Chapter 4
An Extension to the Delone and Mclean Information Systems Success Model and Validation in the Internet Banking Context

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ABSTRACT

The modern internet era opened a plethora of opportunities for doing business online. Internet banking (IB) is one such innovation that made great strides from its humble beginnings in the mid-1990s. It is important for bank practitioners to know the factors contributing to the success of new technology by customers to enable them to be better placed in the competitive segment. This study proposes an extension to the Delone and Mclean IS success model to evaluate information systems(IS) success in the context of internet banking, with security as a new dimension. Data was collected from 312 respondents. The results found that security is a key factor for IB success. Furthermore, the study found that the dimension system quality has not had any substantial effect on IB user satisfaction; however, security and information quality were found to influence user satisfaction. Based on the findings, some implications for research and practice were prescribed, in addition to directions for future researchers of IS success in the IB context.

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INTRODUCTION

Web-based applications in the recent years helps organizations to retain customers, and offering new services and products to them (DeLone & McLean, 1992; Tan & Teo, 2000). Internet Banking is considered as an online revolution of the traditional banking services which offers customers the greatest expediency for performing banking transactions via the Internet (Furst, Lang, & Nolle, 2000; Patnasingam, Gefen, & Pavlou, 2005). More precise definition of Internet Banking is given by Sathye (1999):

With the term electronic banking we consider all the possible transactions of a bank which are performed with the use of electronic means, mainly through Internet, but also through VPNs (Virtual Private Networks), Intranet, Extranet, phone and mobile phone, and these transactions do not necessitate that the customer must visit a branch.

There is a fundamental shift in banking delivery channels since mid-1990s (Pikkarainen, Pikkarainen, Karjaluoto, & Pahnila, 2004) and many banking executives perceived technology as the key solution for controlling costs (C.-P. Lee, Mattila, & Shim, 2007). Internet Banking improves the bank's profit levels through the reduction of both variable and infrastructure costs, provides a source of differentiation and competitive advantage, provides global reach, adds another communication and feedback channel, increases customer satisfaction through the reduction of waiting times. thus improving service performance (Harridge-March, Wong, Rexha, & Phau, 2008). Internet Banking has appeared as the trend in banking, nowadays, and emerged as one of the payment models required to enable pure e-commerce models, rather than traditional banking (Zolait, 2010).

Some of the benefits to customers identified (Angelakopoulos & Mihiotis, 2011) are no time limitation, better time organization, no geographical limits, lower costs, 24 hour support, effortless accessibility for disabled people, integrated environment for Internet Banking transactions. In recent years, a large number of banks have started to adopt Internet Banking as an additional channel to reach and interact with clients. For financial institutions, Internet or Electronic banking is recognized as a tool that can significantly reduce their overhead costs as well as day-to-day expenses (Alhinai, Albadi, Alshihi, & Al-Gharbi, 2013).

BACKGROUND

Despite the recent advancements in internet security technologies such as, digital signatures, certificates, encryption algorithms. authentication mechanisms, consumers are still concerned about the security of monetary transactions over the internet (C. Yoon, 2010). In a report of Internet and Mobile Association of India (IAMAI -2010-11) it was found that people are hesitant to do banking transactions through the web sites of the bank, because of: security concerns (43 percent); preference for face-to-face transactions (39 percent); lack of knowledge about online transactions (22 percent); lack of user friendliness environment (10 percent); and lack of this facility in current bank (2 percent). M.-C. Lee (2009) found that the intention to use online banking is adversely affected mainly by the security/privacy risk. Hence, for the success of Internet Banking security plays a key role in customer trust of the website and satisfaction, which ultimately contribute to the success of the Information System(IS). Moreover, studies on IS Success related to Internet Banking are very scarce in the literature (Hoehle et al, 2012). Furthermore, the