Examining Mobile Banking User Trust: A Tripartite Perspective

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ABSTRACT

Building users’ trust is crucial to alleviating their perceived risk and facilitating their usage of mobile banking. Drawing on a tripartite perspective of transference-based, personality-based and self-perception-based determinants, this research examined mobile banking user trust. Transference-based determinants include structural assurance and online banking trust. Personality-based determinant is trust propensity. Self-perception-based determinants include system quality, information quality and service quality. The results indicated that these three kinds of determinants have significant effects on user trust. Among them, information quality, service quality and structural assurance have relatively larger effects. The results imply that service providers need to consider these three kinds of trust determinants in order to facilitate user trust in mobile banking.

Keywords: Mobile Banking, Online Banking Trust, Structural Assurance, System Quality, Trust

INTRODUCTION

Mobile internet has been developing rapidly in the world. According to a report issued by China Internet Network Information Center (CNNIC) in July 2013, the number of mobile internet users in China has exceeded 464 million, accounting for 78.5% of its internet population (591 million) (CNNIC, 2013). Faced with the great market, service providers have released a variety of mobile services, such as mobile instant messaging, mobile banking and mobile games. Among them, a few services such as mobile instant messaging have received wide adoption among users. In comparison, as a transaction application, mobile banking has been used by a minority of users. For example, only 15.6% of users have ever used mobile banking in China (CNNIC, 2013). In the US, the adoption rate of mobile banking is 21% (PewInternet, 2012). Nevertheless, many banks have launched their mobile banking products. For example, four state-owned banks in China, which include Industrial and Commercial Bank of China (ICBC), Agricultural Bank of China (ABC), Bank of China (BOC) and China Construction Bank (CCB) have provided mobile banking services. The low adoption rate may affect the success of mobile banking. Thus, service providers need to understand the factors affecting user behavior in order to facilitate user adoption and usage of mobile banking.

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Mobile banking means that users adopt mobile devices to access various services, such as checking balance, conducting transference and paying bills. Compared to traditional and online banking, a main advantage of mobile banking is ubiquity. That is, with the help of mobile networks and devices, users have been freed from the temporal and spatial constraints. They can use mobile banking to acquire financial information and services at anytime from anywhere. This provides great convenience to users and may facilitate their usage. However, due to the virtuality and lack of control, mobile banking involves great uncertainty and risk. For example, mobile networks are vulnerable to hacker attack and information interception. Mobile devices may be also infected by viruses and Trojan horses. These problems increase users’ perceived risk of using mobile banking. They need to build trust in order to mitigate perceived risk and facilitate their usage.

Extant research has identified the effect of trust on mobile banking user behavior (Kim et al., 2009; Luo et al., 2010; Lin, 2011). These studies are mainly concerned with the effect of user perceptions such as relative benefits on trust. However, trust is not only affected by self-perceptions that reflect user direct interactions with mobile banking, but also may be transferred from third-parties or affected by trust propensity. McKnight et al. (2002) also suggests that trust propensity and institution-based trust affect trust beliefs. The purpose of this research is to examine mobile banking user trust by integrating three perspectives, which include transference-based, personality-based and self-perception-based determinants. Transference-based determinants include structural assurance and online banking trust, which represent institutional trust and cross-channel trust transference, respectively. Personality-based determinant is trust propensity. Self-perception-based determinants include system quality, information quality and service quality. We expect that our results can provide a more full understanding of mobile banking user trust building.

**LITERATURE REVIEW**

**Mobile Banking User Adoption**

As an emerging service, mobile banking has not been widely adopted by users. Thus, researchers have paid attention to identify the factors affecting user behavior. Information systems theories such as the unified theory of acceptance and use of technology (UTAUT), innovation diffusion theory (IDT) and task technology fit (TTF) are often used as the theoretical bases. Trust has been identified to be a significant factor affecting user adoption. Lin (2011) integrated IDT and trust theory to examine mobile banking user behavior. They found that both innovation attributes such as relative advantage and trust have effects on usage intention. Luo et al. (2010) identified the effects of performance expectancy, trust and perceived risk on the intention to use mobile banking. Kim et al. (2009) found that relative benefits and structural assurance have strong effects on users’ initial trust in mobile banking. Zhou et al. (2010) integrated UTAUT and TTF to examine mobile banking user behavior. Their results indicated that task technology fit has effects on both performance expectancy and usage intention. Shen et al. (2010) adopted a benefit-cost perspective to examine mobile banking user intention. They suggested that the key benefit of mobile banking is convenience and the key cost is security. Chung and Kwon (2009) suggested that system quality and information quality influence user satisfaction with mobile banking.

**Trust**

Trust reflects a willingness to be in vulnerability based on the positive expectation toward another party’s future behavior (Mayer et al., 1995). Trust often includes three dimensions: ability, integrity and benevolence (Benamati et al., 2010). Ability means that service providers have the knowledge and expertise enough to
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