The Influence Factors of Users' Attitude to Adopt Mobile Business

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Abstract

Based on qualitative and quantitative study, the success influential factors of users' adopting a mobile business can be categorized in 5 dimensions: Perceived Usefulness, Perceived Ease of Use, Mobile Content, Perceived Risk and Environment issue, this also can be grouped as the user's attitude. The regression analysis shows that the attitude toward mobile business significantly influences the users' usage of mobile business. The more positive attitude the users have toward mobile business, the greater their adoptions would be. In addition, perceived usefulness, perceived ease of use would affect users' attitude toward using mobile business as well, but these two perceptions wouldn't prompt the attitude greatly. The mobile content and environment issue positively influence the users' adoption of mobile business.

Keywords – Mobile Business, Influence factors, User's Attitude

1. Introduction

Academic research in the phenomenon known as mobile business is just now coming to the forefront, the geographic distance is evaporating, and the access to mobile website becomes more and more immediate. Mobile business, or m-business, refers to the pairing of these mobile devices with commercial transactions, giving customers services anywhere at any time (Clarke, 2001) [1]. With the advent of new technologies, customers will find more value in their handheld devices. Cell phones, personal digital assistants (PDAs), and other mobile devices are designed for m-business use. Cell phones first emerged in 1983 as a consumer industry (Shaw, 1996) [2].Cell phones now come in different configurations that allow users to take and view photos and videos, listen to music, organize, watch television, send emails or used for wireless transactions.

The rapidly growing population for using mobile business will be a potential market for many dealers, and the higher acceptance users have toward mobile business, the commercial market will become larger gradually every year.

2. Model and hypothesis

This chapter is about the methodology that was adopted for this research.

2.1 The Research Model

Nowadays, the "used to be" heavy mobile phone turns into some portable and light personal stuff, which makes the mobile communication service grow rapidly. all global wireless dealers pay great attention on this emerging business, and start to run a similar business modeling which leads to a following trend for wireless network. Before understanding how users view the new technology, like mobile business, we must understand the factors

that influence their decision. According to the report "Field Research for Technical Users in 1999" which was to study the attitudes toward mobile technology (Guo-Qing Wu, 2000) [3], we found that how the users view the new technology would influence the way they accept the digital technology, like Mobile business, mobile phone and digital TV. Liu and Arnett (2000) had made a research about the reasons that make e-business successful, and they found that if they can make the users trust the system while using it for mobile business shopping, and believe that the system is controllable and easy to use, the cognitive attitudes users have would make the them more willing to use the system[4]. And after the use of system, various cognitive attitudes and judgments are brought out and influence their attitude for using the system.

The purpose of this research is to discuss the behavior and current situation, and understand the factors that influence the users' behaviors toward mobile business.

The research is to discuss the behavioral adoption for in mobile technology, we will refer to TAM as the theoretical foundation. After integrating the literature, we decided to use the extended structural definition of TAM proposed by Davis et al. (1989)[5], external variables are used as the developmental foundation to evaluate the factors that would influence users' decision for using mobile business.

Davis (1986) stated that perceived usefulness could be the subjective cognitive, which influences users' decision for using which system to complete a job[6]. As to explain perceived usefulness from the perspective of this research, it means that it is the cognitive that helps the users to finish the work in a place with mobile data service. For perceived ease of use, Davis (1989) considered it as the cognitive that makes the users think the system easy to use; Wind and Mahajan (2002),

define the five desires of users today – the desire for uniqueness, personalization and customization, the desire for social interaction,the desire for convenience and options [7] ; Varshney and Vetter (2002) studied the application service, which users obtain via mobile device, such as financial transactions, mobile advertising, mobile entertainment sector and games etc[8]. Lederer et al(1998) pointed out that Perceived Usefulness can cause Attitude Toward Using, and Perceived Ease of Use also cause users to adopt Attitude Toward Using[9].

From the perspective of these research literature, using the theory of reasoned action, it is developed that the users' attitude toward using the mobile business service could be assumed as the research model below:
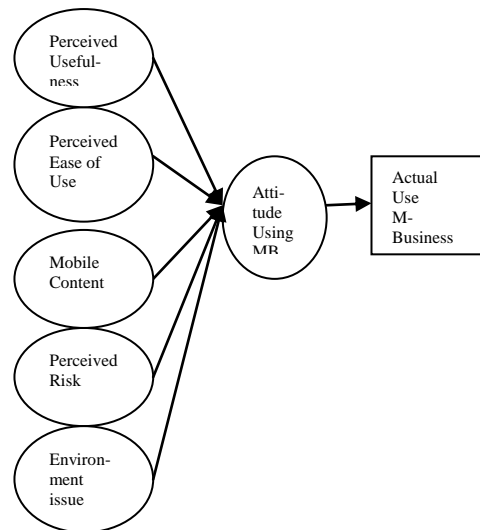

Fig.1. Conceptual Model of the User' Attitude to use Mobile Business

2.2 Hypothesis

The hypothesis for this research was made according to the structural theory of TAM proposed by Davis et al. (1989), and the related theories that help to construct this research. The research will adopt the original hypothesis that attitude

can influence the usage. Hereunder are the hypotheses made accordingly:

a. Perceived usefulness has positive effect on the attitude toward the use of mobile business
b. Perceived ease of use has positive effect on the attitude toward mobile business
c. Mobile content has positive effect on the attitude toward mobile business.
d. Perceived Risk has positive effect on the attitude toward mobile business..
e. The environment issue has positive effect on the attitude toward mobile business
f. The attitude to use mobile business has positive effect on the actual use of mobile business

3. Data and Methodology

3.1 Data Collection

To collect data, we use survey methods for this research. Data was collected using questionnaire and interview. Each independent and dependent variables included in the questionnaire and measured.

From the 500 questionnaires distributed, we received 334 responses. Consequently, we were able to obtain 262 responses valid for use in the final analysis of our study.

3.2 Factor analysis

Correlation analysis and regression analysis are used to test the hypotheses, to examine the relationship between the independent variables and the dependent variables.

4. Results

4.1 Correlation Analysis

From Table 1, Pearson Correlation Sig. (2-tailed) was used, we could know that except the attitude toward using mobile business, all the other factors do correlate significantly with the actual use of mobile business. The correlation between the attitude for using mobile business and the actual use of mobile business is quite obvious.

Tab1. The Correlation Analysis of Variables*

	use-ful	ease	con-tent	risk	en-viron	atti-tude	ac-tion
use-ful	1						
ease	0.510	1					
con-tent	0.582	0.538	1				
risk	0.532	0.466	0.605	1			
envi-ronm ent	0.347	0.367	0.349	0.335	1		
atti-tude	0.486	0.556	0.388	0.369	0.110	1	
ac-tion	0.279	0.209	0.198	0.305	0.190	0.388	1

* Correlation is significant at the 0.01 level (2-tailed)

4.2 Multiple Regression Analysis

The regression of the Attitude toward Using MB and the influence factors, the results showed below:

Tab2. Regression Analysis Results

model	Unstand-stand-ardized Coeffi-cients	Std. Error	Stand-ardized Coeffi-cients Beta	t	Sig.
(Con-stant)	.587	.069		6.225	1.000
use-ful	.398	.031	.398	5.113	.000
ease	.206	.039	.206	2.750	.009
con-tent	.318	.041	.318	2.420	.001
risk	-.502	.056	-.502	4.386	.020
envi-ronm ent	.434	.072	.434	3.857	.011

5. Conclusion

Firstly, from the empirical study, we can see that the Actual of mobile business can

be affected by the attitude toward adopting the mobile business. If mobile business enterprise has strong ability to influence the users' attitude, then it will have better performance. Hypothesis f is supported.

Secondly, from the regression results between the attitude toward adopting mobile business and the influence factors, we can see that, the five factors-"the perceived usefulness of the mobile business" and "the perceived ease of use of the mobile business", "the content of the mobile business", "the perceived risk of the users", "the environment issue" have different influential effect.

The "perceived usefulness" can explain the users' attitude toward adopting mobile business in large amount, Hypothesis a is supported, if the website host useful information, abundant product description, the mobile business company has strong ability to attract more customers. The "perceive ease of use" can also explain the uses' attitude toward adopting the mobile business, Hypothesis b is supported. That is to say, the customers like to use the mobile portals which can easily accessed and having easy purchase procedure. The "mobile content" can explain the user's attitude toward adopting the mobile business, Hypothesis c is supported, the mobile business content must be abundant as to attract more customers. The "environment issue" can explain the uses' attitude toward adopting mobile business, Hypothesis e is supported, the mobile business should build the base condition for mobile log on and cooperate with the government to provide better circumstance for customers. The "users' perceived risk" cannot explain the attitude toward mobile business, d is not supported, in this case, customers are more likely to adopt mobile business despite risk.

The findings of this paper can assist mobile business companies in understanding the relationship between the user's attitude toward adopting mobile business its influence factors. It also provides guidelines for mobile business companies to make their mobile business strategy.

6. References

[1] Clarke, Irvine (2001), "Emerging Value Propositions for M-Business," Journal of Business Strategies, 18 (Fall), 133-48

[2] Shaw, James K. (1996), "Wireless Communications and Technology Substitution: What Scurves Reveal about Pending Cellular Competition," New Telecom Quarterly.

[3] Guo-Qing Wu, Yong-An Liang and Yu-Ying Su, "To be of great urgency", Classic Communications, Translation from Marry Modahl, 2000.

[4] Liu, C. and Arnett, K. P., "Exploring the factors associated with web site success in the context of electronic business", Information and Management, 2000, Vol.38, p23-34.

[5] Davis, F. D., "Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology", MIS Quarterly, September 1989, p319-340.

[6] Davis, F. D., "A Technology Acceptance Model of Empirically Testing New End-User Information Systems: Theory and Results", Doctoral Dissertation, Sloan School of Management, Massachusetts Institute of Technology, 1986.

[7] Wind, Yoram and Vijay Mahajan (2002), "Marketplace: Convergence Marketing," Journal of Interactive Marketing, 16 (Spring), 64-79

[8] Varshney, U. and Vetter, R., "Mobile Business: Framework, Applications and Networking Support", 2002 Kluwer Academic Publishers, Vol.7, p185-189.

[9] Lederer, A. L., Maupin, D. J., Sena, M. P. and Zhuang, Y., "The Role of Ease of Use, Usefulness and Attitude In The Prediction of World Wide Web Usage", ACM, 1998, p195-204.