisfaction, and usage.

Therefore, the purpose of this research is to provide insights into the mechanism affecting the evaluation and usage process of social media sites and to examine how the individual's access method influences social media evaluation and usage. Specifically, this research develops and tests a conceptual model that captures the relationships among perceived social media characteristics, social media attitude, satisfaction, and usage. This study also tests the moderating effect of the individual's access method on these relationships.

CONCEPTUAL MODEL

This study develops a conceptual model, shown in Figure 1 that captures the relationships among three perceived social media characteristics, social media attitude, satisfaction, and usage. As shown in the Figure 1 model, the social media characteristics of information quality, responsiveness, and security are to have a positive effect on social media attitude leading to

satisfaction. The model then shows that satisfaction has a positive effect on usage. These relationships are moderated by the individuals' access method of online social media sites.



Information Quality

The quality of the information and generated content that is posted on the social media site can influence the individual's perception rating of that specific social media site (Ryu & Han, 2009; Song & Zinkhan, 2008). If an individual provides information that is believed to be trustworthy to these sites, this individual would be perceived as being trustful and will be able to attain a significant standing in that particular virtual community (Brown, Broderick, & Lee, 2007). Thus, when provided information is perceived to be both relevant and credible, then, that information can positively affect the individual's attitude (Zahedi & Song, 2009). In addition to the value of the information, both the content of the message and the quality of the social media sites can influence the individual's group behavior and their standing among the virtual community members. From the previous discussion, the following hypothesis is developed.

H1a: The information quality of social media sites has a positive effect on the individual's attitude toward the online social media sites.

Responsiveness

By providing the individual with the tools, features, or functions of a particular web-design element, the individual may perceive interactivity or rapid response when their messages are sent to the social media site (Zahedi & Song, 2009). According to telepresence theory, when the individual perceives that they can rapidly send and receive information, their idea-generation or thought development processes are not interrupted or delayed thus, they will perceive interactivity (Song & Zinkhan, 2008). This two-way communication is an integral component as it focuses on the speed of the content delivery so as not to frustrate or inhibit the individual's thought development processes. Lascu and Clow (2008) describe interactivity as reciprocal communications with affective or emotional reactions to the information being sent and received. From the previous discussion, the following hypothesis is developed.

H1b: Responsiveness in social media sites has a positive effect on the individual's attitude toward social media sites.

Security

Security is the extent to which an individual believes the social media site is secure for transmitting sensitive information (Chang & Chen, 2009). With social media applications becoming more prevalent, privacy and security have become important consideration factors for individuals (Seock & Chen-Yu, 2007). Researchers (Gefen, Karahanna & Straub, 2003; Lim, Lim & Heinrichs, 2005; Sinclaire, Simeon & Wikes, 2010; Wang, Beatty & Foxx, 2004) believe that trust can be developed through the use of safety mechanisms on the organization's social media site. Lee and Turban (2001) posited that infrastructural variables like third-party certification, can influence trust and thus influence the perception of security. This perception of security control then can have significant impact on the acceptance of the social media site. Therefore, security is one of the important factors affecting usage.

To meet the security requirement, many sites have adopted various security technologies such as secure sockets layer and secure electronic transactions. The various organizational sites that have these assurances may provide individuals with an increased level of confidence thus leading to increased usage by those individuals (Grewal & Levy, 2007; Wakefield & Whitten, 2006). Therefore, it is believed that security is a key factor in understanding and explaining social media attitude. Hence, extrapolating from these studies, the following hypothesis is proposed.

H1c: Security in social media sites has a positive effect on the individual's attitude toward social media sites.

Social Media Attitude

Many of the social networking sites can be considered to be fun and relaxing. While on these sites, individuals may play games or interact with others thus obtaining personal value from their participation (Dholakia, Bagozzia, & Pearo, 2004). In addition, if the individual perceives enjoyment from participating on the social networking site, satisfaction with the social networking site should occur (Lim, Lim, & Heinrichs, 2008). Furthermore, the perception of the ability to access information and the relative ease-of-access influences the individual's social media attitude (Lee, Cotte, & Noseworthy, 2010). Thus, a positive relationship exists between social media attitude and satisfaction (McMillan & Hwang, 2002). The previous discussion leads to the following hypotheses on the intention to use social networking sites.

H2: The individual's social media attitude has a positive effect on satisfaction.

Social Media Satisfaction

Social media satisfaction can be understood by examining both the perspective of user information systems and consumer behavior. The information system literature has explored satisfaction by studying the user's satisfaction with information systems. Thus, user information system satisfaction (UISS) is a concept that refers to the extent to which individuals perceive that the available information system meets their information requirements and needs (Au, Ngai, & Cheng, 2002; Galletta & Lederer, 1989).

Both information system and consumer behavior literature considers satisfaction as whether expected information requirements or product performance is met. The theory of confirmation/disconfirmation (Oliver, 1999) explains that satisfaction will be achieved when the

individual's expectations are met or confirmed. Positive disconfirmation will result in increased satisfaction with information systems or products that are better than an individual's expectations. Negative disconfirmation will result when information systems or products cannot meet the individual's expectations. Both confirmation and positive disconfirmation of expectations can lead to satisfaction while negative disconfirmation can lead to dissatisfaction. Therefore, it is expected that social media site satisfaction will increase when the performance of the social media sites exceed an individual's expectations while satisfaction will decrease from social media site performance which are below expectations. Thus expectation disconfirmation can support the effect of satisfaction on usage behavior (Bhattacharjee 2001; Liao, Chen, & Yen, 2007). This discussion leads to the following hypothesis.

H3: Satisfaction in social media sites has a positive effect on the individual's usage of social media sites.

Moderating Effect of Access Method

Individuals can use mobile devices, desktop computers and notebooks as the access method to reach social networking sites as these information and communication technologies have become necessary tools to engage in content creation and information sharing. The usage patterns of the various access methods can potentially have an impact on the usage behavior and information sharing of the various social networking sites. As mobile devices, such as SmartPhone, iPads, Kindles and tablets, have enabled social networking to occur across various platforms then these mobile devices can be viewed as both pleasure-oriented and functional-oriented communication devices and can also be used either way (Lee, et al., 2010). Mobile devices permit users to communicate by voice, text, email, or by accessing social networking sites via mobile web browsers (Lipsman, 2010). Thus, the following hypotheses are presented.

H4: The relationships among (a) information quality, (b) responsiveness, and (c) security in social media sites and social media attitude are moderated by the individual's access method.

H5: The relationship between attitude and satisfaction in social media sites is moderated by the individual's access method.

H6: The relationship between satisfaction and usage in social media sites is moderated by the individual's access method.

METHODOLOGY

Among various strategies of empirical applications of structural equation models, this study adopted the model comparison approach (Joreskog & Sorbom, 1993). This study used a self-administered questionnaire method to obtain data for analysis. A total of 159 questionnaires were completed by business school juniors and seniors of a Midwest university. The data collection was completed in groups of 30 to 60 participants in a classroom setting. Neither monetary nor non-monetary incentives were given to the participants.

Information quality was captured by using four items with a five-point rating scale. The four items in this construct measure included trustworthiness, accuracy, trust, and value of posted information. Responsiveness was captured by using three items with a five-point rating scale. The three items in this construct measure providing quick response, getting information from the

sites very fast, and feeling of getting instantaneous information. Information quality and responsiveness items are adopted from McMillan and Hwang (2002) and Song and Zinkhan (2008). Security was measured by using a three-item, five-point Likert-type scale adapted from Lim et al., (2005). Respondents were asked to indicate their feelings regarding the security of the social media sites.

Social media attitude was measured by a four-item itemized rating scale. The four items capture whether using social media sites is pleasurable, involving, relevant, and important. Social media satisfaction was measured by a three-item itemized rating scale capturing the level of satisfaction with the social media usage experience, social media meeting the expectation, and likelihood of recommending social media use to friends and relatives. Social media usage was captured by a two-item itemized rating scale. The two items in this construct measure frequency of visits to social media sites and number of time posting information in the social media sites during a week. The respondents were asked to indicate the degree of access to social media sites using mobile devices such as cell phones on a five-point rating scale. Those respondents indicating no use or rarely use mobile devices are classified into the non-mobile group and those indicating frequent to always use mobile devices are classified into the mobile group.

ANALYSIS AND RESULTS

Confirmatory Factor Analysis

The measurement properties were assessed in confirmatory factor analysis (CFA) using LISREL 8.8. Multiple fit criteria were presented to rule out measuring biases inherent in the various measures. The fit indices showed that the model resulted in a fairly good fit to the data (Chi-Square = 276.93 with 137 d.f., Non-normed Fit Index (NNFI) = 0.92, Comparative Fit Index (CFI) = 0.94, Root Mean Square Residual (RMSR) = 0.073).

All the items loaded significantly on the expected constructs, indicating convergent validity of the measures. Composite reliabilities were calculated for the six constructs (Fornell & Larcker, 1981). The composite reliabilities were 0.78, 0.73, and 0.90 for the information quality, responsiveness, and security, respectively. The attitude scale shows the composite reliability of 0.79. The satisfaction and usage scales show the composite reliability of 0.81 and 0.80 respectively. The mean values of the six scales ranged from 2.64 to 3.71 for the mobile user group and from 2.58 to 3.62 for the non-mobile user group. The discriminant validity was tested with the procedure suggested by Anderson (1987) and Bagozzi and Phillips (1982). The chi-square difference tests were performed for all possible pairs of constructs. The correlations between constructs ranged from 0.05 to 0.66. In all pairs of constructs, the critical value was exceeded indicating discriminant validity.

Hypothesis Test

Data was analyzed by structural equation analysis. Figure 1 depicts the conceptual model that was estimated by LISREL 8.8. In testing the model, overall fit of the model as well as individual path coefficients were evaluated. Separate structural equation models were estimated for the total sample, mobile user group, and non-mobile user group. The goodness of fit indices for the

total sample, mobile group, and non-mobile group suggest that the overall Figure 1 model is supported by the data. Information quality, responsiveness, and security have a significant effect on attitude. The coefficients are 0.17, 0.32, and 0.21 for the information quality, responsiveness, and security respectively. These significant coefficients are in the expected direction supporting H1a, H1b, and H1c. Attitude shows a significant direct effect on user satisfaction (0.64) supporting H2. Satisfaction has significant effects on usage (0.78). This result provides support for Hypothesis 3.

To test hypothesis 4, the path coefficient from information quality to attitude was compared between the mobile and non-mobile user groups. For the mobile user group, the coefficient was significant ($\gamma_{\text{mobile G}} = 0.42, p < .05$). However, for the non-mobile user group, the coefficient was not significant ($\gamma_{\text{non-mobile G}} = -0.01, p > .05$). The comparison between the two coefficients showed that the path coefficient for the mobile group user was significantly stronger than the path coefficient for the non-mobile user group ($t = 3.69, p < .01$), supporting Hypothesis 4a. Comparison of the paths from responsiveness and security to attitude revealed that the coefficients were not significantly different. These results do not provide support for Hypothesis 4b and 4c. Comparison of the path from attitude to satisfaction revealed that the coefficients were not significantly different ($t = 0.28, p > 0.05$) providing no support for Hypothesis 5. Hypothesis 6 was tested by comparing the path coefficient from satisfaction to usage between the mobile user group and non-mobile user group. The comparison between the two coefficients revealed that the path coefficient for the non-mobile user group was significantly stronger than the path coefficient for the mobile user group ($t = -2.04, p < 0.05$), supporting Hypothesis 6.

DISCUSSION

This study explores the effect of the access method used by the individual on attitude, satisfaction, and usage of the social media site. No longer are individuals required to access information solely through a desktop, stationary computer. Individuals are accessing information from anywhere at any time for whatever their information needs require. The organization must ensure that their social sites are accessible through traditional means as well as support the evolving mobile platform for information access. The results from this study highlighted that information quality is a significant component in shaping the mobile individual's attitude, and thus their satisfaction and ultimate usage. Further, the results from this study confirm the significant effects of the social media characteristics of information quality, responsiveness, and security on an individual's attitude toward the social media site.

Future research should be conducted to test this model with additional determining factors and different access methods. Additional research is needed to assess the validity of this study's finding regarding the moderating variable of access method on social media attitude, satisfaction, and usage. Additional characteristics of the individual, such as their mobile expertise, social media knowledge, and other demographic factors should be investigated. In interpreting the findings of this study, care should be given. The generalizability of the results from this study are limited as to the nature of the sample. In addition, the social media usage measure used in this study was self-reported. This study can be extended by using different samples and testing the model using other measures of social media usage activity.

References available upon request from Jeen-Su Lim.