Chapter 63
An Empirical Study of the Factors Affecting Mobile Shopping in Taiwan

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ABSTRACT

Mobile commerce has already become one of the trends in future developments. Therefore, mobile shopping in application of mobile commerce will become one of the services with a vast development potential. A technology acceptance model (TAM) with trust is utilized to explore influence of perceived ease of use and perceived usefulness in mobile shopping on customers' attitudes and behavioral intention to use, mobility, convenience and information richness, characterized by mobile commerce. An online survey was performed on a sample of 600 mobile users in Taiwan. Structural equation models (SEM) are used to examine hypotheses within the theoretical framework.

INTRODUCTION

With development of wireless communication technology, a flourishing has occurred in the domestic market of mobile communication (Lian & Chen, 2010). To date, mobile phones have already become to a necessity occupied by customers. However, the voice communication market throughout the country is gradually saturating. Regarding this, in order to expand a mobile communication market, businessmen pay effort and energy into any data communication market successively, finally launch service relating to mobile commerce.

Mobile commerce refers to e-commerce activities via mobile devices, such as phones or personal digital assistants (Mennecke & Strader, 2002) which is an application of integrating Internet, wireless network and e-commerce (Kalakota & Robinson, 2001). Mobile commerce has gradually evolved from e-commerce. E-commerce influences interaction and transaction between enterprises and customers,

whereas mobile commerce exerts a role of expanding influence of enterprises all over the world, causing limits of "mobility" to be broken.

As long as mobile technology facility is equipped, commerce service will be available for any person at any time (Xi & Shiguo, 2011). Computing is expanding from stationary desktop PC environments to locations like cars, shopping malls and entertainment areas. Through utilizing mobile phones, PDA or EPC mobile utility newest published, mobile commerce will allow customers to use wireless network service at any place and any time for conducting commerce transaction behavior, like consumption. Even though currently the use of mobile commerce is incomparable to that of e-commerce, mobile commerce has already become one of trends in future development (Benou & Vassilakis, 2010; Benou & Bitos, 2008). Mobile Commerce is using network service through wireless mobile utility. To date, few studies have specifically investigated affecting mobile shopping in Taiwan. The main objective of this study thus is to explore factors influencing behavior intention to use mobile shopping in Taiwan. A survey on customers' behavioral intention to use of mobile shopping is made through a technology acceptance model in this study, thus with the exception of basic intermediate variable in TAM model, it still proposes external variables which possibly affects customers' behavioral intention to use of mobile shopping. Therefore, this study takes two features of mobility and convenience in mobile commerce as external variables to affect perceived usefulness and perceived ease of use. Mobility allows customers to use mobile shopping service in any location during moving, depending on their individual situation, no limited to territory (Coursaris & Hassaneia, 2002). Convenience is one of the characteristics of mobile commerce. Mobile devices are conveniently used to make living more convenient (Lee & Chung, 2008). Additionally, information richness is considered as external variable to affect trust, perceived usefulness and perceived ease of use. Information richness allows users to perceive richness and diversity of information collected through online media (Li, Tan, & Xie, 2002).Based on theories of consumer behavior, this investigation proposes the effects of mobility, convenience, and information richness on perceived ease of use, perceived usefulness, and trust on customer attitude and behavioral intention to use mobile shopping.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is one of the most widely used models in studying the reasons a firm or an individual accepts new technology, which is concerned with the determinants of consciously intended behaviors (Davis, 1989). The TAM uses two distinct but interrelated beliefs—perceived usefulness and perceived ease of use—as the basis for predicting end-user acceptance of computer technology. Perceived ease of use is defined as the degree to which the prospective user expects the new technology to be free of effort. Perceived usefulness refers to the prospective user's subjective likelihood that the use of the new technology will increase his/her performance (Davis, Bagozzi, & Warshaw, 1989). TAM has proven to be a valid and reliable model explaining new technology system acceptance. In recent years, there is a lot of research concerning e-commerce, such model adopted in discussion of customers' behavioral intention to use; however, mobile shopping is also an application of newly rising technology, and thus this study proposes that technology acceptance model could be available for discussion of customers' behavioral intention to use.

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