Trust and Technology Acceptance on Mobile Banking

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INTRODUCTION

The advancement in the mobile technology and wireless Internet has transformed banking operations to the mobile devices which enables a customer to do the banking operation at anytime and anywhere. The introduction of smart phones and high-speed Internet made customer to access various services and information at anywhere and banks also started taking advantages of these technologies by offering a wide variety of services through mobile devices. Mobile banking is new to the customer even today in emerging markets. Therefore, it is important to attract customers to use these services. Mobile banking has a wide potential in developing countries as many customers can avail banking services through their mobile phones. In this technology era expecting customers to use banking services through mobile is a demanding task where they have plenty of alternative service channels available. To understand the customer acceptance of mobile banking, this study aims to focus on the role of trust and the impact of technology to use the mobile banking service. There are very limited studies, which focus on the relationship between trust and technology acceptance in the context of mobile banking, which has been studied mostly in an isolated manner (Luarn & Lin, 2005; Chung & Kwon, 2009a, 2009b; Kim et al., 2009; Sripalawat et al., 2011). This paper addresses this gap in the existing literature of mobile banking adoption by studying the role of trust and technology acceptance variables.

BACKGROUND

Mobile Banking

Mobile banking is one of the value- added mobile commerce applications (Lee et al., 2003; Varshney & Veter, 2002). Mobile banking services allow customers to check account balances, transfer funds between accounts and order for electronic bill payments. Mobile banking can be popular due to its always-on functionality and the option to bank virtually any time and anywhere. The mobile phone especially supports the provision of time-critical information, like for trading in stocks or if of the acute need for money transfer or request of account balance. The key players for mobile financial applications include banks and other financial institutions such as credit-card companies, mobile operators and retailers (Mallat et al., 2004) and the customer considers banks as an outstanding trustful service provider compared to other financial institutions (Mallat &Tuunainen, 2008).

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Role of Trust in Acceptance of Mobile Banking

Trust is a central construct for the study of the commercial transactions. Existing research (Gefen, 2000; Gefen et al., 2003; Jarvenpaa et al., 2000; Gefen & Straub, 2003; Pavlou, 2003) has identified that trust plays a major role to attract new customers as well as retaining the existing customers to any business. In mobile banking, the primary interface with the bank is an information technology (IT), a small screen provided by the mobile device.

The Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), is the predominant model in IS research used to study the technology adoption of the end user (Davis, 1989). According to this model, perceived usefulness and perceived ease of use are the two primary determinants of any technology adoption. TAM (Davis, 1989) is derived from the Theory of Reasoned Action (TRA) (Fishbein &Ajzen, 1975) and the Theory of Planned Behavior (TPB) (Ajzen, 1991). This model has five constructs, which are perceived ease of use, perceived usefulness, attitude toward use, intention to use and actual use. Davis defines perceived usefulness as "the degree to which a person believes that using a particular system would enhance the job performance." Perceived ease of use is the extent to which a consumer believes a system is easy to learn or to use. TAM is predictive, robust, and more parsimonious compare to its competitive model which makes its wide popularity in the IS field (Venkatesh & Davis, 2000).The model assumes that usage is volitional, that is, there are no barriers that would prevent an individual from using an IS if he or she chose to do so. As Davis (1989) noted, future technology acceptance research must address how other variables affect usefulness, ease of use and user acceptance. The major criticism of TAM is it did not measure the actual usage behavior rather it relied completely on measures of usage intention (Mathieson, 1991; Davis et al., 1992; Taylor & Todd, 1995). Another drawback of TAM is it provides limited guidance about how to influence usage through to system design. Many researchers have empirically proved that TAM's explanatory power increased by extending the original TAM by adding additional constructs (Gu et al., 2009; Sripalawat et al., 2011; Zhou, 2011; Dasgupta et al., 2011).

The Importance of Trust

Trust is crucial in many of the economic activities that can involve undesirable opportunistic behavior. In the mobile context, most private information is exposed to service providers (e.g., phone calls and SMS) and physical location. Security, privacy and trust have been identified as integral elements for the success of mobile business (Siau & Shen, 2002).

In mobile banking context, a customer interacts with a bank in a wireless environment which is vulnerable to different kind of hostilities. The wireless environment can have the different kind of challenges like violations of privacy, conveying inaccurate information, unauthorized tracking of transactions, and unauthorized use of purchase information (Siau et al., 2001; Gefen & Straub, 2003; Lee, 2005; Lu et al., 2005). To attract new customers to use mobile banking as well as retaining existing customers, trust plays a major role since it involves financial transactions.

To gain customer trust in mobile commerce applications, which uses wireless technology to conduct business transactions, is an intimidating task. There are major problems with wireless networks such as high operation cost, lack of standardized protocols, and data transmitted wirelessly is more vulnerable to eavesdropping (Siau & Shen, 2002). Even though mobile banking technology and applications are available, their international usage rates have remained fairly low (Suoranta