

Mobile Banking Adoption is an Emerging Trend: An Analytical study of young Indian customers

**Dr.K.Shyamala,
Assistant professor, SDNB.Vaishnavcollege,
Mob: 9840759739, E-mail id: saatvikram@gmail.com**

Abstract

Technology empowers banks to provide ease of use to customers at any time. This re-engineering in the banking system cemented the way banks' service reached to customers with ease and flexibility through multiple channels. The e-services have taken banks to homes and office 365days a year through mobile banking. This research to study the mobile banking customer's demographic profile, mobile banking usage perception and find the factors influencing on mobile banking.

Key words: Mobile banking, internet service, technology, banking system.

INTRODUCTION

Mobile banking is a facility that is provided by banks to enable its customers to carry out financial transactions using a smartphone or tablet. Mobile banking typically involves the use of a dedicated mobile app provided by the bank. Mobile banking is young as it is less than a decade since people really started adopting it; however, it has matured quite rapidly. The transactions that are allowed in mobile banking varies from one bank to another, however, some of the common features include checking account balances, fund transfers, opening fixed deposit accounts, requesting for special services such as cheque books, etc. Mobile banking offers a lot of convenience to consumers as it is available 24x7 and transactions can be carried out remotely without having to visit the bank. For banks, it enables reduction in operational expenditure due to lower cost in handling transactions (e.g., due to lesser humans being involved, lesser infrastructure needs, etc.). However, there are some disadvantages including the need for a smartphone, secure access to one's account, vulnerability to hackers, etc. Despite its disadvantages, we see that the use of mobile banking is on the rise due to its agility and ease of use, and we are witnessing significant improvements in overcoming the risks associated with its use.

Review of Literature

Devan Devan (2013) to examine the mobile compatibility, mobile banking acceptance comfort level with existing system availability of facilities, security issues, willingness to adopt mobile banking services. The study reveals that the awareness creation among the existing customers and providing special benefits for using the mobile banking will increase the mobile banking users.

Mohammad Mizanur Rahman (2013) studied to assess the progress of the implementation of mobile banking in Bangladesh, to verify the security and confidentiality of the system and to examine the complexity of usage by the mobile banking users. The study concluded that the respondent of the Bangladesh had indeed embraced to adopt the new technology.

Objectives of the study

- To study the demographic profile of the mobile banking users in Chennai.
- To know the Mobile Banking Profile.
- To analysis the reason for adoption of Mobile banking.
- To identify the factors of Usage of mobile banking services.
- To observe the factors of problems of mobile banking services.
- To determine suggestive measures for mobile banking services.

HYPOTHESES

- Usages, Satisfaction towards Mobile Banking Services, Challenges factor do not differ significantly.

Area of the study

The study is confined to Chennai City only.

❖ Sample Size

Since the population for the survey are very large, and due to time limitation a sample size of 100 is taken for the survey.

❖ Sampling technique

Simple random sampling method was adopted

❖ Sources of Data

• Primary Data

Survey method is employed to collect the data from the respondents and the data are collected.

- **Secondary data**

The secondary data was collected from various journals, magazines, books, articles, research papers and websites.

- ❖ **Research Tools**

- Percentage analysis
- T-test, ranking analysis
- Factor Analysis

- ❖ **Sampling Method**

The study mainly depends on the Primary data collected through a well-structured Questionnaire distributed to in Chennai alone. The Secondary data was collected from journals, magazines, books, articles, research papers and websites.

- ❖ **Data Instrument**

Well-structured Questionnaire

- ❖ **Limitations**

- The Research Area was confined to Chennai Only.
- Sample size was only 100
- Respondent's opinion differs from time to time

Analysis and Results

Table 1 – Demographic profile of Mobile banking users

S.no	Demographic profile	Frequency	Percentage	
1.	Gender	Male	49	49
		Female	51	51
		Total	100	100
2.	Age	20-25 years	30	30
		25-30	28	28
		30-35yers	22	22
		35-40 years	20	20
		Total	100	100
3.	Educational Status	High School	15	15
		Higher Secondary	20	20
		Under Graduation	18	18
		Post-Graduation	21	21
		Professional degree	26	26
		Total	100	100
4.	Employment Status	Employed	37	37
		Unemployed	30	30
		Self-Employed	33	33
		Total	100	100

5.	Nature of Employment	Govt.	27	27
		Private Sector	40	40
		Business	33	33
		Total	100	100
6.	Income	Less than Rs.10, 000	13	13
		Rs.10, 000- 20,000	21	21
		Rs.20, 000- Rs.30, 000	24	24
		Rs.30, 000 - Rs.40, 000	20	20
		Above 40,000	22	22
		Total	100	100
7.	Marital Status	Married	44	44
		Unmarried	56	56
		Total	100	100

The above table reveals that, the maximum of, 51% of the respondents are females, 51% majority of the surveyed population falls under the age group of 20-25 years, 26% of young mobile users are professionals; 37% of the respondents are employed and 40% of them are working in private sector and 24% are earn their monthly salary of Rs. 20,000 to 30,000 Rs. 56% of the mobile banking users are unmarried.

Table 2 - Usage Profile of mobile banking

S.no	Variable of Mobile Banking Profile	Frequency	Percentage	
8.	Level of Mobile banking knowledge	No knowledge	18	18
		Average	20	20
		Advanced Computer Knowledge	23	23
		Expert	22	22
		Beginner	17	17
		Total	100	100
9.	Influencing Sources for usage of Mobile Banking Services	Bank	18	18
		Advertisements	20	20
		Family	19	19
		Friends	28	28
		Colleagues	15	15
		Total	100	100
10.	Types of banks where bank accounts are maintained	Public Sector Bank	43	43
		Private Sector Bank	57	57
		Total	100	100
11.	Accounts Maintained in different banks by Mobile Banking Customers	one	17	17
		two	14	14
		three	12	12

		four	23	23
		five	22	22
		more than five	12	12
		Total	100	100
12.	Years of Usage of Mobile Banking services by Customers	Less than a year	28	28
		1- 3 years	33	33
		3-5 years	21	21
		over 5 years	18	18
		Total	100	100
13.	Time Interval of Usage of Mobile Banking services	Daily	15	15
		Weekly	18	18
		Fortnightly	11	11
		Monthly	16	16
		Occasionally	15	15
		Never	25	25
		Total	100	100
14.	Bank visits by Mobile Banking Customers in a year	Zero	19	19
		1-5	25	25
		5-10	14	14
		10-15	22	22
		more than 15	20	20
		Total	100	100
15.	Opinion on recommendation of Mobile Banking Services to others	Willing to recommend	41	41
		not Sure	31	31
		Not willing to recommend	28	28
		Total	100	100
16.	Attribute of the Mobile banking value	Quality of Service	36	36
		Technology used	34	34
		Trust	30	30
		Total	100	100
17.	Promoting factors of the new Techniques in Mobile Banking	Reduced time of transaction	28	28
		Cost effectiveness	29	29
		Technology savvy	43	43
		Total	100	100

It is evident that 23% of the young mobile Banking Customers have Advanced Internet knowledge. 28% of the Customers revealed that Friends were the main source that influenced their Usage of Mobile Banking Services. 57% of the Respondents have their Bank Accounts in the Private Sector Banks. 23% of the Customers holding bank accounts in four banks are actively using mobile Banking Services. 33% of the surveyed population using the Mobile Banking Services 1-3years. 18% of Weekly Users of Mobile Banking Services are more compared to the other categories of users. 25% of the Customers visited bank at least 1 to 5 times in a year. 41% of the young mobile Customers were willing to recommend the Usage of Mobile Banking Services to others. 36% of the respondents give preference to quality of service. 43% of the youngsters are technology savvy.

Table -3
Ranking of Mean and One-Sample Statistics for Factors for adoption of Mobile banking

Variable No.	Factors for adoption of Mobile banking	N	Mean	Std. Deviation	Std. Error Mean	t- value	Sig	Rank
AD18	Perceived Usefulness	100	3.5800	1.61546	.16155	22.161	.000	2
AD19	Perceived Ease of Use	100	3.6300	1.81829	.18183	19.964	.000	1
AD20	Perceived Credibility	100	3.3900	1.61367	.16137	21.008	.000	5
AD18	Perceived Risk	100	3.5200	1.72609	.17261	20.393	.000	4
AD18	Structural Assurance	100	3.6300	1.78464	.17846	20.340	.000	1
AD18	User satisfaction	100	3.4500	1.79997	.18000	19.167	.000	3

From the above table, it can be seen that the mean values range from 3.6300 to 3.3900 with the respective standard Deviation. 1.81829, 1.78464, 1.61546, 1.79997, 1.72609, 1.61367. The ranking analysis is applied on these mean values and found that the Factors for adoption of Mobile banking services, Perceived Ease of Use and Structural Assurance are ranked first with 3.6300 mean values. Perceived Usefulness and User satisfaction got rank 3 and 4 respectively. Perceived Credibility placed fifth position. One sample t-test found the t-values (22.161, 19.964, 21.008, 20.393, 20.340, and 19.167) are statistically significant at 5% level.

Factor Analysis

Factor Analysis aims at grouping the original input variables into factors which underlie the input variables. Each factor will account for one or more input variables. Theoretically, the total number of factors in the Factor analysis is equal to the number of factors in the study can be reduced by dropping the insignificant factors based on certain criterion. Here, the results of Factor analysis carried out on the variables of Usage of Mobile Banking services Satisfaction towards Mobile Banking Services, Challenges of Mobile Banking Services were given below,

The KMO measures the sampling adequacy (which determines if the responses given with the sample are adequate or not), which should be close than 0.5 for a satisfactory factor analysis to proceed. Kaiser (1974) recommended 0.5 (Value for KMO) as minimum, values between 0.7 – 0.8 as acceptable, and values above 0.9 as outstanding, in this study to test the sampling adequacy, the KMO test was carried out and its value is satisfactory.

Factors of Usage of Mobile Banking Services (KMO - 0.63)

The variable loadings for the **First Factor** consist of Account balance inquiry (.669), Cheque status inquiry (.673), Account statement inquiry (.532), Fund transfer between Accounts (.279). Therefore, this factor can be named as “**Customer Friendly**”. The variable loading for the **Second Factor** consist of Cheque book requests (.069), Credit/debit alerts (.673), Minimum balance alerts (.532), Bill payment alerts (.279). Here, this factor can be labelled as “**Customer Convenience**”. This variable loading for the **Third Factor** consist of recent transaction literacy (.559), Bill payment (.806). This factor can be coined as “**Trendy Customer**”.

Factors of Satisfaction towards Mobile Banking Services (KMO - 0.76)

Variable loading on Satisfaction towards Mobile Banking Services

The variable loadings for the **First Factor** contain, Accuracy of Transaction & Trust(.585), System Availability (.181), and Responsiveness (.570). Therefore, this factor can be named as “**Sociable**” The variable loading for the **Second Factor** contain, Usefulness (.585), Transaction speed (.753), Reliability of service (.670), and Cost (.508). This factor called as “**Gregariousness**”

Factors of Challenges of Mobile Banking Services (KMO - 0.67)

The variable loadings for the **First Factor** comprise, Not sure about the safety of transactions (.669), Mobile security (.673), Therefore, this factor can be named as “**Privacy**”. The variable loading for the **Second Factor** comprise, Network availability (.532), Heavy charges for transactions (.279), Email and web security (.170). Here, this factor can be labelled as “**Reticent**”. This variable loading for the **Third Factor** comprise, Literacy of people in rural areas (.559), Not aware of new innovation (.806), Not aware of new innovation , Handset operate ability , Inadequate guidance, Identity theft This factor can be coined as “**Technology insufficient**”.

Reliability test

Cronbach’s alpha is used in order to assess the construct reliability of the scale. In order to evaluate the same, Cronbach’s alpha calculated for each variable of Usage of Mobile Banking services Satisfaction towards Mobile Banking Services, Challenges of Mobile Banking Services. The table 4,5 and 6 shows all the resulting alpha values. The measurement shows good reliability.

Descriptive Statistics

The descriptive statistics for each construct in proposed research is presented in the below table – 4,5 and 6. As reported in that table, there is sufficient evidence to support univariate normality of all the items as all of the values of skewness are below their cut off point 3 all kurtosis values are less than 8 (Kline, 2011; West, Finch & Curran, 1995). The critical ratios for both skewness and kurtosis for all items are found to be within the recommended limits of -2 and +2 (Kline 2011), which indicates support for multivariate normality in the data.

Table – 4 DESCRIPTIVE STATISTICS FOR USAGE OF MOBILE BANKING SERVICES

S.NO	Factors	N	Mean	Std. Deviation	Variance	Skewness	Kurtosis	Cronbach's alpha
USAGE OF MOBILE BANKING SERVICES								
U24	Account balance inquiry	100	2.8200	1.40978	1.987	.261	-1.244	.732
U25	Cheque status inquiry	100	2.9600	1.51704	2.301	.033	-1.513	.729
U26	Account statement inquiry	100	2.8800	1.47901	2.187	.096	-1.429	.737
U27	Fund transfer between Accounts	100	3.1300	1.36074	1.852	-.093	-1.258	.732
U28	Cheque book requests	100	2.9100	1.48457	2.204	.063	-1.424	.734
U29	Credit/debit alerts	100	2.7400	1.39711	1.952	.319	-1.254	.745
U30	Minimum balance alerts	100	2.8800	1.38009	1.905	.102	-1.229	.744
U31	Bill payment alerts	100	2.8500	1.41689	2.008	.141	-1.225	.730
U32	Recent transaction literacy	100	3.0500	1.32859	1.765	-.014	-1.133	.737
U33	Bill payment	100	2.9800	1.50407	2.262	.053	-1.439	.729

Table – 5 DESCRIPTIVE STATISTICS FOR SATISFACTION TOWARDS MOBILE BANKING SERVICES

S.NO	Variable	N	Mean	Std. Deviation	Variance	Skewness	Kurtosis	Cronbach's alpha
SATISFACTION TOWARDS MOBILE BANKING SERVICES								
S34	Accuracy of Transaction & Trust	100	3.0400	1.47655	2.180	-.013	-1.389	.740
S35	System Availability	100	3.0700	1.31237	1.722	-.077	-1.086	.735
S36	Responsiveness	100	2.9400	1.41293	1.996	-.001	-1.247	.763
S37	Usefulness	100	3.1300	1.33072	1.771	-.243	-1.053	.752
S38	Transaction speed	100	3.1400	1.51771	2.303	-.047	-1.475	.732
S39	Reliability of service	100	2.9500	1.44512	2.088	.130	-1.332	.734
S40	Cost	100	3.0800	1.40475	1.973	-.100	-1.293	.737

Table – 6 DESCRIPTIVE STATISTICS FOR PROBLEMS OF MOBILE BANKING SERVICES

S.NO	Variables	N	Mean	Std. Deviation	Variance	Skewness	Kurtosis	Cronbach's alpha
PROBLEMS OF MOBILE BANKING SERVICES								
P41	Not sure about the safety of transactions	100	3.1300	1.36074	1.852	-.093	-1.258	.764
P42	Mobile security	100	2.9100	1.48457	2.204	.063	-1.424	.753
P43	Network availability	100	2.7400	1.39711	1.952	.319	-1.254	.782
P44	Heavy charges for transactions	100	2.8800	1.38009	1.905	.102	-1.229	.725
P45	Email and web security	100	2.8500	1.41689	2.008	.141	-1.225	.724
P46	Literacy of people in rural areas	100	3.0500	1.32859	1.765	-.014	-1.133	.725
P47	Not aware of new innovation	100	2.9800	1.50407	2.262	.053	-1.439	.737
P48	Handset operate ability	100	3.0400	1.47655	2.180	-.013	-1.389	.735
P49	Inadequate guidance	100	3.0700	1.31237	1.722	-.077	-1.086	.736
P50	Identity theft	100	2.9400	1.41293	1.996	-.001	-1.247	.732

Table – 7 Ranking of Mean and One-Sample Statistics for Factors for Suggestive measures of Mobile banking Services

Suggestions	N	Mean	Std. Deviation	Std. Error Mean	t- value	Sig	Rank
Credit facilities should be given in the proper way	100	3.3900	1.30960	.13096	25.886	.000	1
Stock oriented activities should be regulated	100	2.8000	1.40705	.14071	19.900	.000	9
Proper security should be maintained in the money transactions	100	2.8500	1.41689	.14169	20.114	.000	7
Loan accessibility services may be extended through mobile	100	2.8300	1.40025	.14003	20.211	.000	8
The fraud advertisements should be strictly restricted	100	3.2600	1.49491	.14949	21.807	.000	2
Location based services may be implemented in broad way	100	3.0100	1.42485	.14249	21.125	.000	5
The bank can make awareness programme to the consumers.	100	3.2500	1.40974	.14097	23.054	.000	3
The solutions should be make for solving the problems in mobile banking	100	2.9000	1.41778	.14178	20.455	.000	10
The password crackers should be punish heavily	100	2.8700	1.45404	.14540	19.738	.000	11
The legal restrictions should be maintain for proper customer care service	100	3.0500	1.40974	.14097	21.635	.000	4
The transactions can be simplified for the low educated people.	100	2.9200	1.38301	.13830	21.113	.000	6

From the above table, it can be seen that the mean values range from 3.3900 to 2.8700 with the respective standard Deviation. 1.30960, 1.49491, 1.40974, 1.40974, 1.42485, 1.38301, 1.41689, 1.40025, 1.40705, 1.41778, 1.45404. The ranking analysis is applied on these mean values and found that the Variables of Suggestive measures of Mobile banking Services, Credit facilities should be given in the proper way is ranked first with 3.3900 mean values. The password crackers should be punishing heavily is last position with 2.8700 mean values. One sample t-test found the t- values (25.886, 19.900, 20.114, 20.211, 21.807, 21.125, 23.054, 20.455, 19.738, 21.635, 21.113) are statistically significant at 5% level.

Conclusion

Mobile banking is the latest technology financial transactions used by the young customers. After Demonetisation mobile banking quickly developed in India. Mobile banking indicates to the cashless networks. This research examined that the young Indian customers' usage, satisfaction and challenges about Mobile banking services. Finally this study determined that the maximum Young Indian customers strongly agreed the various mobile banking services. Hence the upcoming banking scenario of mobile banking is give positive impact to the banking sector. The latest technology enhancement helps to the improvement of adoption of Mobile banking services. The various software institutions provide the facilities to the bankers develop their Mobile banking system.

References

- Deva Devan Article · June 2013 Mobile Banking in India – Issues & Challenges International Journal of Emerging Technology and Advanced Engineering Website: www.ijetae.com (ISSN 2250-2459, ISO 9001:2008 Certified Journal, Volume 3, Issue 6, June 2013)
- Kline, R.B (2011) principles and practice of structural equation modeling (3rd ed.). New York NY: Guilford press.
- West S.G, Finch J.F and Curran P.J (1995). Structural equation models with nonnormal variables: Problems and remedies in R. H. Hoyle (ed), structural equation modeling: concepts, and applications (pp 56-75) Thousand Oaks, CA, US: Sage Publications, inc.
- Mohammad Mizanur Rahman Article · September 2013 Implementation of Mobile Banking in Bangladesh: Opportunities and Challenges IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) e-ISSN: 2278-2834, p-ISSN: 2278-8735. Volume 7, Issue 5 (Sep. - Oct. 2013), PP 53-58 www.iosrjournals.org
- Niina Mallat, Matti Rossi, and Virpi Kristiina Tuunainen 2004 Mobile Banking Services DOI: 10.1145/986213.986236 · Source: DBLP
- Straub, D.W (1989) Validating instruments in MIS research MIS Quarterly, 13 (2) 147-169.