

Exploring Motivations and Barriers for Mobile Banking Adoption: A Qualitative Approach

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The rapid proliferation of mobile phones and other electronic gadgets has not only changed the way people live, but also created a new channel for marketing. One such new technology is the mobile banking development, which can significantly impact a bank's operational efficiency and customer service aspects. Yet, the adoption of mobile banking in the Asian region has been relatively slow compared to West. One might question, for instance, will mobile banking be as effective as other medium for banking transaction given its limited textual presentation? What do consumers think about mobile banking services? What drives or hinders consumers from adopting mobile banking services? Managerial understanding of such knowledge can aid bank managers, government, and other policy agencies interested in promoting mobile banking usage. This research aims to explore the underlying motives of mobile banking services adoption. Three sessions of focus group interviews were conducted and the results suggest that perceived advantage over other mediums, perceived risk, usage complexity, past experience and awareness are potentially influencing the adoption of mobile banking. Our findings regarding the influence of the number of users adopting the same service is novel as this phenomenon (i.e., network externalities) that borrowed from economics has been largely neglected in the marketing literature. The paper concludes with implications to marketing and promoting mobile banking services.

Field of Research: Banking, Consumer Behavior

1. Introduction

The mobile banking phenomenon, which can significantly impact a bank's operational efficiency, value delivery and customer services, is gaining popularity in developed nations. However, despite its many benefits, the use of mobile phones in banking services is still in its infancy stage especially in the developing nations. Specifically, the usage of mobile phones for banking and payment transactions in Malaysia remained low. While the internet retains its position as the leading medium in electronic banking business, mobile banking subscribers recorded at 1.56 million, accounting for only 4.3% of total mobile phone subscribers in 2011 (Bank Negara Malaysia, 2012). A better understanding of the potential motivators or barriers to mobile banking usage is critical before one could dismiss the value of mobile phone as a medium for banking transaction.

The marketers' job becomes more challenging as consumers become more demanding, less willing to visit traditional branches due to time pressure, inconvenient branch opening hours or places and more receptive to new electronic channels (Lewis, 1991; Polatoglu and Ekin, 2001). This evolving trend has opened a

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new and important area for research. One might question, for instance, will mobile banking be as effective as other medium for banking transaction given its limited textual presentation? What do consumers think about mobile banking services? What drives or hinders consumers from adopting mobile banking services? These salient research questions will be addressed in the present study. An understanding of these issues is the key to designing and execution of effective marketing strategies for mobile banking services.

Past studies relating to mobile banking adoption have relied heavily on quantitative approach and have found little consensus. There is a dearth of published qualitative work on the perceptions of mobile banking adoption, particularly in the context of developing countries in the dynamic Asian region. Among these limited studies using qualitative approach in the region, research relating to mobile banking mainly originated from Korea, China and Taiwan, which are not representative of Asian countries. Given the presumption that factors that drive mobile banking usage among consumers from the developed nations might not necessarily be applicable outside the West, it would be interesting to explore the reasons for the relatively slower diffusion of mobile banking adoption among consumers in the Asian region. The objective of this study is to address an important issue in banking business, that is, how to encourage consumers to adopt mobile banking services. We take a different approach to explore the underlying motives that drive or hinder mobile banking usage using an interpretivist approach.

This paper begins with a review of past literature. The method section delineates the research approach, samples and data collection procedures. This is followed by a description of the findings, discussion and implications of the study. Lastly, a concluding remark will be provided.

2. Literature Review

Following the technological development, mobile phones is permeating almost every aspect of life. The rapid proliferation of mobile phones and other electronic gadgets has not only changed the way people live, but also created a new channel for service delivery, consumption and marketing. The high penetration rate of mobile phones has resulted in the increasing use of handheld devices for marketing purpose. Some sectors even expect that the mobile phones would be the ultimate medium for one-to-one marketing. Particularly, the banking sector is regarded as one of the leading industries in employing mobile technology as means to deliver customer service and value (Laukkanen, 2007).

The introduction of mobile banking services has further improved the development of banking channel by adding more values to the bank customers. With this new service, customers are allowed to perform several transactions via their mobile phone, such as checking account balance, interest rates and the latest transactions of their accounts, to transfer funds between accounts, and to make payments to registered accounts. The emerging of this new banking service has increased the attention mainly from innovation researchers.

Lately, some of the recent studies have focused on mobile banking. (Gu, Lee and Suh, 2009; Kim, Shin and Lee, 2009; Shih, Hung and Lin, 2010; Zhou, 2012).

Previous studies indicate that factors contributing to the adoption of mobile banking are related to self-efficacy and cost (Luarn and Lin, 2005), trust and service quality (Zhou, 2012), usefulness and ease of use (Gu et al., 2009). While Laukkanen and Lauronen (2005) suggest that mobile banking offers customers additional value in terms of location-free access, the limitations in mobile device features have caused consumer resistance to adopt mobile banking services (Siau, Sheng, Nah and Davis, 2004).

Since the diffusion rates of mobile technology for banking transactions among Malaysian consumers remained slow, it seems to be some forms of barriers that hinder the diffusion of mobile banking applications. Past empirical findings in this line of research are mixed. For instance, while factors such as perceived risk (Brown, Cajee, Davies and Stroebel, 2003) and perceived complexity (Laukkanen and Lauronen, 2005) are found to inhibit the adoption of mobile banking; Akturan and Tezcan (2010) report that perceived complexity does not contribute to the prediction of mobile banking adoption. Clearly, this inconclusive finding in the literature warrants further research to look into the facilitators and barriers to mobile banking adoption.

An understanding of the factors that influence consumers' decision-making and evaluation of mobile banking services is essential to building competitive edge particularly in this increasingly competitive banking industry. Managerial understanding of such knowledge can aid bank managers, government, and other policy agencies interested in promoting mobile banking usage. Gummesson (2005) argues that "... quantitative methods cannot achieve scientific excellence without a clear awareness of their qualitative dependency ... (p. 310). We acknowledged that consumer behaviour and marketing decisions are not merely relied on analyses of empirical data; hence, a qualitative approach is adopted to address the research questions posed in this study. We consider the nature of this study to be exploratory and, consequently, did not propose any priori hypotheses. However, we do expect to identify several salient factors that possibly motivates (or inhibit) the mobile banking adoption.

3. Research Method

A qualitative approach was adopted given the purpose of this study is to gain in-depth understanding of the factors influencing the adoption of mobile banking as opposed to seeking generalisation to the population (Strauss and Corbin, 1998). It is expected that this interpretivist approach would provide preliminary insights to the understanding of mobile banking adoption; and consequently, contribute to generating interesting avenues for future research.

Data for this investigation was gathered through focus group interviews for a number of reasons. First, this method is socially oriented, and the data collected through social interaction is often deeper and richer (Thomas, MacMillan, McColl et al., 1995). Second, the free flow of discussion among the participants in a more relaxed atmosphere could stimulate the expression of differing opinions and points of view (Marshall and Rossman, 2006). Third, focus group interview allows the researcher to discover deeper insights regarding the underlying motives that guide a person's behaviour, which might be largely neglected in the literature. Lastly, previous

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research has demonstrated the feasibility of focus group discussion in studying innovative technology adoption (Jarvenpaa and Lang, 2005).

Respondents must have owned a mobile phone and maintain at least a regular bank account to be qualified for participation in the focus group discussion. Three sessions of focus group interviews were conducted for this study. The first group of respondents comprised of three males and three females. They are currently the active mobile banking users. The second group of respondents consisted of five males and one female who are non-mobile banking users. While all of them own smart phone and bank account, they are not interested in subscribing this service now or even in the near future. The third group of subjects composed of eight respondents. Among these participants, two of them have experienced using mobile banking service. Another five participants are current online banking users, and the remaining one participant used neither online banking nor mobile banking. In terms of age, the present sample reflects the fact that the majority of mobile phone users in Malaysia are the young adults aged between 20 and 29 years (Malaysian Communications and Multimedia Commission, 2009).

Each focus group interview lasted for about 90 minutes. The interviews were recorded with prior permission from the participants. Prior to the actual field work, a small interview with two university staffs was conducted as a pre-test to check that the questions contained in the interview guide could be easily understood. After confirming the qualified respondents, a verbal consent was then obtained from the participants before proceeding to the interview. An explanatory letter was distributed to willing and qualified participants. The main contents of the explanatory letter were about the purposes of the study and instructions for the interview. All participants were informed that their participation in this study was voluntary and without any obligations, and that all information provided will be kept confidential.

The interviews were semi-structured with a set of interview topics. Respondents were encouraged to express their own viewpoints that may arise in the interview. The interviewer started the interview with an introduction to the purpose and agenda of the research. The rights of the respondents, confidentiality issues as well as the reasons for the audio taping of the session were highlighted. For warm-up questions, the respondents were asked to introduce their own backgrounds such as hobbies, general interest, schedule, and lifestyle. Attempts to engage in small talk continued until the researcher could sense that the respondents were in a more relaxed mood. Thereafter, the moderator started the discussion by asking them questions.

In particular, the respondents in the first group were asked to describe their experience in using mobile banking services, for example, what aspect do they like (or dislike) about using this service. Respondents were also probed to express their feelings and intention to continue using the service. Lastly, discussion relating to the reasons for using mobile banking services was covered. In the second group where none of the respondents uses mobile banking service, they were asked to express their feelings about using mobile banking and the reasons why they avoid using mobile banking. In the third group, since there are both mobile banking users and non-mobile banking users, the participants could exchange their views about mobile banking with each other and thus stimulate the discussion and allow salient points to arise.

4. The Findings

Key issues mentioned from the interview are summarized in the following section.

4.1 Perceived Relative Advantage

In the opinion of those interviewees, the relative advantages of mobile banking included the independence of time and place. Mobile banking service was considered advantageous compared to other banking channels such as ATM and branch because people carry mobile phones with them most of the time and the mobile banking service is therefore conveniently available in most situations:

“I prefer to use mobile banking than other banking channels like e-banking because it is so convenient to use mobile phone compared to laptop or computer which you need more time to start the program, go online.....” (Respondent No.1, Group 1)

Another interviewee pointed that mobile banking is suitable for busy businessmen who always travel and time is critical to them.

“I think it depends on the person as well. I mean like businessman they always find way to do things faster, and they may travel quite a lot, so they will learn how to use the mobile banking....” (Respondent No. 6, Group 3)

Nevertheless, the limited functionality of mobile banking has inhibited consumers from adopting this service. Among the limitations, small displays, keypads, limited transmission speed and memory, and short battery have diminished the usability and user-friendliness of this mobile technology. During the focus group discussion, half of the interviewees mentioned about the features of mobile banking service. They suggested that this service should include certain features such as providing full statement, notification and alert message. The following quote from one interviewee represent this view:

“For internet banking you can click many tabs and do something at the same time while waiting but for phone you cannot.” (Respondent No.2, Group 3)

4.2 Perceived Complexity

The results also suggested that customers expect the mobile banking to be easy to use. This is congruent with past research that found ease of use and convenience to have influence on consumer adoption of electronic banking services such as Internet payments (Shon and Swatman, 1998). One interviewee believes that the complexity of mobile banking services frequently emerged as a barrier to adoption. The following statement highlights this issue:

“For laptop you are so used to typing, you can just type faster on account number but for mobile phone you have to press the button one by one and if you reset the whole thing you have to start from beginning again.” (Respondent No.4, Group 3)

Furthermore, in order to subscribe for mobile banking service, the users have to maintain an online banking account as well. Maintaining active status of the service

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itself is not an easy job. If the mobile banking subscribers do not access the system for a specified period, the access to the system would be prohibited. Following this, the subscribers would have to take a several further steps to reactivate the service. One participant has discontinued her online banking subscription and resisted to accept mobile banking again. The following quote describes her unpleasant experience about using online banking:

“..... another thing about online banking is that they always reset the password if you don't log in about 1 month. It is very troublesome and then you have to go back to the bank and need to reset the password and need to go to the ATM again to key in some things. So it's troublesome and sometimes I just let my online account die and leave it until I need to use it. But the thing is, without password also you can't use mobile banking because they share the same password. I really don't like it.”
(Respondent No. 4, Group 3)

Another participant also expressed his view on the complexity of using mobile banking:

“Although I am using smart phone, I hardly surf net via mobile phone. To me, it is quite complicated to set up an account or application for mobile banking.....”
(Respondent No. 5, Group 2)

In sum, the focus group interview revealed that ease of use represents a factor that enhances the adoption of mobile banking, whereas complexity of the usage and subscription maintenance has inhibited the adoption of mobile banking service.

4.3 Perceived Risk

The causes of perceived risk described by the interviewees included unauthorized use of mobile phone, lack of transaction record and confirmation statement, and irrecoverable consequences resulting from making mistakes. Half of the interviewees are concerned about the unauthorized use of their mobile phones. For instance, they worried that if they lost their mobile phones, or their phones have been hacked, other people might use their mobile phones to make payments through their mobile banking service. The following statements illustrate this point:

“If you lost your hand phone and if someone know your pin, then they can just use it to make payment.” (Respondent No. 5, Group 2)

“People can hack the password and things like that.” (Respondent No. 1, Group 3)

Besides, lack of transaction record and confirmation statement to prove that the banking transaction has been completed was viewed to be risky too. Most interviewees mentioned that they do not feel comfortable without having a proper documentation for their banking transactions. For instance, the following respondents mentioned that:

“I still prefer to do banking transactions through branch counter because I can sign on the hard copy of the bank slip and this makes me feel more secured.”
(Respondent No.5, Group 2)

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“One thing I don’t like is it doesn’t show the specific statements like from who I receive the money from and specific details like that. After I transferred money also no receipt to prove that.” (Respondent No.3, Group 3)

Respondents also worried about self-making mistakes (e.g., keying in wrong transaction code/ number). This response is consistent with the findings of prior study on the security issues related to mobile banking service transactions such as data input and output mechanism (Laukkanen and Lauronen, 2005). In addition, it was also mentioned in the interview that the respondents are afraid of making mistakes that might lead to irrecoverable consequence, which ultimately lead to an increase in financial risk (Kuisma, Laukkanen, Hiltunen, 2007). The following statement supports the perceived financial risk associated with use of mobile banking services:

“...I am not used to this type of banking service (i.e. mobile banking). I will be so worried if I accidentally press the wrong button and then accidentally make payment to the wrong account, then it would be a hassle. (Respondent No. 4, Group 2)

It can be concluded that perceived risk towards mobile banking has a role in influencing the adoption of the mobile banking application.

4.4 Past Experience

Additionally, the past experience has an influence on consumers’ perception about the usefulness of the service. This finding is aligned with the previous study (Wang, Harris, & Patterson, 2012) on the adoption of self-service technology. In particular, a pleasant experience of using mobile banking will motivate user to continue using it for the same purpose:

“I always buy movie tickets through mobile banking. It is so simple. After I bought the tickets, I don’t have to collect the tickets over the cinema counter but just need to show my mobile phone screen (on confirmation of purchase) to the staff there before entering the cinema theater” (Respondent No. 4, Group 1)

However, unpleasant experience may hinder people from using the service again. One interviewee expressed his uncertainty regarding whether or not the payment has been made or charged by the vendor. The following quote demonstrates his unpleasant experience that resulted in a single product to be purchased twice:

“After I keyed in all the information and enter and it was in loading mode for about half an hour so I refreshed. When I refreshed, I go back and keyed in again. So when I called Air Airasia, I had booked two tickets.” (Respondent No.1, Group 3)

It indicated that past experience of the users of mobile banking can influence their decision whether or not to continue or discontinue using the particular service.

4.5 Network Externalities

Many respondents agree that the number of users using the same service has an influence on their intention to adopt mobile banking service. Particularly, one

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interviewee feels that if many people are using mobile banking services, she would be more willing to try it out. This respondent further explained that she feels more secured to use the service if more people using it, as shown in the following statement:

“..... like when more people used it, I know that it is tested already. So I will feel more secured.” (Respondent No. 2, Group 3)

Besides, the interviewees generally feel that the availability of complementary service in mobile banking might influence the consumers' adoption intention to use this service. That is, the more types of banking transactions can be performed via mobile banking, the more likely the consumers will use this service. For instance, the interviewees mentioned that:

“I like to use mobile banking because I found that there are more and more types of payment can be done through it” (Respondent No.3, Group 1)

“If transferring fund is the only function, then not many people will use it because it doesn't create more value.....” (Respondent No. 5, Group 3)

It can be seen that users expect mobile banking to provide more complementary services such as paying for movie tickets and withdrawing cash. Also, the perception of the number of users using the same service may potentially reduce the perceived risk associated with the service, which in turn increase the likelihood of adoption. It is worth noting that the number of users and the availability of complementary service are two important concepts captured in the network externalities theory, which originated from the economic field (Katz & Shapiro, 1985).

4.6 Awareness and Knowledge

A number of respondents feel that low awareness of mobile banking services can influence their intention to adopt this service. In addition, lack of knowledge about mobile technology and/or mobile banking especially information related to the applications discourage them from trying the service. One participant mentions that Malaysians are generally not familiar with mobile banking service, and that probably is one of the reasons contribute to low adoption rate at the moment. The following quote represents this view:

“The awareness is very low ...because it is very new to the banks as well because when they are launching it, the people don't know and not very open to it yet.” (Respondent No. 6, Group 3)

“ ... I think those older people would not like to use mobile banking. My mother said she doesn't know what is mobile banking and how to use this service. So, she definitely won't use mobile banking...” (Respondent No. 5, Group 1)

5. Discussions and Implications

The central focus of this paper was to provide a preliminary understanding on the underlying reasons that motivate or hinder the adoption of mobile banking. Overall,

the results suggest that perceived relative advantages, complexity of usage, perceived risk, past experience, awareness and knowledge are salient factors in determining users' mobile banking adoption. The finding regarding the influence of the number of users adopting the same service (a concept captured in the network externalities theory) is novel as this phenomenon that borrowed from economics has been largely neglected in the marketing literature. The contribution of the paper lies in providing guidance to the development of a promising framework in examining mobile banking adoption behavior. It expands the literature on electronic commerce especially.

The finding that perceived relative advantages and perceived complexity exert influence on mobile banking adoption highlights the importance of innovation characteristics to bank managers who are involved in the design and development of mobile banking services. For instance, marketers may design strategy to strengthen the advantages associated with the use of mobile banking such as providing convenient and location-free access, upgrade the mobile banking features (e.g., banking transaction reminder via short message service). Furthermore, bank managers need to consider making their mobile banking services more user-friendly. For instance, the design and interface of the mobile banking application could be created to look similar to other features in mobile phones, making it easier for phone users to explore this new technology. Besides, the procedure of subscribing this service and getting technical support may be simplified to ease the usage.

The finding that the users adopted mobile banking they believe many others have adopted the same service is novel and should be explored further. Similarly, when the potential adopters perceive more types of banking transactions available in this service, they would be more willing to try it. Therefore, bank managers may reflect this network externalities effect in their promotional effort by providing information about the current number of users, the forecast of future mobile banking users, the types of transactions available in the existing system, and the planned additional transactions and system upgrades in the near future. This information may stimulate favorable perceptions toward this service among consumers.

The result indicates that perceived risk, past experience and lack of awareness and knowledge also entail an essential obstacle to adopting mobile banking. Consumers are generally worried about the security and potential financial loss pertaining to this service. Banks may consider enhancing the security of the supporting system, and educating consumers on the safety of using this service and how to avoid unpleasant outcomes. Pertaining to the influence of past experience, banks may consider to provide quality service supports to the customers to increase their satisfaction of using this service. Last but not least, a good consumer education program plays an important role since the level of awareness and knowledge about mobile banking among Malaysians is low. Effective promotional campaigns with persuasive communication messages that aim at stimulating the usage would be needed.

6. Conclusion

In conclusion, the present study provides the initial foundation towards building a promising theoretical framework which is needed to assess mobile banking adoption behavior. As in all studies, our investigation has its limitations. We focus on a

specific banking service context. Hence, the findings are not generalisable through statistics (as in the case of the traditional quantitative approach). Instead, we argue for theoretical generalization of our observation of mobile banking adoption as opposed to population generalization. The present findings of qualitative study, being more depth than wide in nature, deserve to be quantitatively examined in future studies in order to provide more generalisable results.

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