

THE EFFECT OF SOCIAL INFLUENCE ON THE BLOGGERS' USAGE INTENTION

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Abstract: Among Internet applications, blogs are known for its exponential growth in recent years. Blogs can be viewed as a kind of information system which people used to communicate with others. While past studies placed focuses on blogger's motivations to use blog or potential applications of blogs, relatively little research has been conducted to investigate the relationship between effects of blog system quality and social influence on bloggers' usage intention. From the technical and social views, this study proposed a conceptual framework involving IS qualities and social influence. 613 responses were collected via web survey. Results show that information quality, system quality and blogging function quality positively influence bloggers' usage intention. Moreover, social influence significantly affects bloggers' usage intention directly and indirectly through IS qualities. Collectively, factors proposed by this study explain 61.4% of the variance of bloggers' usage intention.

INTRODUCTION

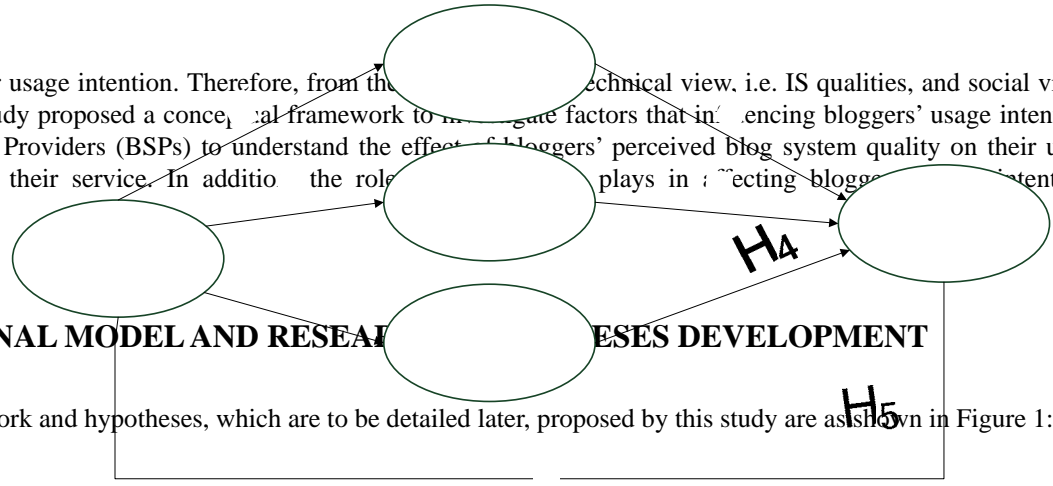
With the proliferation of Information and Communication Technologies (ICTS), Internet has been an integral part of people's daily life and serves as an important medium for people to interact in the cyber world (Kwai Fun Ip and Wagner, 2008). Among Internet applications, blogs (weblogs) have shown tremendous growth in recent years. Moreover, according to Technorati (2008), blogs exceed all the other Internet applications in the number of users. Witnessing this unprecedented phenomenon, enterprises are seeking the opportunities to unleash the potential power of this new marketing channel. Major portal sites, such as Yahoo, MSN, Google etc., have integrated the blogging services to their web applications. On the other hand, more and more companies are also maintaining their own blog communities or simply building the official blogs to communicate directly with their customers.

Increasing number of studies has been conducted to better understand the bloggers' behaviors and its impact. Prior research of blogs primarily placed their focus on bloggers' motives to use (Nardi et al., 2004; Huang et al., 2007; Hsu and Lin, 2008), potential applications of blogs (Thielst, 2007; Baker and Moore, 2008a; Luzón, 2009) and relationships of blogging with other social-psychological variables (Baker and Moore, 2008b; Ko and Kuo, 2009). However, blog can be viewed as an information system (IS) for people to gather or share information. The general quality of an IS per se and its output could significantly affect users' usage intention (DeLone and McLean, 2004). Furthermore, blogs are also taken as a kind of social tool for people to communicate with others (Baker and Moore, 2008a). Similar to other communication applications, the number of current users, which contributes to the value of application, could affect the users' usage intention. The phenomenon is known as network externality effect (Katz and Shapiro, 1985; Brynjolfsson and Kemerer, 1996). Thus, social influence could play an important role in users' intention to use blog. To the authors' best knowledge, relatively little research has been focused on the impact of bloggers' perceived IS qualities and social

influence on their usage intention. Therefore, from the technical view, i.e. IS qualities, and social view, namely social influence, this study proposed a conceptual framework to investigate factors that influence bloggers' usage intention. It is essential for Blog Service Providers (BSPs) to understand the effect of bloggers' perceived blog system quality on their usage behavior for better promoting their service. In addition, the role of social influence plays in affecting bloggers' usage intention needs further investigation.

CONCEPTUAL MODEL AND RESEARCH

RESEARCH HYPOTHESES DEVELOPMENT



Research framework and hypotheses, which are to be detailed later, proposed by this study are as shown in Figure 1:

Figure 1: Research hypotheses

Information Quality

Information is the most important output of Information systems. Information quality refers to the quality of information that an information system provides (DeLone and McLean, 2003). In the context of blog, information quality can be defined as the bloggers' general perception of collective content quality of blogs in a specific BSP. Previous studies found that information quality affects factors that related to IS success, such as user satisfaction, intention to use and system usage (DeLone and McLean, 1992; DeLone and McLean, 2004). Results of Lee et al. (2007) suggest that information quality plays a key role in enhancing users' intention to use the ASP (Application Service Provider) services. Wang (2008) provides support for that information quality positively affects the users' perceived value which, in turn, leads to enhancing users' intention to reuse an e-commerce system. Information is one of the key elements of blog service system. Lin and Lee (2006) also found that the information quality positively influence the user's intention to participate in a virtual community. As bloggers perceived that the information quality of blogs in a specific BSP is better than those of others, they are more likely to form a stronger usage intention. Concluding from above, this study proposed the following hypothesis:

H₁: The extent of bloggers' perceived information quality in blog is positively associated with user's usage intention.

System quality

System quality refers to the performance or desired characteristics of an information system (DeLone and McLean, 2003; Lee et al., 2007). Ease of use, reliability, flexibility and responsiveness are factors that were widely used by previous IS research to measure the system quality (DeLone and McLean, 2004). Prior studies have also provided support which suggests that system quality plays an important role in users' continuance intention to use an information system (DeLone and McLean, 2004; Chen, 2007). Lin (2006) indicated that system quality is a significant factor which affects users' behavioral intention to participate in virtual community. In addition, Chiu et al. (2007) found that system quality positively influence users' continuance intention to use web-based learning service via user satisfaction. System quality reflects the performance of bloggers' interaction with the general system of a BSP. In other words, the higher the bloggers' perceived system quality, the better the interaction experience they will have. It will, in turn, lead to their continuance intentions. Consequently, the following hypothesis is thus proposed:

H₂: The extent of bloggers' perceived system quality is positively associated with user's usage intention.

Blogging function quality

Rather than developing a blog on their own, nowadays, bloggers have plenty of free blog services to choose from. There are numerous BSPs around the world, such as Myspace, blogspot, WRETCH (in Taiwan) and etc. Most of them provide basic blogging services for free. BSPs also offer various blogging functions for bloggers to build their customized blogs. For example, most of the BSPs provide

templates for bloggers to deploy blog layouts. Some BSPs offer extension capabilities for advanced bloggers to incorporate multimedia contents, JAVA scripts or third-party plug-ins to enhance the appearances or interactivities of their own blogs. Various blog content management functions, such as pre-defined category, keywords etc., were also provided for bloggers to manage the accumulated blogging contents. These aforementioned functions are unique to the context of blogging and collectively represent an important dimension of a blog system. For a given BSP, The richer and more useful the blogging functions are, the stronger the bloggers' perception of blogging function quality could be. Hence, the following hypothesis is proposed:

H3: The extent of bloggers' perceived blogging quality in blog is positively associated with user's usage intention.

Social influence

Social influence has been proposed as a significant factor that affects individual's attitude and intention toward a certain behavior by previous studies (Rivis and Sheeran, 2003b; Hsu and Lu, 2004). The concept involves two facets. One is the subjective norms which refers to individual's perception of the expectations from significant others (Ajzen and Fishbein, 1977); the other, i.e. descriptive norms, refers to the perceptions of attitudes possessed by or behaviors of significant others (Rivis and Sheeran, 2003a). Elek et al. (2006) argued that the demonstrability of most people's behavior influences individual's own behavior. People tend to believe that a behavior is sensible when they observed many others are doing so.

When facing overwhelming online information, to reduce the cognitive effort, people tend to follow others' choices rather than making their own judgment (Bonabeau, 2004). Other people's actions could also affect individual's evaluation of quality. Salganik et al. (2006) conducts two experiments to examine the effect of social influence on people's perception of quality. Their results showed that people may form complete different evaluations to an identical song due to social influence (e.g. previous download counts). Chen (2008) also found that consumers could be influenced by the choices of others when making decisions of purchasing books online. Concluding from above, people tend to believe that 'popularity' implies better quality. Likewise, social influence could affect people's perceptions of quality. When facing numerous BSPs, bloggers may not consciously evaluate the functions that each BSP provided. Instead, they may make their choices based on the perceived number of users, i.e. the popularity, of a specific BSP. In other words, the popularity of BSP could serve as a proxy of perceived quality which further affects users' usage intention. Concluding from above Thus, this study proposes hypotheses H4~ H7 as follows:

H4: The extent of bloggers' perceived social influence is positively associated with user's perceived information quality.

H5: The extent of bloggers' perceived social influence is positively associated with user's perceived system quality.

H6: The extent of bloggers' perceived social influence is positively associated with user's perceived blogging function quality.

H7: The extent of bloggers' perceived social influence is positively associated with user's usage intention.

RESEARCH METHODS

Survey measures were primarily adapted from previous validated questionnaires. Items for Information quality and system quality were adapted from DeLone and McLean (2003). Items for social influence were adapted from Hsu and Lu (2004) and Rivis and Sheeran (2003b). Instruments for bloggers' usage intention were adapted from Hsu and Lu (2004). Minor modifications were made to fit the context of this study.

Due to the limited literature of the blogging function quality, measurements for this construct were self-developed by this study. One professor, two doctoral students, eight graduate students and one Executive MBA student were recruited to a focus group. All of the members major in Information management and have research experiences in the field of EC or Internet marketing. After reviewing the relevant literature and functions provided by major BSPs, a pool of candidate items for blog quality was proposed by the authors. Members in the focus group were asked to categorize and select the adequate items for blogging function quality. The classification results were further discussed by the focus group until the agreement has been reached. A pilot test was employed with graduate and under-graduate students who major in Information Management for clarifying the meaning and wording of the questionnaire. Minor modifications were made with their feedbacks incorporated.

This study employed web survey to collect data. Invitation messages were posted in highly trafficked online discussion forums and web sites. Respondents were asked to fill the questionnaire and encouraged to forward the invitation message to those who have blogging experience. 861 responses were received in two weeks. After eliminating invalid responses and users with no Internet/blogging experience, 613 usable responses remained for subsequent analysis. Among 613 participants, 269 (43.88%) were

male and 344 (56.12%) were female. Most of the participants were student (268, 43.72%). Most of the participants have at least 3 or more years in experience (92.17%). 37.19% of the participants have used blog for more than two years.

RESULTS

Measurement Model

SmartPLS 2.0 were employed to perform partial least squares (PLS) for model analysis. As summarized in Table 1, measurement of all the constructs exceeded the threshold for the reliability, converge and discriminant validity (Nunnally, 1978; Fornell and Larcker, 1981; Sanchez-Franco and Roldan, 2005). The results thus demonstrate adequate reliability and validity.

	C.R. ¹	AVE ²	Information Quality	System Quality	Blogging Quality	Social Influence	Intention to Stay
Information Quality	0.891	0.672	0.820 ³				
System Quality	0.881	0.598	0.540	0.773			
Blogging quality	0.864	0.560	0.453	0.668	0.749		
Social Influence	0.914	0.682	0.450	0.518	0.544	0.826	
Intention to Stay	0.941	0.800	0.530	0.684	0.641	0.641	0.894

1: Composite Reliability.

2: Average Variance Extracted.

3: Diagonal elements are the square root of Average Variance Extracted (AVE) for each constructs.

Structural Model

Path coefficients were tested using bootstrapping technique. In Figure 2, all path coefficients were significant at $p < 0.05$ level. Therefore, hypotheses H1-H7 were all supported. Social influence is positively associated with information quality ($\beta = 0.449$, $R^2 = 0.202$), system quality ($\beta = 0.518$, $R^2 = 0.269$) and blogging function quality ($\beta = 0.544$, $R^2 = 0.296$). On the other hand, information quality ($\beta = 0.127$), system quality ($\beta = 0.322$), blogging function quality ($\beta = 0.290$) and social influence are significant factors that influencing bloggers' usage intention. Notably, social influence has indirect effects, through blog system qualities, on bloggers' usage intention. Collectively, these factors explain 61% of the variance in bloggers' usage intention.

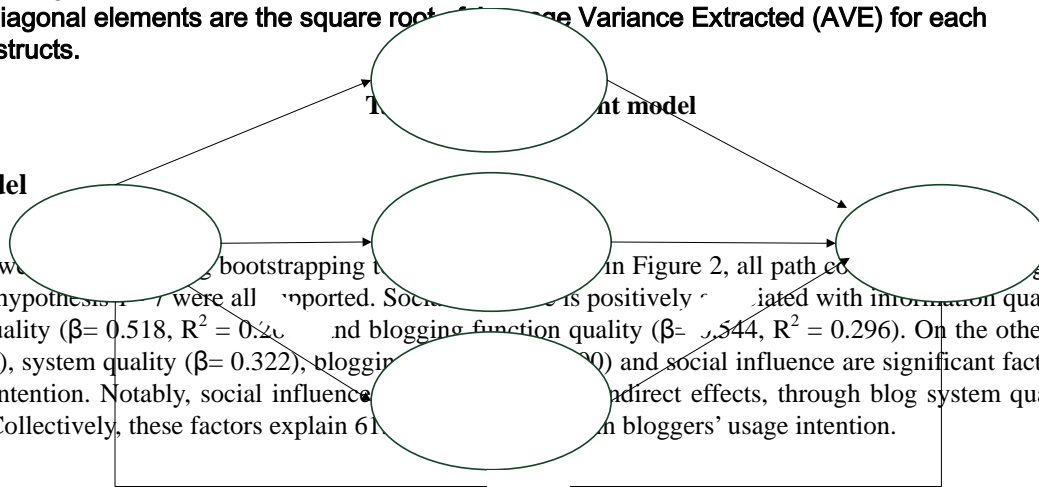


Figure 2: Results of structural model

** $p < 0.05$, *** $p < 0.001$

CONCLUSION

Discussion and Implications

As exploratory in nature, this study proposed a conceptual model to investigate technical and social factors that influence bloggers' usage intention. Hypotheses proposed by this study were all supported with empirical data collected via web survey. Results show that bloggers' perceived blog system qualities and social influence significantly affect their usage intention.

Among technical factors, i.e. IS qualities, system quality are the most prominent factor that influences bloggers' usage intention ($\beta=0.322$). This finding points out the importance of the fundamental qualities, such as reliability, ease of use, quick response and etc., of blog systems. Blogging function quality, which reflects to bloggers' perceptions of the usefulness and richness of blogging functions, is another important technical factor ($\beta=0.200$). On the other hand, it is worth noting that information quality has relatively smaller effect ($\beta=0.127$) on bloggers' usage intention among IS qualities. One possible explanation is that information of BSPs is provided by individual blogger. Information quality of each blog in a BSP could vary substantially. Blog readers may habitually visit blogs hosted in different BSPs rather than remaining in the same BSP. As for blog writers, they create the contents of blogs on their own. Thus, the quality of other blogs may not be an important factor in affecting their usage intention. This situation may result in a weaker relationship between blog writers' perceived information quality and usage intention.

From the social perspective, our results show that social influence is a significant predictor of bloggers' usage intention. Notably, both the direct and indirect effects of social influence on bloggers' usage intention are prominent. These results suggest that social influence plays a key role in people's intention to use a blog system and its impacts are two-fold. First of all, consistent with prior literature, social influence directly affects bloggers' usage intention. Previous studies have shown that social influence is a significant predictor of people's usage intention of compute-mediated communication applications (Henningsen and Henningsen, 2003; Hsu and Lu, 2004; Lu and Wang, 2008). Blog can be viewed as a new kind of personal page where people communicate by posting articles and comments (Miura and Yamashita, 2007). As the result, our finding also supports this view. Secondly, social influence also contributes to bloggers' usage intention by enhancing their perceived blog system qualities. Bonabeau (2004) indicate that people may not always consciously evaluate the quality of alternatives. Instead, people tend to take others' action as a simple proxy for quality evaluation when facing plenty of choices. In other words, people tend to imply that the larger the number of the users of an application, the higher the quality of the application (Salganik et al., 2006). Moreover, the number of users of an application may also affect users' perceived value due to the effect of network externality (Katz and Shapiro, 1985). In line with these views, our results suggest that bloggers' perceived blog system qualities are strongly affected by social influence which, in turn, results in affecting bloggers' usage intention.

Some implications can be derived from these findings. First, BSPs should strive hard to provide a stable, easy to use, and quick-response blog system in maintaining bloggers' usage intention. Moreover, rich blogging functions could add value to the services of BSPs and thus strengthen bloggers' usage intention. Second, BSPs could provide incentives for bloggers to contribute better blog content to increase the information quality. Third, as for the prominent effects of social influence, BSPs are suggested to invite celebrity to maintain their blogs on their blog platform. The effects of celebrity may lead to increasing blogging service popularity which further affects bloggers' usage intention. Lastly, campaigns should utilize the effect of social influence to encourage bloggers to post articles or interact more frequently. For example, BSPs can periodically propose themes, such as non-stop writing for 30 days or reactions to Olympic Games, and encourage bloggers to post articles accordingly. Rewards are provided as incentives for those who contribute the most, such as blogger that posts the most articles, the blog that has the largest number of visitor counts or comments.

Research Limitations and Future Research

Results of this study should be interpreted with caution due to the following limitations. First, a bias may exist because of the self-selected sample. Second, survey instruments used in this study were mainly adapted from previous research. Measurements for blogging function quality were self-developed by this study due to limited literature. Although the scales were pilot-tested and met the criteria of reliability and validity for an exploratory study, researchers who want to better explore the phenomenon should develop more elaborate scales of research constructs. Lastly, this study apparently does not include all the relevant variables. Therefore, future research is suggested to incorporate other important variables for better understanding factors that influence bloggers' usage intention.

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