

# Customer Preferences for Mobile Banking in Delhi NCR

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## ABSTRACT

With the advent of digitalization, the banking system has witnessed a plethora of changes. The topic of the study deals with one such aspect which has eased the banking services for the end users considerably. Mobile banking is the symbiosis of technology and financial services. It offers not only convenience and business opportunities but has made the whole process of banking very efficient. The paper attempts to study the factors that affect the youth's intention to use mobile banking services in Delhi/ NCR region. Primary data has been collected and analyzed using SPSS software. The Technology Acceptance Model provided by Davis (1989) has been used and hypothesis has been draw. Statistical techniques like Regression and ANOVA have been computed to draw inferences. Conclusion has been drawn from the analysis and suggestions have been made.

Keywords : SPSS software, Information and Communication Technologies

## I. INTRODUCTION

The introduction of technology in the banking sector began in 1950s but, it actually became a part of banking industry in 1970s. Mobile banking includes m-banking & SMS banking. These are the terms used for performing balance checks, transactions, payments and all other information related to the bank accounts via mobile phone. The rapid increase in technology in the mobile industry enabled various banks with the opportunity to provide their services everywhere and anytime to their customers.

Mobile banking serves as a platform which facilitates the people in the remote area to access the banking services with ease. This has only become possible with the clear value of proposition by the telecom operators coupled with the lower tariff rate, low cost of handset and intense industry competition has lead to the rapid mobile growth. Also one can see the impact of mobile banking on service industry due to the rapid change in technology just like from 2G to 3G and from 3G to 4G. Also, changes in the operating

system or software leads to the growth of mobile banking at a higher level.

Nowadays, mobile banking is growing rapidly in India mainly because the usage of cell phones has grown tremendously and people are becoming more and more tech-savvy with changing according to the time. Mobile banking saves cost, time, effort of going to the bank, and also prevents them to stand in the queues. SMS type banking is one of the Information and Communication Technologies (ICTs) that have revolutionized the banking sector alongside other electronic banking technologies and by that many businesses are launching mobile services ranging from information communication to transaction processing. The field of research in India is comparatively very high. Also the potential of m-banking, SMS banking is very obvious in India. The dramatic increase in the number of mobile usages among India can become as a yardstick to promote SMS banking as a part of bank services.

Mobile banking is an application of mobile computing which provides with the support needed to be able to bank anywhere, anytime using a mobile handheld device and a mobile service such as a SMS.

Mobile banking reduces the space and time limitation with respect to checking account balance or transferring money from one account to another. Internet banking helps a customer to access their banks. Customer can easily checkout their account details, their bank statement, perform bank transactions and submit their bills by sitting in the comfort of their homes and offices. The main purpose of mobile banking over internet banking is that the customer doesn't need access to a computer terminal to access their bank accounts.

## II. NEED FOR THE STUDY

According to a study conducted by Sesame India, mobile banking users in India account for over 50% of its population. Due to the surge in the count of mobile transactions, the topic has gained importance in the area of research and further discussion. 'Digital India' campaign, launched by the government on July 1, 2015, created massive awareness about electronic transactions and as a result mobile transactions gained momentum amongst the general public domain. The paper attempts to study the penetration of the campaign at the grass root levels so as to gauge the awareness levels and perceptions of the public towards the campaign at large and also their inclination towards usage of mobile banking.

As India is the fastest growing country in the mobile banking sector among all the countries. FIS' third annual report surveyed that 1000 banking consumers in India, found that more than 60% of survey said that they have used mobile devices this year to check their account balances, view their passbooks, pay bills and transfer funds. This was up by 39 percent of survey in 2016 as compared to 34 percent in 2015. The study was required to access the position of India with respect to world at large while comparing the growth of mobile banking transactions.

The study has been conducted as there is limited literature on the topic to study the factors which impact the inclination of youths towards adoption of mobile banking in place of traditional methods of banking.

## III. OBJECTIVE OF THE STUDY

This study was undertaken to discover the factors that affect the usage of mobile banking based upon SMS among youths of Delhi / NCR. The study also aims to find the challenges faced by the respondents in using mobile banking. Therefore, its objectives are:

- ✓ To gain insight into SMS/Mobile banking users'/nonusers' perceptions, requirements and problems.
- ✓ To find out the factors influencing the use of SMS/Mobile banking.
- ✓ The paper also makes an attempt to show the growth of mobile banking in India in recent years.

## IV. LITERATURE REVIEW

Barnes and Corbitt (2003); Scornavacca and Barnes (2004) suggest that recent innovations in telecommunications have enabled the launch of new access methods for banking services, one of these is mobile banking; whereby a customer interacts with a bank via a mobile device such as a mobile phone or personal digital assistant. Karjaluo et al. (2002); Rugimbana (1995) found that there is vast market potential for mobile banking due to its always-on functionality and the option to do banking virtually any time and anywhere.

Bhatti (2007) 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 M-commerce. The study has revealed that subjective norms and perceived behavioural control impact

perceived ease of use and intention to adopt mobile commerce.

Laforet and Li (2005) found that the lack of understanding of the concepts and benefits was a main barrier to consumers using mobile banking, subsequently, users of mobile banking were not intended to be highly educated and were typically younger people in China; this was in contrast to the situation in the western countries as discussed by Karjaluo, Mattila, and Pentto, (2002).

Gupta (1999); Pegu (2000); Dasgupta (2002) also affirms future of mobile banking in India in their studies. Suoranta (2003) found that the average mobile banking user is married, 25 to 34 years old, has intermediate education and average income in clerical work. She found that age and education have a major influence on the use of the mobile phone in banking services. The adoption theories assume that use of Internet banking precedes the adoption of the mobile phone in banking. Comninos et al. (2008) suggest that unbanked will only transact electronically (online/mobile banking) if there is convenience and security. Sharma and Singh (2009) found that Indian mobile banking users are specially concern with security issues like financial frauds, account misuse and user friendliness issue - difficulty in remembering the different codes for different types of transaction, application software installation & updation due to lack of standardization.

Previous studies indicate, that factors contributing to the adoption of mobile banking are related to convenience, access to the service regardless of time and place, privacy and savings in time and effort (Suoranta, 2003). Among the various factors determining adoption of mobile banking include levels of perceived risk (Chung, N., & Kwon, 2009); interaction (Yu & Fang, 2009) perceived uncertainty (Laukkanen, 2007), perceived usefulness, ease of use, credibility, self efficacy, perceived system quality (Kleijnen, M., Wetzels, M., & Ruyter, K.D. 2004), experience (Chung & Kwon, 2009), financial cost

(Yang, 2005), time saving (Laukkanen, 2007), security and privacy (Luarn & Lin, 2005), Information quality (Lee, Park, & Chung, 2009), compatibility and risk (Lewis, & Palmer, & Moll, 2010) perceived financial cost, perceived risk, security issues.

## GROWTH OF MOBILE BANKING

Mobile banking is becoming popular among users. The data included in the survey shows how quickly people are adopting mobile banking apps. For the past five years, the number of mobile phone owners with a bank account using a mobile banking app has doubled, reaching 43% in 2016. The same report states that the most common activities that users do in their mobile banking app are checking an account balance and recent transactions, transferring money between bank accounts, and receiving notifications from a bank. It means that customers have already successfully adopted essential mobile banking functions and can perform most basic activities without visiting a bank office.

With the onset of Modi's government campaigns - Digital India & Demonetization, there was 55% increase in Digital transactions in a year and India sees 122% jump in mobile banking. In the financial year of 2016-2017, there was a total of 865.9crore digital transactions across all banking sector (shown in figure below) . This is a significant rise from 2013-2014 number of 254.5crore digital transactions. Within a period of 3 years the figures would going to be tripled. Recently NITI Aayog has declared that digital payments grew 55% in volume and 24.2% in value in 2016-17 over 2015-16.

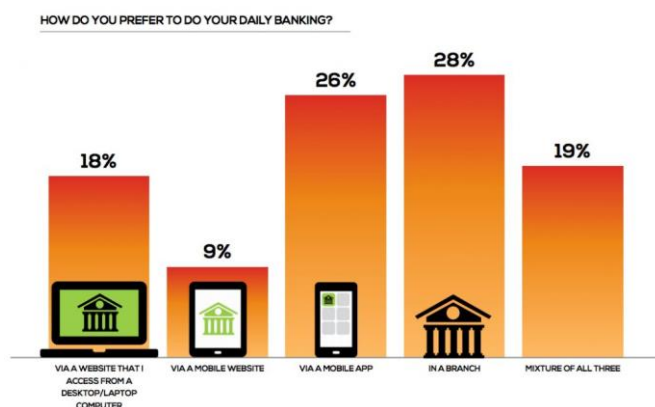


Figure:1

The report suggest that 61% of people use their mobile phone to carry out banking activity, with 48% using a banking app. The most common activity within a mobile banking app is to check a person's balance. In a survey it is depict that the number of people who check their balance on a smart phone has increased from 28% to 44%. People are also more comfortable with paying bills in an app—29% in 2017 compared to 20% in 2016.

The Indian government has continuously stressed on the importance of using mobile banking and has urged so many people to use their mobile phones for banking purposes. The government maintained that India's 117 crore mobile phone users can do much better in terms of utilizing the mobile banking application so after that government launches THE BHARAT INTERFACE FOR MONEY ('BHIM') app, which enables every user to make payments across bank accounts is a very significant achievement for the cashless mission, it is being already downloaded by 2 crore Indians. The prime minister website stated that over 72 crore transactions were done using cell phones in 2016-17 compare to 9.47 crore in 2013-14.

According to MEF (2016), despite the increase in mobile banking, there are still people who want to bank in person. There are a smaller percentage of customers who use various ways to bank, with 19% of people accessing their bank on a daily basis through one of the channels—mobile app, physical location or website access via a laptop (as shown in figure below).



Source: MEF, Mobile Money Report, 2016

Figure 2

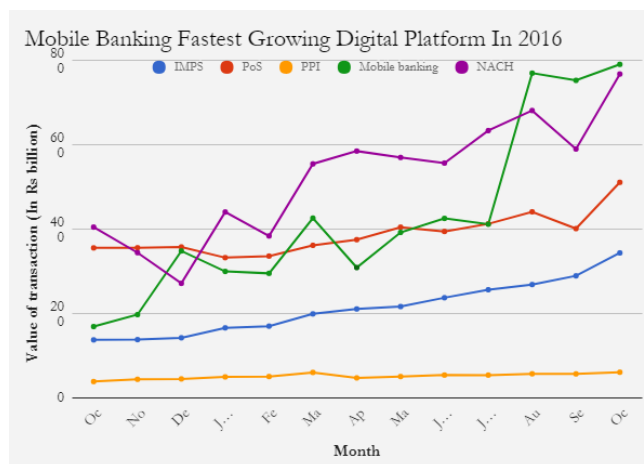


Figure 3 : Mobile Banking Fastest Growing Digital Platform in 2016

India is considered as the second largest market in the world, who has 1 billion mobile phone users. Near about 45% mobile subscribers are linked from rural areas.

There are millions of people (40%) who are still unbanked, out of which vast population are belong to rural areas. Our Indian prime minister is also promoting India to make India cashless country and appealing to Indian citizens to connect with the nearby banks. Now almost each and every bank welcomes peoples to open zero balance account in there branch comes under Jan Dhan Yojna.

## V. METHODOLOGY

The study is based on empirical research which was sought to investigate the adoption and use of SMS banking among youths in Delhi / NCR. The sample size includes 100 respondents, as the set of questionnaires were given to them on the basis of non-probability convenience sampling. A structured questionnaire was adopted and modified from previous studies on this topic (Yu, 2009). The questionnaire contains two sections: the first section was designed to gather the respondents' personal and demographic information. The second part was designed to gather the information regarding the factors that affect the respondent's inclination to use mobile banking. Various statistical tools namely,

mean, Linear Regression and Multiple Regression was used to present the data.

Secondary data also used from the website of various eminent institutes and organizations. The responses are analyzed and tabulated in the paper.

### Research Model

To address the research objectives, an initial research model based on the Technology Acceptance Model (TAM) (Davis, 1989) and the Extended TAM (Luarn & Lin, 2004) was used (Figure No. 1). The constructs are discussed in the following section:

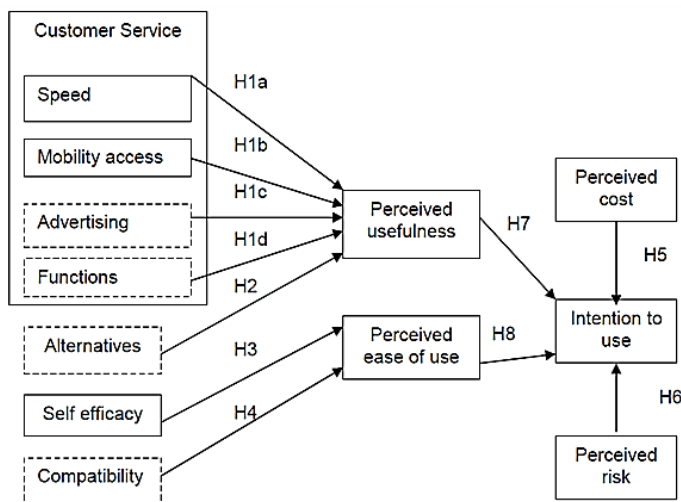


Figure: 4

Perceived usefulness was defined as “the degree to which a person believes

That using a particular system would enhance his or her job performance” While perceived ease of use was defined as “the degree to which a person believes that using a particular system would be free from effort”.

Perceived usefulness is studies in the basis various constructs mainly Speed, Mobility, Alternatives, Advertising, and Functions.

Speed according to Hung et al (2003) found that Connection speed was a significant determinant in users adopting WAP services in Taiwan. According to

focus groups would enhance the usefulness of Mobile banking in the users’ mind. “Alternatives” could be used to efficiently express the Current environment or situation of consumers in regard to mobile banking.

### Demographics Characteristics

Variables	Categorie s	All respondent s	Percentag e
		Frequency	
Gender	Male	55	61
	Female	35	39
Age	Below 18	2	2
	18-20 years	53	59
	21-23 years	0	0
	24-26 years	26	29
	above 26	9	10
Income	Below 5 lacs	41	46
	5 lacs- 10 lacs	33	37
	10 lacs-15 lacs	14	16
	15 lacs or more	2	2
Mobile phone use	Never	7	8
	> 1 year	14	16
	1-2 year	17	19
	3-5 year	30	33
	> 6 year	22	24
Txt message	Never	32	36

<b>use daily</b>			
	Once	15	17
	Twice	27	30
	Three times	16	18
	>three times	0	0
<b>Do Banking weekly</b>	Never	15	17
	Once	38	42
	Twice	26	29
	Three times	11	12
	>Three times	0	0
<b>Mobile banking(SMS) use</b>	Non-user	13	14
	> 1 year	35	39
	1-2 year	24	27
	3-5 year	15	17
	> 5 year	3	3

Table No. 1: Demographic details

The survey provides data about participants' demographic profile. The data show that the number of male respondents is higher than the number of female respondents, with males accounting for 61% and females 39% of the responses. One possible explanation for more male respondents could be that males are more likely to be interested in the usage and adoption of technology such as mobile phones. Nearly half of the Mobile banking users (59%) aged

between 18 and 20 years. Few mobile Banking users were less than 18 years or over 26 years, 2% and 10% respectively.

### Hypotheses

To answer the research objective, the following null hypotheses have been drawn keeping in view, the above model:

H1: There is no relationship between Speed, Mobility Access, Advertising, Functions of mobile banking & their perceived usefulness

H2: There is no relationship between perceived usefulness of mobile banking by respondents and their intention to use

H3: There is no relationship between perceived cost of mobile banking by respondents & their intention to use

H4: There is no relationship between perceived risk of mobile banking by respondents & their intention to use.

### Data Analysis & Interpretation

To test H1, we have used Multiple Regression method and Speed, Mobility Access, Advertising, Functions of mobile banking are taken as independent variables and perceived usefulness is taken as dependent variable.

#### SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.545363872
R Square	0.297421753
Adjusted R Square	0.255601619
Standard Error	0.626984256
Observations	90

#### ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	5	13.97882237	2.795764	7.111927334	1.37E-05
Residual	84	33.02117763	0.393109		
Total	89	47			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	2.070893414	0.648307874	3.194306	0.001974296	0.781662	3.360125	0.781662	3.360125
Mobility	0.348142941	0.113689658	3.062222	0.002951087	0.122059	0.574227	0.122059	0.574227
Adv	0.116409431	0.110452252	-1.05393	0.294935086	-0.33606	0.103237	-0.33606	0.103237
Functions	0.201806297	0.105208958	1.918147	0.058489858	-0.00741	0.411026	-0.00741	0.411026
Alternatives	0.213994793	0.08327393	-2.56977	0.011941735	-0.37959	-0.0484	-0.37959	-0.0484
Speed	0.228868269	0.122184938	1.87313	0.064528601	-0.01411	0.471846	-0.01411	0.471846

The table above shows that mobility, functions, and alternatives have significant relationship with Perceived Usefulness having p values of 0.002, 0.05, 0.011 respectively.

To test H2, we have used Linear Regression method, perceived usefulness of mobile banking are taken as independent variables and Intention to use is taken as dependent variable.

### SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.050687605
R Square	0.002569233
Adjusted R Square	0.008765207
Standard Error	1.222964594
Observations	90

### ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	0.339025	0.339025	0.226675	0.63518
Residual	88	131.6165	1.495642		
Total	89	131.9556			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	3.99770598	0.891381	4.484848	2.19E-05	2.226275	5.769137	2.226275	5.769137
Perceived usefulness	-0.138691883	0.291306	-0.4761	0.63518	-0.7176	0.440217	-0.7176	0.440217

The above table shows that there is no significant relationship between perceived usefulness and respondent's intention to use the mobile banking services.

To test H3, we have used Linear Regression method, perceived cost of mobile banking are taken as independent variables and Intention to use is taken as dependent variable. The table below shows that there is significant relationship between perceived cost and intention to use mobile banking having p value of 0.0003.

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.365885
R Square	0.133872
Adjusted R Square	
Standard Error	0.124029
Observations	90

ANOVA

	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	7.61729	7.61729045	13.60156	0.00039057
Residual	88	49.2827	0.56003079		
Total	89	56.9			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	5.200896	0.17293	30.0746909	4.46E-48	4.85722883	5.54456	4.85722	5.54456
Perceived Risk		0.10934	-	0.00039	-	-	-	-
Cost	-0.40327	0.062056896	3.68802882	0.00039	0.62056896	0.18597	0.62057	0.18597

To test H4, we have used Multiple Regression method, perceived risk of mobile banking are taken as independent variables and Intention to use is taken as dependent variable. The result from the table below show that

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.287295
R Square	0.082539
Adjusted R Square	0.072113
Standard Error	1.116653
Observations	90



## ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>Significance F</i>
Regression	1	9.87161	9.87161	7.91684
Residual	88	109.728	1.24691	0.006041
Total	89	119.6		

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	4.744272	0.31132	15.2391	2.06E-26	4.125587	5.36295	4.12558	5.36295
Perceived risk	-0.35089	0.12470	-2.81369	0.00604	-0.59872	0.10306	0.59872	0.10306

## VI. CONCLUSIONS & SUGGESTIONS

The analysis of the data suggest that both the factors namely perceived cost, perceived risk are the significant factors which impact the intentions of the respondents to use mobile banking services. Also, out of the various factors which are used to study perceived usefulness only mobility, functions and alternatives are significant to impact the intentions of the respondents to use mobile banking.

It is quite surprising to see that on the basis of the outcome of hypothesis 2, the perceived usefulness has no relationship with the intention to use suggesting that the respondent's awareness of the merits of mobile banking is very limited.

The government should take necessary action to increase the level of awareness of youths towards mobile banking uses.

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