

# A Gap Analysis Of Awareness And Utilisation Of Mobile Banking

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**Abstract:** *Mobile Banking is one of the channels of banks used to deliver banking services. It is a system that allows the customers to conduct his or her transactions using a mobile phone or a Personal Digital Assistance (PDA). Mobile Banking refers to provision and availing of banking and financial services with the help of mobile telecommunication devices. The scope of offered services may include facilities to conduct bank and stock market transactions, to administer accounts and to access customised information. This paper stepped to analysis the gap between awareness and utilization of mobile banking.*

**Key words:** *Mobile banking, awareness, access, utilization, Gap analysis,*

## 1. INTRODUCTION

We are living in an era where a bank travels along with the customer via a mobile device. The mobile phones are meant not only for communication purposes, but also accord for financial and business purposes. With the emergence of Apple's i-phones, android phones, tablets and many more smart phones, the concept of "Apps" (Applications) has become popular. The banks have commercialized this new concept by introducing "Mobile Banking". The customers subscribing to this Mobile Banking are to just download the Mobile Banking App from the bank's website through the mobile phone. With that app, a customer can do both financial and non-financial banking services. For the purpose of expanding their business and reaching different levels of customers, the banks are constantly adopting technology. Apart from ATMs, Internet Banking and other technology enabled services, Mobile Banking is one of the services provided by banks to its customers. The major factors that contributed to the introduction of Mobile Banking are the stunning growth in telecommunication sector, its penetration including rural population and technology feasibility.

The origin of Mobile Banking is found in Finland and Sweden in the year 1998. To pay for a Coca Cola vending machine and car parking, the mobiles are used. Following this success of mobile payments, commercial launches made the way in 1999 at Norway. The first commercial payment system to mimic banks and Credit Cards was launched in the Philippines in 1999 simultaneously by mobile operators Globe and Smart.<sup>29</sup> It is called the *SMART Money and G-Cash*. These are the electronic wallets to execute the banking transactions through mobile phones. After its success in Philippines, the Mobile Banking

solution called the *M-PESA* is<sup>30</sup> introduced in Kenya based on the Mobile Service Led Model in the year 2007. It is backed by the telecom operators Safaricom and Vodafone. It has become very popular among the customers and captured a major market in Kenya.

Some banks in India have started providing the Mobile Banking service to their customers that include State Bank of India (SBI), Union Bank of India (UBI), Punjab National Bank (PNB), HDFC Bank, ICICI Bank, Axis Bank, etc. The growth of mobile based banking transactions in India is ever in the upward trend as it can be witnessed in the following Table 1.1.

Table 1.1  
 Mobile Banking Statistics in India

Years	Mobile Banking Transactions	
	Volume of trade (In Million)	Value of transaction (In Billion)
2009-10	1.43	1.01
2010-11	6.85	6.14
2011-12	25.55	18.21
2012-13	53.31	59.89
2013-14	94.71	224.18

Source: Reserve Bank of India – Bank wise Volumes in ECS/NEFT/RTGS/Mobile Transactions – from April 2009 to March 2014

The above Table 3.6 divulges the fact that the Mobile Banking transactions have registered a growth rate of 6523 per cent in the year 2013-14 in the volume of trade. Further in the case of value of transactions executed through mobiles recorded a Himalayan growth rate of 22096 per cent in the year 2013-14 in just five years. It is proved that people have positively nodded their heads for the usage of Mobile Banking.

### 1.1. Working of Mobile Banking

This Mobile Banking service works in two modes. One is through GPRS (General Packet Radio Service) and the other one is through SMS (Short Messaging Service). In the first mode, the Mobile Banking transactions are carried out by downloading a Java based application into the mobile handset. The services are menu driven and the requests are sent to the Bank using GPRS facility. For this, the mobile handsets working on J2ME (Java 2<sup>nd</sup> Platform for Micro Edition) platform are to be used. While in the second mode, the banking activities are undertaken using the SMS messaging. It is typically called the SMS banking.

#### 1.1. First Mode

Once a customer registers for Mobile Banking with his or her bank, the bank provides him or her a User ID, M.PIN (Mobile Banking – Personal Identification Number, since ATM also has a PIN, to differentiate it, the term M-PIN is used) and a WAP (Wireless Application Protocol) link to download the Mobile Banking application to his or her mobile phone. After downloading based on the mobile phone, the application will be installed under the menu “applications or games or installations”. This icon is to be double-clicked and the user id is to be entered. The first thing to do after getting on to the application is to change the M-PIN. After changing the M-PIN, the customer can undertake various financial and non-financial banking activities through Mobile Banking.

## 1.2. Second Mode

The services under SMS banking are delivered using two ways. They are,

- Push messages and
- Pull messages.
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### 1.2.1. Push Messages

Push messages as the term indicates, are pushed (initiated) by the banks on the happening of certain events. Here the customer does not initiate the request for sending the information through message. These messages typically reach the customers as alerts on the happening of events like the following:<sup>31</sup>

1. Periodic account balance reporting. (at the end of the week or month as chosen by the customer)
2. Reporting of salary and other credits to the bank account.
3. Successful or unsuccessful execution of a standing order.
4. Successful payment of a cheque issued on account.
5. Insufficient funds.
6. Withdrawals, large value withdrawals in particular, on the account or at ATM or at EFTPOS. (Electronic Fund Transfer at point of sale)
7. Large value payment on a Credit Card.
8. One time password and authentication.
9. Log-in details when logged onto the bank's Internet Banking website for Net Banking.
10. Cautioning message.

Now-a-days, the use of OTPs (One Time Passwords) has been increased. These OTPs are sent to the mobile numbers. This type of messaging is also a type of push message. The use of OTPs has assumed significance in the attempt of combating the cyber fraud in financial and banking services. Unlike other passwords like login and transaction passwords, these OTPs are random numbers sent by the bank, having very short life and need not be memorised by the customer. These OTPs are sent each time a customer wants to perform transactions using the Online or Mobile Banking interface. The OTPs become useless either on its usage or on the expiry of its scheduled life-cycle.

### 1.2.2. Pull Messages

Pull messages, on the other hand, are pulled (initiated) by the customer as and when required by him or her. These messages are initiated by the customer by typing the respective codes given by the bank for various banking activities and sending it to the number specified. These messages include the following:

1. Account balance enquiry
2. Mini statement request
3. Electronic bill payment
4. Fund transfers between customer's own accounts
5. Stop payment instruction on a cheque
6. Requesting for suspending an ATM card or Credit Card
7. De-activating an ATM card or Credit Card when it is lost or the PIN is known to be compromised
8. Foreign currency exchange rates enquiry
9. Fixed Deposit interest rates enquiry

The charges for initiating these messages are to be paid to the mobile service provider which

will be approximately 1 or 1.50 per SMS or as per the SMS plan availed by the customer. Further, based on transactions, the Mobile Banking services can be classified into two as:

1. Inquiry-based transaction
2. Transaction-based transaction

All the non-financial banking activities initiated through Mobile Banking are inquiry-based transaction. When a customer seeks to get a statement of his or her account for the past six months then it is called inquiry-based service.<sup>32</sup>

While, on the other hand, all the financial or money-based activities undertaken through Mobile Banking are transaction-based services. A request for fund transfer is a transaction-based service.

### **1.3. Benefits of Mobile Banking**

The Mobile Banking helps the customers by ensuring fast processing of their banking transactions. Monitoring and detection of errors and frauds can be easily undertaken by the customers as any kind of financial transaction is immediately reported to the customers via short messages. Since mobile phones have become the third hand of the people, it is easy for them to bank at any time as per their convenience.

Also the Mobile Banking facility enables the user to avail the IMPS facility. Interbank Mobile Payment Service (IMPS) is an instant interbank electronic funds transfer service through mobile phones. IMPS facilitates customers to use mobile instruments as a channel for accessing their bank accounts and remitting funds there from. To remit the funds to others, the beneficiary customer should have their mobile numbers registered with the bank where he or she maintains the account and where he intends to receive the credit and should have a

valid Mobile Money Identifier (MMID) provided by the bank. Mobile Money Identifier is a seven digit random number issued by the bank upon registration. Remitter (customer who wants to send money) and Beneficiary (customer who wants to receive the money) should have this MMID for doing this interbank funds transfer.

Mobile Banking services are not only beneficial for the customers but for the banking institutions as well. These services help the banks to reduce the unnecessary dependence on the costly call centers, thereby significantly lowering the operating cost of banking institutions. As every transaction is automated, the frequency of usually committed errors in paper based payments can be lowered to a greater extent. The Mobile Banking innovation is considered a cost effective solution. So it can considerably reduce the financial risk associated with starting a new business initiative. It can also enable banking institutions to closely monitor their new campaigns. Besides this, it can provide a new avenue for selling their products like insurance packages and other banking services.

### **1.4. Business Model**

There is a whole spectrum of approaches in delivering the Mobile Banking service which can be broadly grouped into following three types.

- Bank Focused,
- Bank-Led and
- Non Bank-Led

The first approach that is bank focused model is additive in nature and a humble extension of the traditional branch-based banking. In such model, non-conventional low-cost delivery

channels are used by a conventional bank to provide banking services to its present customers. The examples of this first model include Automated Teller Machines (ATMs), Internet Banking or Mobile Banking to provide certain limited banking services to banks' customers.

The other two approaches are the distinct alternatives to branch banking. Without seeking the help of the bank branches or bank employees, in these models, a customer executes his or her banking services with the aid of his or her handset. These models prove to be the different delivery channel having the potential to substantially increase the financial services outreach. Further they make use of different trade partners (Telecommunication or Chain Store) who have experience and target market distinct from traditional banks. They may also remain significantly cheaper than the bank-based alternatives. Maintaining the end- relationship with the ultimate customer makes the difference between these two models.

**1.4.1. The Bank-Led Model** as the name suggests, the bank leads the role in Mobile Banking. The customers' accounts relationship rests with the banks only. It may be implemented by either using correspondent arrangements or by creating a joint venture between bank and the telecommunication companies.

**1.4.2. The Non-Bank-Led Model** is where a bank does not come into the picture (except possibly as a safe-keeper of surplus funds) and the non-bank (e.g. Telco) performs all the functions. This is very similar to semi-closed mobile wallet service that is being permitted by RBI in recent years. Airtel Money claims to be the first company to offer this service. Through this service the telecom customers are allowed to pay utility bills, recharge their phones, shop at merchant outlets and make online transactions using their mobile phones (like recharging their DTH (Direct To Home) connection, booking movie tickets, booking train tickets, shopping online etc). It also allows users to make instant money transfers between one Airtel money wallet to another and to bank accounts across the country.<sup>34</sup> The other players in the prepaid wallet segment include My Mobile Payments, which had launched a semi-closed m-wallet in November 2011, Loop Mobile which partnered with ZipCash to offer a mobile payments service and Reliance Jio Money.

#### **1.4.3. Security Issues and Challenges**

Though Mobile Banking offers multiple advantages to both bankers and customers, there are certain security issues and challenges which are yet to be resolved. These issues include the following:<sup>35</sup>

#### **1.4.4. Handset operability**

There are varieties of mobile handsets being introduced in the market from time to time. The initial inter-operability issues between the bank and the telecommunication companies have been localised. But still this situation creates a challenge for banks to offer Mobile Banking solution on any type of device. In India, portals like R-World is enabling the limitations of low end java based phones. The desire for inter-operability is largely dependent on the banks themselves since they expect secured banking through mobiles. These installed applications (Java based or native) provide better security, easier to use and they allow development of more complex capabilities similar to those of Internet Banking. On the other hand, the SMS banking can provide the basics but becomes difficult to operate with more complex transactions.

In practice, banking interfaces are well defined and money movements among banks follow

the **ISO-8583 standard**. This standard relates to financial transaction card originated messages. This is the standard for systems that exchange electronic transactions made by cardholders using payment cards. It has three parts:

Part 1: Messages, data elements and code values.

Part 2: Application and registration procedures for Institution Identification Codes (IIC).

Part 3: Maintenance procedures for messages, data elements and code values

It defines a message format and a communication flow so that different systems can exchange these transaction requests and responses.<sup>36</sup> As Mobile Banking matures, money movements between service providers will naturally adopt the same standards as in the banking world.

### **1.5. Scalability and Reliability**

The need for scalability and reliability stems from the reason that the customers make use of the mobile phones at any time as per their convenience. So the banks have to scale-up the Mobile Banking infrastructure to handle exponential growth of the customer base. Further they have to ensure that the systems are up and running in a true 24 x 7 fashion for the ever growing customers. As customers will find Mobile Banking more and more useful, their expectations from the solution will increase. Banks unable to meet the performance and reliability expectations may lose customer confidence.

### **1.6. Application Distribution**

In case of upgradation of Mobile Banking application it is expected that the mobile application itself check the upgrades and updates and download necessary patches (so called “Over The Air” updates). However, there could be many issues to implement this approach such as upgrade or synchronisation of other dependent components.

### **1.7. Personalisation**

World is diverse and diversity is one key characteristics of India as India sees “Unity in Diversity”. In this backdrop the challenge before m-banking is to provide personalised services such as Preferred Language, Date or Time format, Amount format, Default transactions, standard beneficiary list, alerts etc.

### **1.8. RBI Guidelines**

With the potential of Indian financial market for offering Mobile Banking services, the regulatory mechanism has also been put in place to address almost all the security and operability issues.

The **Security and fraud issues** in Mobile Banking are taken care of by including clauses like offering Mobile Banking services to customers only and strictly adhering the KYC (Know Your Customer) norms. Also RBI has instructed the banks to prepare and maintain suspicious Transaction Report for m-banking transaction and to indulge only in Indian rupee based domestic services. Further they are asked to use only secure technology for Mobile Banking that ensures confidentiality, integrity, authenticity and non-repudiability. Also setting transaction limit per day (like that of in Internet Banking) reduces the chances of frauds taking place.

**Operability issues** are taken care of by ensuring that i) customers are having mobile phones of any network provider with java based applications to avail M-Banking services, and ii) the messages are in the formats like ISO-8583. Also to address specific needs with suitable modification, the banks must possess a robust clearing and settlement infrastructure or

bilateral or multilateral arrangement for the same.

It is advised to the banks to give importance to the **Customer Grievances** in particular to M-Banking. In view of the new genre of the service the regulator has come up with all possible measures to protect the interest of the customers.

The alternate electronic delivery channel of Banking, the Mobile Banking is viewed as a promising instrument for the conduct of financial transactions. But there is a word of caution as quoted by Dr. K. C. Chakrabarty, the Former Deputy Governor of RBI, “The widespread use of cell-phones for financial transactions can facilitate greater financial inclusion. But more Mobile Banking should be promoted cautiously after taking the several security issues into consideration”.

## 2. REVIEW OF LITERATURE

**Suoranta (2003)** in her thesis entitled “*Adoption of Mobile Banking in Finland*” indicated that factors contributing to the adoption of Mobile Banking were related to convenience, access to the service regardless of time and place, privacy and savings in time and effort. In spite of the advantages of the mobile phone and its usage in banking actions had remained small. There seem to be some inhibitors that slow down the use of mobile channels in banking transactions.

**Brown I., Cajee, Z., Davies, D. and Stroebel, S. (2003)** examined in their paper “*Cell Phone Banking: Predictors of Adoption in South Africa – An Exploratory Study*” about the factors that influence the adoption of Mobile Banking in South Africa on the basis of innovation diffusion theory, banking needs, perceived risk internet experience, subjective norm, and self efficacy. They concluded that relative advantage, trial periods, and consumer banking needs, along with perceived risk, have a major negative influence on the adoption of Mobile Banking.

**Suoranta and Mattila (2004)** in their paper “*Mobile Banking and consumer behavior: new insights into the diffusion pattern*” surveyed 1,243 Finnish non users, occasional users and current users of Mobile Banking. They reported that about only half of current users of Mobile Banking, regardless of age differences, intended to continue to use the delivery service. Among the occasional users group, those with income level less than 50,000 Euros per year were more willing to begin usage than wealthier people, contrary to what some earlier studies on Internet Banking had found. It is also found that in the current non-user group the most eager to begin using the services are the older people who are 50 years of age and above.

## 3. SCOPE OF THE STUDY

This study covers the awareness level of internet banking among the banking consumers and also the utilization level of mobile banking among the banking users. The primary data collected from the people who are residing in around Dindigul town. The people consists rural, urban and also semi urban. Due to limited time and cost the data collected by using convenient sampling method. Around 400 respondents were considered for collecting data.

## 4. OBJECTIVES OF THE STUDY

This study attempt to attain the following objectives;

- To know the level of awareness and utilization of mobile banking
- To analysis the gap between awareness and utilization level of banking users

## 5. RESEARCH METHODOLOGY

This study used both the primary and secondary data for the accomplishment of the objectives. In case of primary data questionnaire was framed and data collected by sing interview schedule. This study also used the secondary sources which are already published like books, journals, newspapers and websites, etc.

## 6. DATA INTERPRETATION

### Awareness relating to Mobile Banking

The Mobile Banking concept is the new arrival in the list of electronic delivery channels of the banks. The telecommunication revolution has enabled the penetration of the mobile phones in the human hands to the maximum extent possible. The banks, with the view to reap the benefits out of this penetration, introduced the Mobile Banking facility in its electronic banking arena. The researcher is interested to know how far the Mobile Banking penetration is in the study area. The following Table 4.17 shows the awareness of Mobile Banking facility among the respondents.

Table 6.1  
 Awareness relating to Mobile Banking

Particulars		Total Users	
		Frequency	Percentage
Awareness of Mobile Banking	Aware	199	49.80
	Not Aware	201	50.20
	<b>Total</b>	<b>400</b>	<b>100.00</b>
Usage of Mobile Banking	Using	40	10.00
	Not Using	360	90.00
	<b>Total</b>	<b>400</b>	<b>100.00</b>
Reasons for Not Using Mobile Banking	Safety Reasons	21	5.80
	Do not know how to use Mobile Banking in mobile	79	21.90
	No Trust	10	2.80
	Not Necessary	75	20.80
	Inconvenience	23	6.40
	Bank did not provide full fledged Mobile Banking services	13	3.60
	Banker did not approach	11	3.10
	No facility in the mobile	14	3.90
	Safety Reasons and not necessary	12	3.30



	Do not know how to use Mobile Banking in mobile and not necessary	32	8.90
	Not Necessary, inconvenience and bank did not provide full fledged Mobile Banking services	34	9.40
	Safety Reasons, do not know how to use Mobile Banking in mobile and no trust	10	2.80
	Safety Reasons, do not know how to use Mobile Banking in mobile, no trust and inconvenience	26	7.30
	<b>Total</b>	<b>360</b>	<b>100.00</b>
Future Usage of Mobile Banking	Will Use (Prospects)	138	38.40
	Will Not Use (Rejectors)	88	24.40
	May Be (Postponers)	134	37.20
	<b>Total</b>	<b>360</b>	<b>100.00</b>

Source: Primary Data

It is noted from the above Table 4.17 that among 400 respondents, 199 (49.8 per cent) respondents are aware of Mobile Banking facility of the banks, whereas the remaining 201 (50.2 per cent) respondents are not aware of Mobile Banking facility. Only 40 (10 per cent) respondents are using this facility. While enquiring into the reasons for non-utilisation of Mobile Banking, it was found that 79 (21.9 per cent) respondents reported that they do not know how to access Mobile Banking facility from their mobile. Further 75 (20.8 per cent) respondents are of the view that it is not necessary for them to use Mobile Banking facility. Further the respondents worried about their convenience (6.4 per cent) in using the facility and also viewed safety factor (5.8 per cent) seriously in adopting Mobile Banking. They further reported that their banks did not provide the full-fledged Mobile Banking services (3.6 per cent). In addition to the above mentioned reasons, the respondents also stated that there is no trust in Mobile Banking services (2.8 per cent), banker did not approach (3.1 per cent) and no facility in mobile to download the Mobile Banking application (3.9 per cent). Among the non-users, 138 (38.4 per cent) respondents are ready to use the Mobile Banking facility in the future and 134 (37.2 per cent) respondents reported that they may use the service in the future.

One can say that when compared with the awareness of Credit Cards, the level of awareness of Mobile Banking is quite lower and the usage rate is also low. When looking at the reason for non-utilisation, it can be concluded that lack of knowledge about the usage of Mobile Banking via mobile phones is the main hindrance. This is to be seriously viewed by the banks. The banks, together with the help of telecommunication companies have to take serious efforts in educating the customers about the Mobile Banking usage. The charge that full-fledged Mobile Banking services are not provided is also to be taken into consideration by the banks, as the respondents are actually trying to say that even the bank employees are not aware of Mobile Banking services. When approached for accessing Mobile Banking

services, they just ask the customers to manage with the Internet Banking. So, bank employees too are to be given enough awareness and education regarding the Mobile Banking. Further the banks can enroll the 38.4 per cent of the non-users into their Mobile Banking customer base in the future as they are willing to adopt the service.

### Usage of Mobile Banking

The Mobile Banking has enabled the people to use the banking facilities at their convenience using a small hand-held device within few seconds. The details of Mobile Banking usage by the respondents are presented in the following Table

Table 6.2  
 Usage of Mobile Banking

Particulars		Total Users	
		Frequency	Percentage
Waiting Time for getting the service	Less than 3 days	14	35.00
	3 to 7 days	14	35.00
	8 to 30 days	6	15.00
	More than 30 days	6	15.00
	<b>Total</b>	<b>40</b>	<b>100.00</b>
Storage of Mobile Banking Password	Cannot reveal	6	15.00
	Memory	32	80.00
	Diary	2	5.00
	<b>Total</b>	<b>40</b>	<b>100.00</b>
Access Through Personal Computer	Access	10	25.00
	Do Not Access	18	45.00
	Do not Know	10	25.00
	No such facility	2	5.00
	<b>Total</b>	<b>40</b>	<b>100.00</b>
Primary Purpose	Balance Enquiry	9	22.50
	Fund Transfer	7	17.50
	Utility Payments	3	7.50
	Balance Enquiry and Fund Transfer	8	20.00
	Balance Enquiry, Fund Transfer and Utility Pay	13	32.50
	<b>Total</b>	<b>40</b>	<b>100.00</b>
Receipt of Message Code 904	Received	12	30.00
	Not Received	28	70.00
	<b>Total</b>	<b>40</b>	<b>100.00</b>
Steps Taken to get rid of the message	Set the time and date Correctly	2	16.70
	Switched off the mobile phone and re-used	10	83.30
	<b>Total</b>	<b>12</b>	<b>100.00</b>

Source: Primary Data

Table 4.18 gives details that out of 40 respondents who are using Mobile Banking, 14 (35 per cent) respondents got their Mobile Banking account within 3 days, whereas an equal number

of respondents got it in 3 to 7 days. Further 32 (80 per cent) respondents stored their M-PIN (Mobile Banking Personal Identification Number) in their memory so that it can be recalled by them at any time. Also it can be noted that there are 6 (15 per cent) respondents who said that they cannot reveal the place where they store their PIN which is a good practice. Now-a-days, most of the banks provide the Mobile Banking facility that is accessible through Personal Computer too. But the respondents (45 per cent) do not access their Mobile Banking account through PCs. Regarding the primary purpose of using Mobile-Banking, it is revealed that 13 (32.5 per cent) respondents use the facility for enquiring the balance in their accounts, making fund transfers and utility payments. Sometimes the Mobile Banking users may get an error message like “Code = 904 Request cannot be processed. Please go to settings and synchronize application”. Out of 40 respondents, 28 (70 per cent) respondents have not received such messages in the past, whereas the remaining 12 (30 per cent) respondents have received such message. So the researcher prompted them to tell the measures adopted by them to get rid of that message. Among such 12 respondents, 10 (83.3 per cent) respondents reported that they switched off their mobile phones for a while and then re-used it.

It is apparent that people are able to get their Mobile Banking facility within few days after applying. They store their password in memory so that they can recall whenever they need it. It is also known that most of the Mobile Banking users did not receive any error messages so far and all the people who received such message are able to solve it easily. The users are enjoying the hassle-free facilities provided by the Mobile Banking services.

### Awareness and Utilisation of Various Services in Mobile Banking

There are quite large varieties of services available under the Mobile Banking platform of banks. The banks create awareness about these services through information in websites, pamphlets and the like. So the researcher is interested to know the gap between the respondents’ awareness and utilisation of these varied services. The following Table 4.19 presents the details of it.

Table 6.3  
 Awareness and Utilisation of Various Services of Mobile Banking –Gap Analysis

Facilities	Awareness Score	Utilisation Score
<b>Non-Financial Services</b>		
<b>Expected Score</b> (40 x 4 x 3)*	<b>480</b>	<b>480</b>
<b>Recorded Scores</b>		
Balance Enquiry	118	104
Quick Statement View	112	90
Change Password	104	77
Cheque status enquiry	81	42
<b>Total</b>	<b>415</b>	<b>313</b>
Difference	65	167
Recorded Score as % of expected score	86.45	65.21
<b>Financial Services</b>		
<b>Expected Score</b> (40 x 10 x 3) <sup>#</sup>	<b>1200</b>	<b>1200</b>
<b>Recorded Score</b>		
Fund Transfer – Within same bank	97	67
Fund Transfer – Other banks	98	69

Utility Payments	94		61
Credit card payment	81		46
Demat facility	78		42
Shopping using mobile banking	83		48
Opening term deposits	73		42
Stop cheque payment	85		44
Donations and charity payments	76		40
IMPS with MMID	70		48
<b>Total</b>		<b>835</b>	<b>507</b>
Difference		365	693
Recorded Score as % of expected score		69.58	42.25

Source: Primary Data

\* Total no of respondents using Mobile Banking = 40; Total no of non-financial services = 4;  
 Score for fully aware and frequently using = 3

# Total no of respondents using Mobile Banking = 40; Total no of financial services = 10;  
 Score for fully aware and frequently using = 3

The above Table 4.19 elucidates that there is a gap of 65 points between the expected and recorded score of the respondents with regard to awareness of non-financial services of Mobile Banking, while there is a gap of 167 points between the expected and recorded score of utilisation of the non-financial services. So it can be concluded that the utilisation of the non-financial services of Mobile Banking is not upto the level of awareness towards them. So the banks have to induce the respondents in utilising the non-financial services through Mobile Banking.

With regard to the awareness of financial services of Mobile Banking, there is a gap of 365 points between the expected and recorded score of the respondents, whereas there is a gap of 693 points between the expected and recorded score of the respondents in the utilisation of the financial services. So it can be concluded that there is a wide gap between the awareness and utilisation of financial services of Mobile Banking.

The actual score of awareness of non-financial services of Mobile Banking is 86.45 per cent of its expected score, whereas the actual score of awareness of financial services is 69.58 per cent of its expected score. The awareness level of the non-financial services is more than that of the financial services. In the case of utilisation of Mobile Banking services, the actual score of utilisation of non-financial services is 65.21 per cent of its expected score, whereas the actual score of utilisation of financial services is 42.25 per cent of its expected score. The utilisation level of the non-financial services is more than that of the financial services with respect of Mobile Banking.

## 7. FINDINGS

The findings relating to Mobile Banking are presented below.

- Out of 400 respondents, 199 (49.8 per cent) respondents are aware of Mobile Banking facility of the banks, whereas the remaining 201 (50.2 per cent) respondents are not aware of Mobile Banking facility.
- Out of total 400 respondents, only 40 (10 per cent) respondents are using this facility. While enquiring into the reasons for non-utilisation of Mobile Banking, it was found that 79 (21.9 per cent) respondents reported that they do not know to access Mobile Banking

facility from their mobile. Only 24 per cent of the non-users are determined not to use Mobile Banking in the future, whereas the banks can enroll the remaining 76 per cent of the non-users as they are willing to adopt the service.

- Out of 40 Mobile Banking using respondents, 14 (35 per cent) respondents got their Mobile Banking account within 3 days, 32 (80 per cent) respondents stored their M- PIN (Mobile Banking Personal Identification Number) in their memory so that it can be recalled by them at any time.
- Now-a-days, most of the banks provide the Mobile Banking facility that is accessible through Personal Computers too. But the respondents (45 per cent) do not access their Mobile Banking account through PCs. It is revealed that 13 (32.5 per cent) respondents use this facility for enquiring the balance in their accounts, making fund transfers and utility payments.
- Sometimes the Mobile Banking users may get an error message like “Code = 904 Request cannot be processed. Please go to settings and synchronise application”. Out of 40 respondents, 28 (70 per cent) respondents have not received such messages in the past, whereas the remaining 12 (30 per cent) respondents have received such message. Among such 12 respondents, 10 (83.3 per cent) respondents reported that they switched off their mobile phones for a while and then re-used it.

## 8. CONCLUSION

It is divulged from the study there is a wide gap between the awareness and utilisation of various services of E-Banking by the users. The Gap Analysis reveals that there is a wide gap between the awareness and utilisation of financial and non-financial services of Mobile Banking. There is a gap of 65 points between the expected and recorded score of the respondents with regard to awareness of non-financial services of Mobile Banking, while there is a gap of 167 points between the expected and recorded score of utilisation of the non-financial services. With regard to the awareness of financial services of Mobile Banking, there is a gap of 365 points between the expected and recorded score of the respondents, whereas there is a gap of 693 points between the expected and recorded score of the respondents in the utilisation of the financial services. This will go a long way in helping the economy in numerous ways like reducing the printing cost of currency, less possibility of counterfeit notes and it is environmental friendly.

## 9. REFERENCE

- [1] Suoranta, M. (2003), “*Adoption of Mobile Banking in Finland*”, Doctoral Thesis, Jyvaskyla, Finland, Jyvaskyla Studies in Business and Management 28
- [2] Brown, I, Cajee Z, Davies D and Stroebel S. (2003), “Cell Phone Banking: Predictors of Adoption in South Africa – An Exploratory Study”, *International Journal of Information Management*, Vol. 23 No. 5, pp. 381-94.
- [3] Suoranta, M. and Mattila, M. (2004), “Mobile Banking and consumer behavior: new insights into the diffusion pattern”, *Journal of Financial Services Marketing*, Vol. 8 No. 4, pp. 354-66.
- [4] Laforet Sylvie and Li Xiaoyan (2005), “Consumers’ Attitudes towards Online and Mobile Banking in China”, *International Journal of Bank Marketing*, Vol. 23, No. 5, pp. 362-380

- [5] Laukkanen Tommi (2007), “Internet Vs Mobile Banking: Comparing Customer Value Perceptions”, *Business Process Management Journal*, Vol. 13, No. 6, 2007, pp. 788-797
- [6] Laukkanen Tommi, Sinkkonen Suvi, Kivijarvi and Laukkanen Pekka (2007), “Innovation Resistance Among Mature Consumers”, *Journal of Consumer Marketing*, Vol. 24, No. 7, 2007, pp. 419-427
- [9] Lee, K.C. and Chung, N. (2009), “Understanding Factors Affecting Trust in and Satisfaction with Mobile Banking in Korea: A Modified DeLone and McLean’s Model Perspective”, *Interacting with Computers*, Vol. 21 Nos 5-6, pp. 385-92.
- [10] KPMG International (2009), “Consumer Taking Charge, Consumers and Convergence III – Survey Report”, April 23, available at: [www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/Consumers-and-Convergence-III.pdf](http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/Consumers-and-Convergence-III.pdf) (accessed July 15, 2009).
- [12] Riquelme E. Hernan and Rios E. Rosa (2010), “The Moderating Effect of Gender in the Adoption of Mobile Banking”, *International Journal of Bank Marketing*, Vol. 28, No. 5, 2010, pp. 328-341
- [13] Barretto Lineu, Neto Filgueiras and Gallego Pablo Munoz (2010), “Mobile Banking Rollout in Emerging Markets: Evidence from Brazil” *International Journal of Bank Marketing*, Vol. 28, No. 5, 2010, pp. 342-371
- [14] Laukkanen Tommi and Kiviniemi Vesa (2010), “The Role of Information in Mobile Banking Resistance”, *International Journal of Bank Marketing*, Vol. 28, No. 5, 2010, pp. 372-388
- [15] Zhou Tao (2011), “An Empirical Examination of Initial Trust in Mobile Banking” , *Internet Research*, Vol. 21, No. 5, 2011, pp. 527-540.
- [17]