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Fcators Affecting the Adoption Intention of Elderly User's Blog: An Empirical Investigation

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Abstract: The aim of this study is to understand to what extent elderly people are likely to accept a blog. In this perspective, the present research focused on the elderly people's strategies in performing everyday blog activities. An important issue of the further development of Web2.0 electronic commerce is to maintain blog loyalty. Based on the perceived function usefulness and perceived social usefulness, this research explores the influences of adopting intention of blog usage on the elderly. Eight hypotheses about the research model of the elderly's adoption of blog, derived from the questionnaire, are confirmed empirically. One result shows perceived social usefulness does significantly influence visitors' adopting intention of using it by the elderly. Other results indicate that the satisfaction of blog visitors positively influences their adopting intention and that the satisfaction of blog usage can be increased with higher function usefulness and higher social usefulness. Then, it in turn increases the adopting intention of blog usage for the elderly.

Key words: Adoption of blog, elderly, TAM

INTRODUCTION

The rapid and widespread adoption of blogging software has made it increasingly easy to post information and link to others via the Internet (Blood, 2004). The result is a densely connected web of blogs built from individual messages, links to other web sites and blogs and patterns of readership. In analysis of social series of actions and models of difference in larger-scale populations, the accumulation of blogs, featured as data, may provide an effective path. Some sites involve many types of blogs and their functions became powerful. These functions mainly involve restriction of entrance of others' blogs, searching the number of readers and network-spreading-path membership rather than open-style registration.

Many scholars have diverse viewpoints about how to let bloggers continue to write and edit their own blogs and attract more visitors. Based on the roles of technology acceptance, social influence and knowledge sharing motivation, Hsu and Lin (2008) probed into the intention of blog usage and regarded that sharing mutual interest and providing helpful information for others would positively influence the intention of blog usage. Chou (2005) had probed into the intention of blog usage by the perspective of the Unified Theory of Acceptance and the Use of Technology (UTAUT) and regarded that perceived usefulness have a high prediction of the intention of blog usage. This research will provide several questions for further research.

ESTABLISHMENT OF THE RESEARCH STRUCTURE

According to the situation of information adoption usage model and blog of elders, the research model is represented in Fig. 1.

This research concerns about the research issue of the visitors' continual visitation so that it will increase the bloggers' intention of continually writing articles on blogs. Hence, this research adopts the information system adoption intention model proposed by Bhattacharjee (2001). This theory points out that: (1) Perceived usefulness directly influences the intention of adoption usage; (2) Satisfaction positively influences the intention of adoption usage; (3) Perceived usefulness influences the intention of adoption usage through satisfaction. As a result, this research brings up the following hypothesis:

- **H1:** The elderly bloggers' satisfaction in blog usage will positively influence the adopting intention of blog usage
- **H2:** The elderly bloggers' perceived function usefulness will positively influence the adopting intention of blog usage
- **H3:** The elderly bloggers' perceived function usefulness will positively influence the satisfaction of blog usage

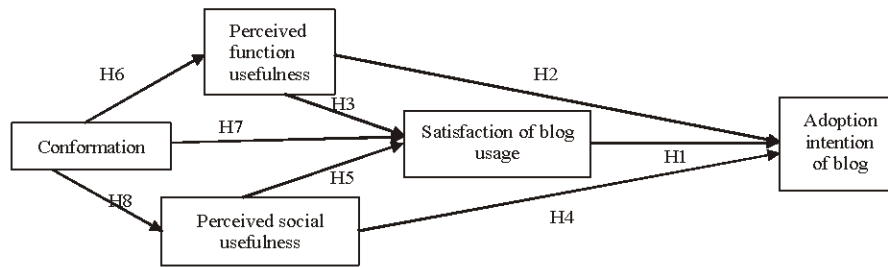


Fig. 1: Model of the adoption intention of elderly user's blog

- **H4:** The elderly bloggers' perceived social usefulness will positively influence the adopting intention of blog usage
- **H5:** The elderly bloggers' perceived social usefulness will positively influence the satisfaction of blog usage
- **H6:** The elderly bloggers' confirmation will positively influence the function usefulness of blog usage
- **H7:** The elderly bloggers' confirmation will positively influence the social usefulness of blog usage
- **H8:** The elderly bloggers' confirmation will positively influence the satisfaction of blog usage

This study investigates blog users' adopting intention of blog usage for elders and an empirical study will proceed by conducting questionnaire. Additionally, Structure Equation Model (SEM) is adopted to verify the path relations of variables of the model. After confirming the research variables, this research begins the design of the questionnaire. To ensure that the questionnaire can accurately present the truthful meaning, this research has taken research literatures as its referent and has adapted the appropriate elements into this questionnaire. The answers in this questionnaire have been divided into five ranks: "extremely disagree," "disagree," "regular," "agree," "extremely agree." These divisions are to serve as the understanding of the respondents' recognitions of the questions in this questionnaire.

Since the research object is the elderly blog users, the data collection is gathered through the internet questionnaire. The questionnaire had been put on the internet for 52 days, from November 8th to December 30th, 2011 and 158 questionnaires were collected; yet, after omitting 38 invalid questionnaires, there remained 120 valid questionnaires in total. In order to understand the basic data of the collected respondents, this research analyses the basic data about gender, education and age. Firstly, the following shows the description of the valid samples: (1) Gender: Among the 120 valid samples, it includes 45 male respondents (37.5%) and 75 female respondents (62.5%). The numbers of female respondents

are about twice more than male respondents. (2) Education: Among the 120 valid samples, most respondents are from senior high school or vocational school which includes 95 people (79.2%). Secondly, 18 respondents are university students (15.0%). Thirdly, 7 respondents are from graduate school (5.8%). (3) Age: Among the 120 valid samples, the largest age group includes 65 respondents, whom are between the age 55 and 65 (54.2%), while the second largest age group includes 32 respondents, whom are between the age 65 and 75 (26.7%). the respondents aged over 75 years are approximately 19.1% .

This research adopts Smart PLS version 2.0 M3 as the statistical analysis instrument. Smart PLS is graphical software for structural equation statistics that is similar to LISEREL.

This research uses Structural Equation Model (SEM) to examine the proposed research model and it adopts Smart PLS to make statistical analysis. Since PLS lacks the generation of overall goodness of fit index, it is represented only with the explained variance (R2) of endogenous constructs, path coefficient between constructs and its statistical significance (t), Fig. 2. R2 value and path coefficients value show the coherence degree of the structure model and the actual data and they serve as a major standard to judge the quality of the model. In addition, t value is used for judging the significance of path coefficients.

Factor loading is to reflect the influence of inaccurate measurement and to reflect the construction level of an individual question. A factor loading that is big enough means that the question choices have good convergent validity. When factor loading is bigger than 0.70, it indicates the possession of an ideal quality. When factor loading is bigger than 0.60, it indicates that the measured variables are in a very good situation concerning construction explanation. However, when the factor loading is smaller than 0.30, it indicates that the situation of measured variables is very bad and generally, these kinds of questions can be omitted. According to the measurement of factor loading, (Table 1), the measured

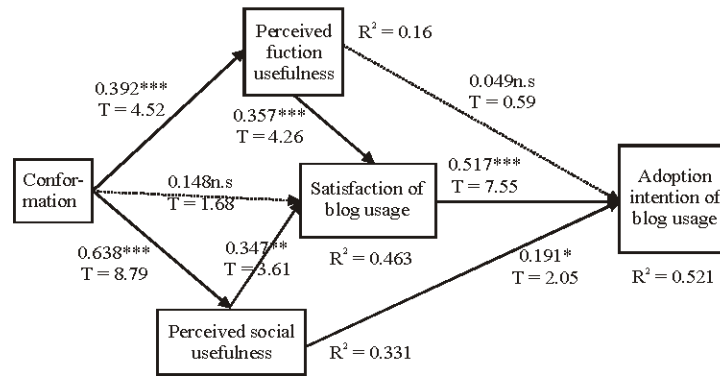


Fig. 2: Result of the Model of the adoption intention of elderly user’s blog

Table 1: Composite reliability and factor loading

Construct	Questions	Mean	SD	Composite reliability	Factor loading		
Confirmation	CON1. The information provided by blogs fulfills my needs are better than I had expected.	3.33	0.65	0.89	0.73		
	CON3. The information provided by blogs is more complete than my expectations	3.24	0.68		0.77		
	CON4. The information provided by blogs is more reliable than my expectations	3.18	0.69		0.81		
	CON5. Every function provided by blogs can always be properly used and that is better than my expectations	3.22	0.72		0.77		
	CON6. The information shown on the screen of blogs is faster than I expected	3.10	0.76		0.72		
	CON8. Website services provided by blogs being accomplished as scheduled are better than I expected.	3.13	0.65		0.75		
	CON9. Blogs enable me to share information in ease and that is better than my expectation.	3.26	0.64		0.73		
	CON10. Blogs actively assist users in solving problems and that is better than my expectation	3.14	0.60		0.69		
	Perceived usefulness	PU1. Using blogs can help me in learning	3.39		0.74	0.86	0.78
		PU2. Blogs can provide information or knowledge that I need	3.60		0.68		0.88
PU3. Blogs allow me to find more information or knowledge that conforms to my interest		3.73	0.70	0.81			
PU4. Using blogs are for recording my daily life		4.15	0.79	0.61			
PU5. Using blogs are for exchanging and sharing information or knowledge		3.86	0.68	0.75			
Perceived social Usefulness	SU1. Using blogs can allow me to make more friends	3.46	0.87	0.86	0.76		
	SU2. Using blogs give me a sense of belonging	3.35	0.81		0.83		
	SU3. Using blogs make me feel closer with other internet users	3.32	0.87		0.83		
	SU4. Using blogs are to let more people know me	3.14	0.88		0.68		
	SU7. Using blogs can build a more stable relationship with those who have mutual interest with me	3.48	0.69		0.66		
Satisfaction blog usage	STA1. I enjoy using blogs	3.68	0.71	0.91	0.82		
	STA2. Using blogs make me feel happy	3.52	0.76		0.87		
	STA3. Using blogs bring a sense of satisfaction to me	3.51	0.71		0.88		
	STA5. I think it is a wise choice for me to use blogs	3.43	0.70		0.84		
Intention of blog continue usage	CU2. I would tend to continue to use blogs rather than discontinue using them	3.78	0.85	0.82	0.80		
	CU3. I will introduce blogs to friends and relatives	3.31	0.88		0.69		
	CU6. I will continue to use blogs	3.80	0.64		0.83		
	CU8. I will continue to use blogs despite there are other alternatives	3.35	0.77		0.65		

variables scale is in between 0.65 and 0.88 which means the situation is in between good and superior. Therefore, the convergent validity in this research is within an acceptable range.

The variance explanation for the adopting intention of blog usage in this research is 52%, the variance explanation for users’ satisfaction of blogs is 46%, the variance explanation for perceived function usefulness is 16% and the variance explanation for

perceived social usefulness is 33%. This research has proposed 8 hypotheses, 2 of them are: (1) the confirmation of blog users’ satisfaction is insignificant and (2) the perceived function usefulness influencing the adopting intention of blog usage has not reach a significant level. Moreover, the path coefficients of other 6 hypotheses are in between 0.191 and 0.638; therefore, the model of this research can be accepted for further analysis.

By using SEM to examine whether the research hypotheses of this research can be established, 6 out of the 8 hypotheses can be supported, while the other 2 failed hypotheses are H2 (The Elderly Bloggers' perceived usefulness will positively influence the adopting intention of blog usage) and H7 (The Elderly Bloggers' confirmation will positively influence the satisfaction of blog usage) individually.

CONCLUSION

The popularity of blogs is like the rising and withdrawing of the tide water. Their new appealing themes may attract various curious visitors when they are newly established. The old group cannot be ignored; however, the number of visitors will gradually diminish after a certain period and this is the major problem that blog managers may encounter. This research, based on the adopting model of information system, deconstructs perceived usefulness into function usefulness and social usefulness. In addition, this research enhances the intention of adoption usage through satisfaction and proposes 8 hypotheses for research examination.

The influence of satisfaction in the elderly blog usage on adopting intention of the elderly blog usage is quite significant and its path coefficient is $\beta=0.463$. This result is the same as the authors' another research result (Tsai and Yen, 2009), in which users' satisfaction positively influence the adopting intention of using e-bookstore. This research also indicates that the elderly bloggers' perceived usefulness positively influence the satisfaction of blog usage ($\beta = 0.357, t = 4.26$). It proves the consideration of Bhattacharjee (2001) that perceived usefulness is helpful in improving the grade of users' satisfaction. Additionally, Tsai and Yen (2009) gone the similar result in which perceived usefulness in purchasing books online positively influence the users' satisfaction. This research separately examines H4 and H5 and concludes that perceived social usefulness positively influences the adopting intention of the elderly blog usage ($\beta = 0.1911, t = 2.05$) and also positively influences the satisfaction of the elderly blog usage. This indicates that social usefulness, the personal platforms provided by blogs, can help one to fulfill his communicative needs. Thus, this proves the theory of Gupta and Kim (2007): community usefulness positively influences the promises of community usage.

Bhattacharjee (2001) regarded that confirmation is helpful in improving the rate of users' perceived usefulness. This has also been proved by the research result: bloggers' confirmation positively influences the function usefulness of blog usage (H6: $\beta = 0.392, t = 4.52$).

The path coefficient ($\beta = 0.638$) of perceived social usefulness on confirmation shows that confirmation has more evident influence on perceived social usefulness about H8.

As for H2, a result of this research indicates that the elderly bloggers' perceived usefulness insignificantly influence the adopting intention of the elderly usage of blog ($\beta = 0.049, t = 0.59$). The result implies that the functions of blogs are not the factor to attract the elderly users to continually blog. This may be because those who have filled out the questionnaires have different views about function benefits in blogs. This issue is worth further study.

The result of examining H7 shows that the elderly bloggers' confirmations do not directly influence the satisfaction of the elderly usage of blog. The satisfaction of respondents who have had experience in blogging is insignificant ($\beta = 0.148, t = 1.68$).

According to expectation confirmation theory, when finding that the actual experience and the expectation do not show coherence with each other, the old user can try and alter his/her former expectation so that his/her expectation can become coherent with the actual experience. As a result, this research shows that even though the confirmation and satisfaction in H7 do not show direct nor evident relationship, this research still proves the expectation confirmation theory. For example, the research analysis has found that the relationship of confirmation toward satisfaction is neither direct nor evident. Yet, confirmation can elevate perceived function usefulness and/or perceived social usefulness and they will in turn elevate the satisfaction rate.

In theory, this research deconstructs the adopting model of information system and adopts this model into the adopting intention of the elderly usage of blog. Moreover, in practice, one of the research results emphasizes the character of social usefulness in blogs and also suggests the internet platform manufactures and blog owners or managers accumulate the social capital of their blogs. By following these methods, blogs are able to retain their old visitors and also increase the elderly bloggers' loyalty. Furthermore, this research have found that the number of elderly female internet users surpass those of male users.

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REFERENCES

- Bhattacharjee, A., 2001. Understanding information systems continuance: An expectation-confirmation model. *MIS Q.*, 25: 351-370.
- Blood, R., 2004. How blogging software reshapes the online community. *Communi. ACM*, 47: 53-55.
- Chou, L.H., 2005. The research of blog user and user behavior. Master Thesis, Information Communication Department, Yuan Ze University, China.
- Gupta, S. and H.W. Kim, 2007. Developing the commitment to virtual community: The balanced effects of cognition and affect. *Inf. Resourc. Manage. J.*, 20: 28-45.
- Hsu, C.L. and J.C.C Lin, 2008. Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation. *Inform. Manag.*, 45: 65-74.
- Tsai, B. Y. and Y.R. Yen, 2009. Post-adoption behaviors of E-bookstore customers. *Proceedings of the 9th International Conference on Electronic Business*, November 30-December 4, 2009, Macau, pp: 209-216.