

# The Future of Mobile Banking Opportunities and Challenges

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**Abstract:** For banks, digitalization and the development of mobile technology present a number of opportunities as well as obstacles. This study looks at how Indian consumers and non-users of mobile banking use the technology and highlights the potential and problems that come with it. Performance expectations, effort expectations, social influence, enabling conditions, behavioral intention, and trust in the face of obstacles like perceived danger are all evaluated in this work. The article covers both possibilities and difficulties. According to the report, young, educated women who work for private sector banks are big users of mobile banking services. According to the ANOVA result, there is a substantial difference between users and non-users. Among non-users, Ease of Use (Effort Expectations) is somewhat but significantly lower. Among non-users, Ease of Use (Effort Expectations) is somewhat but significantly lower. The two biggest obstacles to the adoption of MB services are perceived risk and lack of trust. When customers see that MB services are simple, they start to accept them more. Banks ought to prioritize making MB services easy to use and communicating the relative advantages of utilizing them. It is a big effort as well as an opportunity to increase knowledge of the advantages and simplicity of usage. There will be more opportunities for adoption if peer pressure and lower-end phones with MB services are offered. The findings of this study have important implications for banks, financial organizations, and providers of wireless telecommunication services.

**Keywords:** banks, digitalization.

## I. INTRODUCTION

Due to the quick advancements in digitalization, mobile technology, and devices, the banking sector has grown significantly and can now offer services anytime, anywhere. The desire for mobile banking has increased due to the availability of smartphones, but there are drawbacks as well, chief among them privacy and security issues. Security issues mean that despite technological developments, people remain the weakest link (Tam et al. 2010). The banking sector has a lot of potential for revenue, thus banks and mobile service providers have been trying to better understand customer concerns about the use of mobile banking. Furthermore, the literature suggests that users will not want to change their present, comfortable methods of doing things unless their specific demand is satisfied. Prior studies have discovered that clients' The process of adopting new technologies is complicated and calls for several models depending on the specifics of the product. They are able to recognize the advantages and difficulties of adopting new technology, in this case mobile banking, by applying this to the field. There are less empirical research on mobile banking services, despite the fact that they are being utilized for banking applications more and more. The vast majority of recent studies have been conducted in developed countries. Our knowledge of this topic is therefore context-dependent, restricting our comprehension of human behavioral phenomena to studies conducted in industrialized nations. The fundamental motives for this study are twofold: first, despite the increased availability of mobile banking services, they have not been utilised as widely as anticipated. By examining the adoption behaviours of users and non-users, this research identifies opportunities and challenges to mobile banking service adoption

### 1.1 The study's objective

- By illuminating the behavioral features of mobile banking usage, this study hopes to contribute to the body of knowledge on mobile banking.

- This research aims to investigate the traits and perspectives of both mobile banking (MB) users and nonusers in India, the country that has been recognized as the largest. To be more precise, this study has three goals in mind:
- To offer perceptions regarding the demographic traits of MB users and non-users.
- Allows to contrast the opinions of MB users and nonusers regarding a specified group of variables. Check to learn about the advantages and disadvantages of using mobile banking services

### **1.2 Unified Theory of Technology Acceptance and Use (UTAUT)**

Viswanath & Associates (2003) The UTAUT was created by Viswanath et al. (2003) in order to gain a deeper understanding of user acceptability and technology use. The hypothesis has been established by the application of the Diffusion of Innovation hypothesis, the Social Cognitive Theory, and the Theory of Planned Behavior. Below is a description of each of the original UTAUT's four main structures.

While enabling variables directly affect behavioral intention and behavior usage, performance expectancy, effort expectancy, and social influence all have an impact on behavioral intention (Viswanath et al., 2003). Since there is a significant discrepancy between intention and actual use, the UTAUT paradigm looks beyond intention to understand actual use (Martins et al., 2014).

## **II. LITERATURE REVIEW**

### **2.1 Behavioural intention (BI)**

Behavioural intention is the probability that users will carry out a specific action (Ajzen, 1991). Greater behavioral intention for a technology could lead to increased use of it. Several studies in the previous literature on technology adoption found a positive correlation between behavioral intention and actual use. Amirtha et al. claim that behavioral intention has a positive influence on use behavior (2021). In fact, there is a big difference between how someone intends to utilize technology and how they really use it, according to Venkatesh et al. (2012). Therefore, it is essential to comprehend the relationship between behavioral intention and actual usage behavior. It's crucial to look into the relationship between behavioral intention and actual use behavior because the goal of this study is to go beyond earlier studies and identify antecedents to actual MB service use.

In light of the study's objectives and earlier theoretical discoveries, we postulate that:

Hypothesis H1: There exist difference in behavioural intention between users and nonusers of Mobile banking services.

### **2.2 Performance expectancy (PE)**

Performance expectation refers to the extent to which a technology benefits users when they do specific tasks (Venkatesh et al., 2012). While MB provides benefits like as convenience, 24/7 access to financial services, and shorter transaction times (Demirgüç-Kunt et al., 2017), its performance potential as a business prospect has not been completely explored in study. As a result, it is vital to ascertain whether employees view performance expectations as an opportunity or a constraint. As a result of this, the study advances the following hypothesis:

Hypothesis H2. Performance expectancy among users and non-users are not different on Mobile Banking services.

### **2.3 Effort expectancy (EE)**

Effort expectation is a measure of how easy it is for people to use a technology (Venkatesh et al., 2012). Effort expectancy measures how difficult or simple it is to utilise a given piece of technology. Consider people's ability to use it as an opportunity, rather than a challenge, while designing the system. Chauhan, (2015); Liébana-Cabanillas et al., (2019); Viswanath et al., (2003). Consequently, it is imperative to determine the relationship's future. As a result, the following theory is proposed:

Hypothesis H3. Effort expectancy are not different among users and non-users of Mobile banking services

### **2.4 Social influence (SI)**

How much a user is influenced by others, such as family and friends, when deciding to utilise a technology is known as "social influence" (Venkatesh et al., 2012). It is not uncommon for technology users to be influenced by the opinions of

their social networks. Because of the power they hold, influential people can have a significant impact on the opinions of others. As pointed out by Oliveira et al., (2016) Abbas et al., (2018); Alalwan et al., (2018); Laukkanen, (2016); Patil et al., (2020) in their studies on technology adoption, social impact can have a substantial effect on the adoption of an innovation. Social influence in the context of MB services is concerned with whether or not the perception of close associates influences users' decisions about whether or not to use the technology. Accordingly, this study offers that:

Hypothesis H4. Social influences are not different among users and non-users of Mobile banking services

### **2.5 Facilitating conditions (FC)**

Facilitating conditions are defined as a customer's perception of available support and resources when using a technology " (Venkatesh et al., 2012). Convenient conditions can either be an opportunity to use MB services or a hindrance to doing so. As a result of the availability of facilitating conditions, increased interest in and subsequent use of MB services may occur. Globally mobile phone penetration is increasing, which is a necessary enabler for the use of MB services. Previous research has found that facilitating conditions have a positive influence on technology use intention. Following previous research, this study proposes that the availability of facilitating conditions such as digital devices such as mobile phones, access to mobile network services, and other people's support will lead to increased intention and use of MB services. As a result, the following research hypotheses is framed:

Hypothesis H5. There is exist difference in the facilitating conditions for mobile banking services between users and non-users.

### **2.6 Trust (TR)**

According to Plank et al. (1999), service trust is a belief in the service's ability to meet consumer expectations. The biggest problem is that because of the virtual nature of MB services , there are inherent trust concerns. As a result of the tendency to lose money, a considerable percentage of consumers still refuse to use mobile banking services because of service trust difficulties (Grohmann et al., 2018). On this premise, the following hypotheses are put forth:

Hypothesis H6. Mobile banking users and nonusers have differing levels of trust in the service.

### **2.7 Perceived risk (PR)**

Perceived risk refers to the perception of losses associated with the use of a technology (Featherman & Pavlou, 2003). Most technologies have inherent risks due to the virtual nature of interactions (Ariff et al., 2014). Similarly, when using MB services, there is an inherent risk of losing financial assets. As a result, users are sceptical of utilising MB services. In the digital environment, the cost of perceived risk includes many factors such as privacy, financial, time, and opportunity cost (Featherman & Pavlou, 2003). Given that people's trust in a technology and its providers is influenced by perceived risk, understanding the underlying mechanisms of these relationships is critical. As a result, in this study, the following hypothesis is proposed:

Hypothesis H6. The Perceived risk differs between users and non-users of mobile banking services.

## **III. RESEARCH METHODOLOGY**

### **3.1 Design of the Research**

This study's exploratory, empirical, and descriptive research design makes use of a descriptive methodology.

### **3.2. Creation of a tool for surveys**

Based on a review of the literature, a survey instrument has been developed for this investigation. A two-part questionnaire that participants self-administer is used for the survey. There is the initial part of the questionnaire that asks for demographic information. In order to identify if respondents are MB users or non-users, a dichotomous query has asked. The use of the same questions on MB users and non-users has been previously supported by research (Lin, 2011). Data on factors that influence MB adoption, such as performance expectancy (PE), effort expectancy (EE), social influence, facilitating conditions (FC) and trust (TR), have been collected in the second section of the instrument. Every response is given a Likert scale value from 1 to 5, with 1 being "strongly disagree" and five (5) being "strongly agree". Finally, 20 randomly chosen participants are used to conduct a preliminary evaluation of the instrument. Clear

and valid survey instruments are ensured by this procedure. As a result of feedback, three items have been reworded in order to clarify their meaning

### 3.3. Data Collection

To generalise, sufficient data representative of the population has been collected, and an approach consistent with the research methodology has been chosen. Convenience sampling is being used. This method has been chosen for two reasons: one, to generalise from a sample, and two, to save time. It enables the quick and easy evaluation of various aspects of a population at a single point of contact. There have been 100 responses

## IV. DATA ANALYSIS AND RESULTS

The data is analysed using descriptive and ANOVA methods. Section 4.1 presents the findings of a descriptive attributes respondents' demographic characteristics. Sections 4.2 and 4.3 show the results of the ANOVA analysis. SPSS vr.26 software is used for the analysis

### 4.1 Demographics in usage of MB

Table 1 summarises the demographic features of MB users and non-users. To ascertain the demographic differences between users and non-users of MB. In terms of gender, a greater proportion of males than females are non-users of MB. Significant differences in age groups also exist between users and non-users. Respondents in the younger age group (73.3 percent are between the ages of 18 and 25) are more likely to be users than those in the older age group (85.7 percent are of above 55 yrs). Additionally, education, occupation, monthly income, and bank choice are different between users and non-users.

Table 1 presents a comparison of demographic variables between mobile banking users and non-users. Total User N Percent N Percent Non-User

#### 1. Age Category

18 to 25 years old 15 11 73.3 4 26.7 26–35 Years Old 21 13 61.9 8 38.1 36–45 Years Old 31 18 58.1 13 41.9

45 to 55 years old 26 14 53.8 12 46.2 Over the Age of 55 7 1 14.3 6 85.7

2. Gender: Female 41 24 58.5 17 41.5; Male 59 33 55.9 26 44.1

3. Educational Background: Higher Secondary 4 1 25.0 3 75.0 Graduate 31 21 67.7 10 32.3 Post Graduate 41 20 48.8 21 51.2 Professional 24 15 62.5 9 37.5

4. Employment Status: Public servant 5 3 60.0 2 40.0

### 4.2. Users and non-users' comparisons

The dependability of constructs groups has been determined. Table 2 summarises the number of items, the mean, the standard deviation, and the reliability values. As illustrated in Table 2, the Cronbach's coefficients for all seven dimensions are significantly greater than the minimum value of 0.7 (Nunnally, 1975). As a result, we may confidently infer that the constructions are dependable and move on to the next stage of analysis.

Table 2. Mean, Standard Deviation and Cronbach's Alpha Reliability. Dimension No. of Items M SD Alpha Behavioural intention (BI) 3 12.42 2.332 0.850 Performance expectancy (PE) 3 15.83 2.005 0.841 Effort expectancy (EE) 4 19.57 2.563 0.743 Social influence (SI) 3 13.08 1.921 0.762 Facilitating conditions (FC) 3 15.23 2.155 0.814 Trust (TR) 3 12.04 2.382 0.920 Perceived risk (PR) 4 14.11 3.293 0.910 Source: Computed from Primary Data Note: Means scores based on a five-point scale, where 5 = strongly agree, 4= agree, 3 = neutral, 2 = disagree and 1 = strongly disagree. M denotes Mean and SD –Standard Deviation.

### 4.3. Comparison Between Users and Non-Users of Mobile Banking

In Table 3, users and non-users of MB describe their experiences with the various dimensions. On a five-point scale, statements are rated from 1 (strongly disagree) to 5 (strongly agree). ANOVA results show no significant changes in the BI dimension, which is a measure of behavioural intention. All other dimensions are considerably affected. The generally consistent response by users and non-users implies that while the behavioural intention is recognised by all users, it does not make a significant difference on intention to use decision

The complexity dimension has been quantified, and six (6) of the seven (7) dimensions have been identified. ANOVA result demonstrates a significant difference between users and nonusers. With regards to Performance expectancy (PE), the H2, is accepted ( $F = 483.581$ ,  $P < 0.05$ ) This finding is supported by past studies which suggest that previous experience with computer and new technology will have an effect on MB (Chauhan, 2015; Liébana-Cabanillas et al., 2019; Sundararaj & Meera, 2022; Viswanath et al., 2003). Banks must encourage customers to try this new technology to convert the non-users to adopt MB. It is also interesting to see that users of MB tend to exhibit an easy diffusion of innovation With regards to Social Influence (SI) dimension, the hypothesis is accepted innovation.

## V. DISCUSSION – OPPORTUNITIES AND CHALLENGES

This paper intends to identify the opportunities and challenges on the adoption of Mobile banking services. The study has found that young, female educated private sector respondents are users of Mobile banking services than aged male and private sectors employees are non-users. Furthermore, irrespectively users and non-users does have similar intention to adopt MB services. This clearly indicates that bankers have opportunity to spread its wing across all demographic population. In respect of performance expectancy, the non-users have low level of awareness about benefits of adopting MB services. Therefore, it is a challenge as well as opportunity to create awareness about the MB to the non-users. Ease of Use (Effort expectancy) is marginally but significantly lower among non-users. In order to create confidence and facilitate use, more demonstrations via live or videos and FAQ may overcome this obstacle among non-users. By using peer-group pressure and offering MB services even lower end handsets will create greater opportunity for the adoption of Mobile Banking services. The most important challenge in the adoption of MB services are trust and perceived risk and are interrelated. That can be overcome by creating trust among user through peer-groups and users. Perceived risk, as a challenge, can be overridden by creating trust like creating awareness about protective mechanism and safeguards on using Mobile banking services.

## VI. CONCLUSION

The purpose of this study has been to identify the target customers, the demographic features of MB users and non-users, and their adoption behaviour toward MB to find opportunities and challenges in the adoption of MB services. Interm of demographic variables, the current study's conclusions received mixed support from earlier research. MB is typically more popular among teens. Comparing users and non-users of MB reveals that six of the seven dimensions have an effect on MB adoption. Performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), trust (TR), and perceived risk are identified as the most influential elements influencing consumers' decision to use or not to use MB.

Additionally, the findings indicated that respondents place a premium on relative advantage and simplicity of use when making an adoption decision. As a result, raising awareness of the benefits and ease of usage is both a significant task and an opportunity. Users who have a favourable opinion of the perceived benefits of MB have been MB users. Customers become more receptive to using them when they discover a lack of complexity. As a result, banks should place a premium on conveying the relative benefits of using MB services and on providing user-friendly MB services. Another factor affecting MB uptake is favourable conditions and compatibility. This means that users will utilise MB if it fits their lifestyle and interests.

This suggests that banks should take into account the compatibility of MB with an individual's income level, lifestyle, and preferences. MB is still in its infancy, but it has immense promise. This study's conclusions have significant ramifications for banks, financial institutions, and wireless telecommunications service providers. This study provides significant data for banks in terms of identifying opportunities and gaining a better knowledge of the main issues and obstacles associated with MB adoption. While conducting this research, a few limitations are recognised and acknowledged. Due to the small sample size, caution should be exercised when generalising the conclusions of this study. Longitudinal studies are advised to study the influences across time and create comparisons, so gaining a better understanding of MB uptake. References 1. Abbas, S. K., Hassan, H. A., Asif, J.,



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