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## A Study of Changing Consumer Behavior for Mobile Banking Services in India

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**ABSTRACT:** The recent advances in technology; particularly in the areas of information technology and telecommunications, has changed the banking industry. Information technology (IT) is considered as the key for the changes taking place in banking sector around the world. Mobile banking is the latest and most innovative service offered by the Banks. This transformation from the traditional banking to e-banking is said to be a sea change towards the future of banking industry. The evolution of e-banking started from the use of Automatic Teller Machines (ATMs) and telephone banking (tele-banking), direct bill payment, electronic fund transfer and the revolutionary online banking.

The purpose of the study is to investigate determinants of Mobile banking adoption based on an individual's benefits and costs of adopting mobile banking.

The main factors that determine the customer satisfaction of mobile banking in India are security, efficiency, cost effectiveness, easy demand fulfillment and correctness in results.

It aims to analyze the customer response and customer satisfaction of mobile banking through these factors. Mobile banking is one of the alternatives in e- channels available to customer for quick and efficient of service at anytime of the day and from anywhere to use. Banks can also use to unable the banking for increasing the efficiency of their staff create a platform their better customer service and improve relationship with their customers. Mobile Banking services provide more personal and intimate relationships. Through this paper an endeavour has been made to explore the consumer satisfaction of the new electronic payment service as mobile banking and the factors influencing the adoption of mobile banking services.

**Keywords:** Mobile banking, information and communication technology (ICT), perceived usefulness, ease of use, risk, awareness.

### I. INTRODUCTION

The Indian telecommunication system continues to be governed by the provisions of the Indian Telegraph Act, 1885 and the Indian Wireless Act, 1993. Substantial changes have taken place in the telecommunication sector since 1992. In this chapter an attempt has been made to explore the evolution of Telecommunication and Cellular Mobile Operation in India. The innovation and growth on the mobile phones front is astonishing. The top-end phones available now have the processing power and storage available in desktop computers just 4-5 years ago. Little wonder, then, that 2004 saw 674 million phones being bought, and estimates for 2005 stand at 730 million (Ghosh (2012).

The mobile phone is rapidly becoming the uber device -- the one device that seems to have it all and becomes even more indispensable than it is now. Mobile phones have already started functioning as more than just communications devices. Mobiles serve as watches and alarm clocks (Jain 2005).

The smart phone revolution in India has paved way for an unprecedented growth of Mobile Commerce and Mobile Banking in India. In the interactions between the new-age consumers and financial service providers the Mobile services are playing a significant role.

According to TRAI, mobile banking involves the use of mobile phones for banking transactions like fund transfer, balance check, etc. As per the guidelines of Reserve Bank of India (RBI), licensed banks which have a physical presence in India are permitted to offer mobile banking services. Banks are permitted to offer Mobile banking

services (through SMS, USSD or Mobile banking application) after obtaining necessary permission from Payment & Settlement Systems, RBI. Mobile banking services are made available to all bank customers irrespective of the mobile network. All the banking activities of these customers like conducting financial transactions with their financial institution and allowing consumers' to transfer money and make credit card payments anywhere, obtaining financial account information etc. is made possible through the mobile banking. The aim of the present study is to study the trend of mobile phones and customer perception towards mobile phones

## **II. MOBILE PHONES IN INDIA**

It was in the year 1992 that telecommunication Sector in India was liberalized to bridge the gap between nationalized and banks that have world-wide presence by providing additional resources for the nation's telecom target through Government spending and the private sector was allowed to participate for the very first time (Singh *et al*, worldbank.org). In the year 1994 India was licensed to provide cellular mobile services granted by the government of India and this license was meant only for the Metropolitan cities of Delhi, Mumbai, Kolkata and Chennai. Among the four metro cities in India Kolkata became the first metro to have a cellular network in 1995 as per a report of COAI (Cellular Operators Association in India).

## **III. CONSUMER ATTITUDE TOWARDS MOBILE BANKING**

Lot of research has been done on consumer attitude and adoption of mobile banking services and it appeared that there are several factors predetermining the consumer's attitude towards online banking such as person's demography, motivation and behavior towards different banking technologies and individual acceptance of new technology. Through the research it has been found that consumer's attitudes toward online banking are influenced by the prior experience of computer and new technology. By adopting the electronic banking the new age customers of banks are sometimes forced to consider about privacy, remembering multiple passwords, password integrity, data encryption, hacking, and the protection of personal information which otherwise he need not be concerned about.

The most consumer involvement is required in case of electronic banking as it requires them to maintain and interact with additional technology like a computer with an high speed Internet connection on regular basis. Consumers who are made a part of e-banking are forced to use it on an ongoing basis and also need to acquire a certain comfort level with the technology to keep using it.

Customer adoption is a recognized problem area for the strategic plans of financial institutions. Several studies have been done to investigate the factors influencing the individual's choice of a specific bank. Banking convenience, service facilities, reputation and interest rates are some of the important consumer selection factors for the banks. Delvin (1995) argued that new age banking customers have less time compared to the previous customers to spend on activities such as visiting a bank and therefore want a higher degree of convenience and accessibility. The Internet banks are giving a great service quality that induce consumers to switch to online transactions and keep using them. The service qualities that are perceived by online customers are usefulness, ease of use, reliability, responsiveness, security, and continuous improvement (Liao and Cheung, 2008). Liao and Cheung, 2002 found that individual customer's expectations regarding accuracy, security, network speed, user-friendliness, and user involvement and convenience were the most important quality attributes in the perceived usefulness of Internet-based e-retail banking. The crucial factors that affect an individual's decision to use or not to use online services the individual's age, the difficulties of using the Internet, the fear of changes in the banking sector due to technological development and the lack of information concerning products and services provided to customers through electronic delivery channels. Factors such as the speed of transactions or the cost of using the Internet have little impact on an individual's final decision (Mavri and G. Ioannou, 2006). In the study by [Ibrahim, *et al*, 2006] revealed six composite dimensions of electronic service quality, including the provision of convenient/accurate electronic banking operations; the accessibility and reliability of service provision; good queue management; service personalization; the provision of friendly and responsive customer service; and the provision of targeted customer service. Perceived usefulness, security and privacy are the main perusing factors to accept online banking system (Qureshi *et al*, 2008). According to a study by WAP, GPRS and 3G features from mobile devices are of no significance or influence in the adoption of e-banking services.

## **IV. REVIEW OF MOBILE BANKING STUDIES**

The banking industry is among the leading sectors in adopting and utilizing the internet and mobile technology on consumer markets and consequently its service delivery has undergone changes unprecedented in its history. The development of electronic banking services via multiple electronic channels has made it possible to provide new kinds of added value for customers. Lockett and Littler (1997) and Al-Ashban and Burney (2001) have analysed the development of telephone banking in detail. The mobile phone as a channel for service consumption offers enormous potential since today, a mobile phone is an integral part of customers' lives and a growing number of these

devices are also equipped with internet connection. Currently mobile banking services enable consumers, for example, to request their account balance and the latest transactions of their accounts, to transfer funds between accounts, to make buy and sell orders for the stock exchange and to receive portfolio and price information. Though the use of mobile banking is in place for many years but it is still said to be in its initial stage and more research in this field is needed. The recent technological development in the mobile sector, like introduction of 3G and 4G technologies in mobile network has definitely improved the mobile banking services and will improve the wireless service consumption. However, data input may still be a bottleneck in the consumption of some mobile financial services where improvements are much required devices like in-built barcode readers. The barcode readers could be used to reduce the burden of taking the large volume of consumer data and to remove the uncertainty of the customer and increase convenience in mobile bill paying by copying the account numbers, the sums of multiple bills and due dates from the printed bill into the mobile phone. The customer would only need to accept or reject the payment. Future research could focus on more convenient data input methods in mobile bill paying. Some of the most recent studies have concentrated on mobile banking Barnes and Corbitt (2003). The mobile phone as a channel for service consumption offers enormous potential nowadays, a mobile phone is considered as an integral part of customers' lives and a growing number of these devices are also equipped with internet connection. In the current banking scenario, services through mobile banking enable consumers, to request their account balance and the latest transactions of their accounts, to transfer funds between accounts of same or different banks, to make buy and sell orders for the shares of companies through the stock exchange and to receive portfolio and price information. Previous studies in this area indicate that different important factors for the adoption of mobile banking by the new age customers are related to convenience, access to the service at every time and from any place, privacy and savings in time and effort (Scornavacca *et al* 2005). However, Scornavacca *et al* (2004) studied that mobile services were not used as per their expected outcome since they were perceived as impractical and not sufficiently diversified. In spite of the multiple advantages in the use of the mobile phone in banking services the mobile penetration has remained small. There seem to be some inhibitors that slow down the use of mobile channels in banking transactions. Furthermore, security issues are argued to be among the greatest concerns in the adoption of mobile banking (Brown *et al.* (2003). In some other studies by Scornavacca and Barnes (2004), it was indicated that perceived financial cost and perceived complexity by the consumers of banking services, the use and adoption of mobile banking services had been limited.

## **V. CUSTOMER SATISFACTION IN MOBILE BANKING**

The customers in mobile banking services are increasing day by day due to the security measures taken by the banks (Sharma and Gautam, 2017). More and more numbers of customers are being drawn to the mobile banking as they have been satisfied due to the measures taken by banks to secure the mobile banking transactions. Through mobile banking customers can now add as many beneficiaries in the list as they want for fund transfer etc. and it saves huge amount of time for those kind of transactions.

## **VI. CONCLUSION AND RECOMMENDATIONS**

The study showed that to fulfill the expectations of the consumers and to increase the mobile banking users, mobile banking service provider needs to increase the awareness about the mobile banking services by conducting different awareness increasing programmes. These purposes will be served only if banks and the mobile service providers come together to bring a revolution in the field of mobile banking. There is also need to generate awareness about this mobile banking as that will definitely induce more and more people use it for their benefit. There have been a number of advantages of mobile banking and these advantages led to the increase in the number of mobile banking customers today. Customers are highly satisfied with mobile banking system due to several reasons. Customers can avail various types of facilities through the mobile banking system. They can check the account Customers is also highly satisfied because of the ease of transfer of payments. The customers used to stand a long queue in banks to deposit money to the accounts. The customer's feelings, complaints and the feedback cannot be accessed to directly facing the services. It has been positive impact on behavioural intentions of customers' acceptance of the mobile banking.

It is now apparent that the Mobile banking is changing very fast not only in Indian banking scenario but worldwide also and particularly India is entering into a new era in banking, in which banks are ready to spend a significant amount of its resources to make it available to their users. The review has also touched upon the diverse findings of mobile usage and has clearly reflected the changing mindset of the customers and this new revelation can be used to understand the customers' expectations and based on these ideas the banking services can be customized. From the review it can also be observed that the studies on Mobile banking have not addressed the use of m-banking applications via smart phones or tablets and its drawback. So studies can be carried out in this direction. Also the customers' feelings, complaints and the feedback regarding the mobile banking services have to be considered by

banks before they take decisions on services. Moreover, mobile banking service provider should consciously take measures to increase the awareness about the mobile banking services and reach out to remote villages with local language services and customer friendly banking software with easy to use GUI to make user experience good and to reduce the complexity of mobile banking.

Banks can also advertise about internet and mobile banking services to the consumers to help them relate it to their values, experience and belief system. These measures will increase Mobile banking penetration which will help to further reduce the cost of banks. The entire process of M-PIN generation for any kind of banking transaction needs to be simplified to make transactions simplified and so that everyone can use the system. It is clearly evident from the reviews that there are number of important challenges that need to be overcome through a multi-pronged approach taking into consideration of all stakeholders. By harnessing the potential of mobile technology with new and available open source technology, large sections of the untapped segment can be empowered to become financially inclusive through the use of Mobile banking services. In future, mobile phone will definitely grow into a full-fledged virtual bank branch and ATM and with a matured ecosystem and an effective agent network transform the landscape of banking services in India.

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