

Digital Financial Inclusion: A study on India

^{1*} Mr.Prafulla Kumar Dwibedi, ²Miss. Puja Mohanty

¹Asst. Professor, Dept. of MBA, NIT BBSR,

Asst. Professor, Dept. of MBA, IMIS, BBSR

1*prafullakumar@thenalanda.com , pujamohanty@yahoo.com

Abstract:

An effective financial system is necessary for the socioeconomic development of a nation. It serves as a foundation for mobilising savings and distributing them to useful resources. The Government of India and the Reserve Bank of India have implemented a variety of policy efforts to bring the vast unbanked masses into the financial mainstream after realising the importance of financial inclusion as a catalyst for inclusive growth. Current advancements in communication technology can be used extremely effectively to include the financially excluded individuals in digital financial inclusion in a way that is both efficient and affordable. For inclusive economic development, digital financial services have a lot of potential to boost financial inclusion.

Keywords: Financial Inclusion, Digitization, Mobile Banking, Inclusive development.

Introduction

More than half of India's population is thought to be financially excluded or underserved, making it the country with the second-largest percentage of unbanked people in the world (World Bank, 2017). Indian culture discourages taking risks; hence banks are crucial financial institutions that guard the people from cash-related risks. The banking industry was able to replace physical currency with a flexible, cost-effective payment system because to technological innovation. The entirety of the banking industry has altered as a result of new and quickly expanding technologies in banks and financial institutions. The foundation of any nation's economic development is its digital finance sector. Mobile banking and mobile money are two new concepts that turn mass-produced services into specialized ones. This leads to the emergence of digital financial inclusion, which encourages effective connectivity among those involved in economic activity. When a poor, previously unbanked customer begins transacting digitally with his or her family and friends, formal banking and financial institutions, and utility companies, and receives government to person (G2P) payments directly into his or her bank account, this is referred to as digital financial inclusion. According to the Global Findex Database from 2017, around 1.7 billion adults worldwide do not have a bank account, meaning they cannot access mobile banking or mobile money services. Figure 1 shows that China has the most unbanked people in the world, followed by India (190 million), Pakistan (100 million), and Indonesia (100 million) (95 million). In addition to these four nations, there are unbanked citizens in Nigeria, Mexico, and Bangladesh, albeit their numbers are less numerous than in China, India, Pakistan, and Indonesia (Global Findex Database, 2017). Figure 2 shows that, among adults, 44% of men

and 56% of women lack bank accounts, with women being the most likely gender to lack an account (Global Findex Database, 2017).

Literature Review

Various number of previous studies has been done to understand the individual behavior towards adoption of mobile banking as a technological invention. Maximum number of researchers has come across different types of models to identify behaviour intention of customers towards adoption of mobile banking services by suggesting some factors or attributes that could affect an individual's decisions to adopt mobile banking services. Here various models and frameworks like Technology acceptance model (TAM) (Davis, Bagozzi and Warshaw, 1989), Innovation diffusion theory (IDT) (Rogers, 1995), Theory of planned behaviour (TPB) (Ajzen, 1991), Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. in 2003), Self-developed model (SDM) (Sultan, Al-Baltah, & Abdulrazzak, 2017). All of these models are very helpful in determining the adoption intention of customers toward mobile banking services. Rogers define most popular theory of innovation is Innovation Diffusion Theory that have tried to explain various factors that affect an individual behavior to adopt an innovation or a technology. Innovation Diffusion Theory is a theory that try to find out what, how and why new ideas, innovation and technology spread over beliefs and cultures. Theory identified several attributes or traits of an innovation that are significantly influences on adoption behavior of individuals. Conferring to Rogers, these attributes or factors are:

Relative advantage

Relative advantage refers to the degree to which an innovation is perceived as providing more benefits than its predecessor (Moore & Benbasat 1991). It effects in increased efficiency, enhanced status and economic benefits (Rogers 2003). Previous study has found that relative advantage of an innovation is positively significant related to the rate of adoption (Moore & Benbasat 1991). Study proposes that when user identifies relative advantage of an innovative technology over an old one, they have a tendency to adopt and uses of technology (Rogers 2003). In the perspective of mobile banking adoption, customers have stated various benefits such as convenience, affordability and immediacy (Lin 2011) as well as they are more likely to adopt it.

Complexity

Cheung et al. (2000) defined complexity as the extent to which an innovation can be considered relatively difficult to understand and use. Study reveals that complexity is a factor which negatively influences the adoption of internet usage. Complexity is the opposite of ease of use and it is a major factor in adoption of mobile banking. There is extensive amount of empirical study on the mobile technology to suggest that consumers' intention to adopt mobile banking is reserved by the perceived complexity of the innovation (Au & Kauffman 2008; Mallat 2007; Ondrus & Pigneur 2006). Complexity in use, technical structure, and design of technology are reported as individual barriers in a number of studies (Bouwman et.al 2007). Whereas there is a

strong and significant impact of perceived ease of use of new technology on mobile banking adoption (Luarn & Lin 2005; Venkatesh & Davis 2000). Mobile banking services have very consumer friendly interface, users see them as easy to use, and hence to form positive attitudes towards them (Lin 2011). Ample of literature on barriers of mobile banking adoption is mostly related to technical complexity. Users will be reserved to use mobile banking if they find it requires more mental and technical effort as well as time-consuming or frustrating. Customers try to adopt that technology which is not complex and consume less physical and mental effort to work with. They adopted new technology which feel easy and simple to use. If any new technology is very complex, difficult and consumer not able to learn, acquire and use it easily, there is fewer chances of adoption (Davis 1989). Ease of use is a critical success factor in technology adoption in India as many people have less knowledge of innovative and developed technology Kolodinsky et.al (2004). Eriksson (2005) have also reported in their studies about Ease of use as an important construct.

Compatibility

Compatibility refers to the degree to which a service is perceived as consistent with users' existing values, beliefs, habits and present and previous experiences (Chen et al. 2013). It is a vibrant attribute of innovation as adaptable by consumer's lifestyle where can drive a rapid rate of adoption (Rogers 2003). Study has shown that compatibility is a positive significant factor to determine consumers' attitude towards internet banking adoption in Malaysia (Ndubisi & Sinti 2006). Compatibility has also been found significantly influential attribute in the adoption of virtual store (Chen et al. 2004), m-payment (Chen 2008), and mobile banking (Lin 2011). Al-Gahtani (2003) found that compatibility had significant positive correlation with computer adoption in Saudi Arabia. Many studies have also provided supporting evidence. Thus, it is also likely that the relationship between compatibility and adoption of innovation and technology will hold in the context of mobile banking. Associated study demonstrated that compatibility is a significant antecedent in determining consumer attitudes towards adopting internet banking (Ndubisi and Sinti, 2006). Obviously, Diffusion innovation theory has clarified how compatibility affects consumer willingness to adopt an innovation (Rogers, 1995).

Observability

Observability of an innovation describes the extent to which an innovation is visible to the members of a social system, and the benefits can be easily observed and communicated (Rogers 2003). In the context of mobile banking, observability defined that users' can access the banking services at any time, place and from any location without any interruption or delay, and seeing the effect of mobile banking transactions instantly and conveniently to users. Through such exposure, customers gain knowledge about mobile banking and its benefits, thereby facilitating adoption. It simplified the original construct by redefining observability into two constructs: visibility and result demonstrability (Moore & Benbasat 1991).

Trialability

Trialability denotes the capacity to experiment with new technology and innovation before adoption. Potential consumers who are allowed to test with an innovation will feel more comfortable with it and are more likely to adopt it (Agarwal & Prasad 1998; Rogers 2003). Further support is given by Tan & Teo (2000) who discuss that if customers are given a chance to try the new innovation that will lead to minimize certain unidentified fears and also lead to adoption. If banks provide help, assistance support and demonstrations on services of mobile banking usage in the trial period then fears about mobile banking usage can be minimized and this will also motivate potential adopters to use mobile banking.

Perceived risk

Perceived risk states that degree of risks in using an innovation (Rogers 2003). Generally, perception on risk arise due to doubt related to the degree of unpredictability between customers' judgment and technology failing to deliver its expected outcome and its subsequent loss (Chen 2008). In technology adoption, there is research evidence of the importance of the perception of risk in deploying new technology or services (Ndubisi & Sinti 2006). In the perspective of mobile banking, the perception of consumers towards risk is more important due to the threat of privacy and security concerns (Luarn & Lin 2005). Furthermore, fear of loss of PIN codes may also pose security threats (Kuisma et al. 2007). Next, some users also anxiety and fear that hackers may access their bank accounts as well as stolen PIN codes. Finally, some users may also have a fear of loss or theft of a mobile device with stored data (Coursaris et al. 2003). Therefore, perceived risk is more likely to negatively affect the mobile banking adoption. Consumer trust is key factor in adoption of m-banking (Mukherjee 2003) (Gu et.al 2009). (Sathye 1999, Chiou et.al 2012) have said security and privacy is main concern while using mobile banking. Security is one of the major problem confronted by consumer while making online transactions. Consumers always try to avoid disclose and share their personal information online because of online privacy matter (Sathye 1999). (Poon 2007) suggested that bank should develop trust with their customers to ensure secure online service as well as value added services, which will lead to create better customer satisfaction.

Research Methodology

Data has been collected by academics and non-academic studies published between 1991 and 2017, which stated various challenges and factors related to the adoption of mobile banking by developed and developing countries. Using Global Findex database, GSMA (Global System for Mobile Communication Association) survey report and World bank to identify users and non-users of mobile banking as well as identified unbanked countries. Data has been collected from project reports, opinion pieces' articles, field notes and blogposts published by the World Bank and peer- reviewed research articles appeared in top-tier journals where using key words mobile banking adoption and financial inclusion discipline were considered for data analysis.

Findings and Conclusion

Based on the conducted review, it can be clearly seen that the adoption of mobile services in both developed and developing countries has not reached to the expected amount of intention and usage toward customers. Hence it becomes an important goal for banks and service providers to increase the rate of adoption of mobile banking users. Thus, some important recommendations are banks should also explain the advantages of the new values added services for adapting to mobile banking, such as customers don't have to go to a branch to do their transaction, and explain a new value for them such as saving their time and cost, inconvenience of travelling to a bank or branch, and the avoidance of long queues. Banks can investigate the concept of mobile banking is valuable and it will give them greater control over their banking transactions. With the help of literature review most studies consistently concluded or examined factors i.e. relative advantage, trialability, and compatibility has significant impact on the attitude of customers whereas the perceived risk and complexity both factors are negative influence the adoption of mobile banking. The conclusion found from the literature reveals that adoption of mobile banking is reserved by the perceived complexity of technology adoption and it has a huge possibility to change the people behavior specially who lives in a rural area if they believe that mobile banking is easy to use, clear, and useful to them. Further, the study also suggests that banks should form a web site with features or give information about new value of added services to facilitate users towards mobile banking and thus minimize the perceived risk and maximize the perceived ease of use banking services. Hence, the main attention of banks should be focused on the development of ease of use and usefulness of system because it found that customers will adopt mobile banking services if they find it easy to use, clear, and useful to them that it will create greater financial inclusion for the unbanked consumers with greater access to the benefits of traditional banking institutions and lower cost alternative financial services are expected to enable digital financial inclusion.

References

1. Bouwman, H., Carlsson, C., Molina-Castillo, F. J., & Walden, P. (2007). Barriers and drivers in the adoption of current and future mobile services in Finland. *Telematics and Informatics*, 24(2), 145-160.
2. Chen, C. (2013). Perceived risk, usage frequency of mobile banking services. *Managing Service Quality: An International Journal*, 23(5), 410-436.
3. Chen, L. D. (2008). A model of consumer acceptance of mobile payment. *International Journal of Mobile Communications*, 6(1), 32-52.
4. Chen, L. D., & Tan, J. (2004). Technology Adaptation in E-commerce: Key Determinants of Virtual Stores Acceptance. *European Management Journal*, 22(1), 74-86.
5. Cheung, W., Chang, M. K., & Lai, V. S. (2000). Prediction of Internet and World Wide Web usage at work: a test of an extended Triandis model. *Decision Support Systems*, 30(1), 83-100.

6. Chiou, J. S., & Shen, C. C. (2012). The antecedents of online financial service adoption: the impact of physical banking services on Internet banking acceptance. *Behaviour & Information Technology*, 31(9), 859-871.
7. Coursaris, C., Hassanein, K., & Head, M. (2003). M-commerce in Canada: an interaction framework for wireless privacy. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 20(1), 54-73.
8. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, 319-340.
9. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. *Management science*, 35(8), 982-1003.
10. Eriksson, K., Kerem, K., & Nilsson, D. (2005). Customer acceptance of internet banking in Estonia. *International journal of bank marketing*, 23(2), 200-216.
11. Gu, J. C., Lee, S. C., & Suh, Y. H. (2009). Determinants of behavioral intention to mobile banking. *Expert Systems with Applications*, 36(9), 11605-11616.
12. Kolodinsky, J. M., Hogarth, J. M., & Hilgert, M. A. (2004). The adoption of electronic banking technologies by US consumers. *International Journal of Bank Marketing*, 22(4), 238-259.
13. Kuisma, T., Laukkanen, T., & Hiltunen, M. (2007). Mapping the reasons for resistance to Internet banking: A means-end approach. *International Journal of Information Management*, 27(2), 75-85.
14. Laura, B., & Kate, S. (2002). A Delphi study of the drivers and inhibitors of Internet banking. *The International Journal of Bank Marketing*, 20(6), 250-260.