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## A STUDY OF CUSTOMER PREFERENCES OF MOBILE BANKING AND BARRIERS IN ADOPTION OF MOBILE BANKING SERVICES IN SELECTED CO-OPERATIVE BANKS IN PUNE CITY

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### ABSTRACT

*Our country has the fastest growing telecom network in the world with its high population and development potential. The major operators the mobile space are Airtel, Vodafone, idea, Telenor, Reliance, Tata DOCOMO, BSNL, Aircel, Tata Indicom, MTNL are India. The total number of mobile phone subscribers reached 930.20 million as the September 2014 However, rural India still lack strong infrastructure. India's public sector telecom company BSNL is the 7th largest telecom company in the world Thus, the increase prevalence of mobile phone in India provides exiting opportunities for the growth of the mobile banking (m-banking). Financial services are generally complex and consumer demands lot of security and trust before the customer can even think of using the technology. Over time and due date to adoption of new technologies bank have changed from paper-based banking solutions providers to the providers of latest of the technologies like online banking, Mobile banking etc. Even now, in India traditional branch-based banking remains the most widely adopted method of conduction banking transactions. The picture is slowly set to change with commercial banks are undergoing a rapid change majorly driven by the information and telecommunication (ICT) technology. The private banks like ICICI bank were pioneers in Mobile banking services in India. Co-operatives banks are following the commercial banks and private banks at a much slower pace. Today many commercial and co-operative banks have launched mobile banking using ICT Technology and now they can reach out to customers and provide them with not only general information about services but also offers the opportunity of performing interactive retail banking transaction anytime, anywhere. Today, State bank of India is the market leader in mobile banking services in India with 1.35 crore users and a market share of 46 Percent in terms of number of transactions. "Mobile Banking is an application of mobile computing which provide customers with the support needed to be able to bank anywhere, anytime, using a mobile handled device and a mobile service such as a Short Message Services (SMS)". Mobile banking facility removes the space and time limitations form banking activities. Unlike traditional form of banking, mobile banking has emerged as more convenient and user friendly form of banking. Technology plays an important role in banking sector. Mobile Phone is the common technology that becomes part of every individual in this information era. As India is the second largest telecom market in the world and have high potential for expanding banking services using mobile. Mobile banking focuses on customer requirement of anytime, anywhere banking concept into reality. Yet there are a number of issues and threats in mobile banking system and major problem in the non-adoption by the customers.*

### KEYWORDS

mobile banking, co-operatives banks, mobile banking customers, mobile banking service.

### INTRODUCTION

**L**ife is so busy these days anything which saves your time is lifesaver. Mobile banking plays a vital role in the banking sector in India and also in all parts of the world's banking sector. Mobile banking is a service provided by the banks to all the accounts holders of the banks. In recent era co-operative banks has also implemented mobile banking in their banks. Today's almost all are using mobile phone and that to Smartphone with various application support for the fast growing mobile subscribes and huge amount of young and middle age group people who work for more than 8 hours has hardly time to visit bank branch in office hours. Today mainly every bank provides their customized application for mobile phone which helps to reduce the transactional cost and also to reduce crowd in the bank branch.

Mobile banking is the term commonly used by the banks where all facilities of banks are provided on the finger tip of the customer, where customer can avail the service of the banks such as financial services, do financial transaction, view balance, view mini statement of account, request cheque book, Make payments, transfer funds to beneficiary, and recharge mobile phone via mobile device. The total no of Smartphone users at the end for financial year was around 162 millions and expected to grow to 625 million by 2019-2020. Mobile banking services can be operated by customers through his mobile handset by using an application provided by the banks to facilitate the customer. Today many commercial and co-operative bank has launched mobile banking using ICT information and telecommunication technology and they reach out to customer and provide them with not only general information about services but also offers the opportunity of performing inter active retail banking transaction anytime and anywhere.

Mobile Banking focus on the customer's requirement of anytime, anywhere banking into reality yet there is no of issues and threats in the non adoption by the customers of co-operative banks

The data provided by Reserve Bank of India shows that transaction on internet banking platform done by customer of commercial bank stood to Rs 6 lakhs crores while that of co-operative banks stood at Rs. 18862 crore in the month of April 2015.

The Trend in Mobile banking is as follows.

**TABLE 1**

Year	No of users (Million)	Volume (Millions)	Value (Millions)
2011-2012	12.96	25.56	18.21
2012-2013	22.51 (73.96%)	53.31 (108.56%)	59.90 (228.94%)
2013-2014	35.53 (57.84)	94.71 (77.66%)	224.38 (274.59)

### OBJECTIVES

1. To study the prospects of mobile banking in India with reference to Pune city.
2. To study the influence of demographic variables on mobile banking used in selected co-operative banks.
3. To find out the facilities offered by selected co-operative banks through mobile banking
4. To explore the perception of mobile banking service in selected co-operative banks.
5. To list the barriers faced by co-operative banks customers in using mobile banking and make suggestion base on the finding.



## RESEARCH METHODOLOGY AND HYPOTHESIS

Young and middle age group of customers prefer to use mobile banking more than senior citizen

Preference for use of mobile banking is not associated with level of education and income level of customer.

Customer perception of mobile banking in terms of ease of use is not associated, security issues, trial ability complexity to use mobile banking. The research is empirical in nature and for the study purpose two co-operative banks is selected for the study from Pune City. A convenience sampling method and willingness of bank management to share data is used to collect the primary data. A sample of 101 respondents is collected from two co-operative banks in Pune City for research study. Data of 50 customers per bank is collected in structured questionnaire. The data collected is compiled and analyzed with electronic spread sheet MS. Excel, statistical techniques like percentage, average, descriptive analysis, chi-square test. For the secondary data various books, magazine, research paper, newspaper, journals, bank reports, and RBI website etc is used for the study. The action plan for the study was to review the books and relevant literature, designing of questionnaire, collection of data, analysis of collected data and interpretation of data, finding and conclusion, suggestions and recommendations, the purpose of the study to identify the benefits and problems faced by the customers of the co-operative bank in using mobile banking and make suggestion based on findings and conclusion.

## LIMITATIONS

1. Study is limited to co-operative banks in Pune city only.
2. Study is limited to mobile banking and not internet banking.
3. Study is limited to existing customer only

## HISTORY OF MOBILE BANKING IN INDIA

A report of the Cellular Operator Authority of India show that mobile banking started way back, regarding entry of cell phone into India, despite that it was in the year 1992 that telecommunication sector in India liberalized to bridge the gap through Government spending and to provide additional resources for the nation's telecom sector and private sector was allowed participate. In 1994 India was licensed to provide cellular mobile services granted by the government of India for the metropolitan city of Delhi, Mumbai, Kolkata and Chennai. Kolkata become the first metro to have cellular network in 1995. In the year 1997, TRAI was set up for the regulation of telecommunication sector in India. March, 1999 National Telecom Policy (NTP) was announced. Development since inception of mobile technology such as 1G, 2G, 3G, 4G are as follows:

1<sup>st</sup> Generation: first generation network is wireless telephone technology using analog signals into digital and introduced in 1980's. The 1<sup>st</sup> generation commercially available cellular network using 1G standard was introduced by NTT Nippon Telegraph telephone in 1979 in Japan. The wireless network was used for voice calling only

2<sup>nd</sup> Generation: 2<sup>nd</sup> Generation network was commercially launched for the GSM standard in 1991 by Radiolinja currently known as Elisa Oyj in Finland. 2<sup>nd</sup> Generation helped to enhance data service and also introduce Short Message Service (SMS), CDMA, WAP (Wireless Application Protocol), MMS (Multimedia Messaging Service), where in voice communication was digitally encrypted along with internet service. 2G capabilities are achieved by allowing multiuser on single channel via multiplexing. 2G is defined as Digital Narrow Band Circuit Data

3<sup>rd</sup> Generation: 3<sup>rd</sup> Generation network also known a Digital Broadband Pocket Data this type of wireless network has multimedia service support along with streaming and popularly universally accessed. 3G provide Greater security and privacy. The first Commercial 3G network was launched by NTT DOCOMO in Japan in 2001

4<sup>th</sup> Generation: 4<sup>th</sup> Generation wireless also known as Digital Broadband Packet all IP Very High throughputs. The 4G technology introduced in the year 2009 which provide WiMAX, LTE (Long Term Evolution) Technology with fixed internet support.

The following applications is indigenous designed by co-operative banks in providing mobile banking services to its customers, these are "Now Go Mobile" and Freedom from conventional banking "GOMO". These application provies all the services such as Account balance, fund transfer, M. Payment, Mini Statement, Recharge Facility, IMPS, Change pin, Stop Payment, Cheque Book request, Cheque Status.

## LITERATURE REVIEW

Gurmeet singh Saini (2014) This study is based on primary data collection from 150 Respondents Delhi city. There is no particular classification on types of banks customers whose data has been collected. 61.35 percent respondents felt that mobile banking was less costly and time saving and 58.16 percent respondent felt that they would like to try it out. The paper looks at factors as to why customer are not using mobile banking and enlists reason like mobile banking is difficult to use mobile banking is not available. However, the major concern of respondents was privacy and security issues in mobile banking. Creating awareness of mobile banking through education is important. The study does not mention which banks are considered in the sample.

V Devadevan (2013) the main aim of the study is to identify the mindset of people and analysis the security issues in Mobile banking amongst the banking customers in India. Online transaction questionnaire was needed to collect primary data from 65 customers. The study found that about 25 percent respondents used mobile banking facility while 75 percent did not use it the study also found that few banks offered mobile banking in the form of SMS Banking. Security issue is very important for customer point of view. The awareness how to use mobile banking and what are the security mechanisms to be followed by the customers has to be addressed for effective usage of mobile banking There is need for customer friendly banking software that can be used in local language.

Sunil Kumar Mishra (2013), This research paper is based only on secondary data collected from different websites, research papers and magazines. The paper enlists the facilities provided by mobile banking services, advantages and disadvantage of mobile banking services and mobile banking service used worldwide. The paper concludes that banks are developing and offering mobile banking services to customers to cut of operations despite which customers do not use mobile banking for various reasons.

Vishal Goyal (2012), The paper classified into five main categories viz. m-banking overview and conceptual issues, features and benefits of mobile banking, current operating practices of commercial banks, Mobile banking/payments practices in Indian commercial banks and challenges in India- strategic legal and ethical issues. This paper provides useful anatomy of young m-banking literature to anyone interested in m-banking. The study has collected primary data from customers from PSU and Private Banks but has left out co-operative banks.

Bamoriya (2012), The study strives to find out the problems of customers leading to low rate of mobile banking. This problem could b taken up by banks to come up with solutions to enhance the rate of mobile banking. The study analyses data collected from 100 bank customers in Indore. Data was collected using questionnaire the study found that 80percent male used mobile banking as compared to 20percent female overall 61 percent users agreed that mobile banking was better than traditional banking but customers were deterred from using mobile banking due to factors such as security concerns, network problem, difficulty in handling mobile phone, insufficient operations guidance and cost per transactions. The study found that 86 percent respondents use mobile banking to check balance of their accounts, as customers prefer information based services rather than financial services provided by the banks.

Archana Sharma (2012), this study is extracted from survey conducted in Ghaziabad in Uttar Pradesh. The sample size was 100 bank customers from whom primary data was collected with the help of questionnaire. This study shows that more males use mobile banking as compared to females and customers in the age group of 20-29 years used mobile banking most. 81 percent respondents were willing to use mobile banking if they could first use it on trial basis to see its offering. Adoption of mobile banking appeared to be influenced by its trial ability and compatibility the study points out the facts that banks need to increase the awareness of mobile banking.

Bamoriya (2011), The study suggests that from customers perspective mobile handset operability, security / privacy and standardization of services are the critical issues. Checking balance through mobile banking was most used services whereas checking status of demand draft or cheque was least used services. The study also suggested that majority of respondents were indifferent towards perceived utilities of mobile banking in comparison to retail banking and internet banking. This study is based on public sector banks and private banks. It has not considered co-operative banks.

**INDIAN TELECOM SECTOR**

India is the second largest telecom sector in the world with total subscribers for the financial year 2014 is (933.00) million as compared to 2013 (898.02) million. In India almost 131 Banks are permitted to provide mobile banking across India. According to the RBI Data the total no of transaction which took place in the month of April 2015 amounts to Rs. 18862 crore. The total no of wireless subscribers has also increased over wire line subscribers as per the data 31 March 2014.

**TABLE 2**

Particulars	Wireless Subscribers	Wire line Subscribers	Total Subscribers
Total Wireless Subscribers (Millions)	904.51 Million	28.49 Million	933.00 Million
Urban Subscribers (Millions)	532.73 Million	22.54 Million	555.28 Million
Rural Subscribers (Millions)	371.78 Million	5.96 Million	377.73 Million
Share of Urban Subscribers	58.90%	79.09%	59.51%
Share of Rural Subscribers	41.10%	14.86%	40.49%
Total % Change over the previous Quarter	2.05%	1.37%	1.95%

Source: TRAI Annual Report 2013-2014

**RESERVE BANK OF INDIA GUIDELINES**

Reserve Bank of India issued first guideline on mobile banking in October 2008 looking at the potential of mobile as channel for offering financial services. The person opting for mobile banking should comply with Know Your Customer (KYC) and anti money laundering. End to end encryption for transaction in excess of Rs. 5000/- has been mandated. Banks which are licensed and supervised in India and have physical presence in India will be permitted to offer mobile payment services to residents of India. The per day transaction cap of Rs. 50000/- has been removed by RBI and every bank can change this cap depending upon their risk. As per the master circular by RBI the facility of registration for mobile banking can be done by the customer through ATMs where in the deadline for the same is given to bank who are participating in National financial switch to carry out necessary changes in ATM machine latest by 31 March 2016. The application should clearly indicate the option of mobile banking and also the alert SMS Short Message Service will be send to registered mobile number.

**IMPORTANT BENEFITS OF MOBILE BANKING**

1. Easy access of day to day banks facilities by using Smartphone from anywhere and anytime.
2. The transaction cost is less when the customer uses the mobile banking provided by the banks.
3. Mobile banking provides speed and accuracy for customers, it helps to avoid queues, and less chance of making mistake as it is done by the customer themselves.
4. By using mobile banking one can view his Account statement, transaction info, bill payment facility, fund transfer, etc. though mobile banking.
5. Mobile banking is important because the unbank population can be brought under the umbrella banking sector to bring transparency in the country.
6. Mobile banking is the platform customer can use the service efficiently and effectively they do not need go to the bank the bank facility is available on finger tip to is customers.

**CHALLENGES IN ADOPTION OF MOBILE BANKING**

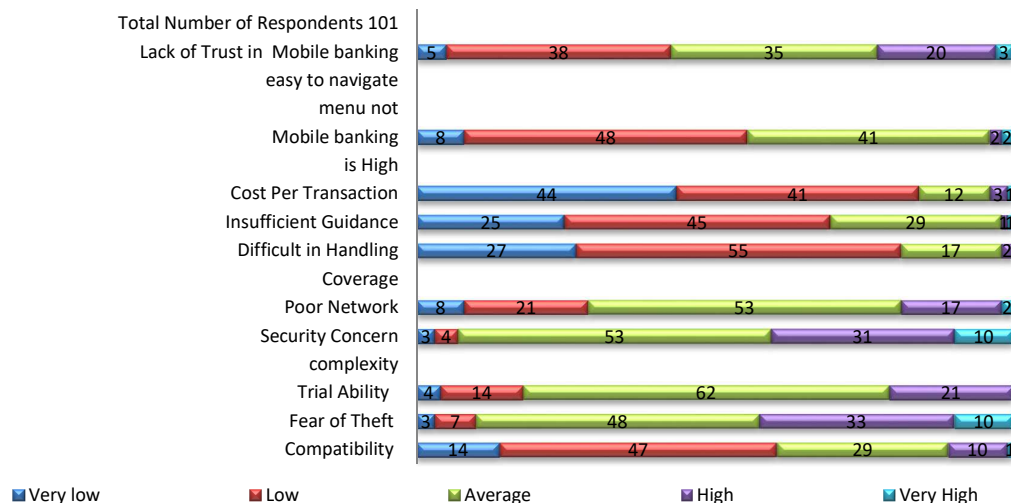
1. Building trust about the security among the customer is big challenge for the banks and the regulatory authority.
2. Challenges regarding marketing of mobile banking and making aware about the useful facility.
3. Challenge to provide service of mobile banking on low bandwidth provided by internet service provider.
4. Challenge to bring the senior citizens and take them into confidence to use mobile banking.
5. Challenge to bring the un-bank rural population of India under banking sector.
6. Challenge faced regarding application of mobile banking where in the testing of application and internet facility

**ANALYSIS**

As depicted in the table below compatibility as a barrier in Mobile banking 47(46.53%) respondent feel that compatibility a barrier in mobile banking. 29(28.71%) respondent is neutral. 33(32.67%) respondent has a fear of theft regarding mobile banking and on the other hand 48(47.52%) respondent is natural in approach they don't neither a barrier nor a barrier in mobile banking 10(9%) respondent has a fear of theft among them regarding mobile banking. The major barrier in mobile banking is the Lack of trust, Fear of Theft, Trial Ability Complexity and Security Concern which constitute to 20(19.80%), 33(32.67%), 21(20.79%) and 31(30.69%) respectively.

**FIG. 1**

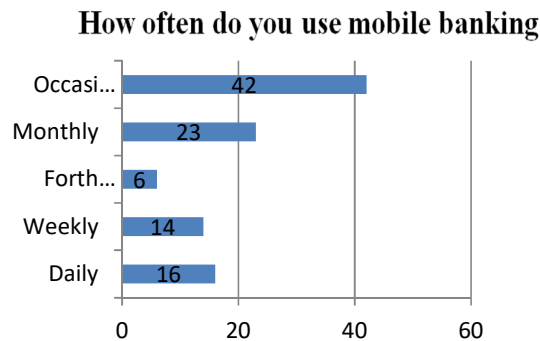
**Barrier in Mobile Banking**



Source: Researcher Finding

More over when asked to respondents how often do you use mobile banking? All most 42(41.58%) of the respondents use mobile banking on occasionally bases and 23(22.77%) respondents use mobile banking monthly bases only few 16(15.84%) and 14(13.86%) use it daily and weekly bases as depicted below in table below.

FIG. 2



Source: Researcher Finding

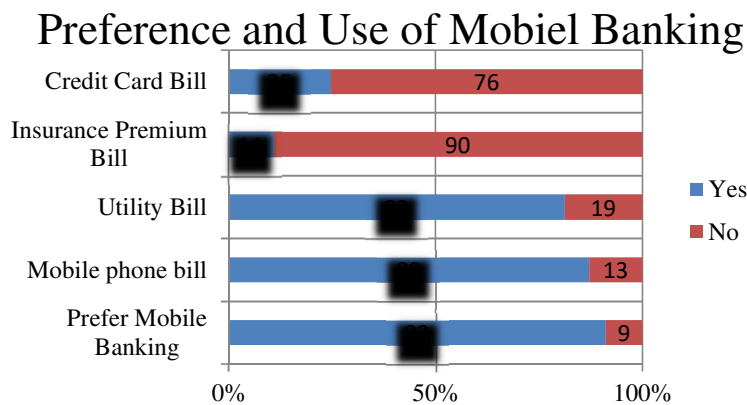
The respondent who are using mobile banking between 1 year – 3 years constitute to 48(47.52%) and respondents using mobile banking for more than 3 years constitute to 37(36.63%) as shown in the table below

How long using Mobile Banking	Less than One year	1-3 years	More than 3 years
	16	48	37

Source: Researcher Finding

According to table shown below depicts that 92(91.08%) respondent of co-operative banks prefer mobile banking and pays mobile bill, utility bill, insurance premium and credit card bill through mobile banking.

FIG. 3



**CONCLUSION**

In This research work the researcher comes to the conclusion on the base of facts and finding with proper analysis and interpretation of collected data, that youngsters contribute more in the use of mobile banking in co-operative banks as compared to senior citizens. Male respondents use more of mobile banking which constitute to 70% of total respondents. Salaried respondents found using mobile banking more as it help to save their time, and also money. Visiting bank in office hours is not possible to salaried respondent hence found using mobile banking. It can be concluded that there is more advantage in mobile banking rather than traditional banking, which save time, distance, no waiting in queue, anytime and anywhere access has made respondents happy. Most of respondents hesitate to give donations through mobile banking. The barrier in using mobile banking are the fear of theft, menu of the application, poor connectivity, security concerns, and trial ability complexity. Education plays important role in use of mobile banking of co-operative banks 33.7% graduate, 61.4% post graduate are the major share holder in use of mobile banking in co-operative banks. With education, income also plays important role in use of mobile banking, 58% middle income respondents use mobile banking of co-operative banks than higher income respondents. The respondents use mobile banking occasionally which constitute to 41.6% followed by monthly users which constitute to 22.8%. 63.6% share of respondent’s use mobile banking for more than three years; still they are using mobile banking occasionally and not daily. 89% share of respondents of co-operative banks feel that mobile banking is better than traditional banking.

**RECOMMENDATION**

In today’s scenario and fast life of the individual, looking at the running time it is advisable to the customer to preferring mobile banking as a handy tool for financial inclusion to reduce the paper work. Customer should bring transparency by doing more of the transaction through mobile banking where in an accountability can be possible and records may be easily understood. Customer should personally request co-operative banks to provide handy and updated software application, and also help the customer as and when they need help in using mobile banking a separate department should be kept for the support. In the era of 4<sup>th</sup> Generation telecom service speed is no bar for customers, hence customer should keep the security level at high and try to use genuine software application in their mobile and specially one antivirus license version to protect unwanted hacks. Customer should read the guideline properly before using mobile banking of co-operative banks, if found any problem using immediately refer to the branch or the toll free no of the banks. Because of Security reasons banks provide application to specific IMPI no one it is recorded it is applicable to the same IMPI handset if they remove the SIM the record of the IMPI no also gets deactivated hence avoid switching the SIM on regular basis to different handsets.

**SUGGESTIONS**

In mobile banking of co-operative banks, co-operative banks should have proved universal application software for all Smartphone’s as they all are android operating systems. In mobile banking of co-operative banks, the banks should provide General/ life insurance (life insurance/ health / medical insurance) facility options

in the mobile banking services. The application of co-operative banks has to work on low domain network, so that the application software can work smoothly and easily enough to get connected fast. The co-operative banks must be conscious about the service they promote for mobile banking under the guidelines of RBI. The co-operative banks must provide their staff the habit of doing more of the work of customer on Smartphone to make them feel comfortable about the mobile banking. The Co-operative banks must forcefully avoid the paper work in front of the customer and insist customer to opt for mobile banking of the banks. In mobile banking there should be a facility of interbank switch and also auto payment system which will help to pay the bill on or before due date. Customer has suggested in mobile banking video banking facility should also be provided in case of any problem faced customer in using mobile banking. The application of the co-operative banks is more precise and has less menu in it so the banks should update the mobile application and provide with the facility of making fixed deposit, recurring deposit, term deposit, open friends account, relative account.

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