Problems and Challenges Faced by Consumers while Using Mobile Banking Services: Empirical Evidences

Dr. Deepak Kumar & Ms. Shivani Singh

Associate Professor, Galgotias University, Greater Noida, UP, India

Asst. Professor, Galgotias University, Greater Noida, UP, India

Abstract

Today banking services transforms from branch banking to automated banking services. Presently use of Mobile Banking even in developing countries has become a common scenario. People use it to shops, pay bills and for online transactions etc. But with increase in number of mobile banking users and millions of transactions in a day, the various issues & prospects have also been on rise. The objective of the proposed paper is to study the extent of various issues & prospects faced by Mobile Banking users while using various services provided by different banks operating in four administrative division of Haryana (Gurgaon, Rohtak, Hisar & Ambala) and Delhi and also explore the relationship between demographic variables and various issues/problems & prospects of Mobile Banking services provided by various banks. To achieve the objective of the study primary data was collected through a structured questionnaire from the respondents using Mobile Banking Services (public, private and foreign banks). In total 750 respondents were studied by using a convenience sampling method. To analyze the collected data SPSS version 19 was used. The various statistical techniques i.e. frequency distribution, percentages, mean, and standard deviation were used for analysis. To test the null hypothesis parametric test such as t-test and ANOVA were used. The major findings of the study reflected that "Order a cheque book", "Transfer funds between your accounts", "Insurance premium payment" and "Pay your utility bills" are major transactions frequently used by the mobile banking users, while users frequently faced issues/problems i.e. "Signal failure and network congestions", "Less secure and risky transactions", "Small screen and keypad" and "It need to be expertise" up to a large extent. Further demographic variables showed significant relation with various issues & challenges faced by ATM/Debit card users. The study provides meaningful direction to bank management and decision maker to minimize the frequency of occurrence of the various issues/problems & prospects while using mobile banking services for higher customer satisfaction.

Key Words: Automated, Services, Mobile, Transactions, Issues, Challenges etc.

1. Introduction:

Advancement in automation in banking services has created a surge in "technology-based self-service" **(Dabholkar P., Bobbitt, L. M. & Lee, E.J., 2003).** E-Banking provides various automated channels for using banking services like ATMs, credit cards, debit cards, internet banking, mobile banking, electronic fund transfer (EFT), electronic clearing system etc. **(Kumbhar M. V., 2011-12).** The growth of mobile phone and dynamic use of mobile based services among south Asian population indicates that this region can be a potential region for Mobile Banking adoption especially India **(Deloitte, 2008),** as more than half of Asia's Mobile Banking customers in 2009 were in India **(Lawson, 2010).** Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a mobile phone or tablet. It uses software, usually called an app, provided by the financial institution for the purpose. Mobile banking is usually available on a 24-hour basis **(Shivaji W. and Bhargavi M. 2017).**

However, the mobile banking has some hurdles for using Mobile Banking like Mobile Banking is not available on all mobile phone, Regular use of Mobile Banking may lead to extra charges levied by the bank for providing the service, Mobile banking users are at risk of getting fake SMS messages and scams, the loss of a mobile banking PIN and other sensitive information. **(Gomathinayagam S. & Bharathi V. & Azhakappan C. 2019).**

2. Review of Literature:

Studies Specially Related to Key issues and various prospects related to Mobile Banking services are as follows:

Aggarwal K.S. (2020), investigated 'Mobile Banking: Prospects and Challenges. Study found that 'variety of mobile handsets available with different technology', 'hardware and software' and 'difficult and non-viable for the banks to provide support for each and every type of handset' were major challenges. Secondly 'safety and security' of transactions was also faced by majority of customers. Further study concluded that 'Fraudulent transactions' and 'mobile banking frauds' showed significant relation with lack of awareness & precautions by customers.

Gomathinayagam S. & Bharathi V. & Azhakappan C. (2019), conducted a research on 'Analysis of problems faced by customers during use of Mobile Banking' in Tenkasi, and concluded that Mobile banking faced major problems like 'handset operability', 'security issues', 'poor internet connection', 'authentication risks', virus and hackers fear etc.

Bamoriya P. (2016), conducted a study on 'Issues in Mobile Banking in India with reference to Regulations'. This study was focused on the select issues i.e. 'Name Security', Interoperability, Privacy, Standardization, Coordination, KYC/AML/CFT, Network breakdown, and Customer illiteracy issue, keeping in view the regulatory guidelines. Further study was also focused on regulatory framework related to Mobile Banking. 'Security', 'Interoperability', 'Network', 'Customer illiteracy' and 'standardization' issues were found major issues in Mobile Banking, on the other hand 'Privacy', 'Coordination' and 'KYC/AML/CFT' issue were found least important. Study further found 'Interoperability' issue was found most critical issue followed by 'customer illiteracy', 'Network' and 'Security' on the other hand 'standardization' found least critical issues.

Devadevan V. (2013), conducted a study on 'Mobile Banking in India - Issues & Challenges'. Study concluded that 'technical problem' 'Password / MPIN' and 'secure and safety' were the major issues and challenges faced by consumers while using mobile banking services.

Goyal V., Pandey U. and Batra S. (2012), investigated 'Mobile Banking in India: Practices, Challenges and Security Issues' and found that people have diversity of opinion about innovations and felt scared while making 'Mobile Payments'.

Shukla N. S. and Bhatt V. K. (2012) conducted a study to find out the adaptation of mobile banking in north Gujarat region. The responses were collected through a structured questionnaire and in total 100 respondents were surveyed. Results of the study indicate that age, income and education is strongly associated variables with using of mobile banking service. The main reason for not using the mobile banking facility was less knowledge about the operation of the mobile banking facility. Customers also feel the services of mobile banking too complex to use and it is so risky.

Bamoriya, Sharma P. and Singh P. (2011) conducted a research to explore the issues in mobile banking perceived critical for adoption by both mobile banking users as well as non-users. The study explore selected mobile banking issues from customer's perspective and to make recommendation to various parties involve in mobile banking service viz. banks, mobile operators, content providers, regulators, on relevant issues which could become challenges for them in providing effective mobile handset operability, security/privacy and standardization of services was the critical issues. Majority of the customers were indifferent towards utility of mobile banking in comparison to retail banking and online banking.

3. Research Methodology:

3.1 Rationale of the Study:

The present research will be unique study and is likely to bring fruitful results in terms of information connected with Mobile banking services. Mobile banking has made the banking services available to their irrespective of the location where he/she is. The major issues & prospects is that how the consumers are responding to mobile banking services.

The study is both Exploratory and Descriptive. The objective of exploratory research is to gather preliminary information that will help define problems and suggest hypothesis. The objective of descriptive research is to describe things, such as the market potential for Mobile banking services or the demographic and attitudes of consumers who are using these services. At the same time, it also attempts to examine the various issues & prospects, which the customers face while using Mobile banking services.

3.2 Objectives of the Study:

An analysis of the research gaps puts forth research questions. These questions, however, are important to take the discussion to further level and may also help in identifying the research objectives of the present research study; following are the objectives of the study:

1.   To study the various issues/problems & prospects faced by customers while using Mobile Banking services provided by banks operated in four administrative division of Haryana (Gurgaon, Rohtak, Hisar & Ambala) and Delhi.
2.   To explore the relationship between demographic variables and various issues/problems & prospects of Mobile Banking services provided by various banks.
3.   To suggest suitable strategies to the banks for improvement in customer satisfaction levels.

3.3 Hypotheses:

To achieve the aforesaid objectives, the proposed study intends to test the following null hypotheses:

$H_{0.1}$, $H_{0.2}$, $H_{0.3}$, $H_{0.4}$, $H_{0.5}$, $H_{0.6}$, $H_{0.7}$, $H_{0.8}$, Customers Perception towards various issues/problems & prospects of Mobile Banking services do not differ significantly on the basis of "Gender",

 "Marital Status", "Occupation", "Annual Income", "Level of Education", "Sector of the Bank", "Age Group" and "Place of Residence" of the respondents respectively.

3.4 Research Design:

3.4.1 Data Collection:

To achieve the objectives primary data was required and the questionnaire method of primary data collection was used.

3.4.2 Developing Research Questionnaire:

To develop the research questionnaire various banks websites were analyzed. Further different research papers have been studied, which have included the various dimensions issues/problems & prospects of Mobile Banking services. A pilot survey was conducted in Gurgaon and Delhi. As an outcome of the pilot study some of the questions and statements were amended and improved and few questions were added while few options were modified, so that perceptual difference could be avoided as much as possible.

3.4.3 Sampling Design and Sample Size:

The population of study comprised of the users of Mobile Banking services residing in Haryana and Delhi. To achieve the objectives of the study, Delhi and four administrative divisions of Haryana were selected to conduct survey for sampling. Four administrative divisions of Haryana are (i) Hisar division, (ii) Rohtak division, (iii) Ambala division and (iv) Gurgaon division. To collect information from sample selected, a stratified convenience sampling method was adopted. Study considered total 750 respondents; out of which 600 were surveyed from four administrative divisions of Haryana (150 from each administrative division) and 150 respondents were from Delhi. Further the study also considered sector wise representation i.e. public, private and foreign sector banks.

The determination of sample size is based on **(Smith, M. F. 1983).** As our population is infinite and in infinite population total 600 respondents are considered sufficient to generalize the results. Hence here in total 750 respondents were considered to achieve the objectives of the study.

3.4.4 Data Analyses/Statistical tools & Techniques:

The collected data further have been analyzed by using descriptive statistics such as frequency distribution, percentages, mean scores and standard deviation. To find out the variation of opinion among various categories t test and F test have been applied by using statistical software SPSS version 19 for windows.

4.   Results and Discussion:

4.1 Transactions/Services done by Using Mobile Banking:

In table 1.1 responses of customers regarding various transactions through mobile banking are depicted. About this reference the overall mean values, their respective ranks (lesser the mean higher the rank) and S.D. are presented. The responses were obtained on the basis of 12 statement related to mobile banking transaction services on a five point scale (ranging between 1 to 5, where 1 stands for 'very often', 2 for 'often', 3 for 'sometimes', 4 for 'rarely' and 5 for 'never'). In total 33.3 percent of the respondents of the mobile banking users are in favour to often use the service for transaction namely 'order a cheque book' (T 4), whereas 26.3 percent of the mobile banking users also very often / often use service for 'transfer funds between your accounts' (T 1). Further as depicted by table in total 27.5 percent of the respondents often use mobile banking transaction service for 'insurance premium payment' (T 11), while 22.7 percent of mobile banking users very often / often use mobile banking transaction services for 'pay your utility bills' (T 3). Moreover it is clear from the table that in total 69.6 percent users of mobile banking denied to use this service for 'pay and create/renew fixed/recurring deposits online' (T 6), while 69.5 percent of the respondents also are not in favour to use mobile banking for 'pay credit card dues' (T 8).

After discussing frequency distribution of mobile banking transactions, the present paragraph is an attempt to provide the detail of overall mean values and accordingly their respective ranks. The respondents admitted that transactions namely 'order a cheque book' ($\bar{x}$ =3.33), 'transfer funds between your accounts' ($\bar{x}$ =3.42) and 'insurance premium payment' ($\bar{x}$ =3.52) are major mobile banking transaction services which are frequently used by respondents and secured first, second and third position respectively, whereas mobile banking transaction i.e. 'pay your utility bills' ($\bar{x}$ =3.54) and 'shop online' ($\bar{x}$ =3.57) are rarely used by customers. Further mobile banking users have similar level of preference about the transactions namely 'transfer funds to third party' and 'tax payments' as their respective overall mean values are similar ($\bar{x}$ =3.66) and positioned on same sixth rank. On the other hand the mobile banking transactions, which are on last position on the basis of their overall mean values are 'pay credit card dues' ($\bar{x}$ =3.84) and 'withdrawal at banking agent' ($\bar{x}$ =3.87) are preferred by customers on tenth and eleventh ranks respectively.

So it can be concluded that people use various services through mobile banking for their very useful and important selected transactions. Here the presence of standard deviation describing the different preferences about these mobile banking transaction services as its value is more than one in all the specialized services/transactions. Here it can be also analyzed from the table that the overall mean values about these above transaction services ranging between ($\bar{x}$ =3.33 to $\bar{x}$ =3.87) explore that most of the respondents use mobile banking transaction services 'rarely'. Hence mobile banking users do not use frequently the various transactions through mobile banking automated banking services.

Table 1.1: **Frequency Distribution of Transactions by Using Mobile Banking:**

Sr. No.	Transactions	1	2	3	4	5	Mean (S. D.)	Rank
1.	Transfer funds between your accounts (T 1)	65 (8.7)	132 (17.6)	114 (15.2)	297 (39.6)	142 (18.9)	**3.42 (1.22)**	2
2.	Transfer funds to a third party (T 2)	40 (5.3)	113 (15.1)	124 (16.5)	257 (34.3)	216 (28.8)	**3.66 (1.19)**	6
3.	Pay your utility bills (T 3)	78 (10.4)	92 (12.3)	130 (17.3)	243 (32.4)	207 (27.6)	**3.54 (1.29)**	4
4.	Order a cheque book (T 4)	93	157	95	213	192	**3.33**	1

		(12.4)	(20.9)	(12.7)	(28.4)	(25.6)	**(1.37)**	
5.	Shop online (T 5)	55 (7.3)	125 (16.7)	110 (14.7)	257 (34.3)	203 (27.1)	**3.57 (1.24)**	5
6.	Pay and create/renew fixed/ recurring deposits online (T 6)	41 (5.5)	80 (10.7)	107 (14.3)	268 (35.7)	254 (33.9)	**3.81 (1.17)**	9
7.	Online demand draft /pay order (T 7)	35 (4.7)	86 (11.5)	117 (15.6)	272 (36.3)	240 (32)	**3.79 (1.14)**	8
8.	Pay credit card dues (T 8)	31 (4.1)	96 (12.8)	102 (13.6)	249 (33.2)	272 (36.3)	**3.84 (1.16)**	10
9.	Prepaid mobile recharge (T 9)	49 (6.5)	106 (14.1)	67 (8.9)	278 (37.1)	250 (33.3)	**3.76 (1.23)**	7
10.	Withdrawal at banking agent (T 10)	37 (4.9)	68 (9.1)	108 (14.4)	276 (36.8)	261 (34.8)	**3.87 (1.13)**	11
11.	Insurance premium payment (T 11)	86 (11.5)	120 (16.0)	42 (12.3)	220 (29.3)	232 (30.9)	**3.52 (1.37)**	3
12.	Tax payments (T 12)	82 (10.9)	86 (11.5)	100 (13.3)	218 (29.1)	264 (35.2)	**3.66 (1.34)**	6

Figures in Parentheses are the row-wise percentages

4.2. t-test and F-test (ANOVA):

To find out the difference of opinion among respondents belonging to different characteristics of demographic variables t test and one-way analysis of variance (F-test) has been applied and the respective results are presented in table 1.2. It is clearly reflected from the table that the response on first transaction namely 'transfer funds between your accounts' (T 1) shows significant difference in usage among respondents who belongs to different categories of 'occupation', 'annual income' and 'place of residence' at 1 percent level of significance and with various groups of 'sector of bank' differ significantly at 5 percent level of significance.

It is obvious from the table that opinion of respondents on second transaction by mobile banking namely 'transfer funds to a third party' (T 2) showed significant variation with various groups of 'occupation', 'annual income', 'sector of bank' and 'place of residence' at 1 percent level of significance, whereas the association of respondents across 'age group' differ significantly at 5 percent level of significance.

The variation in frequency of usage of third transaction 'pay your utility bills' (T 3) showed significant variation with different groups of 'occupation', 'annual income', 'sector of bank' and 'place of residence' at 1 percent level of significance. Further opinions of male and female respondents have registered significant difference at 5 percent level of confidence.

In reference to the sixth transaction by mobile banking 'pay and create/renew fixed/recurring deposits online' (T 6) expresses that the usage of the respondents differ significantly with different groups of 'occupation', 'annual income',

'sector of bank' and 'place of residence' as F values are significant at 1 percent level of significance, while the perception of 'marital status' of the respondents have significant difference at 5 percent level of significance.

It is apparent from the table that the observation of respondents about the ninth transaction by mobile banking 'prepaid mobile recharge' (T 9) differs significantly with various characteristics of demographic variables namely 'occupation', 'sector of bank' and 'place of residence' as F values are significant at 99 percent confidence level.

The opinion of the respondents about tenth transaction namely 'withdrawal at banking agent' (T 10) have different pools of opinions who belong to different 'occupation', 'annual income', 'sector of bank' and 'place of residence' at 1 percent level of significance.

Table 1.2: Results of t-test and One-way Analysis of Variance Regarding Transactions by Using Mobile Banking

Transactions	Demographic Profiles of Respondents							
	t-test Values and significance		One way ANOVA (F-test) Values and significance					
	Gender	Marital Status	Occupation	Annual Income	Level of Education	Sector of Bank	Age Group	Place of Residence
T 1	-1.330 (.184)	.166 (.868)	8.952 (.000)**	4.632 (.003)**	1.449 (.235)	4.364 (.013)*	.992 (.411)	42.275 (.000)**
T 2	-.624 (.533)	-1.370 (.171)	9.601 (.000)**	7.183 (.000)**	1.459 (.233)	6.648 (.001)**	2.381 (.050)*	37.804 (.000)**
T 3	-1.979 (.049)*	-.587 (.558)	5.442 (.001)**	4.347 (.005)**	2.330 (.098)	11.585 (.000)**	1.221 (.300)	27.049 (.000)**
T 4	-2.112 (.035)*	-1.368 (.172)	14.878 (.000)**	12.276 (.000)**	4.195 (.015)*	14.950 (.000)**	2.866 (.023)*	14.177 (.000)**
T 5	-2.485 (.013)*	-2.800 (.005)**	16.396 (.000)**	10.781 (.000)**	5.734 (.003)**	11.130 (.000)**	2.810 (.070)	23.995 (.000)**
T 6	-.976 (.330)	-2.000 (.046)*	7.167 (.000)**	4.469 (.004)**	2.763 (.064)	10.64 (.000)**	2.220 (.065)	23.502 (.000)**
T 7	-1.811 (.071)	-2.368 (.018)*	13.676 (.000)**	6.898 (.000)**	.805 (.447)	16.048 (.000)**	3.498 (.008)**	15.890 (.000)**
T 8	.656 (.512)	-.766 (.444)	9.182 (.000)**	5.395 (.001)**	1.247 (.288)	18.394 (.000)**	2.261 (.061)	37.812 (.000)**

T 9	-1.514	1.730	6.271	1.207	1.407	14.398	2.084	34.971
	(.131)	(.085)	(.000)**	(.306)	(.246)	(.000)**	(.081)	(.000)**
T 10	-.409	.558	8.205	9.556	2.889	10.304	1.023	25.003
	(.683)	(.578)	(.000)**	(.000)**	(.056)	(.000)**	(.394)	(.000)**
T 11	-.049	.987	8.906	2.871	.697	8.964	2.375	30.176
	(.961)	(.325)	(.000)**	(.036)*	(.498)	(.000)**	(.051)	(.000)**
T 12	-.771	-.888	6.476	4.827	1.335	18.960	4.956	27.617
	(.441)	(.375)	(.000)**	(.002)**	(.264)	(.000)**	(.001)**	(.000)**

**significant at 1percent level (Null Hypothesis rejected)

* Significant at 5 percent level (Null Hypothesis rejected)

Further, it is very much clear from the table that eleventh transaction 'insurance premium payment' (T 11) registered significant variation across various 'occupation', 'sector of bank' and 'place of residence' at 99 percent level of confidence, while association of respondents with 'annual income' differ significantly at 95 percent level of confidence.

The results regarding twelfth mobile banking transaction namely 'tax payments' (T 12) differ significantly with different categories of 'occupation', 'annual income', 'sector of bank', 'age group' and 'place of residence' at 1 percent level of significance.

4.3. Various Issues/Problems & Prospects while Using Mobile Banking Service:

After analyzing the various transactions done by mobile banking users a question was put to the customers to know their experience regarding various issues/problems & prospects in using mobile banking services. The responses were obtained in respect to 13 statements related to the issues/problems & prospects faced while using mobile banking automated services on a five point scale (ranging between 1 for 'to large extent', 2 for 'to some extent', 3 for 'sometimes', 4 for 'a little extent' and 5 for 'very little extent'). The results related to this are shown in table 1.3. Table reveals that in total most of the respondents sometimes face the listed issues / problems while using mobile banking services and it is confirmed by the overall mean values, which are ranging between ($\bar{x}$ =2.29 to $\bar{x}$ = 2.60). In total 67.7 percent of the respondents express that they have faced 'signal failure and network congestions' (I 4) and it is the most important issues/problem. Further as high as 67.9 percent of the customers feel that issue/problem 'less secure and risky transactions' (I 1) is the second important problem, while 65.9 percent of the respondents admitted that either to large extent or to some extent they have faced the issue/problem namely 'small screen and keypad' (I 13). Similarly in total 67 percent of the respondents agreed that 'it need to be expertise' (I 3) is also a issue/problem faced by them to large and some extent level. Whereas 67.6 percent of the respondents have admitted that while using mobile banking services they faced issue i.e. 'un-updating information/incompatible version of mobiles' (I 2). On the other hand table specify that in total 30.8 percent of mobile banking users accepted that they rarely faced 'indifferent behavior of staff towards problems' (I 8), while 31.9 percent of users admitted that while using mobile banking they face 'high banking charges' (I 7) problem. Table depicts that problem 'it takes lot of time to complete the transaction' (I 6), is also not a problem as 30.7 percent of the respondents faced this issue/problem to a very little extent.

Table 1.3: **Frequency Distribution of Various Issues/Problems and Prospects While Using Mobile Banking Service**

Sr. No	Issues/Problems	1	2	3	4	5	Mean (S.D.)	Rank
1.	Less secure and risky transactions (I 1)	216 (28.8)	293 (39.1)	52 (6.9)	147 (19.6)	42 (5.6)	**2.34 (1.23)**	2
2.	Un-updated information/incompatible versions of mobiles (I 2)	185 (24.7)	322 (42.9)	53 (7.1)	131 (17.5)	59 (7.9)	**2.40 (1.24)**	5
3.	It need to be expertise (I 3)	203 (27.1)	299 (39.9)	58 (7.7)	131 (17.5)	59 (7.9)	**2.39 (1.26)**	4
4.	Signal failure and network congestions (I 4)	205 (27.3)	303 (40.4)	90 (12.0)	120 (16.0)	32 (4.3)	**2.29 (1.15)**	1
5.	Complex to use (I 5)	168 (22.4)	292 (38.9)	91 (12.1)	153 (20.4)	46 (6.1)	**2.48 (1.21)**	7
6.	It takes lot of time to complete the transaction (I 6)	164 (21.9)	265 (35.3)	91 (12.1)	168 (22.4)	62 (8.3)	**2.60 (1.27)**	12
7.	High banking charges (I 7)	179 (23.9)	257 (34.3)	75 (10.0)	170 (22.7)	69 (9.2)	**2.59 (1.31)**	11
8.	Indifferent behaviour of staff towards problems (I 8)	181 (24.1)	275 (34.3)	63 (8.4)	160 (21.3)	71 (9.5)	**2.55 (1.31)**	10
9.	Transactions are based on internet quality (I 9)	189 (25.2)	278 (37.1)	82 (10.9)	131 (17.5)	70 (9.3)	**2.48 (1.29)**	7
10.	Hanging of the websites (I 10)	174 (23.2)	283 (37.7)	105 (14.0)	137 (18.3)	51 (6.8)	**2.47 (1.22)**	6
11.	Account can be hack by others (I 11)	202 (26.9)	237 (31.6)	85 (11.3)	178 (23.7)	48 (6.4)	**2.51 (1.28)**	9
12.	Lack of information (I 12)	192 (25.6)	275 (36.7)	69 (9.2)	147 (19.6)	67 (8.9)	**2.49 (1.30)**	8
13.	Small screen and keypad (I 13)	233 (31.1)	261 (34.8)	53	157 (20.9)	46 (6.1)	**2.36 (1.28)**	3

			(7.1)				

Figures in Parentheses are the row-wise percentages

After discussing frequency distribution the present paragraph is an attempt to provide the detail of overall mean value and accordingly their respective ranks. The respondents admitted that they have faced to some extent the various issues/problems and prospects namely 'signal failure and network congestions' ($\bar{x}=2.29$), 'less secure and risky transactions' ($\bar{x}=2.34$) and 'small screen and keypad' ($\bar{x}=2.36$) positioned on first, second and third ranks respectively. Further problems i.e. 'it need to be expertise' ($\bar{x}=2.39$), 'un-updated information/incompatible versions of mobiles' ($\bar{x}=2.40$) and 'hanging of the websites' ($\bar{x}=2.47$) are also sometimes problematic issues scoring fourth, fifth and sixth ranks respectively. Whereas respondents agreed that while using mobile banking they face 'high banking charges' ($\bar{x}=2.59$) and 'it takes lot of time to complete the transaction' ($\bar{x}=2.60$) scoring on eleventh and twelfth position respectively. Besides, on the basis of equal overall mean values respondents have same level of experience about the problem namely 'complex to use' ($\bar{x}=2.48$) and 'transactions are based on internet quality' ($\bar{x}=2.48$). So banking sector should work in the direction to reduce the percentages of the respondents who are agreeing that they have issues/problems while using mobile banking.

4.4. t-test and F-test (ANOVA):

The forthcoming explanation is related to find out whether the perception of the respondents is associated with their demographic profile. For this t-test and one way analysis of variances F-test (ANOVA) has been applied and results are presented in table 1.4. The first issue faced by users while using mobile banking namely 'less secure and risky transactions' (I 1) do not have significance variation in opinion among respondents irrespective of demographic variables as t and F test values are not found significant at 1 percent and 5 percent level of significance.

As far as various issues faced by users while using mobile banking services are concerned the opinion of the respondents about second and third issues namely 'un-updating information/incompatible versions of mobiles' (I 2) and 'it need to be expertise' (I 3) report similar results and had shown the significant variations in opinion among respondents who belong to different categories of 'occupation' and 'place of residence' at 5 percent level of significance.

It is very much clear from the table that fourth and sixth issues namely 'signal failure and network congestions' (I 4) and 'it takes lot of time to complete the transaction' (I 6) showed a wide variation in observation with various categories of demographic variables as 'occupation' and 'place of residence' at 99 percent confidence level.

The seventh mobile banking issue/problem namely 'high banking charges' (I 7) bearing significant relation with 'occupation' at 1 percent level of significance.

Table 1.4: Results of t-test and One-way Analysis of Variance Regarding Issues/Problems and Prospects While Using Mobile Banking Service

Issues	Demographic Profiles of Respondents							
	t-test Values and significance		One way ANOVA (F-test) Values and significance					
	Gender	Marital Status	Occupation	Annual Income	Level of Education	Sector of Bank	Age Group	Place of Residence
I 1	-.670 (.503)	1.79 (.073)	1.69 (.166)	.590 (.622)	.247 (.781)	2.33 (.097)	.482 (.749)	2.26 (.061)

I 2	-.858	.073	3.70	1.146	.162	.763	.842	2.94
	(.392)	(.942)	(.011)*	(.330)	(.851)	(.467)	(.499)	(.020)*
I 3	-1.33	-.155	3.54	.336	1.806	.167	1.927	3.15
	(.183)	(.877)	(.014)*	(.799)	(.165)	(.846)	(.104)	(.014)*
I 4	-.041	1.165	4.39	1.97	2.127	2.163	.732	6.88
	(.967)	(.245)	(.004)**	(.117)	(.120)	(.116)	(.570)	(.000)**
I 5	1.374	-1.553	2.94	1.040	2.78	2.84	2.769	6.56
	(.170)	(.121)	(.032)*	(.374)	(.062)	(.059)	(.026)*	(.000)**
I 6	.668	-1.895	4.49	1.695	.171	1.23	.877	4.13
	(.505)	(.059)	(.004)**	(.167)	(.843)	(.290)	(.477)	(.003)**
I 7	-.119	-.817	5.05	.383	2.83	1.97	1.224	1.73
	(.906)	(.414)	(.002)**	(.765)	(.059)	(.140)	(.299)	(.140)
I 8	-1.213	2.209	2.24	2.89	4.84	1.137	2.00	1.82
	(.226)	(.028)*	(.082)	(.035)*	(.008)**	(.321)	(.092)	(.121)
I 9	-1.133	2.575	3.76	.804	.110	.018	1.206	.441
	(.258)	(.010)*	(.011)*	(.492)	(.896)	(.983)	(.307)	(.779)
I 10	-.904	1.198	2.09	.507	.558	5.601	1.295 (.270)	4.52
	(.367)	(.232)	(.100)	(.678)	(.573)	(.004)**		(.001)**
I 11	-.509	.915	.915	.323	2.68	3.66	2.902	1.77
	(.556)	(.361)	(.433)	(.809)	(.069)	(.026)*	(.021)*	(.131)
I 12	-1.720	-2.120	2.34	.109	2.912	.103	2.924	5.00
	(.086)	(.035)*	(.071)	(.955)	(.055)	(.902)	(.020)*	(.001)**
I 13	-.023	.094	5.61	2.035	2.098	1.424	.781	4.061
	(.982)	(.925)	(.001)**	(.108)	(.123)	(.241)	(.538)	(.003)**

**significant at 1percent level and * Significant at 5 percent level (Null Hypothesis rejected)

Table further reflected the t and F statistics about eighth mobile banking issue namely 'indifferent behavior of staff towards problems' (I 8), it is confirmed that 'marital status' and different groups of 'annual income' of respondents have significant difference in opinion at 5 percent level of significance, whereas 'level of education' differ significantly at 1 percent level of significance.

The twelfth mobile banking issue as 'lack of information' (I 12) showed that perception of 'marital status', 'age group' and different areas of 'place of residence' differ significantly at 5 percent and 1 percent level of significance respectively.

The glance of F values about the thirteenth issue namely 'small screen and keypad' (I 13) is strongly associated with various demographic variables such as 'occupation' and 'place of residence' at 1 percent level of significance.

5. Major Findings:

1. The study founded that "Order a cheque book", "Transfer funds between your accounts", "Insurance premium payment" and "Pay your utility bills" are most transactions commonly used by the mobile banking users. On the other hand consumers 'rarely or never' used their mobile banking for "Withdrawal at banking agent", "Pay credit card dues", "Pay and create/renew fixed/ recurring deposits online" and "Online demand draft /pay order".

2. The study further concluded that all the transactions done by mobile banking users found significant differences with demographic variables i.e. "Occupation", "Income", "Sector of the Bank", while on the other side respondents don't have differences in opinions with almost all the mobile banking transactions who belongs to different "Gender", "Marital Status" and "Age Group", it means that people belongs to these demographic variables have similar perceptions about these mobile banking transactions.

3. Study concluded that mobile banking users mostly faced various issues/problems & challenges i.e. "Signal failure and network congestions", "Less secure and risky transactions", "Small screen and keypad" and 'It need to be expertise' up to a large extent. On the other hand various issues/problems & challenges "It takes lot of time to complete the transaction", "High banking charges" and "Indifferent behaviour of staff towards problems" faced by users using mobile banking services up to a little extent.

4. Respondents belongs to different categories of "Gender" and "Marital Status" showed similar opinions with all the mobile banking issues/problems & challenges except namely "Indifferent behaviour of staff towards problems" and "Transactions are based on internet quality". Similarly mobile banking users belong to different "level of Education" also don't have differences in opinion except issue "Indifferent behaviour of staff towards problems".

5. Study further revealed that mobile banking users belongs to different "Occupation" and "Place of Residence" showed difference of opinions regarding various issues & challenges, it means that users with different occupation and place of residences don't had similar views about these problems.

9. Managerial Implication:

1. The mobile banking services are replacing other services very fast and dynamic. What was relevant yesterday may not work today. In such dynamic environment, the study offers the contemporary existing and thinking pattern of customer about the services of banks. These contemporary factors will help banks to rethink obsolete parameters and enhance currently desired input.

2. The study is helpful to plug out weak areas, which need improvement with special reference to mobile banking services provided by various banks. The study provides meaningful direction to bank management and decision maker to improve their service quality for higher customer satisfaction.

6. Future Research Directions:

1. A number of various aspects related to mobile banking services remained unsolved in this study will form the interesting topics for future research.

2. The study is based on the survey of only 750 users of mobile banking users, the future research can be conducted with a large sample size.

3. This study is related to mobile banking users, so future research may differentiate between mobile banking with other online payment application i.e. Phonepay, Googlepay or Paytm etc.

4. The future research can be sector specific, company specific or product specific.

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