The Effect of Perceived Security on Consumers’ Intent to Use: Satisfaction and Loyalty to M-Commerce in China

Hongjiang Xu, College of Business, Butler University, Indianapolis, IN, USA

ABSTRACT

M-commerce as a special form of e-commerce has grown rapidly both in developed and developing countries. New advancements in its underlying technology have increased the functionality of m-commerce. However, they also present potential security risks. Security issues have been a top concern for m-commerce management. In spite of the benefits m-commerce could bring, new security and privacy risks, in particular to the wireless medium and devices, abound in m-commerce applications. With the largest mobile market, China has seen the most rapid growth in the development of mobile communications in the world. This study investigates the relationship between consumers’ perceived m-commerce security and their behavior regarding intent to use, satisfaction and loyalty to m-commerce in China. A research framework was developed and tested together with research hypotheses through a cross-sectional large scaled survey. The results showed that the consumers’ perceived m-commerce security has a statistically significant effect on consumers’ intent to use, satisfaction and loyalty to m-commerce in China.

Keywords: China, Consumer Satisfaction, e-Commerce, Intent to Use, Loyalty, m-Commerce, Security

INTRODUCTION

In recent years, E-commerce has given rise to m-commerce, a specialized subset, with rapid growth in both industrialized and industrializing nations. Although there are similarities between E-commerce and m-commerce applications, m-commerce can provide additional functionalities and convenience to consumers. The growth in use of mobile devices as well as new developments in radio frequency identification and wireless sensor networks result in more devices being interconnected, tracked, and even made intelligent (Hamad, Smalov, & James, 2009). At the same time, this growth also presents additional potential risks; among those risks, security stands out as one of the most important areas to which m-commerce organizations need pay attention (Turban, King, Lee, Liang, & Turban, 2010).

Organizations that are able to meet consumers’ needs and expectations will increase their

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customers’ satisfaction, loyalty and retention (Yeung, Shim, & Lai, 2003). M-commerce has transformed mobile phones from simple voice-communication devices into means of advanced-communication up until recently only found in the imagination of science fiction; they now provide voice, text, and video messaging, web surfing, digital imaging, entertainment, payment, banking financial trading, and shopping (Mao, Srite, Thatcher, & Yaprak, 2004). However, this technological revolution impacts users’ adoption of this multitude of increased abilities. Therefore, to enhance the functionality of the advanced technology usage in m-commerce, organizations need to have an in-depth understanding of consumers’ perception and behavior (Dai & Palvia, 2008). Consumer acceptance of the technology is influenced by how consumers view the importance of security and their assessment of sacrifice of the security against the benefits from the use of the technology (Hossain & Prybutok, 2008). How consumers perceive the security measures in place in m-commerce applications could potentially impact their behavioral intentions. The lower the perceived risk from security issues using m-commerce, the more likely consumers will adopt the M-commerce services (Islam, Khan, Ramayah, & Hossain, 2011). There is reason to believe that increases in consumer satisfaction could improve profitability (Hallowell, 1996). Therefore, it is important to study the effect of perceived M-commerce security on consumers’ behavior vis-à-vis intent to use, satisfaction and loyalty.

Cultural aspects can influence the ways in which web applications are used within a country (Zakaria, Stanton, & Sarkar-Barney, 2003). As rapid growth of m-commerce applications takes place globally, culture can have a stronger effect on the ways m-commerce is used in different countries (I. Lee, Choi, Kim, Hong, & Tam, 2004). China has become the number one country in the world for mobile subscribers (ITU, 2013), and leads in mobile service consumer loyalty and data revenues (mobiThinking, 2013). It is important and interesting to study consumer behavior in China, which has become one of the largest M-commerce markets.

Therefore, the objective of this study is to investigate the relationship between consumers’ perceived m-commerce security and their behavior regarding the intent to use, satisfaction and loyalty to m-commerce in China.

LITERATURE REVIEW

M-Commerce

M-commerce refers to business activity conducted through a wireless telecommunications network. This study focuses on the B2C (Business to Consumer) aspect of the m-commerce. The use of m-commerce enables organizations to provide new services to existing customers as well as attract potential new consumers. Consumers can use wireless mobile devices such as a smartphone or tablet PC to access information at any time and any location. It is convenient for consumers to use mobile devices, as they are small, portable, and have instant connectivity. It enables consumers to customize the delivery of information, products and services to meet their personal needs.

Mobile computing infrastructure consists of the following major components: mobile devices, mobile computing software and services, and wireless telecommunications networks (Hu, Yeh, Yang, & Lee, 2006). M-commerce has the capacity to fulfill the consumer’s following primary needs: connectivity needs, communication needs, information needs, entertainment and commerce needs (Coursaris & Hassanein, 2002).

At the end of 2012, there were 6.8 billion mobile subscriptions, estimates the International Telecommunication Union (ITU); that is equivalent to 96 percent of the world’s population, and is a huge increase from 6.0 billion mobile subscribers in 2011 and 5.4 billion in 2010. The potential market for mobile subscribers in the developed world is rapidly reaching saturation point with at least one mobile subscription per person. The market growth is being driven by
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