

Executive Summary of the research work done by Dr. DEEPA PAUL
for the period 10-07-2014 to 09-07-2016

MRP (H)-1008/13-14/KLCA032/UGC-SWRO dated 28-03-2014

Topic of research : Adoption of Mobile Banking among the Bank Customers of Kerala

Summary of the research work done during the period

Financial technology has been booming at unprecedented rates over the past two decades (Reed, 2016). Financial institutions in the new age are increasingly being driven by the power of Information Technology. Banking technology solutions through multiple modes that deliver added value services are experiencing strong growth and creating seamless solution delivery for end users. Marriage to mobile technology is the new wave of technological change in the modern banking solutions. Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct a range of financial transactions remotely using a mobile device such as a mobile phone or tablet, and using software, usually called an app, provided by the financial institution for the purpose. Mobile banking is usually available on a 24-hour basis. The types of financial transactions which a customer may transact through mobile banking include obtaining account balances and list of latest transactions, electronic bill payments, and funds transfers between a customer's or another's accounts. Some also enable copies of statements to be downloaded and sometimes printed at the customer's premises; and some banks charge a fee for mailing hardcopies of bank statements.

From the bank's point of view, mobile banking reduces the cost of handling transactions by reducing the need for customers to visit a bank branch for non-cash withdrawal and deposit transactions. Transactions involving cash or documents (such as cheques) are not able to be handled using mobile banking, and a customer needs to visit an ATM or bank branch for cash withdrawals and cash or cheque deposits. Now customers can access their bank account wherever they are and can do lot more things like checking account balance, transfer money to some other account, pay utility bills online and so on, just by comfortably sitting at their home or office. But, the technical difficulty of Internet Banking is, customers have to have internet connectivity and a computer. Mobile banking is the best alternative solution to this as mobile

handsets along with internet connectivity is easily available.

First mobile banking transaction services in India were offered by ICICI bank in January 2008 but SMS alerts started in 2005-06. Wireless phone subscribers in India crossed 867.8 Million in 2013, as per TRAI (Telecom Regulatory Authority of India Act, 1997) as compared to 261.07 in March 2008. So there is approximately 4 times increase in the number of subscribers. However, according to this report, subscribers who access the internet through wireless phones are 143.2 Million. Almost 16.5% of wireless mobile phone subscribers are using the Internet over their mobile phones. According to a Mobile banking report by Deloitte (Alpesh Patel, 2013), 17 Million Indians are using mobile phones for banking transactions. So, approximately 2% of wireless phone subscribers are using banking services on their mobile phones. Mobile banking is still in its nascent stage in India. Therefore, identifying and understanding the factors influencing the behaviour of mobile phone subscribers is one of the fundamental requisite for development of mobile banking services in India.

During the last four years, the numbers of banks providing mobile banking services in India have increased four times. But numbers of mobile banking users have not increased at the same pace. There are many challenges that Indian banks are facing for increasing the mobile banking user database like Handset operability, Security, Scalability and Reliability, Application Distribution etc. Acceptance and adoption of this innovative technology is very complex and this 'complexity' attribute is studied by various researchers and they have suggested that banks should make these services easy to use by the Indian population because Indian population is not very well versed with this upcoming technology (Chaipoo Pirutana, Combs, Chatchawanwan and Vij (2009); Lin (2010); Sahin (2006). To understand the adoption behaviour of users, many researchers have done research on the factors that helps in determining the acceptance and the attitude of users towards mobile banking. TAM (Technology Acceptance Model) by Davis (1989), TPB (Theory Planned Behaviour) by Ajzen (1991), IDT (Innovation Diffusion Model) by Rogers (1962) discussed the forces that influence users behavior towards acceptance of technology. Sadi and Noordin, (2011) Jeong & Yoon (2013) identifies five factors which influence consumers' behavioral intention to adopt mobile banking: perceived usefulness, perceived ease of use, perceived credibility, perceived self-efficacy, and perceived financial cost which indicate that all factors except for perceived financial cost have a significant impact on behavioral intention towards mobile banking usage. While demonstrating the significant positive

influence of users' attitude on the mobile banking adoption, Aboelmaged (2013) reports the insignificance on the effects of behavioral control and usefulness on mobile banking adoption were insignificant. It is also found that people have less trust in the mobile banking services and personal disposition to trust played a positive role in developing initial usage in mobile banking. Bhatti (2007), used all the three models TAM, TPB and IDT and found out that the perceived ease of use, perceived usefulness, subjective norm, personal innovativeness and perceived behavioural control are strong determinants of the intention to adopt mobile banking.

Technology is revolutionizing the global banking and payment system. It offers wider opportunities for banks to provide added customer services. Mobile banking is one of the core verticals of technology banking. It enables banks to widen their customer base and promote even remote banking. Kerala, one of the leading states in India in terms of both literacy and Human development. Similarly, the state is one of the 124773 78502. Number of mobile subscribers in Kerala as of December 2016 is 2.366 crores which shows that 71% of the Kerala people have subscribed mobile phones.

In this juncture, it is very essential to indentify how far bank customers of Kerala state have adopted mobile banking. It is also necessary to look upon the impact of demographic factors such as age, gender, education and occupation of the respondents on the adoption of mobile banking . Apart from demographic factors, perceptual factors are also significant in the adoption and usage of mobile banking. It is also needed to analyse the perceptual differences among the users, likely to be users and non users of mobile banking. Major objectives of this study are to identify the adoption and usage pattern of mobile banking in Kerala state, to assess the impact of demographic factors such as age, gender, education and occupation in the adoption of mobile banking and to analyse the perceptual differences among the users, likely to be users and non users of mobile banking. Hypothesis tested is there is no difference in the perception of users, likely to be users and non users of mobile banking.

This research is designed as a descriptive one. Population of this study is bank customers of Kerala state. Since the population is large, sampling is done to select a representative group of bank customers. Size of the sample used in this study is 150 bank customers of Kerala state. Both primary and secondary data are used in this study. Demographic variables such as age, gender, education and occupation and perceptual variables, namely Perceived usefulness,

Perceived ease of use, Perceived credibility, Perceived self efficacy, Perceived financial cost and Behavioral intention to use adopted from the extended TAM model were used. Primary data was analysed using descriptive and inferential analysis. Descriptive analysis is conducted by way of applying Percentages, Arithmetic mean and Standard deviation. Inferential analysis is conducted by way of setting hypotheses and testing these hypotheses using Chi-square test and Kruskal-Wallis (H) tests. Major findings of this study are most of the respondents have adopted mobile banking but only 50 percent of them are actively using it. Adoption of mobile banking is closely associated with the demographic factors in such a way that among the customers male, youngsters, moderately educated and employed group are using mobile banking more. This study also reveals significant difference in the perception of users, non users and likely to be users of mobile banking. This implies that users and likely to be users have strong positive perception regarding perceived usefulness, perceived ease of use, perceived credibility and behavioral intention to use mobile banking. But there are differences in the perception of non users about perceived financial cost and perceived self efficacy. Hence it is the need of the hour to eliminate some flaws in the minds of non users about mobile banking. It is the duty of the banks to propagate the added advantages of mobile banking and persuade those who still lay outside the vicinity of this circle to adopt mobile banking and enjoy the benefits of this innovative technology.

Research papers published/ Accepted for publication/ Communicated for publication:

1. Perceptual differences between the users and non users of internet banking (*International Journal of Research in Computer application and management*), Vol No.6 (2016), Issue.03, March.
2. Behavioral Intention to the Use of Mobile Banking in Kerala: An Application of Extended Classical Technology Acceptance Model (communicated)

3. P-Birnbaum Distributions: Applications to Reliability and Banking Habits in *Reliability: Theory And Applications*, 01 (36) (Vol 10),pp:70-77 March, 2015
4. Perceptual differences between users and non users of electronic banking, presented at *International Conference on Humanities and Social Science*, 28-29 Jan, 2016, St.Thomas College, Thrissur.
5. Segmenting bank customers on the basis of internet bank adoption (*Astitva International Journal of Commerce, Management and Social Sciences*), Vol4, No 1, April 2015.

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