

Summary Journal

“An empirical examination of initial trust in mobile banking”

Background :

Communication technology has triggered the rapid development of mobile commerce. A variety of mobile services such as mobile instant messaging, mobile search and mobile music have been very popular among users. Mobile transaction services such as mobile banking have been adopted by a minority users. Mobile banking means that users adopt mobile terminals to conduct payment such as balance and query, transference and bill payment at anytime from anywhere. This provides great convenience to users because mobile banking frees users from spatial and temporal limitation and enables them to conduct ubiquitous payment.

Problem :

Mobile banking gives advantages to users. However, due to the virtuality and lack of control, mobile banking involves great uncertainty and risk. Users need to build trust in order to adopt and use mobile banking. They need to build initial trust to overcome perceived risk. Initial trust develops when users interact with mobile banking for the first time.

Purpose :

Examine the effect of initial trust on mobile banking users' adoption.

Advantages :

To give critical feedback for mobile service providers. Thus mobile service providers need to highlight improving initial trust in order to facilitate users' adoption and usage of mobile banking.

Theories :

Research has used information technology adoption theories such as technology acceptance model (TAM), innovation diffusion theory (IDT), and the unified theory of acceptance and use of technology (UTAUT) to examine mobile banking behavior. This theory is relevant with this research. This theory talks about acceptances of technology in society. In other hand, it can change human behavior because the theory is similar with research that learns about technology and behavior.

Previous Study Research :

Compared to the abundant research on online trust, there exists less research on mobile trust. Siau and Shen (2003) divided mobile trust into initial trust and continuous trust, both of which are affected by the factors related to mobile vendor and technology. Li and Yeh (2010) noted that design aesthetics affect mobile trust through perceived usefulness, perceived ease of use and customization. Lee (2005) examined the effect of mobile interactivity on user trust. Mobile interactivity includes user control, responsiveness, personalization, connectedness, ubiquitous connectivity and contextual offer. Chandra et al. (2010) reported the effect of trust on user adoption of mobile payment systems.



Research Model and hypotheses :

Hypotheses :

- H1. Information quality positively affects initial trust.
- H2. Information quality positively affects perceived usefulness.
- H3. System quality positively affects initial trust.
- H4. System quality positively affects perceived usefulness.
- H5. Structural assurance positively affects initial trust.
- H6. Trust propensity positively affects initial trust.
- H7. Initial trust positively affects perceived usefulness.
- H8. Initial trust positively affects usage intention.
- H9. Perceived usefulness positively affects usage intention.

Desain Riset/Study:

First, we conducted a confirmatory factor analysis (CFA) to examine the validity. Convergent validity measures whether items can effectively reflect their corresponding factor, whereas discriminant validity measures whether two factors are statistically different. Table I lists the standardized item loadings, average variance extracted (AVE), composite reliability (CR) and Cronbach Alpha values. Most item loadings are larger than 0.7 and t values indicate that all loadings are significant at 0.001. All AVEs exceed 0.5 and all CRs exceed 0.7. Thus the scale has a good convergent validity. All Alpha values are larger than 0.7, showing a good reliability.

To examine the discriminant validity, we compared the square root of AVE with factor correlation coefficients. As listed in Table II, for each factor, the square root of AVE is larger than its correlation coefficients with other factors, showing a good discriminant validity. Second, we employed structural equation modeling (SEM) software LISREL 8.72 to estimate the structural model. The explained variance of initial trust, perceived usefulness and usage intention is 68.7 percent, 55.5 percent and 52.5 percent, respectively. The results indicate that none of the paths is significant at 0.05. In addition, the chi-square difference between the new model and original model is insignificant ($\chi^2(7) = 7.74, p = 0.11$). The increased explained variance of usage intention (from 52.5 percent to 53 percent) is trivial.

Source and Data Collecting Method :

Items of system quality reflect the access speed, ease of use, navigation and appearance of mobile banking. Items of initial trust measure mobile service providers' ability, integrity and benevolence. Items of usage intention reflect users' intention to use and continue using mobile banking. Items of perceived usefulness to reflect the improvement of living and working performance and effectiveness associated with using mobile banking.

We randomly contacted users and enquired of them whether they had mobile banking usage experience. Then we asked those with negative answers to experience mobile banking via the mobile phone provided by us. This was to ensure that it was the first time for them to use mobile banking as we focused on initial trust in this research. These mobile phones had installed mobile banking software developed by a reputable bank. The respondents were asked to use mobile banking for five to ten minutes. They can access various services, such as account balance enquiry, transference and bill payment. Then they were asked to fill the questionnaires based on this initial usage experience.

Result of Research :

The results indicate that structural assurance and information quality are the main factors affecting initial trust, whereas both information quality and system quality affect perceived usefulness. Initial trust affects perceived usefulness and both factors predict usage intention. Thus mobile service providers need to highlight improving initial trust in order to facilitate users' adoption and usage of mobile banking.

Limitation of Research :

This research has the following limitations. First, we collected data in China, where mobile commerce is developing rapidly but still in its early stage. Thus our results need to be generalized to other countries with developed mobile commerce. Second, we did not consider the effect of bank reputation on initial trust. Due to the lack of direct usage experience, users may rely on trust signals such as reputation to build their initial trust in mobile banking.

Sugesstion for Next Research :

Future research can examine this possible effect. Future research can explore the effect of perceived cost on initial trust.

Title of Journal :

Dependability of Mobile Banking Interest and Technology Development in Developing Country.