Motivational and Social Capital Factors Influencing the Success of Social Network Sites: Twitter Case

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Abstract

Information is considered as an all-encompassing element that weaves connections and facilitates continued use in social networking. This study provides a new perspective by delineating the nature of information in social networking into hedonic and utilitarian information quality as well as information providers’ characteristics such as their reputation and intentions (altruism). Extending DeLone and McLean’s model of information system success, this study devises a model of online social networking success, a new framework that incorporates motivation and social capital dimensions, which fittingly characterize the social networking context. We adapt the scales from previous research on information systems, marketing, and sociology and validate the model first through a pilot study based on a sample of 101 Twitter users in Korea. We then conduct the actual survey (a combination of online and offline surveys) by considering a sample of 249 Twitter users. The results indicate that the utilitarian quality of tweets and tweet providers’ intentions were significantly related to perceived trust, whereas the hedonic quality of tweets and tweet providers’ reputation were positively related to user satisfaction. Perceived trust and user satisfaction were significantly related to continued use intentions.

Keywords: Social network service, Tweet quality, Tweet provider’s quality, Continued use intentions.
1 INTRODUCTION

Recent years have witnessed the increasing growth and popularity of online social networking (OSN) across all age groups, and social networking sites (SNSs) such as Facebook and Twitter have flourished, connecting more than a billion users worldwide. The small-world phenomenon narrowed from six degrees of separation (Howard 2008; Kleinberg 2008) to less than three degrees for SNSs such as Twitter, paving the path toward the most connected generation in history. SNSs gain value through network effects of their increasing membership. That is, the larger the number of an SNS’s user, the more valuable the SNS is. Here the motive for increasing the size of networks is obvious from the perspective of SNSs, but what motivates users to form connections with one another through SNSs?

This study extends previous research on information system use and motivation in the context of OSN. From marketing and sociological perspectives, this study proposes that the hedonic and utilitarian quality of information incorporated into an SNS by information providers is an important motivator for users’ continued use of the SNS. Hedonic quality provides the user with experiential enjoyment and sensory pleasure, whereas utilitarian quality indicates an instrumental purpose characterized as functional and rational (Hirschman & Holbrook 1982; Grabner-Krauter 2009). In addition, information providers’ reputation and intentions facilitate their continued use intentions. The information posted by information providers implicitly mirrors this virtual reputation, which reflects their status, knowledge, and expertise. The intentional display of altruistic behavior in their messages and shared information constitutes the so-called “virtual altruism” (Gruzd et al. 2011).

The rest of this paper is organized as follows: Section 2 provides a literature review, and Section 3 describes the theoretical framework, research methods and measures. Section 4 presents the analysis results and Section 5 discusses them. Section 6 provides the practical implications of the results as well as this study’s limitations and some suggestions for future research. Section 7 concludes the paper.

2 LITERATURE REVIEW

The concepts of hedonism and utilitarianism as two key aspects of information quality are derived from marketing and psychology research. These two concepts have been widely used to examine information system use and motivation, although not for describing or classifying information. The traditional view in information system use and information quality is utilitarian because most information systems are employed in organizational settings (DeLone & McLean 2003; Petter et al. 2008). On SNSs, however, the hedonic nature of information has been verified to be inherent (van der Heijden 2004), an aspect of information quality that provides the user with an engaging experience, inducing his or her gratification, pleasure, and enjoyment (Agarwal & Karahanna 2000). The concepts of hedonism and utilitarianism have been used mainly in research on information system use and adoption (Davis et al. 1992; Gu et al. 2010) and attitudes (Park and Yang 2006).

Several studies have emphasized the effects of hedonism and utilitarianism on individuals’ use and participation in the context of OSN. Drawing on uses and gratifications theory in the context of virtual communities, Dholakia et al. (2004) suggested that individuals often seek media in a goal-directed fashion for a core set of motives. Wasko and Faraj (2005) found that individuals participate in virtual communities to have access to useful information and realize personal gain. These studies have underscored the hedonic and utilitarian aspects in the usage, adoption and motives in SNSs, albeit not using them specifically to describe information quality.

Social networks are virtual connections among individuals, and there are two important concepts ascribed to users in online relationships: their reputation and intentions. Reputation is socially ascribed and reflects the collective belief about the individual, group, or role (Carter et al. 2002;
Previous studies on reputation have been largely focused on e-commerce (Ba & Pavlou 2002; Fuller et al. 2007), information-sharing communities (Carter et al. 2002), and reputation systems (Wang & Benbasat 2008; Utz et al. 2009) but has been sparse in the social networking context.

On the other hand, users’ intentions (or altruism) are reflected in their interest in helping other users to get useful information. The posting of helpful and reliable information can reinforce a bond of altruism between users, particularly during crises (Gruzd et al. 2011). McAllister (1995) referred to this as “citizenship behavior,” characterizing it as an individual’s altruistic behavior intended to provide assistance that is outside his or her formal role. This altruistic behavior can facilitate “affect-based trust”. Mayer et al. (1995) considered this behavior to be an important antecedent of trust and referred to it as benevolence.

Trust plays a crucial in facilitating new connections between users and is considered as an “invisible hand” that weaves and sustains such virtual connections (Riegelsberger et al. 2005). Trust can reinforce buyers’ intention to transact with online vendors (Gefen 2000; Kim & Ahn 2007) and continue using particular websites (Lin & Lu 2011). In addition, trust induces user satisfaction (Lee & Chung 2009).

DeLone and McLean (1992) noted that user satisfaction may be the most widely-used measure of information system success, given its high degree of face validity and availability of reliable measures. Petter and McLean (2009) defined this concept as the approval or likeability of an information system and its output and is considered as a pervasive component in information system research that induce users’ intention to continue using particular websites and information systems (Chiu et al. 2007; Mun et al. 2010).

The previous studies cited above in the context of e-commerce and virtual communities have given this paper a good foundation in the attempt to extend the DeLone-McLean model of IS success to the social networking context. The combination of trust, reputation and altruism alongside with the hedonic and utilitarian qualities of information as proposed in the model of OSN success could lend an interesting line of research on SNSs in the IS field.

3 EMPIRICAL ANALYSIS

3.1 Theoretical Framework

This study is partially framed in the context of motivational theories pertaining to hedonic and utilitarian characteristics of a product or system (Hirschman & Holbrook 1982; Babin et al. 1994; Voss et al. 2003). Several information system studies have examined and emphasized this dichotomy (van der Heijden 2004; Park & Yang 2006; Kim & Han 2009; Gu et al. 2010). This study dichotomizes information quality into the hedonic and utilitarian quality of tweets. Hedonic tweets are those providing entertainment, leisure, and enjoyment, whereas utilitarian ones provide knowledge and contribute to a specific task or objective of Twitter users. In this regard, we propose the following hypotheses:

- Hypothesis 1a: Hedonic quality of tweets has a positive effect on perceived trust.
- Hypothesis 1b: Hedonic quality of tweets has a positive effect on user satisfaction.
- Hypothesis 2a: Utilitarian quality of tweets has a positive effect on perceived trust.
- Hypothesis 2b: Utilitarian quality of tweets has a positive effect on user satisfaction.

Although many studies have examined reputation in management information systems (Ba & Pavlou 2002; Wang & Benbasat 2008), few have considered it in the context of social networking. For example, previous studies have examined online reputation mainly in the context of e-commerce
Another aspect of social capital relevant to this study is users’ intentions or altruism within the network, that is, their sense of responsibility and commitment in terms of helping other users (Wasko & Faraj 2005; Gruzd et al. 2011). Tweet providers’ reputation is defined as their desirable competency and social credentials relevant to acceptable behaviors. In this regard, we propose the following hypotheses:

- Hypothesis 3a: Tweet providers’ reputation has a positive effect on perceived trust.
- Hypothesis 3b: Tweet providers’ reputation has a positive effect on user satisfaction.

SNS users’ good intention or altruism is reflected in their messages intended to help other users. For example, Twitter can foster social capital and cohesion between users, particularly when users provide public support during crises. This type of altruistic behavior, referred to as citizenship behavior by McAllister (1995) and benevolence by Mayer et al. (1995), can influence trust. In this regard, we define tweet providers’ intentions as their altruistic behavior toward other users and propose the following hypotheses:

- Hypothesis 4a: Tweet providers’ intentions have a positive effect on perceived trust.
- Hypothesis 4b: Tweet providers’ intentions have a positive effect on user satisfaction.

Perceived trust is defined as the user’s evaluation of and affective response to his or her overall social networking experience. Trust clearly plays an important role in online settings and is a key factor influencing continued use intentions toward websites and online services (Gefen 2000; Kim & Ahn 2007; Kim et al. 2008; Sledgianowski & Kulviwat 2009; Shin 2010) and fostering user satisfaction (Lee & Chung 2009).

Continued use intentions pertain to a user’s intention to continue using a particular SNS. The key objective of SNSs is the continued patronage of their users. Similarly, user satisfaction is posited to be positively related to continued use intentions. In this regard, we propose the following hypotheses:

- Hypothesis 5a: Perceived trust has a positive effect on user satisfaction.
- Hypothesis 5b: Perceived trust has a positive effect on continued use intentions.
- Hypothesis 6: User satisfaction has a positive effect on continued use intentions.

3.2 Research Methods

This study tests the proposed model by considering Twitter, a conversational micro-blogging site established in 2006 that allows users to send limited text messages called tweets (Golder & Yardi 2010). Twitter provides an interesting context because of its asymmetric friendship mechanism in which users are not required to reciprocate connections to other users. Noteworthy is that Twitter has generated connections within and between ordinary and famous individuals such as celebrities and athletes.

Randomly selecting survey respondents by using the Twitter public timeline using the @reply mechanism, we sent a solicitation tweet to 700 potential respondents. The tweet had 140 characters and included a short introduction on the study and a link to the online survey based on docs.google.com. Following Sibona and Walczak (2012), we made a Twitter account with the account name “@TrustStudyKNU,” which included the name of the researcher, a profile picture, the geographic location, the university affiliation/program, a brief description of the person/account, a URL link to the survey, and corresponding followers and followings. The URL link to the survey directed the respondents to docs.google.com. The solicitation tweets encouraged retweets by recipients. We employed cross-postings on Facebook and other SNSs to maximize the response rate. However, given the low response rate for online surveys (179 responses, 29.8%), we simultaneously conducted the offline survey, which interviewed 70 university students using Twitter in Korea. Table 1
shows the demographic characteristics of the respondents.

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Count</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>140</td>
<td>56.2</td>
</tr>
<tr>
<td>Female</td>
<td>109</td>
<td>43.8</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 20</td>
<td>20</td>
<td>8.0</td>
</tr>
<tr>
<td>20-29</td>
<td>137</td>
<td>55.0</td>
</tr>
<tr>
<td>30-39</td>
<td>62</td>
<td>24.9</td>
</tr>
<tr>
<td>40-49</td>
<td>23</td>
<td>9.3</td>
</tr>
<tr>
<td>50 and over</td>
<td>7</td>
<td>2.8</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school or lower</td>
<td>22</td>
<td>8.8</td>
</tr>
<tr>
<td>University student/graduate</td>
<td>170</td>
<td>68.3</td>
</tr>
<tr>
<td>Graduate student and higher</td>
<td>57</td>
<td>22.9</td>
</tr>
<tr>
<td>Employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>159</td>
<td>64.0</td>
</tr>
<tr>
<td>Clerk</td>
<td>28</td>
<td>11.2</td>
</tr>
<tr>
<td>Teacher</td>
<td>23</td>
<td>9.2</td>
</tr>
<tr>
<td>Self-employed individual</td>
<td>11</td>
<td>4.4</td>
</tr>
<tr>
<td>Researcher</td>
<td>6</td>
<td>2.4</td>
</tr>
<tr>
<td>Technician/engineer</td>
<td>13</td>
<td>5.2</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>249</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 1. Description of the sample.

### 3.3 Research Measures

We developed the measures based on a review of information system studies employing the DeLone and McLean’s model (2003) as well as marketing and sociology studies. The questionnaire for the pilot study consisted of 47 items, and each construct had 5 to 13 ones. We conducted the pilot study to further distill and retain a set of items relevant to the SNS context. Here we considered a sample of Twitter users (university students) in Korea. We obtained 101 valid responses, tested the initial data for reliability by using SPSS 18.0 and conducted a confirmatory factor analysis (CFA) using LISREL 8.8. We retained items based on their face validity in terms of this study’s context and conceptualization. The resulting questionnaire had a total of 24 items on a seven-point Likert-type scale, and each construct had 3 to 5 ones (see Appendix). Other items covered the respondents’ gender, age, education level, and employment as well as the frequency, length, and purpose of Twitter use.

### 4 RESEARCH RESULTS

We analyzed the data by using SPSS 18.0; AMOS 18.0 and Excel 2007. We employed structural equation modeling (SEM) to test the hypotheses employing a two-step approach (Anderson & Gerbing 1988). We built and tested the measurement model through a CFA using AMOS 18.0 and examined its goodness-of-fit by using six widely-used fit indices: the chi-square/degrees of freedom (x2/df), the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI), the comparative fit index (CFI), the normed fit index (NFI), and the root mean square error of approximation (RMSEA). Given that measures of OSN success are relatively new, this study followed Wu and Wang’s (2006) justification for a lower threshold for fit indices. Therefore, we employed the fit thresholds suggested in Hair et al. (1998), and Hadjistavropoulos et al. (1999): GFI > 0.85 and AGFI > 0.8. All the fit indices satisfied their respective thresholds, indicating that the measurement model provided a good fit to the data. To improve this fit, we excluded one item (TPI1) for tweet providers’ intentions and two items (US4 and US5) for user satisfaction from the subsequent analysis. We included no additional paths (e.g. the covariance between error terms) to maintain the content validity of the scale (Gefen et al. 2011).
Convergent validity was assessed through composite reliability (CR) and the average variance extracted (AVE). CR was measured for internal consistency. The CR of each dimension was greater than 0.8, exceeding the recommended threshold (0.7) in Fornell and Larcker (1981). Bagozzi and Yi (2012) proposed the following three measurement criteria: Factor loadings for all items should exceed 0.5, the CR should exceed 0.7, and the AVE of each construct should exceed 0.5. As shown in Table 2, the results satisfy all these criteria. The minimum factor loading was 0.69, the lowest and highest CR values were 0.79 and 0.92, respectively, and the AVE of all constructs exceeded 0.5 (the minimum of 0.58 for tweet providers’ reputation). Discriminant validity was verified through the square root of the AVE for each construct, which exceeded the respective correlations as shown in Table 3 (Fornell & Larcker 1981; Limayem et al. 2007). Statistically checking the common method variance, the Harman’s single factor test on SPSS shows the absence of dominant factor emerging from the analysis, indicating that common method variance is not a concern (Podsakoff et al. 2003).

The structural model results (Table 4) indicate that the recommended levels were satisfied, allowing for the subsequent examination of the path coefficients of the model.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Item</th>
<th>Factor Loading</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonic Tweet Quality (HTQ)</td>
<td>HTQ1</td>
<td>.84</td>
<td>.89</td>
<td>.92</td>
<td>.73</td>
</tr>
<tr>
<td></td>
<td>HTQ2</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HTQ3</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilitarian Tweet Quality (UTQ)</td>
<td>UTQ1</td>
<td>.76</td>
<td>.85</td>
<td>.84</td>
<td>.65</td>
</tr>
<tr>
<td></td>
<td>UTQ2</td>
<td>.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UTQ3</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tweet Providers’ Reputation (TPR)</td>
<td>TPR1</td>
<td>.71</td>
<td>.80</td>
<td>.82</td>
<td>.58</td>
</tr>
<tr>
<td></td>
<td>TPR2</td>
<td>.77</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TPR3</td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tweet Providers’ Intentions (TPI)</td>
<td>TPI2</td>
<td>.83</td>
<td>.87</td>
<td>.79</td>
<td>.70</td>
</tr>
<tr>
<td></td>
<td>TPI3</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TPI4</td>
<td>.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Trust (PT)</td>
<td>PT1</td>
<td>.82</td>
<td>.89</td>
<td>.85</td>
<td>.74</td>
</tr>
<tr>
<td></td>
<td>PT2</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PT3</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>User Satisfaction (US)</td>
<td>US1</td>
<td>.85</td>
<td>.91</td>
<td>.84</td>
<td>.77</td>
</tr>
<tr>
<td></td>
<td>US2</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>US3</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continued Use Intentions (CUI)</td>
<td>CUI1</td>
<td>.91</td>
<td>.88</td>
<td>.91</td>
<td>.75</td>
</tr>
<tr>
<td></td>
<td>CUI2</td>
<td>.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CUI3</td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Factor loadings, Cronbach’s alpha, composite reliability, and the average variance extracted for each construct.
Table 3. Correlation matrix for assessing discriminant validity. Note: Numbers in bold type indicate the square root of the average variance extracted, and off-diagonal elements are correlations between constructs.

<table>
<thead>
<tr>
<th></th>
<th>HTQ</th>
<th>UTQ</th>
<th>TPR</th>
<th>TPI</th>
<th>PT</th>
<th>US</th>
<th>CUI</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTQ</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UTQ</td>
<td>.47</td>
<td>.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TPR</td>
<td>.47</td>
<td>.60</td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TPI</td>
<td>.47</td>
<td>.29</td>
<td>.55</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT</td>
<td>.45</td>
<td>.64</td>
<td>.59</td>
<td>.63</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>.58</td>
<td>.41</td>
<td>.54</td>
<td>.36</td>
<td>.60</td>
<td>.88</td>
<td></td>
</tr>
<tr>
<td>CUI</td>
<td>.48</td>
<td>.50</td>
<td>.49</td>
<td>.36</td>
<td>.51</td>
<td>.63</td>
<td>.87</td>
</tr>
</tbody>
</table>

Table 4. Goodness-of-fit indices for the structural model.

<table>
<thead>
<tr>
<th>Model</th>
<th>IFI</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>x²/df</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural</td>
<td>.94</td>
<td>.87</td>
<td>.82</td>
<td>.94</td>
<td>2.3</td>
<td>.073</td>
</tr>
<tr>
<td>Cut-off value</td>
<td>≥ 0.9</td>
<td>≥ 0.85</td>
<td>≥ 0.8</td>
<td>≥ 0.8</td>
<td>≤3.0</td>
<td>≤0.08</td>
</tr>
</tbody>
</table>

5 DISCUSSIONS

Results show that hedonic tweet quality had a significant positive effect on user satisfaction ($\beta = .53$, $p<.001$) but not on perceived trust, implying that hedonic information appealed more to the affective response of the respondents than their overall Twitter experience (Hargittai & Litt 2011). On the other hand, the utilitarian quality of tweet (characterized as accurate, reliable, and factual) had a significant positive effect on perceived trust ($\beta = .58$, $p<.001$), which is consistent with the findings of previous e-commerce studies (Kim & Ahn 2007; Lee & Chung 2009), but not on user satisfaction (Wu & Wang 2006; Petter et al. 2008).

Tweet providers’ reputation had a significant positive effect on user satisfaction ($\beta = .44$, $p<.001$), but it had no significant positive effect on perceived trust. On the other hand, tweet providers’ intentions had a significant positive effect on perceived trust ($\beta = .57$, $p<.001$) but not on user satisfaction. The significant relationship between tweet providers’ reputation and user satisfaction implies the high regard for the user’s social status on Twitter. However, it was inferred that reputation does not necessarily lead to trust because of Twitter’s inherently asymmetric nature. Tweet providers’ intentions had a significant positive effect on trust, implying high levels of commitment and benevolence (Wasko & Faraj 2005). This suggests that Twitter users emphasize the provision of valuable information on crises or other newsworthy events. This result is linked with that indicating a significant relationship between utilitarian tweet quality and perceived trust.

Perceived trust had a significant positive effect on user satisfaction ($\beta = .57$, $p<.001$), which suggests that Twitter users’ confidence in other users’ reliability and integrity can foster positive Twitter experiences. This can have important implications for Twitter because of its asymmetric and impersonal nature in terms of connections between users. In addition, trust is one of the most important foundations for social capital (Lin 1999; Brunie 2009), and this relationship plays a key role in Twitter growth. Perceived trust had a significant positive effect on continued use intentions ($\beta = .26$, $p<.01$), which is consistent with the findings of previous e-commerce studies (Kim & Ahn 2007; Awad & Ragowsky 2008; Shin 2010). User satisfaction had a significant positive effect on continued use intentions ($\beta = .58$, $p<.001$). Figure 1 shows the analysis results of the model for an online social network success.
Table 5 summarizes the hypothesis testing results, showing hypotheses H1b, H2a, H3b, H4a, H5a, H5b, and H6 were acceptable, and H1a, H2b, H3a, and H4b were unacceptable. We further analyzed the results for a better understanding of the non-significant relationships which indicate possible mediating effects of perceived trust on the relationships between utilitarian tweet quality/tweet providers’ intentions and user satisfaction. Employing Baron and Kenny’s (1986) mediation procedure, the results indicate that perceived trust mediated the relationship between utilitarian tweet quality and user satisfaction. In addition, the SEM results indicate that tweet providers’ intentions had no significant direct effect on user satisfaction, providing support for perceived trust as a mediator of this relationship.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Path</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>Hedonic Tweet Quality → Perceived Trust</td>
<td>Not supported</td>
</tr>
<tr>
<td>H1b</td>
<td>Hedonic Tweet Quality → User Satisfaction</td>
<td>Supported</td>
</tr>
<tr>
<td>H2a</td>
<td>Utilitarian Tweet Quality → Perceived Trust</td>
<td>Supported</td>
</tr>
<tr>
<td>H2b</td>
<td>Utilitarian Tweet Quality → User Satisfaction</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3a</td>
<td>Tweet Providers’ Reputation → Perceived Trust</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3b</td>
<td>Tweet Providers’ Reputation → User Satisfaction</td>
<td>Supported</td>
</tr>
<tr>
<td>H4a</td>
<td>Tweet Providers’ Intentions → Perceived Trust</td>
<td>Supported</td>
</tr>
<tr>
<td>H4b</td>
<td>Tweet Providers’ Intentions → User Satisfaction</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5a</td>
<td>Perceived Trust → User Satisfaction</td>
<td>Supported</td>
</tr>
<tr>
<td>H5b</td>
<td>Perceived Trust → Continued Use Intentions</td>
<td>Supported</td>
</tr>
<tr>
<td>H6</td>
<td>User Satisfaction → Continued Use Intentions</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Table 5. Summary of hypothesis-testing results
6 IMPLICATIONS AND LIMITATIONS

6.1 Practical Implications

The lifespan of SNSs depends largely on the level of support they receive from their users based on their perceived value. In addition, their basic survival may depend on their users’ perception of the quality of their information. The impact of the hedonic quality of information on user satisfaction suggests considerable information diffusion in the context of hedonism because it may be a form of information driving Twitter’s growth. Such information may define the rules of engagement for Twitter users. A tweet is limited to only 140-characters, but collectively, tweets can indicate users’ substantive preferences used for analyzing consumer-specific topics. Consumer research practitioners can evaluate tweets for data that can benefit entrepreneurs as well as information system providers.

Although the hedonic quality of information may satisfy SNS users, the usefulness or utility of information to these users may prevent user “churn.” This indicates a need to promote and encourage the proliferation of more useful information. SNSs continuously need to identify potential problems in their services and information control, particularly because of their explosive growth (e.g., the huge number of tweets being posted every minute).

With the integration of information providers’ quality with their reputation and intentions, the proposed model can be used specifically for other Twitter services of enterprises. Barnes and Bohringer (2011) noted that enterprise microblogging or “Twitter for the enterprise” is currently an important trend in the context of Web 2.0. The present study’s results provide SNS managers with important insights into how information sharing, service provision, business reputation, and intentions can influence potential customers (in the form of followers) to follow their messages (tweets), thereby inducing subscriptions or purchases.

6.2 Limitations and Future Research

This study contributes to the limited body of literature on OSN success but has some limitations that may affect the generalization of the findings. First, we employed an ad-hoc method combining online and offline surveys. Meanwhile, people of certain ages were concentrated in the sample. In this regard, future research should be expanded to other age groups by using a more consistent survey method to generalize the findings. Second, we employed cross-sectional data and thus could not establish causal relationships. For instance, trust between people takes time to form and be established. It would benefit future research on SNSs to understand the kind of trust emanating and pervading in this online environment. Third, this paper has been limited to exploring the applicable motivational and social capital factors leading to continued use intentions. As such, other aspects in understanding continued use intentions such as network effects of SNSs has not been given attention and could be extensions in the model for future research. Finally, the results may reflect some common method bias. To address this issue, we attempted to protect the respondents’ anonymity and improve the items through a pilot study (Podsakoff et al. 2003).

7 CONCLUSIONS

This study integrates DeLone and McLean’s (2003) model with motivation and social capital factors to devise a model of OSN success and provides an exploratory analysis of whether this model is applicable beyond organizational and e-commerce contexts. The results indicate that user satisfaction was influenced mainly by the hedonic quality of tweets and the reputation of tweet providers. Perceived trust depended mainly on the utilitarian quality of tweets and tweet providers’ intentions. In addition, even with the presence of hedonic information from tweet providers, the usefulness of information still had a greater effect on perceived trust. The results verify that SNS users’ intentions or altruistic behavior has considerable influence on perceived trust and demonstrate the impact in the
context of OSN. Twitter’s asymmetric mechanism, that is, one-way connections may play an important role in how users rely more on the reputation (e.g., popularity or influence) of other users, thereby facilitating their satisfaction with Twitter use.

The form of information proliferation on SNSs and users’ intentions and reputation are important variables in assessing the longevity of popular SNSs such as Twitter. The success and continued growth of Twitter in terms of its network size may be attributed to the presence of reputable and highly regarded users such as celebrities, politicians, and athletes. Such tweet providers, who are followed by many users, may provide hedonic tweets that amplify user satisfaction. On the other hand, in terms of building social capital based on trust, the results suggest that Twitter users’ altruistic or citizenship behavior plays a critical role in inducing or maintaining users.

References


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Appendix

The study’s questionnaire for online social networking success (all items are measured on a seven-point Likert-type scale).

I. This study uses the following statements to measure the quality of tweets sent by tweet providers/twitter users. Tweet quality refers to hedonic (e.g., enjoyableness and excitement) and utilitarian (e.g., informativeness and accuracy) aspects of tweets.


HTQ1. Tweets are enjoyable.
HTQ2. Tweets are pleasant.
HTQ3. Tweets are fun.
UTQ1. Tweets are accurate.
UTQ2. Tweets are reliable.
UTQ3. Tweets are factual.

II. This study uses the following statements to measure the reputation of tweet providers/twitter users. Here this reputation refers to the respect tweet providers receive from other users based on their status, expertise, and knowledge.


TPR1. Tweet providers have a good reputation.
TPR2. Tweet providers’ reputation is better than that of other users.
TPR3. Tweet providers are highly regarded.

III. This study uses the following statements to measure the intention of tweet providers/twitter users. Here this intention refers to tweet providers’ altruistic behavior (e.g., helpfulness) toward other users.


TPI1. Tweet providers take into account other users’ interests.
TPI2. Tweet providers strive to understand other users’ needs.
TPI3. Tweet providers strive to understand other users’ preferences.
TPI4. Tweet providers are helpful to other users.

IV. This study uses the following statements to measure twitter users’ trust in tweet providers/twitter users. Here trust refers to as one user’s confidence in another user’s reliability and integrity.


PT1. Tweet providers can be relied on.
PT2. Tweet providers can be trusted.
PT3. Tweet providers are those whom I have great confidence in.

V. This study uses the following statements measure user satisfaction. Here satisfaction can be defined as the user’s evaluation of and affective response to his or her overall social networking experience.


US1. I am very satisfied with Twitter.
US2. I am very pleased with Twitter.
US3. Twitter meets my expectations.
US4. I am very content using Twitter.
US5. I am very delighted with Twitter.

VI. This study uses the following statements to measure continued use intentions. Here continued use intentions pertain to a user’s intention to continue using a particular SNS such as Twitter.


CUI1. I intend to continue using Twitter in the future.
CUI2. I expect to continue using Twitter in the future.
CUI3. I intend to use Twitter frequently in the future.