

A
Dissertation Report
On
Factors Influencing the Adoption of Mobile
Banking in India

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Jan – May 2015

CERTIFICATE FROM THE INSTITUTE

This is to certify that the Project Report titled **Factors influencing the adoption of mobile banking in India**, is a bona fide work carried out by **Mr. Rohit Kumar** of MBA 2013-15 and submitted to Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 in partial fulfilment of the requirement for the award of the Degree of Masters of Business Administration.

Signature of Guide

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DECLARATION

I **Rohit Kumar**, student of MBA 2013-15 of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 declare that Dissertation Project Report on “**Factors influencing the adoption of mobile banking in India**” submitted in partial fulfilment of Degree of Masters of Business Administration is the original work conducted by me.

The information and data given in the report is authentic to the best of my knowledge. This Report is not being submitted to any other University for award of any other Degree, Diploma and Fellowship.

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ACKNOWLEDGEMENT

I would like to express my immense gratitude to mentor guide Dr. Rajan Yadav (Associate Professor, Delhi School of Management, DTU) for imparting valuable support, encouragement, guidance and immense knowledge throughout the project.

I am also very thankful to all the faculty members of Delhi School of Management, DTU who guided me and provided their support whenever needed. Apart from that they helped me in finding my path and how to go about the project and provided me right input whenever needed.

Last not the least I would like to thank my parents without whose kind, support and love I could not have undergone the project smoothly. I am thankful to my friends and our seniors without whose cooperation and guidance the project would not have been completely successfully.

I thank all those who knowingly and unknowingly have helped me in the fulfilment of this project.

ABSTRACT

Mobile banking is a service which helps customers to do banking on their cell phones anywhere, anytime with the help of a bank and a mobile service. It helps in carrying out activities such as checking account balances, account statements, and transfer of money from one account to another account and thus removing the space and time constraints.

Information technology has been used to develop the banking services that can be used on mobile handset and has fundamentally been used under communication & connectivity and business process. During the past decade, the advancement in technology has remoulded the way in which the banking was done. With the coming of new technologies and increased disposable income in India, number of people using internet on mobile handset has been incredibly increased. The population of India is 125 crore and the internet penetration in the country is only 20-25% (Wikipedia.com). Thus, increasing the scope of using mobile banking in the country. The study focusses on many factors such as perceived usefulness, perceived credibility, speed, influence on society, perceived ease of use and consumer awareness.

A questionnaire has been constructed, and data has been collected from 254 respondents by using convenient sampling method. Based on the data collected, hypothesis testing has been done and regression analysis has been done and the correlation of various factors has been identified.

Index

Introduction	1
1.1 Mobile banking.....	1
1.2 Mobile Banking Services	2
CHAPTER 2	3
Literature Review	3
2.1 Introduction	3
2.2 Overview of Mobile Banking Factors	5
CHAPTER 3	6
Research Methodology	6
3.1 Objective of Study	6
3.2 Significance of Study	6
3.3 Pre-Testing the Questionnaire	6
3.4 Data Collection	6
3.5 Adoption Model.....	7
CHAPTER 4	9
Data Analysis, Interpretation & Findings	9
4.1 Research Model	9
4.2 Data Analysis.....	12
4.3 Hypothesis Testing	16
CHAPTER 5	33
Limitations, Implication, Future Work and Conclusion	33
5.1 Limitations.....	33
5.2 Implications	33
5.3 Future Work.....	34
5.4 Conclusion.....	34

CHAPTER 6	36
References	36
ANNEXURE 1	37

Figures

3.1 Technology acceptance model	7
3.2 Extended technology acceptance model.....	8
4.1 Gender graph	13
4.2 Weekly banking graph.....	14
4.3 Mobile banking use	15

Tables

2.1 Mobile banking usage in India (2010-13)	4
4.1.1 Simple linear regression for speed	17
4.1.2 Simple linear regression for mobility access.....	18
4.1.3 Simple linear regression for advertising.....	19
4.1.4 Simple linear regression for functions.....	20
4.1.5 Simple linear regression for alternatives	21
4.1.6 Simple linear regression for compatibility	22
4.1.7 Simple linear regression for self-efficacy.....	23
4.1.8 Simple linear regression for perceived usefulness	24
4.1.9 Simple linear regression for perceived ease of use	25
4.1.10 Simple linear regression for perceived cost.....	26
4.1.11 Simple linear regression for perceived risk	27
4.2 Regression analysis of entire model.....	32

CHAPTER 1

Introduction

1.1 Mobile banking

Mobile banking is a system that allows customers of a financial institution to conduct a number of financial transactions through a mobile device such as a mobile phone or tablet.

Mobile banking differs from mobile payments, which involve the use of a mobile device to pay for goods or services either at the point of sale or remotely, analogously to the use of a debit or credit card to effect an EFTPOS (electronic fund point of sale) payment.

Mobile banking has until recently (2010) most often been performed via SMS or the mobile web. Apple's initial success with iPhone and the rapid growth of phones based on Google's Android (operating system) have led to increasing use of special client programs, called apps, downloaded to the mobile device. With that said, advancements in web technologies such as HTML5, CSS3 and JavaScript have seen more banks launching mobile web based services to complement native applications.

Mobile banking is a service which helps customers to do banking on their cell phones anywhere, anytime with the help of a bank and a mobile service. It helps in carrying out activities such as checking account balances, account statements, and transfer of money from one account to another account and thus removing the space and time constraints.

A recent study (May 2012) by Mapa Research suggests that over a third of banks (A third of banks have mobile detection". Mapa Research. 2012-05-16. Retrieved 2012-05-16) have mobile device detection upon visiting the banks' main website. A number of things can happen on mobile detection such as redirecting to an app store, redirection to a mobile banking specific website or providing a menu of mobile banking options for the user to choose from.

1.2 Mobile Banking Services

Mobile Banking refers to provision and availment 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."

According to this model mobile banking can be said to consist of three inter-related concepts:

- 1) Mobile accounting
- 2) Mobile brokerage
- 3) Mobile financial information services

Most services in the categories designated accounting and brokerage are transaction-based. The non-transaction-based services of an informational nature are however essential for conducting transactions - for instance, balance inquiries might be needed before committing a money remittance. The accounting and brokerage services are therefore offered invariably in combination with information services. Information services, on the other hand, may be offered as an independent module.

The mobile banking services may include account information in which a customer can check mini-statement, account history, loan statement, monitoring of term deposits, etc.

Secondly, customers can transfer funds between accounts that are linked with the account and also they can pay bills, and do third party payment.

Thirdly, banks also provide portfolio management services, real time stock quotes and cheque book request, statuses for credit card and insurance coverage, etc.

CHAPTER 2

Literature Review

2.1 Introduction

Reserve bank of India has set guidelines for using banking services on mobile handheld devices. It was mandatory to consider that all transactions should originate from one bank and should terminate in another bank. There should be no loss of money in between this process. Banks in India have already started giving services like mini-statement, account history, loan statement, monitoring of term deposits, transferring funds between accounts that are linked with the account. Reserve Bank of India has directed banks to supervise issues related to banking and to ensure technology standards and to maintain interoperability.

The guidelines issued by RBI in October 2008, permitted banks to facilitate funds transfer from one bank account to another bank account, both for personal remittances and purchase of goods and services. Banks were directed on the regulatory/supervisory issues, registration of customers for mobile banking, to ensure technology standards, interoperability, interbank clearing and settlement arrangements for fund transfers, customer grievance and redressal mechanism and transaction limits in an attempt to ensure safe, secure transfer of funds.

In line with these guidelines, banks have been offering mobile banking services to their customers through various channels such as SMS, USSD channel, mobile banking application etc. However, real time inter-bank mobile banking payments has been facilitated through the setting up of the Interbank Mobile Payment Services (IMPS), now termed as Immediate Payment Service, and operated by the NPCI with the approval of the Reserve Bank of India. The IMPS has enhanced the efficiency of mobile banking by enabling real time transfer of funds between bank accounts and providing a centralised interbank settlement service for mobile banking transactions. The IMPS has also been enhanced to support merchant payments using mobile phones

to promote less cash society. The committee considered options of using mobile for the merchant payments whereby the merchants on initiating the payment request completes the transaction by accepting an OTP generated by customer on his mobile. The committee also considered a standard and simple process to generate OTP across all banks.

Under the PSS Act, the Reserve Bank has given approval for mobile banking services to 80 banks, of which 64 have commenced operations. The customer base of banks who have subscribed to mobile banking services stands at nearly 30 million as of October 2013.

In recent years, the mobile banking has been reflecting a growing trend (albeit the low volumes) with the volume and value increasing by 108.5% (53.30 million in 2012-13 vis-à-vis 25.56 million in 2011-12) and 228.9% (Rs.59.90 billion in 2012-13 vis-à-vis Rs.18.21 billion in 2011-12) respectively. The trend in usage of Mobile Banking in the last three years is given below:

Year	No. of User (Million)	Volume (Million)	Value (Billion Rs.)
2010-11	5.96	6.85	6.14
2011-12	12.96	25.56	18.21
	(117.45%)	(273.139%)	(196.58%)
2012-13	22.51	53.30	59.90
	(73.69%)	(108.53%)	(228.94%)
Note: figures in brackets indicate the growth over the previous year.			

Table 2.1: Mobile banking usage in India from 2010 to 2013

Mobile telephony in India has a huge potential with 873.4 Mn mobile connections as on 30.06.2013 in the country, of which about 350 Mn are in rural areas. The number of subscribers who access Internet by wireless phones has grown to about 143 Mn.

With sizeable proportion of households (41.3%) not having a bank account, and large unbanked sections of population residing in the villages (as per Census 2011, only 54.4% of rural households had access to banking services), mobile banking offers a huge opportunity for banking industry to leverage upon the mobile density in the country.

2.2 Overview of Mobile Banking Factors

2.2.1 Perceived Ease of Use

Perceived ease of use means how easily a system can be used. It refers to the degree to which a person is comfortable in using a system.

2.2.2 Perceived Usefulness

Perceived usefulness means increase in the efficiency or productivity by using a particular system.

2.2.3 Perceived Risk

Perceived risk is defined as the user's loss while carrying out a particular activity. It is a subjective expectation of a user.

2.2.4 Social Influence

Social influence means how a person is influenced for using a technology by his/her social circle.

CHAPTER 3

Research Methodology

3.1 Objective of Study

The objective of this research is to find out the factors influencing the adoption of mobile banking in India.

3.2 Significance of Study

The study helps in finding the factors that are useful in adopting the mobile banking services and to find relationship among them. These findings can help the banks to understand the perception of the customers and can help in implementing those services in the system which are currently not being offered by the banks.

3.3 Pre-Testing the Questionnaire

A pre-testing has been carried out on 7 individuals. The questionnaire has been pre-tested to detect any error in the questionnaire design and whether the questions were understandable or not. The adjustment has been done on the research questions before it was distributed to the target audience. The questionnaire is then, distributed to the respondents.

3.4 Data Collection

The method used for the survey was the online survey. It was essential to make sure the questionnaire was easy to read and understandable by all the people. It was also taken into consideration that the administration of the questionnaire would not exceed 2-3 minutes. Primary data has been collected from 254 respondents who filled the questionnaires and gave the required necessary information. The questionnaire has

been designed keeping in mind all the basic steps for construction of a questionnaire (Kotler, P., Marketing Management).

3.5 Adoption Model

The Technology Acceptance Model (TAM) is an information systems theory that tells how users accept a technology and how they use a technology.

The Technology Acceptance Model (TAM) (Davis, 1989; Davis, Bagozzi, & Warshaw, 1989) has been widely used and adopted to understand user acceptance of IT/IS. TAM is specific to IT/IS usage and valid in predicting the individual's acceptance of various corporate IT systems. The Technology Acceptance Model (TAM) is an information systems (System consisting of the network of all communication channels used within an organization) theory that models how users come to accept and use a technology.

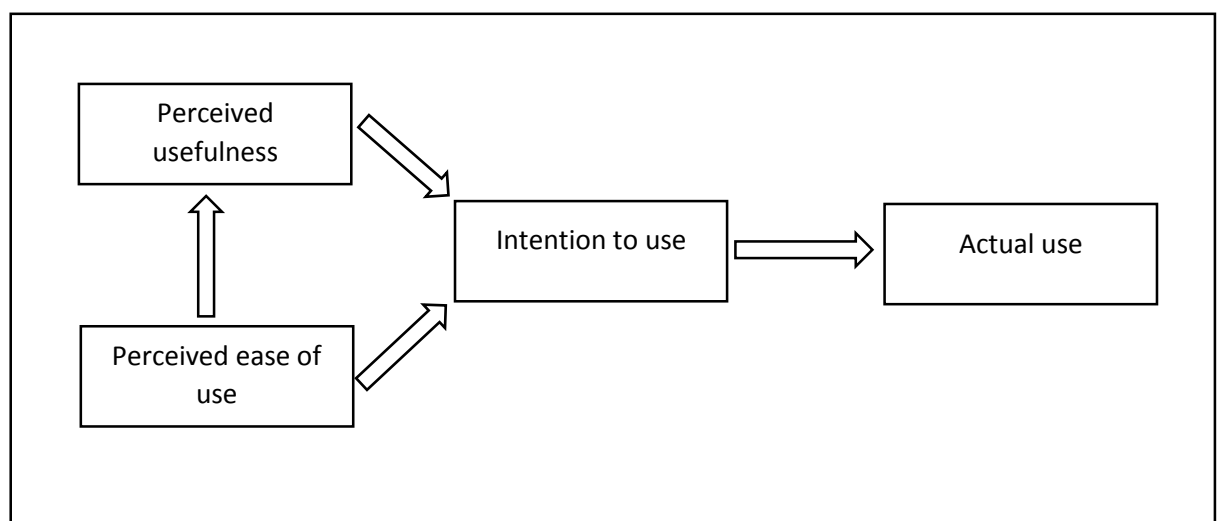


Figure 3.1: Technology acceptance model

There are two basic factors that explain the user's intention to use and also explain the behaviour towards the use of new technology. These two factors are— perceived usefulness and perceived ease of (Figure 3.1).

Consequently the above two factors may not explain the factors which predict the acceptance of a technology application such as mobile banking. Studies say that there are other factors also which are necessary to explain the user's intention to use and behaviour to adopt new technology. This has been termed as Extended TAM.

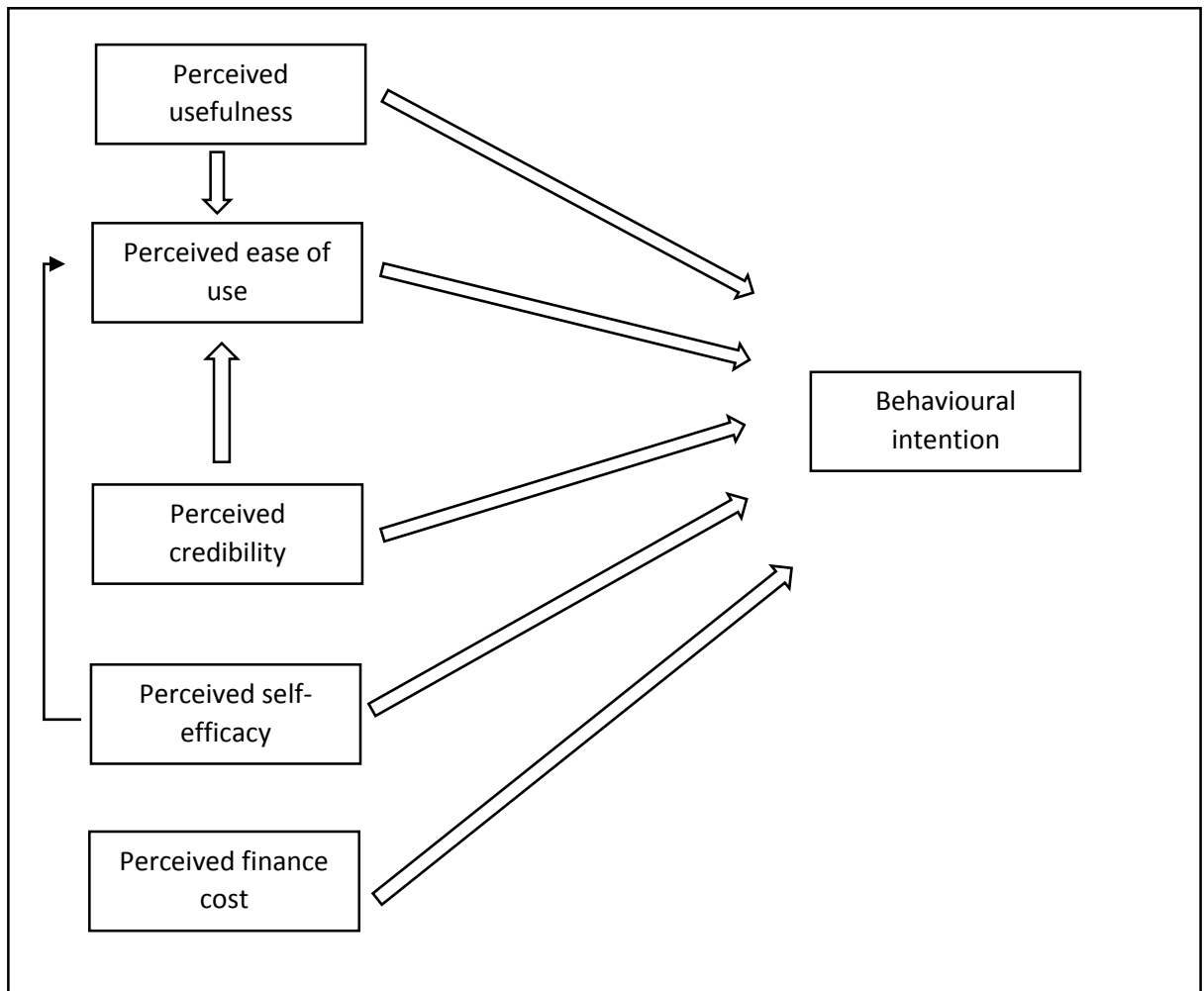


Figure 3.2: Extended TAM

CHAPTER 4

Data Analysis, Interpretation & Findings

4.1 Research Model

Factors used in the study has been discussed and a hypothesis has been formed.

4.1.1 Speed

Greater speed enhances the user's belief in the usefulness of mobile banking. The following hypothesis has been formulated:

H1a: Speed will have a positive effect on the perceived usefulness of mobile banking.

4.1.2 Mobility Access

Mobility access improves the usefulness of mobile banking services. The following hypothesis has been formulated:

H1b: Mobility access will have a positive effect on the perceived usefulness of mobile banking.

4.1.3 Advertising

Advertising would enhance the user belief in the usefulness of mobile banking. The following hypothesis has been formulated:

H1c: Advertising will have a positive effect on the perceived usefulness of mobile banking.

4.1.4 Functions

The more functions added in mobile banking allow users to perform more functionality of banking. More functions would enhance the usefulness of mobile banking in user's mind. The following hypothesis has been formulated:

H1d: Enhanced functions will have a positive effect on the perceived usefulness of mobile banking.

4.1.5 Alternative

Users have many possible way to conduct a transaction. Hence, alternative could be one of the possible factors to enhance the user beliefs about the usefulness of mobile banking. The following hypothesis has been formulated:

H2: Alternatives will have a negative effect on the perceived usefulness of mobile banking.

4.1.6 Compatibility

Compatibility is viewed as an indicator of how well the service or technology fits with the way the customers manage and control their finances and how it suits their lifestyles. It is an important aspect of compatibility that customers are able to integrate services and technologies into their life. The following hypothesis has been formulated:

H3: Compatibility will have a positive effect on the perceived ease of use of mobile banking.

4.1.7 Self-efficacy

It is defined as the judgement of one's ability to use a mobile banking service. It influence the user's behaviour to use mobile banking through perceived ease of use. The following hypothesis has been formulated:

H4: Self-efficacy will have appositive effect on the perceived ease of use of mobile banking.

4.1.8 Perceived Cost

Cost has direct influence on the user's intention to use mobile banking. The following hypothesis has been formulated:

H5: Perceived cost will have a negative effect on behavioural intention to use mobile banking.

4.1.9 Perceived Risk

Risk usually arises from an uncertainty that users face when they cannot foresee the consequences of their purchase decision. Intention or adoption of using new technology is affected by their perception of risk, whether or not such risk exists. Perceived risk may directly influence user intention to use mobile banking and the following hypothesis has been formulated:

H6: Perceived risk will have a negative effect on behavioural intention to use mobile banking.

4.1.10 Perceived Usefulness

It is an important factor to determine the intention to adopt and use a technology. The following hypothesis has been formulated:

H7: Perceived usefulness will have a positive effect on the behavioural intention to use mobile banking.

4.1.11 Perceived Ease of Use

A system which is easier to use will facilitate more system use and task accomplishment than systems that are hard to use. The following hypothesis has been formulated:

H8: Perceived ease of use will have a positive effect on the behavioural intention to use mobile banking.

4.2 Data Analysis

A total of 254 respondents submitted the answer. The questions related to demographics, mobile phone usage, banking, mobile banking and intention to use were also asked.

4.2.1 Gender

Out of 254 respondents, 178 were male and 76 were females.

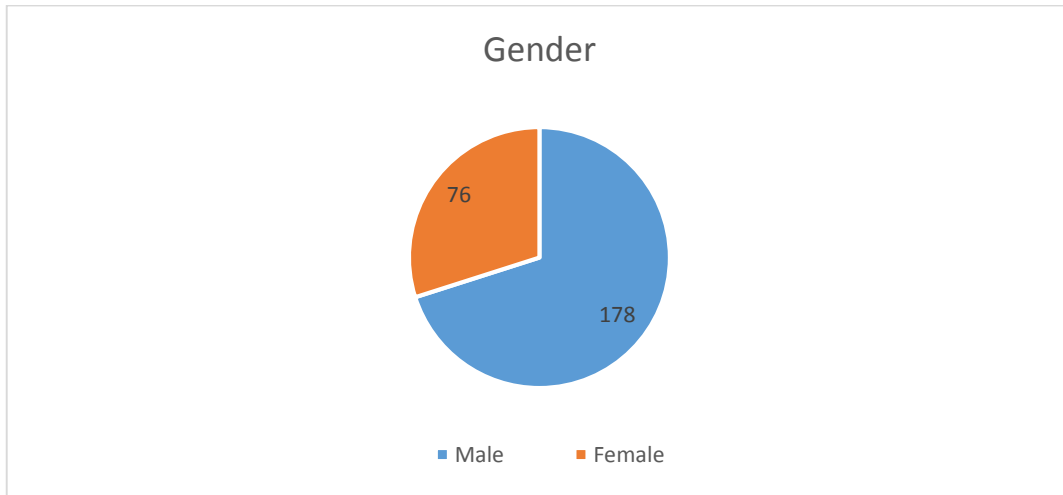


Figure 4.1: Gender

4.2.2 Do Banking Weekly

This question has been asked to analyse the trend of a person engaging in banking activities. Out of 254 respondents, 62 people do banking more than three times in a week whereas only 70 people do banking once in a week. And 21 people never involve in banking activities. The following pie charts shows the pattern of banking in a week.

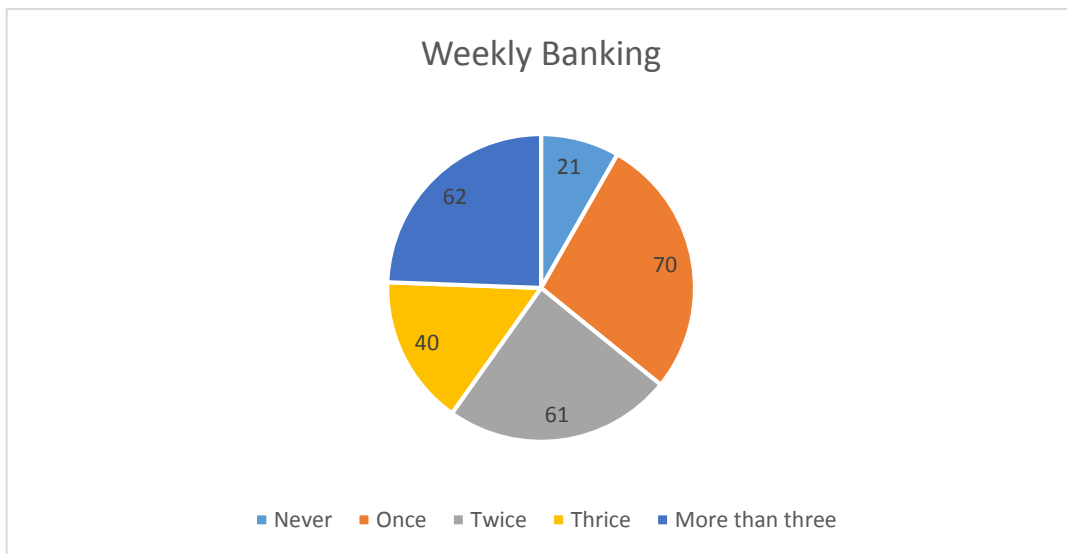


Figure 4.2 Weekly banking

The figure also illustrate that around 40% people engage in some kind of banking activities more than 2 times in a week

4.2.3 Mobile Banking Use

It has been found that a large number of respondents were not using the mobile banking. Although, there are 8 respondents who has been using the mobile services since more than 5 years.

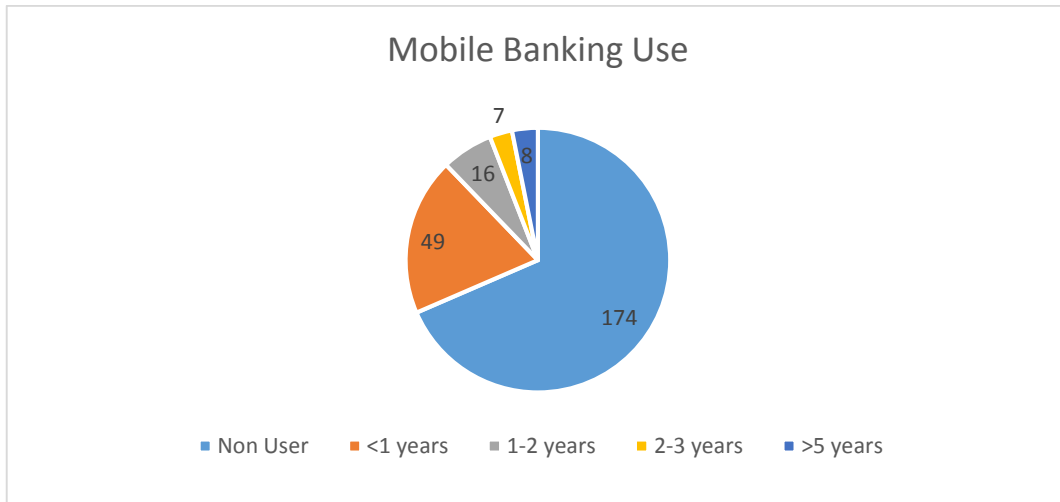


Figure4.3 Mobile Banking Use

4.2.4 Frequency of Mobile Banking Usage

A 5-point Likert scale measurement has been used to collect the data. The below table shows the use of mobile banking within the last month. From the table, it can be figured out that 47.5 % of users have not used mobile banking in the past 30 days.

Frequency of use	None	Once	Twice	Three times	>three times	Total
1	31	0	0	0	0	31
2	3	4	2	1	1	11
3	2	4	6	5	5	22
4	0	2	0	2	5	9
5	2	2	0	1	2	7
Total	38	12	8	9	13	80

Table 4.1: Frequency & Actual Mobile Banking Use

4.3 Hypothesis Testing

Linear regression is used to explore the relationship between dependent and independent variable. For hypothesis, the p-value should be significant at 0.05 level.

- 1) Independent variables: advertising, mobility access, functions, speed and alternatives are regressed against the dependent variable usefulness.
- 2) Independent variables: self-efficacy and compatibility are correlated against the dependent variable ease of use.
- 3) Independent variables: risk, usefulness, ease of use and cost are correlated to dependent variable intention to use.

Regression Analysis- Hypothesis and Results

Simple linear regression for all relationship between independent and dependent variables.

1) Simple linear regression for speed

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	SP(a)	.	Enter

a All requested variables entered.

b Dependent Variable: PU

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.479(a)	.230	.227	.91192

a Predictors: (Constant), SP

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.567	1	62.567	75.237	.000(a)
	Residual	209.564	252	.832		
	Total	272.131	253			

a Predictors: (Constant), SP

b Dependent Variable: PU

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.004	.239		4.194	.000
	SP	.577	.067	.479	8.674	.000

a Dependent Variable: PU

2) Simple linear regression for mobility access

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	MA(a)	.	Enter

a All requested variables entered.

b Dependent Variable: PU

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.286(a)	.082	.078	.99563

a Predictors: (Constant), MA

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.330	1	22.330	22.526	.000(a)
	Residual	249.801	252	.991		
	Total	272.131	253			

a Predictors: (Constant), MA

b Dependent Variable: PU

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.897	.245		7.744	.000
	MA	.300	.063	.286	4.746	.000

a Dependent Variable: PU

3) Simple linear regression for advertising

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	AT(a)	.	Enter

a All requested variables entered.

b Dependent Variable: PU

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.310(a)	.096	.092	.98806

a Predictors: (Constant), AT

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.115	1	26.115	26.750	.000(a)
	Residual	246.016	252	.976		
	Total	272.131	253			

a Predictors: (Constant), AT

b Dependent Variable: PU

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.746	.254		6.865	.000
	AT	.393	.076	.310	5.172	.000

a Dependent Variable: PU

4) Simple linear regression for functions

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	FN(a)	.	Enter

a All requested variables entered.

b Dependent Variable: PU

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.153(a)	.023	.019	.102702

a Predictors: (Constant), FN

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.330	1	6.330	6.002	.015(a)
	Residual	265.801	252	1.055		
	Total	272.131	253			

a Predictors: (Constant), FN

b Dependent Variable: PU

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.292	.305		7.527	.000
	FN	.230	.094	.153	2.450	.015

a Dependent Variable: PU

5) Simple linear regression for alternatives

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	AL(a)	.	Enter

a All requested variables entered.

b Dependent Variable: PU

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.033(a)	.001	.003	1.03862

a Predictors: (Constant), AL

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.292	1	.292	.271	.603(a)
	Residual	270.839	252	1.079		
	Total	272.131	253			

a Predictors: (Constant), AL

b Dependent Variable: PU

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.907	.230		12.647	.000
	AL	.032	.062	.033	.520	.603

a Dependent Variable: PU

6) Simple linear regression for compatibility

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	COMP(a)	.	Enter

a All requested variables entered.

b Dependent Variable: PEOU

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.325(a)	.106	.102	.66748

a Predictors: (Constant), COMP

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.275	1	13.275	29.796	.000(a)
	Residual	112.275	252	.446		
	Total	125.550	253			

a Predictors: (Constant), COMP

b Dependent Variable: PEOU

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.343	.156		14.882	.000
	COMP	.306	.056	.325	5.459	.000

a Dependent Variable: PEOU

7) Simple linear regression for self-efficacy

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	SE(a)	.	Enter

a All requested variables entered.

b Dependent Variable: PEOU

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.318(a)	.101	.098	.66915

a Predictors: (Constant), SE

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.713	1	12.713	28.392	.000(a)
	Residual	112.837	252	.448		
	Total	125.550	253			

a Predictors: (Constant), SE

b Dependent Variable: PEOU

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.261	.176		12.849	.000
	SE	.300	.056	.318	5.328	.000

a Dependent Variable: PEOU

8) Simple linear regression for perceived usefulness

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	PU(a)	.	Enter

a All requested variables entered.

b Dependent Variable: INT

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.404(a)	.163	.160	1.094

a Predictors: (Constant), PU

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	58.873	1	58.873	49.148	.000(a)
	Residual	301.741	252	1.197		
	Total	360.614	253			

a Predictors: (Constant), PU

b Dependent Variable: INT

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.035	.212		9.607	.000
	PU	.465	.066	.404	7.012	.000

a Dependent Variable: INT

9) Simple linear regression for perceived ease of use

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	PEOU(a)	.	Enter

a All requested variables entered.

b Dependent Variable: INT

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.338(a)	.114	.110	1.126

a Predictors: (Constant), PEOU

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.083	1	41.083	32.400	.000(a)
	Residual	319.531	252	1.268		
	Total	360.614	253			

a Predictors: (Constant), PEOU

b Dependent Variable: INT

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.627	.326		4.984	.000
	PEOU	.572	.100	.338	5.692	.000

a Dependent Variable: INT

10) Simple linear regression for perceived cost

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	PC(a)	.	Enter

a All requested variables entered.

b Dependent Variable: INT

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.013(a)	.000	.004	1.196

a Predictors: (Constant), PC

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.060	1	.060	.042	.838(a)
	Residual	360.555	252	1.431		
	Total	360.614	253			

a Predictors: (Constant), PC

b Dependent Variable: INT

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.388	.269		12.611	.000
	PC	.016	.081	.013	.204	.838

a Dependent Variable: INT

11) Simple linear regression for perceived risk

Variable Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	PR(a)	.	Enter

a All requested variables entered.

b Dependent Variable: INT

Model Summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.008(a)	.000	.004	1.196

a Predictors: (Constant), PR

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.025	1	0.025	.017	.896(a)
	Residual	360.590	252	1.431		
	Total	360.614	253			

a Predictors: (Constant), PR

b Dependent Variable: INT

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.400	.321		10.584	.000
	PR	.012	.090	.008	.131	.896

a Dependent Variable: INT

The above analysis has been simplified and is shown in the below table

Hypothesis	Dependent Variable	Independent Variable	r-path coefficient	p-value
H1.a	Perceived usefulness	Speed	0.479	0.000
H1.b	Perceived usefulness	Mobility access	0.286	0.000
H1.c	Perceived usefulness	Advertising	0.310	0.000
H1.d	Perceived usefulness	Functions	0.153	0.015
H2	Perceived usefulness	Alternative	0.033	0.603
H3	Perceived Ease of Use	Compatibility	0.325	0.000
H4	Perceived Ease of Use	Self-efficacy	0.318	0.000
H5	Intention to Use	Perceived Cost	0.013	0.838
H6	Intention to Use	Perceived Risk	0.008	0.896
H7	Intention to Use	Perceived Usefulness	0.404	0.000
H8	Intention to Use	Perceived Ease of Use	0.338	0.000

Table 4.2: Regression analysis- hypothesis & results

Speed and perceived usefulness

From the result, it can be seen that the p-value is 0.000 which is less than 0.005. Thus, it can be said that it has a positive effect on this factor. Hence, it can be concluded that it is an easy, convenient and faster way to do banking. It helps customers to do banking without waiting in queues or without any delays in the bank or at the ATM.

Mobile Access & Perceived Usefulness

From the result, it can be seen that the p-value is 0.000 which is less than 0.005. Thus, it can be said that it has a positive effect on this factor. Hence, mobile banking is useful for customers as they are able to access the information about the bank account and do mobile banking anytime and anywhere.

Advertising and Perceived usefulness

From the result, it can be seen that the p-value is 0.000 which is less than 0.005. Thus, it can be said that it has a positive effect on this factor. Customers are unaware of the services and hence, advertising more about the mobile banking would trigger customers to use mobile banking.

Functions and Perceived Usefulness

From the result, it can be seen that the p-value is 0.015 which is less than 0.005. Thus, it can be said that it has a positive effect on this factor. More functions in mobile banking would allow customers or users to perform more functionality of banking.

Alternatives and Perceived Usefulness

From the result, it can be seen that the p-value is 0.603 which is more than 0.005. Thus, it can be said that it has a negative effect on perceived usefulness. The reason behind this is that customers prefer to go their bank even for simple banking activities such as updating passbook, or checking the available balance in their account.

Compatibility and Perceived Ease of Use

From the result, it can be seen that the p-value is 0.000 which is less than 0.005. Thus, it can be said that it has a positive effect on this factor. It can be concluded that, the more an individual use mobile banking, the more will be the perceived ease of use.

Self-Efficacy and Perceived Ease of Use

From the result, it can be seen that the p-value is 0.000 which is less than 0.005. Thus, it can be said that it has a positive effect on this factor. This implies that individuals with higher self-efficacy will perceive more positive ease of use in mobile banking than those with lower self-efficacy.

Perceived Risk and Intention to Use

From the result, it can be seen that the p-value is 0.896 which is more than 0.005. Thus, it can be said that it has a negative effect this factor.. The probable reason behind his could be lack of information and awareness and hesitation to use mobile banking.

Perceived Usefulness and Intention to Use

From the result, it can be seen that the p-value is 0.000 which is less than 0.005. Thus, it can be said that it has a positive effect on perceived usefulness. This suggests that customers perceive mobile banking as a valuable, faster and easier option to do banking transaction.

Perceived Ease of Use and Intention to Use

From the result, it can be seen that the p-value is 0.000 which is less than 0.005. Thus, it can be said that it has a positive effect on this factor. This means that the customers would only use and adopt the mobile banking services only if they would perceive mobile banking as easy to use service.

Regression analysis of the entire model

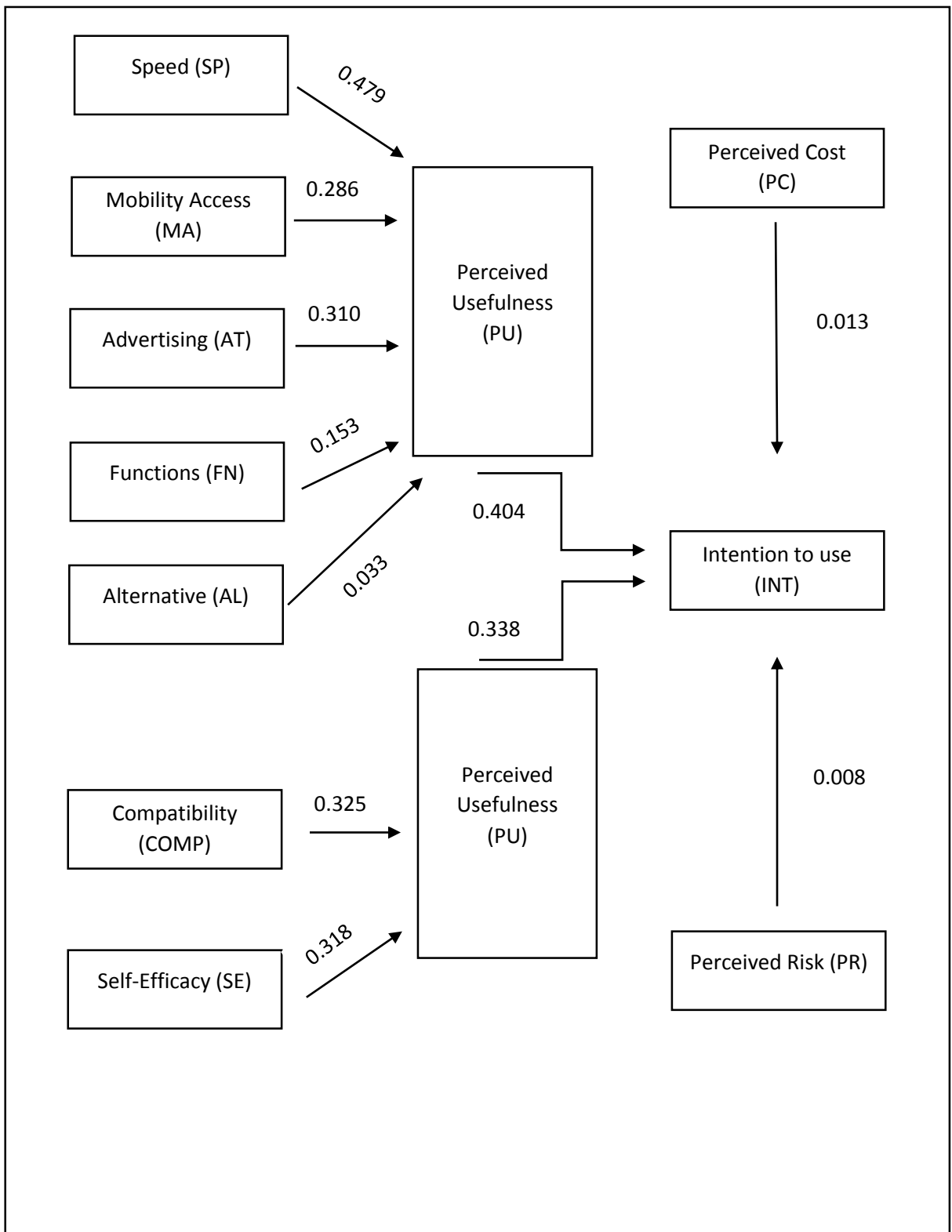


Table 4.2 Regression analysis of entire model

CHAPTER 5

Limitations, Implication, Future Work and Conclusion

5.1 Limitations

There has been some limitations associated with the study. The reason being that the focus was on identifying the factors for adoption of mobile banking in India only. And, the results are discussed from the Indian perspective.

- 1) First limitation is that the respondents who filled the survey were mostly the students studying in colleges. Although the students were diverse and included males and females from different cities.
- 2) Moreover, as most of the respondents were students, it might be possible that they have not filled the questionnaire with their full interest.
- 3) As the male respondents were more, it would be difficult to give analyse the perception of females.
- 4) Another limitation of the study was sample size. 254 respondents filled the questionnaire which does not represent the exact perception of the whole population
- 5) There were time constraints.
- 6) The information given by the respondents may not be correct as some might have answer the questions just for the sake of answering them.

5.2 Implications

The result of the study can be used to provide the recommendations to the banks who are giving mobile banking services to their customers.

Creating awareness amongst the customers would help the banks to attract more and more mobile banking customers. Mobile Banking advertisement should be of higher frequency in order to develop interest among the people, so that the people should know the advantage and disadvantage of using mobile banking services.

The results suggest that all the mobile handsets should be compatible with banking services irrespective of their operating systems and thus it becomes an important factor in the adoption of mobile banking. Banks should, therefore, build and mobile banking application in a way that fits with customers' experience.

5.3 Future Work

The limitations and implications suggests that there are some areas which can be further studied. An intense study can be carried out in order to develop a better understanding of the factors influencing the adoption of mobile banking in India.

Interviews should be conducted in order to obtain feedback from the respondents and gain there perception clearly.

Other statistical tools can be applied in the study to gain deep understanding of the relationships emerging from the model.

5.4 Conclusion

Some factors like cost and risks are found to be very important factors in the adoption of mobile banking service in India. Conversely, this could be explored and studied in future studies. To attract more people towards mobile banking, banks should advertise their services and should improve the services and enhance the user experience.

The awareness of the mobile banking service in influencing the users and more and more people are considering the usefulness of mobile banking which in turn affect the intention to use the service and adopting it.

The results of the study contribute to the body of knowledge in the area by demonstrating that context specific factors such as service quality and service

awareness are influencing user perceptions about the usefulness of SMS mobile banking which in turn affect intention to use and adoption.

Despite the limitations discussed above, it is hoped that the practical recommendations to the banking industry will be found useful, and that the research approach can be applied to the study of other mobile services, in a range of contexts and environments.

CHAPTER 6

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ANNEXURE 1

QUESTIONNAIRE: Factors influencing the adoption of Mobile Banking in India

A 5-point Likert scale has been used

1) Speed

- a) Using mobile banking enables me to perform banking transaction quickly
- b) Mobile banking is faster than visiting a bank
- c) Mobile banking is less time consuming than other banking options

2) Mobility access

- a) Mobile banking is more accessible than other banking (eg. Visiting a bank, Internet banking or using phone banking)
- b) Mobile banking allows me to do banking anywhere/anytime

3) Advertising

- a) I will use mobile banking if I could get enough information about it

4) Knowledge

- a) I use mobile banking because I have seen someone else using it.
- b) I use mobile banking because someone else has shown me how to do it.

5) Perceived cost

- a) It costs a lot to use mobile banking
- b) There are financial barriers for using mobile banking (eg. Having to pay for handset and network operator)
- c) Using mobile banking increases my banking cost

- 6) Perceived risk
 - a) I am still unaware of its security during the transactions.
 - b) Mobile banking is unreliable because I am afraid that my personal or transaction details would be leaked.
 - c) If I lose my phone, I will lose my money as well

- 7) Perceived usefulness
 - a) I find mobile banking useful for my banking needs.
 - b) Mobile banking is more convenient than other banking options(internet banking/phone banking/visiting a bank)

- 8) Perceived ease of use
 - a) Learning to use mobile banking is easy for me
 - b) Using mobile banking is frustrating as I need to remember the password to do further banking transactions
 - c) Using mobile banking makes it easier for me to conduct my own banking transactions

- 9) Compatibility
 - a) Using mobile banking fits well with the way I like to control and message my banking transactions
 - b) I use mobile banking because I used to do everything with my cell phone.

- 10) Intention to use
 - a) I intend to use mobile banking in the future