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A Comparative Study on E–Banking Services at Bangalore City

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Abstract: Technology in Indian banking has evolved substantially from the days of back office automation to today's online, centralized and integrated solutions. Banking is now no longer confined to the branches where one has to approach the branch in person, to withdraw cash or deposit a cheque or request a statement of accounts. With the expansion of internet usage, e-banking has become one of the most revolutionized components of today's economic growth. E-banking is powerful value added tool to attract new customers and retain the existing ones. With the proliferation of internet and computer usage, the electronic delivery of e-banking service has become ideal for banks to meet customer expectations.

Keywords: Indian Banking, Customers, Online, Economic Growth.

REVIEW OF LITERATURE

R. C. Dangwal, Kailash Sakalani and Swate Anand, 2010.
Dangwal R. C., Kailash Sakalani and Swate Anand, the upcoming Technology and the associated innovations, by Pg.26, Professional banker. January 2010. The ICFAI University Press.

Technology has become the engine for triggering rapid change. It is no longer considered merely for transaction processing or confined to management information systems. It implies the integration of information system with the communication technology and of innovative application to product manufacturing, design and control. With the development of technology, the world has become a global village and ushered in a revolution in the banking industry.

Servon and Kaestner, (2008).
Servon, L.J. and Kaestner, R. (2008) 'Consumer financial literacy and the impact of online .Internet banking is changing the banking industry and is having the major effects on banking relationships. Banking is now no longer confined to the branches were one has to approach the branch in person, to withdraw cash or deposit a cheque or request a statement of accounts. E-banking technologies have proliferated in recent years, and the availability of a wide range of products has led to increasing adoption among consumers. These technologies include direct deposit, computer banking, stored value cards, and debit cards

P. George, Dr. S. Mercia Selva Malar, Mr. Sudheendran 2009
Filomina P. George, Dr. S. Mercia Selva Malar, M. Sudheendran, Technology enhanced service – scape commercial banks in India, Pg.39, August 2009, professional banker. The ICFAI University press.]

Internet banking (IB) is a radical technological innovation with potential to change the structure and nature of banking. To sustain business competitiveness, more and more banks are transforming from their traditional.

Miranda-Petronella, (2009)
Miranda-Petronella, E-banking-Modern Banking Services, Economic Science Series, 2009, Vol. 18 Issue 4, p1093-1096.

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E-banking is the first of those banking services that really economize time, because it allows to the user to accomplish from behind the computer many operations in the bank account, represents the computational solution that allows to the holder to have access at distance at the capitals from his account, purposing to obtain information about his account situation and the situation of the effected operations, of the payment and of the capitals transfers over a beneficiary, by a computational application, of a authentication method and of a communicational average, the *e-banking* is absolutely necessary in the integration conditions. Technology enhances Commercial Bank's ability to deliver financial services in new and innovative ways.

Cristina, Beatrice, (2008)

Cristina, Titrade; Beatrice, E-Banking-Impact, Risks, Security, Economic Science Series, 2008, Vol. 17 Issue 4, p1537-1542
The evolution of electronic banking (e- banking) started with the use of automatic teller machines (ATMs) and has included telephone banking, direct bill payment, electronic fund transfer and online banking.

(Saleh and Andrea, 2002)

Saleh and Anderea 2002 challenges of the e-banking revolution, a quarterly magazine of international monetory fund (IMF), vol. 39, no.3, pp 34-56.
E-banking has been around for some time in the form of automated teller machine and telephone transactions. More recently, it has been transformed by the internet – a new delivery channel that is fast, convenient, available round the clock, and from whatever the customer's location.

(Rose and Hudgins, 2005)

Rose, P.S. and Hudgins, S.C. (2005) *Bank Management and Financial Services*, New York: McGraw-Hill Irwin.
The use of paper cheque has been supplemented step-by-step with e- cheque (*i.e.*, electronic images) allowing banks to have more storage capacity, reduce costs, and improve customer services

STATEMENT OF PROBLEM

The government is launching many new programs in the country which are suitable to people's community in order to meet the objective of country's development. One such program is launching of e-banking services. As the e- banking services have started flourishing in the district in the past few years, the banking organizations have to meet the competition among the banking sector.
Al. Hawari .M and W. Tony 2006) The effect of automated service quality on Australian banks financial performance and the mediating role of customer satisfaction. Market intelligence planning vol.24, pp 127-147
Durkin, M. (2007) 'On the role of bank staff in online customer purchase', Marketing Intelligence & Planning Journal, Vol. 25, No. 1, pp.82–97.

Hence they are forced to do the various forms of e –banking services. It is very important in the point of view of the banks to have a study about the opinion and satisfaction of the customers. So the purpose of the research is to study the views of the customers in using the e-banking services. This study is conducted in selective nationalized and private commercial banks in Bangalore City. The respondents of the study were the customers of the banks using various e-banking services. (ATM/Debit card, credit card, online banking, mobile banking and Tele banking). Therefore the researcher will be identified the research area to find the geniuses of e-banking and it will be found to be important to have a comparison between the nationalized banks and private banks. Therefore an attempt will make by the researcher to have a comparative study between the nationalized banks and the private banks on the basis of opinions of customers.

SCOPE OF THE STUDY

The research is based on the customers' perception regarding e-banking services. The research will be discusses the opinion of the customers regarding the e- banking services provided by the selected banks and the qualities of the e- banking services in the area of reliability, responsiveness, security, easy use, accessibility and efficiency. Also the research will be analyses the problems faced by the customers while using the e-banking services. The research will be evaluates the relationship between the activities undertaken through e-banking services by the customers, the qualities of e-banking services and the problems of e-banking services. The researcher will be taken ATM/debit card, credit card, mobile banking, online banking and Tele banking as the e-banking services which the customer uses for various modes of services like mobile recharge, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns , investments etc.). The researcher will be also analyses the problems faced by the customers while dealing with the e-banking services.

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OBJECTIVES

1. To study the nature of e-banking services provided by the selected nationalized and private commercial banks in Bangalore City.
2. To evaluate, analyze and compare the opinions and satisfaction level of customers of e-banking services provided by the selected nationalized and private banks in Bangalore City.
3. To understand and compare the problems faced by the customers of nationalized and private commercial banks in using e-banking services.
4. To offer suggestions to improve the e-banking customer services.

HYPOTHESIS

1. There will be a significant difference between nationalized banks and private banks of the respondents and the e-banking services.
2. There will be a significant difference between nationalized banks and private banks of the respondents and the problems of e-banking services.
3. There will be a significant difference between age, gender, occupation, education, monthly income of the respondents and the qualities of overall e-banking services.
4. There will be a significant difference between account access through internet of the respondents and the qualities of overall e-banking services.
5. There will be a significant relationship between nature of services like ATM/debit card, Credit card, Mobile banking, online banking and Tele- banking of the respondents and their overall e-banking services.
6. There will be a significant relationship between various modes of services(mobile recharge, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns , investments and others) of the respondents and their overall e- banking services.
7. There will be a significant relationship between various modes of services(mobile recharge, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns , investments and others) of the respondents and their various problems of e-banking.

METHODOLOGY

TYPE OF RESEARCH AND SAMPLING METHOD

The customers who are making use of the electronic banking services provided by nationalized and private banks in Bangalore City constitute the universe. Since the study are comparative study on E-banking services among the banks, the total commercial banks are classified into two namely, nationalized banks and private banks. The researcher will be randomly selecting two nationalized banks and two private banks from among the banks which are popularly known for e-banking services.

State bank of India and Bank of Baroda, will be banks selected from the nationalized category. ICICI Bank and HDFC Bank will be selected from private bank sector. The nature of study will be the combination of comparative and exploratory study.

SAMPLING SIZE

The researcher has identified and has selected for sample respondents who will be provided e-banking services by the selected nationalized and private banks not exceeding 48 number from each of the nationalized bank category and private bank category under simple random sampling technique. Therefore sample size may be 192.

STATISTICAL METHODS USED FOR ANALYZING THE DATA

Analysis of the study has done with the help of the relevant statistical tools like Kruskal-Wallis test, Mann Whitney test, Chi square test, T-test, Correlation Analysis, One way Anova & Inter Correlation Matrix Analysis.

Sample Size Calculation

Margin of Error: 5%
Confidence Level: 95%
Population Size: 947169 As per BBMP South Zone of Bangalore City
Response Distribution: 50%
Answer will be: 384 response
=384/4 = 96 response for each bank
Here 4 means = 4 banks equally distribution
For Pre Test the Sample Size will be = 96 response divided by 50% =96*50/100 = 48
Answer will be = 48 response from each bank chosen for research work

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RESEARCH DESIGN

Sl.no	Name of banks	Nature of bank	
		National (n=96)	Private (n=96)
1	State Bank of India	48	0
2	Bank of Baroda	48	0
3	HDFC Bank	0	48
4	ICICI Bank	0	48

LIMITATION OF THE STUDY

The study will be restricted to the customers' perspectives. Therefore it does not cover any performance appraisal or opinion on e-banking services from bankers' perspective. The results of the study cannot be substantiated to other areas of the state and country.

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the descriptive and statistical analysis of primary data collected with regard to e-banking services, qualities of e-banking services and problems perceived by the respondents of 04 different banks doing e- banking services. The hypotheses framed by the researcher are tested with the help of statistical tools and results are interpreted. Five points scale have been used in the analysis with the following options;

VS – Very Satisfied S – Satisfied N – Neutral DS – Dissatisfied VS – Very Dissatisfied

Table: 4.1
Gender Wise Classification of Respondents

Sl.no	Gender	No. of respondents (n=192)	Percentage (100%)
1	Male	102	53.1
2	Female	90	46.9

The above table 4.1 shows that out of the total respondents who were using e-banking services (53.1%) of respondents were male and (46.9%) were female. It is inferred that compared to female respondents male respondents using the e-banking services.

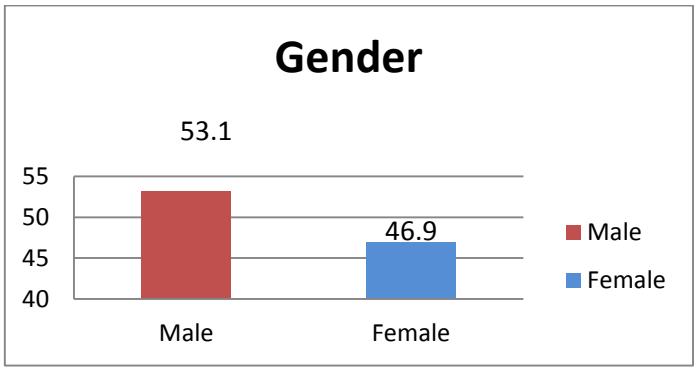

Table 4.2
Age Wise Classification of Respondents

Sl. No	Age group	No. of respondents (n=192)	Percentage (100%)
1	18 to 20yrs	13	6.8
2	21 to 30yrs	95	49.5
3	31 to 40yrs	46	24.0
4	41 to 50yrs	18	9.4
5	51 to 60yrs	20	10.4

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The above table 4.2 shows that out of the total respondents using e-banking services a vast majority (49.5 %) of respondents belong to the age group between 21 to 30 years. Exactly one fourth (24.0%) of the respondents belong to the age group of 31 to 40 years. Nearly (10.4%) of the respondents belong to the age group of 51 to 60 years, 9.4 % of the respondents belong to the age group of 41 - 50 years and above and 6.8 percent of the respondents belong to below 18 - 20 years age group. It is inferred that maximum no of respondents belonging to the age group of 21 to 30 years are using the e- banking services.

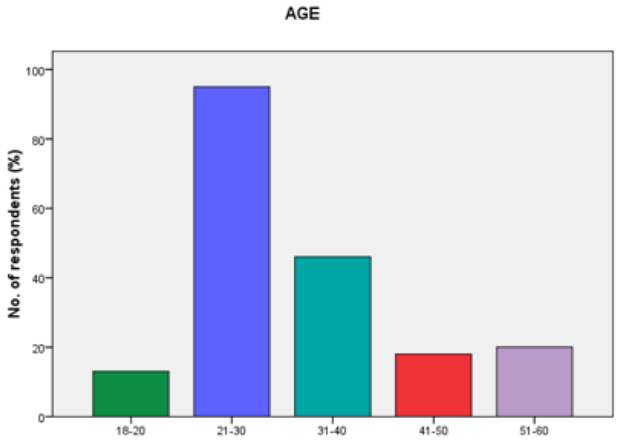

Table 4.3

Occupation Wise Classification of Respondents

Sl.no	Occupation	No of respondents (n=192)	Percentage (100%)
1	Student	20	10.4
2	Salaried	107	55.7
3	Businessman	26	13.5
4	Professional	37	19.3
5	Others	2	1.0

The table 4.3 shows that out of the total respondents using e-banking services a maximum (55.7%) of respondents belong to salaried class, 19.3 percent are professional group, 13.5 percent of respondents are businessmen. 10.4 percent are Student and 1.0 percent belong to other occupational group. It is inferred that e-banking services mostly been utilized by salaried class people.

Awareness level of e-banking services next prevails with professionals. 13.5 percent of respondents are from Businessman using e-banking services and 10.4 and 1.0 percent of respondents who are using e-banking services are from student and other occupational group.

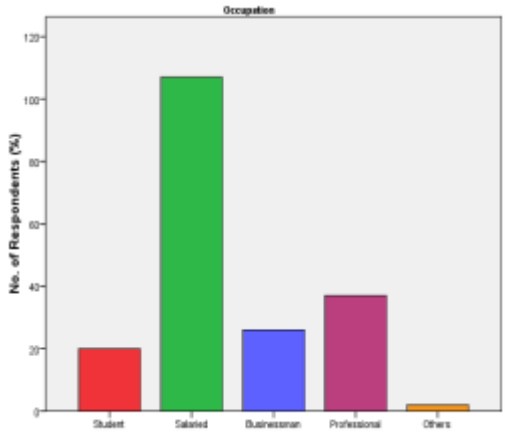

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Table 4.4
Education Wise Classification of Respondents

Sl no	Education	No of respondents (n=192)	Percentage (100%)
1	Below HSC	10	5.2
2	Graduate	110	57.3
3	Postgraduate	52	27.1
4	Professional	20	10.4
5	Others	0	0

The table 4.4 indicates that among the total respondents using e-banking services 57.3 percent of respondents were Graduate 27.1 percent of respondents were postgraduate 10.4 percent of respondents were professional and 5.2 percent of respondents were below higher secondary.

It is inferred that compared to other educational class people who have qualification of graduation utilize the e-banking services to the maximum.

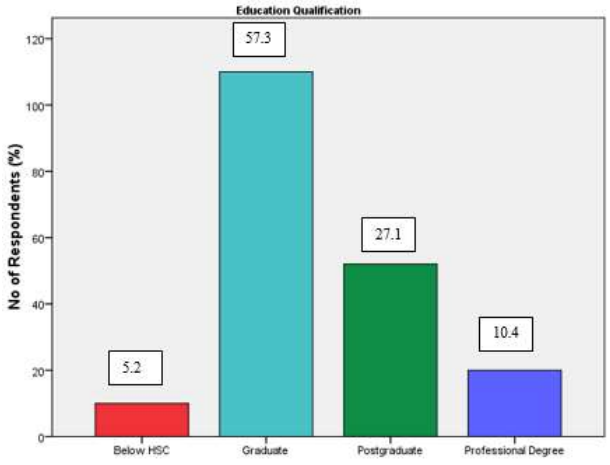

Table 4.5

Income Level Classification of Respondents (Per Annam)

Sl.no	Particulars	No of respondents (n=192)	Percentage (100%)
1	< 1 Lakh	8	4.2
2	2 to 4 Lakhs	76	39.6
3	5 to 7 Lakhs	59	30.7
4	8 to 10 Lakhs	24	12.5
5	10 Lakhs & above	8	4.2
6	No Income	17	8.9

Table 4.5 shows that out of the total respondents doing e-banking services a maximum (39.6 %) of respondents belong to the monthly income group of 2 to 4 Lakhs. 30.7 percent respondents belong to 5 to 7Lakhs, 12.5 percent belong to 8 to 10Lakhs, 4.2 percent belong to < 1 Lakh and 10 Lakhs and above, 8.9 percent belong to below No income group. It is inferred that compared to other income group people respondents belonging to the income group of 2 to 4 Lakhs are using the e-banking services to a maximum extent.

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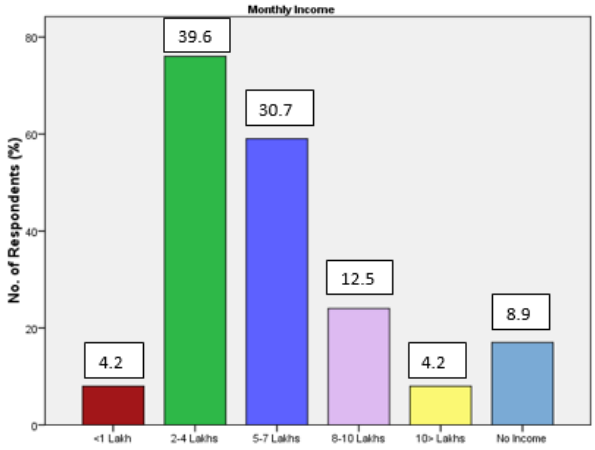

Table 4.6

Opinion on the Security of Financial Information Available and Managed Over Internet

Sl.no	Particulars	No of respondents (n=192)	Percentage (100%)
1	Very Secured	50	26.0
2	Secured	100	52.1
3	Not Sure	31	16.1
4	Unsecured	10	5.2
5	Highly Unsecured	1	.5

Out of the total number of respondents taken for analysis 26.0 percent of respondents felt very secure with their financial information available and managed over internet. 16.1 percent of the respondents were not sure about security managed over internet. 52.1 percent of the respondents felt secured about their financial information available and managed over internet. 5.2 percent of the respondents felt unsecured about their financial information available and managed over internet and .5 percent of the respondents felt highly unsecured. It is inferred that out of total percentage of respondents nearly 52.1 percent of respondents felt secured with managing their financial information available and managed over internet. This indicates that though there are many fraudulent activities over internet the steps taken by the banks in providing secured services over internet has created confidence in respondents' thoughts.

This part of the analysis provides the information regarding the preference of respondents in the usage of e-banking services

Table 4.7

E-banking Services Used by Respondents

Sl. No	Particulars	Yes	No
1	ATM/ Debit card	175 (91.1%)	17 (8.9%)
2	Credit card	81 (42.2%)	111(57.8%)
3	Online banking	152 (79.2%)	40 (20.8%)
4	Mobile banking	107 (55.7%)	85 (44.3%)
5	Tele banking	37(19.3%)	155 (80.7%)

Table 4.7 shows that out of the total respondents a maximum of 91.1 percent of the respondents are using ATM/Debit card and only 8.9 percent of the respondents are not using the ATM/Debit card. It shows the how much familiar and useful the ATM /Debit card service is to the respondents.

The above table 4.7 depicts the very low frequency of usage of credit card by the respondents. Out of the total respondents only 42.2 percent of the respondents are using the credit card service. 57.8 percent of the respondents are not using the service. It is

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perceived that the awareness of the benefit of credit card services have not reached the respondents of the bank.

The above table 4.7 depicts the information that out of the total percent of the respondents using e-banking services only 55.7 percent of the respondents are using the mobile banking services. 44.3 percent of the respondents are not using the mobile banking service. it is perceived that a maximum of 55.7 percent of the respondents were using the mobile banking services and the benefits of the services still not yet reached the respondents.

Out of total percentage of respondents using e-banking services 79.2 percent of respondents are using the online banking services.44.3 percent of respondents are not using the online banking services. It is perceived that 79.2 percent of respondents are aware of facilities of online banking services.

Out of total percentage of respondent using e-banking services 19.3 percent of the respondents are using the Tele banking services. 80.7 percent of respondent did not using the Tele banking services at all. As other e-banking services played a full-fledged role respondents were interested in the other e-banking services they did not bother to use the Tele banking services.

This part of the analysis provides the information on the views of the respondents using e-banking services with regard to the e-banking service qualities. To understand the e-banking services provided by the banks, eight key service quality dimensions been taken for analysis are System Availability, Accuracy, Efficiency, Security, Responsiveness, Easiness and Convenience, Cost Effectives & Problem Handling. Under each of key service quality dimension five scales been taken to evaluate the service qualities.

Table 4.8

Opinion of the Respondents Regarding E-banking services

Sl. No	Particulars	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
1	System Availability	42 (21.9%)	99 (51.6%)	36 (18.8%)	14 (7.3%)	1 (.5%)
2	Accuracy	33 (17.2%)	103 (53.6%)	44 (22.9%)	10 (5.2%)	2 (1.0%)
3	Efficiency	49 (25.5%)	88 (45.8%)	40 (20.8%)	12 (6.2%)	3 (1.6%)
4	Security	38 (19.8%)	94 (49.0%)	48 (25.0%)	11 (5.7%)	1 (.5%)
5	Responsiveness	29 (15.1%)	94 (49.0%)	47 (24.5%)	19 (9.9%)	3 (1.6%)
6 a.	Easiness	48 (25.0%)	106 (55.2%)	27 (14.1%)	9 (4.7%)	2 (1.0%)
6 b.	Convenience	46 (24.0%)	95 (49.5%)	39 (20.3%)	9 (4.7%)	3 (1.6%)
7	Cost Effectiveness	37 (19.3%)	86 (44.8%)	46 (24.0%)	16 (8.3%)	7 (3.6%)
8	Problem Handling	25 (13.0%)	94 (49.0%)	51 (26.6%)	19 (9.9%)	3 (1.6%)

Table 4.8 shows that vast majority (51.6%) of the respondents are Satisfied that banks provides system Availabilities like Up to date equipment and physical facilities, full branch computerization, Core banking ATM, POS, Internet banking, mobile banking, SMS alerts, credit card & EFT, ECS & E-bill pay. 21.9 percent respondents says that there are Very Satisfied about system Availabilities. 18.8 percent of the respondents says that there are Neutral responses on system availabilities, Out of the total respondents 7.3 percent of the respondents says that there are Dissatisfied with banks system Availabilities and a minority (.5%) of the respondents strongly says that there are very dissatisfied with banks system Availabilities.

Table 4.8 shows that vast majority (53.6%) of the respondents are Satisfied that banks will provides Accuracy like Error free E- Services through E-banking Channels. 22.9 percent respondents says that there are Neutral about Accuracy through E-banking channels. 17.2 percent of the respondents says that there are Very satisfied about Accuracy through E-banking channels.

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Out of the total respondents 5.2 percent of the respondents says that there are Dissatisfied with banks Accuracy in e-banking channels and a minority (1.0%) of the respondents strongly says that there are very dissatisfied with banking Accuracy of Error free e-services through e-banking channels.

Table 4.8 shows that vast majority (45.8%) of the respondents are Satisfied about Efficiency in E-banking services like Speed of service (Money transfer, depositing, enquiry getting information, response clearing) immediate and quick transaction and check out with minimal time. 25.5 percent respondents says that there are Very satisfied about Efficiency in E-banking services. 20.8 percent of the respondents says that there are Neutral about Efficiency in E-banking services. Out of the total respondents 6.2 percent of the respondents says that there are Dissatisfied with Efficiency in e-banking channels and a minority (1.6%) of the respondents strongly says that there are very dissatisfied with Efficiency in E-banking services.

Table 4.8 shows that vast majority (49.0%) of the respondents are Satisfied about Security in E-banking services like Trust, Privacy, believability, truthfulness freedom from danger about money losses, fraud. PIN. Password theft & hacking. 25.0 percent respondents says that there are Neutral about Security in E-banking services. 19.8 percent of the respondents says that there are Very satisfied about Security in E-banking services. Out of the total respondents 5.7 percent of the respondents says that there are Dissatisfied with Security in e-banking channels and a minority (.5%) of the respondents strongly says that there are very dissatisfied with Security in E-banking services.

Table 4.8 shows that vast majority (49.0%) of the respondents are Satisfied that banks are providing prompt responses for Problem handling, recovery of the problem, prompt service, timeliness service, recovery of Pin and Password and money losses. 24.5 percent respondents says that there are Neutral on banks providing prompt responses. 15.1 percent of the respondents says that there are Very Satisfied on banks providing prompt responses. Out of the total respondents 9.9 percent of the respondents says that there are Dissatisfied with banks are providing prompt responses and a minority (1.6%) of the respondents strongly says that there are Very dissatisfied with banks are providing prompt responses.

Table 4.8 shows that vast majority (55.2%) of the respondents are Satisfied about Easiness in E-banking services like ase to use and functioning of ATM, Mobile banking, internet banking credit card & debit card. 25.0 percent respondents says that there are Very satisfied about Easiness in E-banking services. 14.1 percent of the respondents says that there are Neutral about Easiness in E-banking services. Out of the total respondents 4.7 percent of the respondents says that there are Dissatisfied with Easiness in e-banking channels and a minority (1.0%) of the respondents strongly says that there are very dissatisfied with Easiness in E-banking services.

Table 4.8 shows that vast majority (49.5%) of the respondents are Satisfied about convenience in E-banking services like Customized services, anywhere and anytime banking, appropriate language support and time saving. 24.0 percent respondents says that there are Very satisfied about Convenience in E-banking services. 20.3 percent of the respondents says that there are Neutral about Convenience in E-banking services. Out of the total respondents 4.7 percent of the respondents says that there are Dissatisfied with Convenience in e-banking channels and a minority (1.6%) of the respondents strongly says that there are very dissatisfied with Convenience in E-banking services.

Table 4.8 shows that vast majority (44.8%) of the respondents are Satisfied about Cost Effectiveness in E-banking services like Price, Fee, Charges that is commission for fund transfer, interest rate, clearing charges, bill collection and payments, charges on switching of ATM & Processing fees. 24.0 percent respondents says that there are Neutral about Cost Effectiveness in E-banking services. 19.3 percent of the respondents says that there are Very satisfied about Convenience in E-banking services. Out of the total respondents 8.3 percent of the respondents says that there are Dissatisfied with Cost effectiveness in e-banking channels and a minority (3.6%) of the respondents strongly says that there are very dissatisfied with Cost effectives in E-banking services.

Table 4.8 shows that vast majority (49.0%) of the respondents are Satisfied about Problem Handling in E-banking services it refers to problem solving process regarding computerized banking services. 26.6 percent respondents says that there are Neutral about in Problem Handling E-banking services. 13.0 percent of the respondents says that there are very satisfied about in Problem Handling E-banking services. Out of the total respondents 9.9 percent of the respondents says that there are Dissatisfied with Problem Handling in e-banking channels and a minority (1.6%) of the respondents strongly says that there are very dissatisfied with in Problem Handling E-banking services.

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This part of the analysis deals with the problems faced by the respondents while dealing with the e-banking services of the banks.

1 = Very Problematic 3 = No Opinion 5 = Not at all Problematic
2 = Problematic 4 = Not Problematic

Table 4.9
Ranking Of Problem of E-Banking Services

Ranks	Problems faced by forgotten password		Problems faced because of insufficient number of ATM's		Location is Unsuitable of ATM's		Network Issues		Inadequate Knowledge about the usage of E-channels		Lack of Confidence		Technical issues in ATM's smart card and credit card		Problem in Misplace of card		Misuse of card & frauds	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1	30	15.6	27	14.1	24	12.5	31	16.1	21	10.9	21	10.9	30	15.6	30	15.6	36	18.8
2	26	13.5	32	16.7	34	17.7	30	15.6	26	13.5	24	12.5	30	15.6	35	18.2	34	17.7
3	47	24.5	52	27.1	43	22.4	48	25.0	37	19.3	47	24.5	39	20.3	35	18.2	23	12.0
4	29	15.1	25	13.0	35	18.2	43	22.4	38	19.8	37	19.3	39	20.3	22	11.5	26	13.5
5	60	31.2	56	29.2	56	29.2	40	20.8	70	36.5	63	32.8	54	28.1	70	36.5	73	38.0

The table 4.9 shows that majority (31.2%) of the respondents have given fifth rank for the problems faced by forgotten password about the usage of e- services, 24.5 percent of the respondents have given third rank, 15.6 percent of the respondents have given first rank, 15.1 percent of the respondents have given fourth rank, and a minority (13.5%) of the respondents have given second rank for the problem.

The table 4.9 shows that majority (29.2%) of the respondents have given fifth rank for the problems faced because of insufficient number of ATM's, 27.1 percent of the respondents have given third rank, 16.7 percent of the respondents have given second rank, 14.1 percent of the respondents have given first rank, and a minority (13.0%) of the respondents have given fourth rank for the problem.

The table 4.9 shows that majority (29.2%) of the respondents have given fifth rank for the Location is unsuitable for ATM's, 22.4 percent of the respondents have given third rank, 18.2 percent of the respondents have given fourth rank, 17.7 percent of the respondents have given second rank, and a minority (12.5%) of the respondents have given first rank for the problem.

The table 4.9 shows that majority (25.0%) of the respondents have given third rank for the Network Issues, 22.4 percent of the respondents have given fourth rank, 20.8 percent of the respondents have given fifth rank, 16.1 percent of the respondents have given first rank, and a minority (15.6%) of the respondents have given second rank for the problem.

The table 4.9 shows that majority (36.5%) of the respondents have given fifth rank for lack of inadequate knowledge about the usage of E-channels, 19.8 percent of the respondents have given fourth rank, 19.3 percent of the respondents have given third rank, 13.5 percent of the respondents have given second rank, and a minority (10.9%) of the respondents have given first rank for the problem.

The table 4.9 shows that majority (32.8%) of the respondents have given fifth rank for lack of Confidence (Security PIN Code, Card Number, CVV Number) OTP Number about the usage of E-channels, 24.5 percent of the respondents have given third rank, 19.3 percent of the respondents have given fourth rank, 12.5 percent of the respondents have given second rank, and a minority (10.9%) of the respondents have given first rank for the problem.

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The table 4.9 shows that majority (28.1%) of the respondents have given fifth rank for Problem in technical issues in ATM's, smart card, credit card about the usage of E-channels, 20.3 percent of the respondents have given third rank & fourth rank, and minority (15.6%) of the respondents have given first rank and second for the problem.

The table 4.9 shows that majority (36.5%) of the respondents have given fifth rank for Problem in Misplace of card about the usage of E-channels, 18.2 percent of the respondents have given third rank and second rank, 15.6 percent of the respondents have given first rank, and minority (11.5%) of the respondents have given fourth rank for the problem.

The table 4.9 shows that majority (38.0%) of the respondents have given fifth rank for Misuse of card and frauds about the usage of E-channels, 18.8 percent of the respondents have given first rank, 17.7 percent of the respondents have given second rank, 13.5 percent of the respondents have given fourth rank, and a minority (12.0%) of the respondents have given third rank for the problem.

TEST OF HYPOTHESES

In this section, the hypotheses formulated are verified and tested using the various statistical techniques and inference drawn based on the result

HYPOTHESIS: 1

There is a significant difference between nationalized banks and private banks of the respondents and their e-banking services.

Table 4.10

Mann-Whitney Test

Difference between nationalized banks and private banks of the respondents and their e-banking services

Sl. No	Nature of bank	Mean Rank	Sum of Ranks
1	**ATM/ Debit card**		
	National (n=96)	94.00	9024.00
	Private (n=96)	99.00	9504.00
2	**Credit card**		
	National (n=96)	101.00	9696.00
	Private (n=96)	92.00	8832.00
3	**Online banking**		
	National (n=96)	99.50	9552.00
	Private (n=96)	93.50	8976.00
4	**Mobile banking**		
	National (n=96)	94.00	9024.00
	Private (n=96)	99.00	9504.00
5	**Tele banking**		
	National (n=96)	95.00	9120.00
	Private (n=96)	98.00	9408.00

Test Statistics (1)

	ATM/ Debit card	Credit card	Online banking	Mobile banking	Tele banking
Mann-Whitney U	4368.000	4176.000	4320.000	4368.000	4464.000
Wilcoxon W	9024.000	8832.000	8976.000	9024.000	9120.000
Z	-1.267	-1.312	-1.063	-.725	-.547
Asymp. Sig. (2 -tailed)	.205	.190	.288	.469	.584

The table 4.10 indicates the respondents' opinion perceived regarding the e-banking services provided by nationalized banks and private banks. The respondents perceived that the private banks are providing best ATM/Debit card services with the mean value 99.00, the best credit card services are provided by nationalized banks with the mean value 101.00, mobile banking services are provided in the best way by the private banks with the mean value 99.00, Online banking services are provided in the best manner by nationalized banks with the mean value 99.50 and Tele banking services are provided in a best manner by private banks with the mean value 98.00, though the highest mean value shows the best services by the banks are also providing the e-banking services in the best manner with not much difference in the mean value.

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There is much less difference between the services provided by the nationalized banks and the private banks.

The table 4.10 reveals that there is no significant difference between nationalized banks and private banks of the respondents and their nature of e- banking services.

Research Hypothesis

$H_{1:}$ There is a significant difference between nationalized banks and private banks of the respondents and their e-banking services.

Null hypothesis

$H_{0:}$ There is no significant difference between nationalized banks and private banks of the respondents and their e-banking services.

Statistical test

Mann-Whitney test was used to test the above hypothesis

Findings

The table 4.10 reveals that there is no significant difference between nationalized banks and private banks of the respondents and their e-banking services.

[*ATM/Debit card=.205>0.05 / Credit card=.190>.0.05 / mobile banking=.469>0.05 / online banking=.288>0.05 / Tele banking =.584>0.05]*

Hence, the calculated value is greater than the table value. So the research hypothesis is rejected and the null hypothesis is accepted.

HYPOTHESIS: 2

There is a significant difference between nationalized banks and private banks of the respondents and their various problems faced in e-banking services.

Table 4.11
Mann-Whitney Test
Difference between Nature of Bank of the Respondents and the Various Problems Faced By the Respondents of E-Banking Channels

Sl. No	Nature of banks	Mean Rank	Sum of ranks
1	**Problems faced by forgotten password**		
	National (n=96)	90.64	8701.00
	Private (n=96)	102.36	9827.00
2	**Problems faced because of insufficient number of ATM's**		
	National (n=96)	95.52	9170.00
	Private (n=96)	97.48	9358.00
3	**Location is Unsuitable for ATM's**		
	National (n=96)	98.96	9500.00
	Private (n=96)	94.04	9027.00
4	**Network Issues**		
	National (n=96)	91.44	8778.00
	Private (n=96)	101.56	9750.00
5	**Lack of inadequate knowledge about the usage of E-Channels**		
	National (n=96)	94.61	9083.00
	Private (n=96)	98.39	9445.00
6	**Lack of Confidence (Security PIN Code, Card Number, CVV number)OPT Number**		
	National (n=96)	86.90	8342.00
	Private (n=96)	106.10	10186.00
7	**Problem in technical issues in ATM's Smart Card & Credit Card**		
	National (n=96)	95.97	9213.00
	Private (n=96)	97.03	9315.00
8	**Problem in Misplace of Card**		
	National (n=96)	92.88	8916.50
	Private (n=96)	100.12	9611.50
9	**There is Misuse of card and frauds**		
	National (n=96)	89.69	8610.00
	Private (n=96)	103.31	9918.00

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	Problems faced by forgotten password	Problems faced because of insufficient number of ATM's	Location is Unsuitable for ATM's	Network Issues	Lack of inadequate knowledge about the usage of E-Channels	Lack of confidence (Security PIN Code, card Number, CVV Number)OPT Number	Problem I technical issues in ATM's Smart Card and Credit Card	Problem in Misplace of Card	There is Misuse of card and frauds
Mann-Whitney U	4045.000	4514.000	4371.500	4122.000	4427.000	3686.000	4557.000	4260.500	3954.000
Wilcoxon W	8701.000	9170.000	9027.500	8778.000	9083.000	8342.000	9213.000	8916.500	8610.000
Z	-1.504	-0.251	-0.63	-1.291	-0.487	-2.471	-0.136	-0.934	-1.763
Asymp. Sig. re (2-tailed)	0.133	0.802	0.529	0.197	0.626	0.013	0.892	0.350	0.078

The table 4.11 indicates the problems faced by the respondents while using the e-banking services. According to the opinions given by the respondents it is perceived that the respondents using e-banking services of Private banks are facing problems by forgotten password about the usage of e channels with the highest mean value of 102.36. The respondents opinion that Private banks are facing problems of insufficient number of ATM's with the highest mean value of 97.48. The respondents of nationalized banks feel that the Location is unsuitable for with the highest mean value of 98.96. The respondents of the private banks perceive that the private banks are having Network issue with the highest mean value of 101.56. The respondent of the Private bank with the highest mean value of 98.39 perceive that Lack of inadequate knowledge about the usage of E-channels. The respondents of the private bank with the highest mean value of 106.10 perceive that they are Lack of confidence (Security PIN Code, Card Number, and CVV Number) OPT Number. The respondents of the private banks perceive that they are facing problem in technical issues in ATM's Smart Card and Credit card with the mean value of 97.03. The respondents of private banks view that there is a problem in misplace of card with the mean value of 100.12. The respondents of the private banks report that they is misuse of card and frauds with a mean value of 103.31.

The table 4.11 reveals that there is no significant difference between nationalized banks and private banks of the respondents and their various problems faced in E-banking services.

Research hypothesis

H_1 : There is a significant difference between nationalized banks and private banks of the respondents and their various problems faced in e-banking services.

Null hypothesis

H_0 : There is no significant difference between nationalized banks and private banks of the respondents and the various problems faced in e-banking services.

Statistical test

Mann Whitney test was used to test the above hypothesis

Findings

The table 4.11 reveals that there is no significant difference between nature of bank of the respondents and their various problems faced in e-banking services. [Problems faced by forgotten password about the usage of e channels =.133>0.05 / insufficient number of ATMs=.802>0.05/, Location is unsuitable for ATM's=.529>0.05, Network Issue=0.197<0.05/ lack of inadequate knowledge about the usage of E-Channels =.626>0.05/Lack of confidence (Security PIN Code, Card Number, CVV Number)OPT Number =.013<0.05/ Problem in technical issues in ATM's Smart card and credit card = .892>0.05/Problem in Misplace of card =.350>0.05/, Misuse of card and frauds =.078>0.05. Therefore, the calculated value is greater than table value. So the research hypothesis rejected and the null hypothesis accepted.

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HYPOTHESIS: 3

There is a significant difference between age, gender, occupation, education and monthly income of the respondents and their overall e-banking services qualities.

Research hypothesis: 3.1

H_1 : There is a significant association between age of the respondents and their overall e-banking services qualities.

Null hypothesis

H_0 : There is no significant association between age of the respondents and their overall e-banking services qualities.

Statistical test

Chi-square test was used to test the above hypothesis

Table 4.12

Association between age of the respondents and their overall e-banking services qualities.

Sl. No.	Factors	Chi-Square Value	Degree of Freedom	Asymp. Sig.(2-sided)	Significant / Not Significant
1	System Availability	13.449	16	0.640	Not Significant
2	Accuracy	19.437	16	0.247	Not Significant
3	Efficiency	15.424	16	0.494	Not Significant
4	Security	32.948	16	0.008	**Significant**
5	Responsiveness	21.929	16	0.145	Not Significant
6 (a)	Easiness	16.16	16	0.442	Not Significant
6 (b)	Convenience	19.676	16	0.235	Not Significant
7	Cost Effectiveness	15.333	16	0.500	Not Significant
8	Problem Handling	20.247	16	0.209	Not Significant
9	Overall E-banking service	26.516	16	0.047	**Significant**

Interpretation

It is seen that the chi-square value is 13.449 and the Asymp. Sig. value is .640 which is greater than the critical value (P = 0.05) Hence Null hypothesis is accepted and there is no significant relationship associate between age and satisfaction with System availability.

Interpretation

It is seen that the chi-square value is 19.437 and the Asymp. Sig. value is .247 which is greater than the critical value (P = 0.05) Hence Null hypothesis is accepted and there is no significant relationship associate between age and satisfaction with Accuracy.

Interpretation

It is seen that the chi-square value is 15.424 and the Asymp. Sig. value is .494 which is greater than the critical value (P = 0.05) Hence Null hypothesis is accepted and there is no significant relationship associate between age and satisfaction with Efficiency.

Interpretation

It is seen that the chi-square value is 32.948 and the Asymp. Sig. value is .008 which is lesser than the critical value (P = 0.05) Hence Null hypothesis is **rejected** and there is significant relationship associate between age and satisfaction with Security.

Interpretation

It is seen that the chi-square value is 21.929 and the Asymp. Sig. value is .145 which is greater than the critical value (P = 0.05) Hence Null hypothesis is accepted and there is no significant relationship associate between age and satisfaction with responsiveness.

Interpretation

It is seen that the chi-square value is 16.160 and the Asymp. Sig. value is .442 which is greater than the critical value (P = 0.05) Hence Null hypothesis is accepted and there is no significant relationship associate between age and satisfaction with Easiness.

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Interpretation
It is seen that the chi-square value is 19.676 and the Asymp. Sig. value is .235 which is greater than the critical value (P = 0.05) Hence Null hypothesis is accepted and there is no significant relationship associate between age and satisfaction with convenience.

Interpretation
It is seen that the chi-square value is 15.333 and the Asymp. Sig. value is .500 which is greater than the critical value (P = 0.05) Hence Null hypothesis is accepted and there is no significant relationship associate between age and satisfaction with Cost Effectiveness.

Interpretation
It is seen that the chi-square value is 20.247 and the Asymp. Sig. value is .209 which is greater than the critical value (P = 0.05) Hence Null hypothesis is accepted and there is no significant relationship associate between age and satisfaction with Problem Handling.

Interpretation
It is seen that the chi-square value is 26.516 and the Asymp. Sig. value is .047 which is lesser than the critical value (P = 0.05) Hence Null hypothesis is **rejected** and there is significant relationship associate between age and satisfaction with Overall E-banking services.

Research hypothesis: 3.2
H_1: There is a significant difference between gender of the respondents and their overall e-banking services qualities.
Null hypothesis
H_0: There is no significant difference between gender of the respondents and their overall e-banking services qualities.
Statistical test
Student't' test was used to test the above hypothesis

Table 4.13
Cross tabulation on gender and the qualities of E-banking services T-Test

Sl.No.	Gender	Mean	S.D	Statistical inference
1	System Availability			T = .984 P > 0.05 Not Significant
	Male = 102	2.08	0.875	
	Female = 90	2.19	0.833	
2	Accuracy			T = .136 P > 0.05 Not Significant
	Male = 102	2.12	0.800	
	Female = 90	2.28	0.835	
3	Efficiency			T = .053 P > 0.05 Not Significant
	Male = 102	1.94	0.854	
	Female = 90	2.33	0.948	
4	Security			**T = .002 P < 0.05 Significant**
	Male = 102	2.10	0.764	
	Female = 90	2.28	0.900	
5	Responsiveness			T = .070 P > 0.05 Not Significant
	Male = 102	2.27	0.846	
	Female = 90	2.41	0.970	
6 (a)	Easiness			T = .114 P > 0.05 Not Significant
	Male = 102	1.95	0.750	
	Female = 90	2.09	0.895	
6 (b)	Convenience			T = .586 P > 0.05 Not Significant
	Male = 102	2.08	0.864	
	Female = 90	2.13	0.889	
7	Cost Effectiveness			T = .172 P > 0.05 Not Significant
	Male = 102	2.38	1.053	
	Female = 90	2.26	0.931	
8	Problem Handling			T = .435 P > 0.05 Not Significant
	Male = 102	2.39	0.846	
	Female = 90	2.37	0.942	
9	Overall E-Banking Services			T = .689 P > 0.05 Not Significant
	Male = 102	2.06	0.701	
	Female = 90	1.94	0.740	

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The table 4.13 shows the mean value depicting gender level satisfaction with regard to each service quality dimension and overall e-banking services qualities. Compared to mean value of female gender 1.94 the mean value of male gender 2.06 shows the male gender satisfied with the e-banking services qualities.

The above table 4.13 reveals that there is a significant difference between gender of the respondents and their overall e-banking services qualities [System Availability = .984 > 0.05/ Accuracy = .136 > 0.05/ Efficiency = .053 > 0.05/ Security = .002 < 0.05 / Responsiveness = .070 > 0.05/ Easiness = .114 > 0.05/ Convenience = .586 > 0.05/ Cost Effectiveness = .172 > 0.05/ Problem Handling = .435 > 0.05 Overall e-banking services qualities = .689 > 0.05].

Findings

The table 4.13 reveals that there is a significant difference between gender of the respondents and their overall e-banking services qualities. [System Availability = .984 > 0.05/ Accuracy = .136 > 0.05/ Efficiency = .053 > 0.05/ **Security = .002 < 0.05** / Responsiveness = .070 < 0.05/ Easiness = .114 < 0.05/ Convenience = .586 < 0.05/ Cost Effectiveness = .172 < 0.05/ Problem Handling = .435 < 0.05 Overall e-banking services qualities = .689 < 0.05]. As the calculated value less than table value, the research hypothesis is accepted and the null hypothesis is rejected. It is inferred that the different age group of respondents are getting satisfaction with few qualities of e-banking services.

Research hypothesis: 3.3

H_1: There is a significant difference between occupation of the respondents and their overall e-banking services qualities.

Null hypothesis

H_0: There is no significant difference between occupation of the respondents and their overall e-banking services qualities.

Statistical test

Onaway ANOVA 'f' test was used to test the above hypothesis

Table 4.14

Association between occupation and the qualities of e-banking services Oneway ANOVA

Sl.No.	Occupation	Mean	S.D	S S	DF	MS	Statistical Inference
1	**System Availability**						
	Between Groups			7.140	4	1.785	
	Student (n=20)	2.20	0.834				
	Salaried (n=107)	2.01	0.771				**F = 0.043**
	Businessman (n=26)	2.58	1.027				**P < 0.05**
	Professional (n=37)	2.11	0.906				**Significant**
	Others (n=2)	2.50	0.707				
	Within Groups			132.604	187	0.709	
2	**Accuracy**						
	Between Groups			5.891	4	1.473	
	Student (n=20)	2.40	0.940				
	Salaried (n=107)	2.07	0.717				F = 0.065
	Businessman (n=26)	2.54	0.811				P > 0.05
	Professional (n=37)	2.19	0.967				Not Significant
	Others (n=2)	2.50	0.707				
	Within Groups			121.979	187	0.652	
3	**Efficiency**						
	Between Groups			16.794	4	4.198	**F = 0.000**
	Student (n=20)	2.70	1.129				**P < 0.05**
	Salaried (n=107)	1.90	0.776				**Significant**

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	Businessman (n=26)	2.46	0.811				
	Professional (n=37)	2.19	1.023				
	Others (n=2)	3.00	1.414				
	Within Groups			144.206	187	0.771	
4	**Security**						
	Between Groups			5.964	4	1.491	
	Student (n=20)	2.60	1.095				
	Salaried (n=107)	2.07	0.821				F = 0.070
	Businessman (n=26)	2.08	0.688				P > 0.05
	Professional (n=37)	2.32	0.747				Not Significant
	Others (n=2)	2.50	0.707				
	Within Groups			126.656	187	0.677	
5	**Responsiveness**						
	Between Groups			8.213	4	2.053	
	Student (n=20)	2.80	1.105				
	Salaried (n=107)	2.28	0.899				**F = 0.039**
	Businessman (n=26)	2.15	0.675				**P < 0.05**
	Professional (n=37)	2.32	0.884				**Significant**
	Others (n=2)	3.50	0.707				
	Within Groups			148.782	187	0.796	
6 (a)	**Easiness**						
	Between Groups			5.387	4	1.347	
	Student (n=20)	2.45	1.191				
	Salaried (n=107)	1.94	0.787				F = 0.091
	Businessman (n=26)	2.15	0.784				P > 0.05
	Professional (n=37)	1.89	0.658				Not Significant
	Others (n=2)	2.00	0.000				
	Within Groups			123.566	187	0.661	
6 (b)	**Convenience**						
	Between Groups			4.159	4	1.040	
	Student (n=20)	2.50	1.000				
	Salaried (n=107)	2.02	0.879				
	Businessman (n=26)	2.19	0.694				F = 0.245
	Professional (n=37)	2.08	0.894				P > 0.05
	Others (n=2)	2.00	0.000				Not Significant
	Within Groups			141.758	187	0.758	
7	**Cost Effectiveness**						
	Between Groups			3.146	4	0.786	F = 0.535
	Student (n=20)	2.55	1.099				P > 0.05
	Salaried (n=107)	2.25	1.065				Not Significant

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	Businessman (n=26)	2.23	0.652				
	Professional (n=37)	2.43	0.959				
	Others (n=2)	3.00	0.000				
	Within Groups			186.833	187	0.999	
8	**Problem Handling**						
	Between Groups			5.035	4	1.259	
	Student (n=20)	2.60	0.940				
	Salaried (n=107)	2.31	0.817				F = 0.173
	Businessman (n=26)	2.15	0.881				P > 0.05
	Professional (n=37)	2.62	1.037				Not Significant
	Others (n=2)	2.50	0.707				
	Within Groups			146.21	187	0.782	
9	**Overall E-Banking Services**						
	Between Groups			5.651	4	1.413	
	Student (n=20)	2.35	0.988				
	Salaried (n=107)	1.88	0.669				**F = 0.026**
	Businessman (n=26)	2.08	0.628				**P < 0.05**
	Professional (n=37)	2.16	0.688				**Significant**
	Others (n=2)	1.50	0.707				
	Within Groups			93.344	187	0.499	

The table 4.14 shows the mean value calculated on the opinions perceived by the respondents of different occupational groups regarding the e- banking services qualities provided by banks.

The respondents belonging to the occupation group of Student group shows the highest mean value of 2.35. the respondents of the Business class ranks next with the mean value of 2.08, the respondents of the Professional class has ranks next with the mean value of 2.16, the respondents of the salaried group of ranks next with the mean value of 1.88, the respondents of the other group of ranks next with the mean value of 1.50. Among all the respondents there is no much difference in the mean value as they show the satisfaction with regard to the service qualities of banks.

Findings

The table 4.14 reveals that there is significant difference between occupation of the respondents and the qualities of the overall e-banking services *[System Availability = .0.043 < 0.05/ Efficiency = .000 < 0.05/ Responsiveness = .039 < 0.05/ Overall e-banking services qualities = .026 < 0.05]*. Hence, the calculated value is lesser than table value, the research hypothesis is accepted and the null hypothesis is rejected.

The table 4.14 reveals that there is no significant difference between occupation of the respondents and the qualities of the overall e-banking services *[Accuracy = .0.065 > 0.05/ Security = .070 > 0.05/ Easiness = .091 > 0.05/ Convenience = .245 > 0.05/ Cost Effectiveness= .0535 > 0.05/ Problem Handing = .173 > 0.05]*. Hence, the calculated value is greater than table value, the research hypothesis is rejected and the null hypothesis is accepted.

Research hypothesis: 3.4

H_1 : There is a significant difference between educational qualification of the respondents and their overall e-banking services qualities.

Null hypothesis

H_0 : There is no significant difference between educational qualification of the respondents and their overall e-banking services qualities.

Statistical test

Oneway ANOVA 'f' test was used to test the above hypothesis

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Table 4.15

One way NOVA difference between educational qualification of the respondents and the qualities of overall e-banking services

Sl. No.	Educational Qualification	Mean	S.D	S S	DF	MS	Statistical Inference
1	**System Availability**						
	Between Groups			0.371	3	0.124	F = 0.919 P > 0.05 Not Significant
	Below HSC (n=10)	2.00	0.471				
	Graduate (n=110)	2.16	0.873				
	Post Graduate (n=52)	2.10	0.869				
	Professional Degree (n=20)	2.10	0.912				
	Within Groups			139.374	188	0.741	
2	**Accuracy**						
	Between Groups			1.139	3	0.38	F = 0.640 P > 0.05 Not Significant
	Below HSC (n=10)	2.30	0.949				
	Graduate (n=110)	2.25	0.837				
	Post Graduate (n=52)	2.12	0.808				
	Professional Degree (n=20)	2.05	0.686				
	Within Groups			126.73	188	0.674	
3	**Efficiency**						
	Between Groups			5.894	3	1.965	F = 0.071 P > 0.05 Not Significant
	Below HSC (n=10)	2.70	1.252				
	Graduate (n=110)	2.18	0.921				
	Post Graduate (n=52)	1.92	0.837				
	Professional Degree (n=20)	2.05	0.826				
	Within Groups			155.106	188	0.825	
4	**Security**						
	Between Groups			1.274	3	0.425	F = 0.611 P > 0.05 Not Significant
	Below HSC (n=10)	2.50	0.972				
	Graduate (n=110)	2.15	0.890				
	Post Graduate (n=52)	2.21	0.75				
	Professional Degree (n=20)	2.10	0.641				
	Within Groups			131.346	188	0.699	
5	**Responsiveness**						
	Between Groups			1.672	3	0.557	F = 0.569 P > 0.05 Not Significant
	Below HSC (n=10)	2.50	1.08				
	Graduate (n=110)	2.40	0.94				
	Post Graduate (n=52)	2.21	0.871				
	Professional Degree (n=20)	2.25	0.716				
	Within Groups			155.323	188	0.826	
6 (a)	**Easiness**						
	Between Groups			3.155	3	1.052	F = 0.198 P > 0.05 Not Significant
	Below HSC (n=10)	2.30	0.823				
	Graduate (n=110)	2.09	0.863				
	Post Graduate (n=52)	1.87	0.768				
	Professional Degree (n=20)	1.85	0.671				
	Within Groups			125.799	188	0.669	

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6 (b)	**Convenience**						
	Between Groups			1.376	3	0.459	F = 0.618 P > 0.05 Not Significant
	Below HSC (n=10)	2.30	0.823				
	Graduate (n=110)	2.11	0.86				
	Post Graduate (n=52)	2.00	0.84				
	Professional Degree (n=20)	2.25	1.07				
	Within Groups			144.541	188	0.769	
7	**Cost Effectiveness**						
	Between Groups			0.625	3	0.208	F = 0.892 P > 0.05 Not Significant
	Below HSC (n=10)	2.20	0.919				
	Graduate (n=110)	2.36	0.955				
	Post Graduate (n=52)	2.25	1.135				
	Professional Degree (n=20)	2.35	0.933				
	Within Groups			189.355	188	1.007	
8	**Problem Handling**						
	Between Groups			0.959	3	0.320	F = 0.753 P > 0.05 Not Significant
	Below HSC (n=10)	2.30	0.675				
	Graduate (n=110)	2.36	0.916				
	Post Graduate (n=52)	2.48	0.918				
	Professional Degree (n=20)	2.25	0.786				
	Within Groups			150.285	188	0.799	
9	**Overall E-Banking Services**						
	Between Groups			0.627	3	0.209	F = 0.754 P > 0.05 Not Significant
	Below HSC (n=10)	2.20	1.033				
	Graduate (n=110)	2.01	0.748				
	Post Graduate (n=52)	1.94	0.639				
	Professional Degree (n=20)	2.05	0.605				
	Within Groups			98.368	188	0.523	

The above table 4.15 exhibits the mean value calculated on the opinion perceived by the respondents of different educational group regarding overall e- banking services qualities provided by banks.

The respondents belonging to the education qualification group of HSC group shows the highest mean value of 2.20. The respondents of the Professional group's ranks next with the mean value of 2.05, the respondents of the Graduate groups follows next with the mean value of 2.01 and respondents of the Post Graduate group of ranks the mean value of 1.9. Among all the respondents there is no much difference in the mean value as they show the satisfaction with regard to the service qualities of banks.

Findings

The table 4.15 reveals that there is no significant difference between educational qualification of the respondents and the qualities of the overall e-banking services *[System Availability = .0.919 > 0.05/ Accuracy = .640 > 0.05/ Efficiency = .071 > 0.05/ Security = .611 > 0.05 / Responsiveness = .569 > 0.05/ Easiness = .198 > 0.05/ Convenience = .618 > 0.05/ Cost Effectiveness= .0892 > 0.05/ Problem Handing = .753 > 0.05/ Overall E-banking service = .754 > 0.05]*. Hence, the calculated value is greater than table value, the research hypothesis is rejected and the null hypothesis is accepted.

Research hypothesis: 3.5

H_1 : There is a significant difference between income of the respondents and their overall e-banking services qualities.

Null hypothesis

H_0 : There is no significant difference between income of the respondents and their overall e-banking services qualities.

Statistical test

Oneway ANOVA 'f' test was used to test the above hypothesis.

Table 4.16

Oneway ANOVA difference between income of the respondents and their overall e-banking services qualities

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Sl.No.	Educational Qualification	Mean	S.D	S S	DF	MS	Statistical Inference
1	**System Availability**						
	Between Groups			1.792	5	0.358	F = 0.789 P > 0.05 Not Significant
	< 1 Lakh (n = 8)	2.50	0.535				
	2-4 Lakhs (n = 76)	2.09	0.851				
	5-7 Lakhs (n = 59)	2.15	0.887				
	8-10 Lakhs (n = 24)	2.12	0.947				
	10 > (n = 8)	1.88	0.641				
	No Income (n=17)	2.18	0.883				
	Within Groups			137.953	186	0.742	
2	**Accuracy**						
	Between Groups			1.097	5	0.219	F = 0.899 P > 0.05 Not Significant
	< 1 Lakh (n = 8)	2.25	0.463				
	2-4 Lakhs (n = 76)	2.18	0.828				
	5-7 Lakhs (n = 59)	2.22	0.852				
	8-10 Lakhs (n = 24)	2.08	0.776				
	10 > (n = 8)	2.00	0.756				
	No Income (n=17)	2.35	0.931				
	Within Groups			126.772	186	0.682	
3	**Efficiency**						
	Between Groups			5.662	5	1.132	F = 0.243 P > 0.05 Not Significant
	< 1 Lakh (n = 8)	2.00	0.535				
	2-4 Lakhs (n = 76)	2.07	0.914				
	5-7 Lakhs (n = 59)	2.08	0.915				
	8-10 Lakhs (n = 24)	2.17	0.868				
	10 > (n = 8)	1.88	0.641				
	No Income (n=17)	2.65	1.169				
	Within Groups			155.338	186	0.835	
4	**Security**						
	Between Groups			4.917	5	0.983	F = 0.214 P > 0.05 Not Significant
	< 1 Lakh (n = 8)	2.25	0.707				
	2-4 Lakhs (n = 76)	2.24	0.862				
	5-7 Lakhs (n = 59)	2.10	0.824				
	8-10 Lakhs (n = 24)	1.96	0.624				
	10 > (n = 8)	2.00	0.000				
	No Income (n=17)	2.59	1.121				
	Within Groups			127.703	186	0.687	
5	**Responsiveness**						
	Between Groups			7.483	5	1.497	F = 0.103 P > 0.05 Not Significant
	< 1 Lakh (n = 8)	2.62	0.744				
	2-4 Lakhs (n = 76)	2.41	0.982				
	5-7 Lakhs (n = 59)	2.1	0.803				
	8-10 Lakhs (n = 24)	2.3	0.761				
	10 > (n = 8)	2.25	0.463				
	No Income (n=17)	2.76	1.147				
	Within Groups			149.512	186	0.804	
6 (a)	**Easiness**						

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	Between Groups			7.501	5	1.500	
	< 1 Lakh (n = 8)	2.12	0.641				
	2-4 Lakhs (n = 76)	1.96	0.886				
	5-7 Lakhs (n = 59)	1.85	0.551				**F = 0.047**
	8-10 Lakhs (n = 24)	2.29	0.908				**P < 0.05**
	10 > (n = 8)	1.88	0.354				**Significant**
	No Income (n=17)	2.47	1.179				
	Within Groups			121.452	186	0.653	
6 (b)	**Convenience**						
	Between Groups			3.788	5	0.758	
	< 1 Lakh (n = 8)	2.12	0.641				
	2-4 Lakhs (n = 76)	2.05	0.862				
	5-7 Lakhs (n = 59)	2.07	0.868				F = 0.424
	8-10 Lakhs (n = 24)	2.12	0.992				P > 0.05
	10 > (n = 8)	1.88	0.354				Not Significant
	No Income (n=17)	2.53	1.007				
	Within Groups			142.129	186	0.764	
7	**Cost Effectiveness**						
	Between Groups			3.701	5	0.740	
	< 1 Lakh (n = 8)	2.38	0.916				
	2-4 Lakhs (n = 76)	2.39	1.096				
	5-7 Lakhs (n = 59)	2.12	0.93				F = 0.595
	8-10 Lakhs (n = 24)	2.46	0.932				P > 0.05
	10 > (n = 8)	2.5	0.756				Not Significant
	No Income (n=17)	2.41	1.004				
	Within Groups			186.278	186	1.001	
8	**Problem Handling**						
	Between Groups			2.527	5	0.505	
	< 1 Lakh (n = 8)	2.75	0.707				
	2-4 Lakhs (n = 76)	2.32	0.867				
	5-7 Lakhs (n = 59)	2.34	0.976				F = 0.675
	8-10 Lakhs (n = 24)	2.46	0.884				P > 0.05
	10 > (n = 8)	2.25	0.463				Not Significant
	No Income (n=17)	2.59	0.939				
	Within Groups			148.717	186	0.8	
9	**Overall E-Banking Services**						
	Between Groups			4.462	5	0.892	
	< 1 Lakh (n = 8)	2.00	0.000				
	2-4 Lakhs (n = 76)	2.00	0.712				
	5-7 Lakhs (n = 59)	1.86	0.681				F = 0.124
	8-10 Lakhs (n = 24)	2.12	0.68				P > 0.05
	10 > (n = 8)	1.88	0.354				Not Significant
	No Income (n=17)	2.41	1.064				
	Within Groups			94.533	186	0.508	

The table 4.16 depicts the mean value calculated on the opinion perceived by the respondents of different income group regarding

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e-banking service qualities provided by the banks.

The respondents belonging to the income group of No Income group shows the highest mean value of 2.41. the respondents of the income group of 8 – 10 Lakhs ranks next with the mean value of 2.12, the respondents of the income group of below Rs. 1 Lakh and 2-4 Lakhs both has same ranks next with the mean value of 2.00, the respondents of the income group of above10 Lakhs ranks next with the mean value of 1.88, the respondents of the income group of 5 to 7 Lakhs ranks next with the mean value of 1.86. Among all the respondents there is no much difference in the mean value as they show the satisfaction with regard to the service qualities of banks.

Research hypothesis

H_1 : There is a significant difference between income of the respondents and the qualities of overall e-banking services

H_0 : There is no significant difference between income of the respondents and the qualities of overall e-banking services

Findings

The above table 4.16 reveals that there is no significant difference between income of the respondents and their overall e-banking services qualities. *[System Availability = .0.789 > 0.05/ Accuracy = .899 > 0.05/ Efficiency = .0243 > 0.05/ Security = .214 > 0.05 / Responsiveness = .103 > 0.05/ Convenience = .424 > 0.05/ Cost Effectiveness= .0595 > 0.05/ Problem Handing = .675 > 0.05/ Overall E-banking service = .124 > 0.05]*. Hence, the calculated value is greater than table value, the research hypothesis is rejected and the null hypothesis is accepted.

The above table 4.16 reveals that there is significant difference between income of the respondents and their overall e-banking services qualities. ***[Easiness = .198 > 0.05]***. Hence, the calculated value is lesser than table value, the research hypothesis is accepted and the null hypothesis is rejected.

It is inferred that the respondents of different income groups are getting satisfaction with regard to the qualities of the e-banking services.

HYPOTHESIS: 4

There is a significant difference between account access through internet of the respondents and their overall e-banking services.

Table 4.17

Significance of account access through internet and the qualities of E- banking services T-Test

Sl. No.	Access of e-banking services	Mean	S.D	Statistical Inference
1	**System Availability**			
	a) Home			T = .408 P > 0.05 Not Significant
	Yes (n=34)	2.21	0.914	
	No (n=158)	2.11	0.844	
	b) Office			T = .421 P > 0.05 Not Significant
	Yes (n=33)	2.12	0.82	
	No (n=159)	2.13	0.865	
	c) Mobile			T = .154 P > 0.05 Not Significant
	Yes (n=52)	2.25	0.926	
	No (n=140)	2.09	0.827	
	d) All the above			T = .191 P > 0.05 Not Significant
	Yes (n=104)	2.06	0.834	
	No (n=88)	2.22	0.877	
2	**Accuracy**			
	a) Home			T = .627 P > 0.05 Not Significant
	Yes (n=34)	2.32	0.806	
	No (n=158)	2.16	0.821	
	b) Office			
	Yes (n=33)	2.33	0.777	

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	No (n=159)	2.16	0.826	T = .888 P > 0.05 Not Significant
	c) Mobile			**T = .017** **P < 0.05** **Significant**
	Yes (n=52)	2.38	0.932	
	No (n=140)	2.12	0.763	
	d) All the above			**T = .005** **P < 0.05** **Significant**
	Yes (n=104)	2.06	0.735	
	No (n=88)	2.35	0.885	
3	**Efficiency**			
	a) Home			T = .167 P > 0.05 Not Significant
	Yes (n=34)	2.32	0.976	
	No (n=158)	2.08	0.903	
	b) Office			T = .655 P > 0.05 Not Significant
	Yes (n=33)	2.39	0.864	
	No (n=159)	2.07	0.922	
	c) Mobile			T = .280 P > 0.05 Not Significant
	Yes (n=52)	2.31	0.981	
	No (n=140)	2.06	0.888	
	d) All the above			T = .089 P > 0.05 Not Significant
	Yes (n=104)	1.97	0.864	
	No (n=88)	2.31	0.951	
4	**Security**			
	a) Home			T = .307 P > 0.05 Not Significant
	Yes (n=34)	2.44	0.894	
	No (n=158)	2.13	0.812	
	b) Office			T = .243 P > 0.05 Not Significant
	Yes (n=33)	2.12	0.781	
	No (n=159)	2.19	0.846	
	c) Mobile			T = .057 P > 0.05 Not Significant
	Yes (n=52)	2.23	0.962	
	No (n=140)	2.16	0.783	
	d) All the above			**T = .031** **P < 0.05** **Significant**
	Yes (n=104)	2.12	0.754	
	No (n=88)	2.26	0.916	
5	**Responsiveness**			
	a) Home			T = .464 P > 0.05 Not Significant
	Yes (n=34)	2.50	0.961	
	No (n=158)	2.30	0.894	
	b) Office			T = .551 P > 0.05 Not Significant
	Yes (n=33)	2.55	0.905	
	No (n=159)	2.30	0.904	
	c) Mobile			**T = .005** **P < 0.05** **Significant**
	Yes (n=52)	2.62	1.069	
	No (n=140)	2.24	0.819	
	d) All the above			

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	Yes (n=104)	2.15	0.747	**T = .000 P < 0.05 Significant**
	No (n=88)	2.56	1.027	
6 (a)	**Easiness**			
	a) Home			**T = .005 P < 0.05 Significant**
	Yes (n=34)	2.29	1.031	
	No (n=158)	1.96	0.76	
	b) Office			T = .832 P > 0.05 Not Significant
	Yes (n=33)	2.18	0.727	
	No (n=159)	1.98	0.838	
	c) Mobile			**T = .006 P < 0.05 Significant**
	Yes (n=52)	2.23	1.002	
	No (n=140)	1.94	0.732	
	d) All the above			**T = .041 P < 0.05 Significant**
	Yes (n=104)	1.89	0.709	
	No (n=88)	2.16	0.921	
6 (b)	**Convenience**			
	a) Home			T = .300 P > 0.05 Not Significant
	Yes (n=34)	2.47	0.861	
	No (n=158)	2.03	0.859	
	b) Office			T = .190 P > 0.05 Not Significant
	Yes (n=33)	2.18	0.683	
	No (n=159)	2.09	0.91	
	c) Mobile			**T = .046 P < 0.05 Significant**
	Yes (n=52)	2.25	1.007	
	No (n=140)	2.05	0.816	
	d) All the above			T = .240 P > 0.05 Not Significant
	Yes (n=104)	1.96	0.835	
	No (n=88)	2.27	0.893	
7	**Cost Effectiveness**			
	a) Home			T = .246 P > 0.05 Not Significant
	Yes (n=34)	2.38	1.155	
	No (n=158)	2.31	0.964	
	b) Office			T = .892 P > 0.05 Not Significant
	Yes (n=33)	2.45	0.971	
	No (n=159)	2.30	1.003	
	c) Mobile			T = .612 P > 0.05 Not Significant
	Yes (n=52)	2.40	0.891	
	No (n=140)	2.29	1.035	
	d) All the above			T = .319 P > 0.05 Not Significant
	Yes (n=104)	2.24	0.990	
	No (n=88)	2.42	0.961	
8	**Problem Handling**			
	a) Home			
	Yes (n=34)	2.47	0.961	

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	No (n=158)	2.36	0.876	T = .545 P > 0.05 Not Significant
	b) Office			T = .853 P > 0.05 Not Significant
	Yes (n=33)	2.52	0.870	
	No (n=159)	2.35	0.894	
	c) Mobile			**T = .001** **P < 0.05** **Significant**
	Yes (n=52)	2.50	1.076	
	No (n=140)	2.34	0.81	
	d) All the above			**T = .000** **P < 0.05** **Significant**
	Yes (n=104)	2.27	0.753	
	No (n=88)	2.51	1.017	
9	**Overall E-Banking Services**			
	a) Home			T = .953 P > 0.05 Not Significant
	Yes (n=34)	2.21	0.729	
	No (n=158)	1.96	0.713	
	b) Office			T = .409 P > 0.05 Not Significant
	Yes (n=33)	2.06	0.609	
	No (n=159)	1.99	0.742	
	c) Mobile			**T = .001** **P < 0.05** **Significant**
	Yes (n=52)	2.13	0.950	
	No (n=140)	1.96	0.610	
	d) All the above			T = .110 P > 0.05 Not Significant
	Yes (n=104)	1.90	0.616	
	No (n=88)	2.12	0.814	

Research hypothesis

H_1: There is a significant difference between account access through internet of the respondents and the qualities of the overall e-banking services.

Null hypothesis

H_0: There is no significant difference between the account access through internet of the respondents and the qualities of the overall e-banking services.

Statistical test

Students'' test has used to test the above hypothesis.

The table 4.17 shows the correlation between access through internet and the qualities of overall e-banking services. The mean values of the respondents who have more access through internet show a satisfied mean value of 2.21. And those who have less access through internet using the e-banking services show a satisfied mean value of 1.90.

Findings

The table 4.17 reveals that there is no significant difference between the respondents who are having account access through internet and the qualities of overall e-banking services. *[**System Availability** – a) Home = .408 > 0.05/ b) Office = .421 > 0.05/ c) Mobile = .154 >0.05/ d)All the above = .191 > 0.05 / **Efficiency** - a) Home = .167> 0.05/ b) Office = .655 > 0.05/ c) Mobile = .280 >0.05/ d)All the above = .089 > 0.05/ **Cost Effectiveness** - a) Home = .246 > 0.05/ b) Office = .892 > 0.05/ c) Mobile = .612 >0.05/ d)All the above = .319 > 0.05.* Therefore, the calculated value is greater than the table value. So, the research hypothesis is rejected and null hypothesis is accepted. It is inferred that the level of Satisfaction is more through access of e-banking services through home, office, mobile and also all the above. But the mean difference is not much difference between each e-banking service qualities.

Findings

The table 4.17 reveals that there is significant difference between the respondents who are having account access through internet and the qualities of overall e-banking services. *[**Accuracy** – a) Home = .627 > 0.05/ b) Office = .888 > 0.05/ c) **Mobile = .017 < 0.05**/ d)**All the above = .005 < 0.05** / **Security** - a) Home = .307> 0.05/ b) Office = .243> 0.05/ c) Mobile = .057 >0.05/ **d)All the above = .031 < 0.05**/ **Responsiveness** - a) Home = .464 > 0.05/ b) Office = .551 > 0.05/ c) **Mobile = .005 < 0.05**/ d)**All the above = .000<0.05**/ **Easiness** - a) **Home = .005 < 0.05**/ b) Office = .832 > 0.05/ c) **Mobile = .006 <0.05**/ **d)All the above = .041<0.05**/*

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Convenience - *a) Home = .300 > 0.05/ b) Office = .190 > 0.05/* ***c) Mobile = .046 < 0.05****/ d)All the above = .240 > 0.05/* ***Problem Handling -*** *a) Home = .545 > 0.05/ b) Office = .853 > 0.05/* ***c) Mobile = .001 < 0.05/ d)All the above = .000 < 0.05/ Overall E-banking service -*** *a) Home = .953 > 0.05/ b) Office = .409 > 0.05/* ***c) Mobile = .001 < 0.05****/ d) All the above = .110 > 0.05.* Therefore, the calculated value is less than the table value. So, the research hypothesis is accepted and null hypothesis is rejected. It is inferred that the level of Satisfaction is less through access of e-banking services through mobile and also all the above. But the mean difference is not much difference between each e-banking service qualities.

HYPOTHESIS: 5

There is a significant relationship between nature of services like ATM/Debit card, Credit Card, Mobile banking, Online banking and Tele banking of the respondents and their overall e-banking services.

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Table – 4.18 Correlations

	Debit Card	Credit Card	Online Banking	Mobile Banking	Telebanking	System availability	Accuracy	Efficiency	Security	Responsiveness	Easiness	Convenience	Cost Effectiveness	Problem Handing	Overall E-banking service
Debit Card	1	0.081	-0.024	0.128	0.013	-0.091	0.016	0.058	-0.068	0.005	-0.051	0.026	0.046	-0.092	-0.002
Credit Card	0.081	1	0.023	0.103	0.224(**)	0.155(*)	0.098	0.059	0.187(**)	0.179(*)	0.081	0.066	0.129	0.021	0.006
Online Banking	-0.024	0.023	1	0.188(**)	0.153(*)	0.117	-0.011	0.070	0.026	0.035	0.037	0.042	-0.012	0.084	0.032
Mobile Banking	0.128	0.103	0.188(**)	1	0.302(**)	0.061	0.098	0.198(**)	0.170(*)	0.176(*)	0.162(*)	0.146(*)	0.059	0.303(**)	0.154(*)
Telebanking	0.013	0.224(**)	0.153(*)	0.302(**)	1	0.059	0.083	0.081	0.075	0.022	-0.087	-0.017	0.066	0.164(*)	-0.070
System availability	-0.091	0.155(*)	0.117	0.061	0.059	1	0.652(**)	0.479(**)	0.355(**)	0.320(**)	0.399(**)	0.492(**)	0.349(**)	0.347(**)	0.466(**)
Accuracy	0.016	0.098	-0.011	0.098	0.083	0.652(**)	1	0.636(**)	0.347(**)	0.405(**)	0.416(**)	0.491(**)	0.391(**)	0.416(**)	0.513(**)
Efficiency	0.058	0.059	0.070	0.198(**)	0.081	0.479(**)	0.636(**)	1	0.414(**)	0.395(**)	0.427(**)	0.427(**)	0.373(**)	0.428(**)	0.490(**)
Security	-0.068	0.187(**)	0.026	0.170(*)	0.075	0.355(**)	0.347(**)	0.414(**)	1	0.500(**)	0.408(**)	0.462(**)	0.338(**)	0.329(**)	0.408(**)
Responsiveness	0.005	0.179(*)	0.035	0.176(*)	0.022	0.320(**)	0.405(**)	0.395(**)	0.500(**)	1	0.569(**)	0.510(**)	0.353(**)	0.430(**)	0.438(**)
Easiness	-0.051	0.081	0.037	0.162(*)	-0.087	0.399(**)	0.416(**)	0.427(**)	0.408(**)	0.569(**)	1	0.624(**)	0.409(**)	0.450(**)	0.548(**)
Convenience	0.026	0.066	0.042	0.146(*)	-0.017	0.492(**)	0.491(**)	0.427(**)	0.462(**)	0.510(**)	0.624(**)	1	0.417(**)	0.480(**)	0.548(**)
Cost Effectiveness	0.046	0.129	-0.012	0.059	0.066	0.349(**)	0.391(**)	0.373(**)	0.338(**)	0.353(**)	0.409(**)	0.417(**)	1	0.433(**)	0.457(**)
Problem Handing	-0.092	0.021	0.084	0.303(**)	0.164(*)	0.347(**)	0.416(**)	0.428(**)	0.329(**)	0.430(**)	0.450(**)	0.480(**)	0.433(**)	1	0.585(**)
Overall E-banking service	-0.002	0.006	0.032	0.154(*)	-0.070	0.466(**)	0.513(**)	0.490(**)	0.408(**)	0.438(**)	0.548(**)	0.548(**)	0.457(**)	0.585(**)	1
N	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The table 4.18 reveals that there is no significant relationship between nature of e banking e banking services like ATM/Debit card,

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Credit card, Mobile banking, online banking and Tele banking of the respondents and their overall e- banking services. Hence, the calculated value greater than table value.

Research hypothesis

H_1 : There is a significant relationship between nature of e-banking services like ATM/Debit card, Credit card, Mobile banking, Online banking and Tele banking of the respondents and their overall e-banking services.

Null hypothesis

H_0 : There is no significant relationship between nature of e banking services like ATM/Debit card, Credit card, Mobile banking, Online banking and Tele banking of the respondents and their overall e-banking services.

Statistical test

Pearson correlation test was used the above hypothesis

Findings

The table 4.18 reveals that there is no significant relationship between nature of e banking services like ATM/Debit card, Credit card, Mobile banking, Online banking and Tele banking of the respondents and their overall e-banking services. Therefore, the calculated value is greater than the table value. So the research hypothesis is rejected and the null hypothesis is accepted. It is inferred that respondents using the e-banking services and getting satisfied with the services.

HYPOTHESIS: 6

There is a significant relationship between various modes of services (mobile recharge, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns, investments and others) of the respondents and their overall e-banking services.

Table 4.19

Inter correlation between various modes of e-banking services qualities of overall E-banking services Correlations

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Correlations

	Fund Transfer	Shopping	Payment of telephone bill	Payment of Electricity bill	Air Ticket Booking	Tax Booking	Mobile Recharge	Investment Purposes	Railway ticket booking	Payment of DTH Bill	System availability	Accuracy	Efficiency	Security	Responsiveness	Easiness	Convenience	Cost Effectiveness	Problem handing	Overall E-banking service
Fund Transfer	1	.156*	.164*	.225**	.252**	.355**	.288**	.306**	.178*	.153*	0.039	0.053	0.099	0.055	0.056	-0.046	-0.031	0.01	0.103	0.07
Shopping	.156*	1	.310**	.254**	.325**	.225**	.286**	.224**	.198**	.189**	.221**	.149*	.275**	0.117	.147*	0.096	0.093	0.071	.218**	0.14
Payment of telephone bill	.164*	.310**	1	.670**	.571**	.399**	.398**	.433**	.381**	.423**	.155*	0.091	0.089	0.125	0.081	0.066	0.051	0.08	0.081	-0.018
Payment of Electricity bill	.225**	.254**	.670**	1	.487**	.430**	.313**	.374**	.281**	.410**	.154*	0.133	0.094	.170*	0.041	0.093	0.102	0.127	0.066	0.013
Air Ticket Booking	.252**	.325**	.571**	.487**	1	.566**	.404**	.460**	.462**	.541**	.170*	0.124	0.124	.148*	.206**	0.139	.245**	0.049	.152*	0.099
For Tax Booking	.355**	.225**	.399**	.430**	.566**	1	.347**	.545**	.358**	.359**	0.031	0.018	0.084	.148*	0.095	0.037	0.075	0.097	.168*	0.021
Mobile Recharge	.288**	.286**	.398**	.313**	.404**	.347**	1	.389**	.303**	.292**	.180*	.147*	0.138	0.099	0.124	0.094	0.111	0.035	.189**	0.082
Investment Purposes	.306**	.224**	.433**	.374**	.460**	.545**	.389**	1	.400**	.467**	0.017	0.079	0.11	0.1	.143*	0.087	0.029	0.035	.160*	0.006
Railway ticket booking	.178*	.198**	.381**	.281**	.462**	.358**	.303**	.400**	1	.455**	.144*	0.018	0.041	.146*	.199**	.144*	0.04	0.058	0.094	0.085
Payment of DTH Bill	.153*	.189**	.423**	.410**	.541**	.359**	.292**	.467**	.455**	1	.146*	0.111	.145*	.199**	.164*	0.128	0.123	.171*	0.104	0.065
System availability	0.039	.221**	.155*	.154*	.170*	0.031	.180*	0.017	.144*	.146*	1	.652**	.479**	.356**	.321**	.399**	.493**	.349**	.347**	.467**
Accuracy	0.053	.149*	0.091	0.133	0.124	0.018	.147*	0.079	0.018	0.111	.652**	1	.637**	.348**	.406**	.416**	.492**	.392**	.417**	.514**
Efficiency	0.099	.275**	0.089	0.094	0.124	0.084	0.138	0.11	0.041	.145*	.479**	.637**	1	.415**	.395**	.428**	.427**	.373**	.429**	.490**
Security	0.055	0.117	0.125	.170*	.148*	.148*	0.099	0.1	.146*	.199**	.356**	.348**	.415**	1	.500**	.409**	.463**	.338**	.330**	.409**
Responsiveness	0.056	.147*	0.081	0.041	.206**	0.095	0.124	.143*	.199**	.164*	.321**	.406**	.395**	.500**	1	.569**	.510**	.353**	.430**	.438**
Easiness	-0.046	0.096	0.066	0.093	0.139	0.037	0.094	0.087	.144*	0.128	.399**	.416**	.428**	.409**	.569**	1	.625**	.409**	.450**	.549**
Convenience	-0.031	0.093	0.051	0.102	.245**	0.075	0.111	0.029	0.04	0.123	.493**	.492**	.427**	.463**	.510**	.625**	1	.418**	.481**	.548**

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Cost Effectiveness	0.01	0.071	0.08	0.127	0.049	0.097	0.035	0.035	0.058	.171*	.349**	.392**	.373**	.338**	.353**	.409**	.418**	1	.433**	.457**
Problem handing	0.103	.218**	0.081	0.066	.152*	.168*	.189**	.160*	0.094	0.104	.347**	.417**	.429**	.330**	.430**	.450**	.481**	.433**	1	.585**
Overall E-banking service	0.07	0.14	-0.018	0.013	0.099	0.021	0.082	0.006	0.085	0.065	.467**	.514**	.490**	.409**	.438**	.549**	.548**	.457**	.585**	1
	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

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The table 4.19 reveals that there is no significant relationship between various modes of e-banking services of the respondents and the qualities of overall e-banking services. Hence, the calculated value greater than table value.

Research hypothesis

H_1 : There is a significant relationship between various modes of e-banking services of the respondents and the qualities of overall e-banking services.

Null hypothesis

H_0 : There is no significant relationship between various modes of e-banking services of the respondents and the qualities of overall e-banking services.

Statistical test

Pearson correlation test was used the above hypothesis

Findings

The table 4.19 reveals that there is no significant relationship between various modes of e-banking services of the respondents and the qualities of overall e-banking services. The calculated value is greater than the table value. So the research hypothesis is rejected and the null hypothesis is accepted. The respondents using the various modes of e-banking services contribute their level satisfaction through frequent usage of the services.

HYPOTHESIS: 7

There is a significant relationship between various modes of services(mobile recharge, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns, investments and others) of the respondents and their various problems of e- banking.

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Table 4.20 - Correlations

	Fund Transfer	Shopping	Payment of telephone bill	Payment of Electricity bill	Air Ticket Booking	Tax Booking	Mobile Recharge	Investment Purposes	Railway ticket booking	Payment of DTH Bill	Problems faced by forgotten password	Insufficient number of ATM's	Location is Unsuitable for ATMs	Network Issues	Lack of inadequate knowledge	Lack of Confidence	Technical issues	Misplace of card	Misuse of Card & Frauds
Fund Transfer	1	.156*	.164*	.225**	.252**	.355**	.288**	.306**	.178*	.153*	-0.004	.147*	-0.017	-0.08	-0.082	-0.093	-0.072	-0.01	-0.037
Shopping	.156*	1	.310**	.254**	.325**	.225**	.286**	.224**	.198**	.189**	-0.071	.168*	0.114	0.042	-0.022	-0.047	0.036	-.155*	-0.02
Payment of telephone bill	.164*	.310**	1	.670**	.571**	.399**	.398**	.433**	.381**	.423**	-0.103	0.098	0.114	0.005	-0.066	-0.067	-0.057	-0.108	-0.127
Payment of Electricity bill	.225**	.254**	.670**	1	.487**	.430**	.313**	.374**	.281**	.410**	-0.12	0.044	.165*	0.109	-0.05	-0.051	0	-0.017	-0.084
Air Ticket Booking	.252**	.325**	.571**	.487**	1	.566**	.404**	.460**	.462**	.541**	0.04	.199**	0.137	0.055	0.011	0.023	0.033	0.007	0.011
For Tax Booking	.355**	.225**	.399**	.430**	.566**	1	.347**	.545**	.358**	.359**	0.013	0.051	0.042	0.009	0.014	0.097	0.074	-0.024	-0.083
Mobile Recharge	.288**	.286**	.398**	.313**	.404**	.347**	1	.389**	.303**	.292**	0.016	.169*	0.095	0.082	-0.074	-0.004	.191**	-0.021	0.006
Investment Purposes	.306**	.224**	.433**	.374**	.460**	.545**	.389**	1	.400**	.467**	-0.02	0.072	0.069	0.093	0.044	0.005	-0.017	-0.054	-0.065
Railway ticket booking	.178*	.198**	.381**	.281**	.462**	.358**	.303**	.400**	1	.455**	0.052	0.086	0.095	-0.089	-0.045	0.025	0.06	0.018	0.054
Payment of DTH Bill	.153*	.189**	.423**	.410**	.541**	.359**	.292**	.467**	.455**	1	0.04	0.047	-0.024	0.094	0.003	0.032	0.039	0.036	0.038
Problems faced	-0.004	-0.071	-0.103	-0.12	0.04	0.013	0.016	-0.02	0.052	0.04	1	.245**	.346**	.185*	.174*	.243**	.244**	.302**	.380**

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by forgotten password																		
Insufficient number of ATM's	.147*	.168*	0.098	0.044	.199**	0.051	.169*	0.072	0.086	0.047	.245**	1	.503**	.222**	0.04	.211**	.217**	.167*	.153*
Location is Unsuitable for ATMs	-0.017	0.114	0.114	.165*	0.137	0.042	0.095	0.069	0.095	-0.024	.346**	.503**	1	.352**	0.136	.356**	.383**	.314**	.239**
Network Issues	-0.08	0.042	0.005	0.109	0.055	0.009	0.082	0.093	-0.089	0.094	.185*	.222**	.352**	1	.377**	.361**	.451**	.354**	.185*
Inadequate knowledge	-0.082	-0.022	-0.066	-0.05	0.011	0.014	-0.074	0.044	-0.045	0.003	.174*	0.04	0.136	.377**	1	.372**	.269**	.213**	.301**
Lack of Confidence	-0.093	-0.047	-0.067	-0.051	0.023	0.097	-0.004	0.005	0.025	0.032	.243**	.211**	.356**	.361**	.372**	1	.526**	.340**	.384**
Technical issues	-0.072	0.036	-0.057	0	0.033	0.074	.191**	-0.017	0.06	0.039	.244**	.217**	.383**	.451**	.269**	.526**	1	.459**	.349**
Misplace of card	-0.01	-.155*	-0.108	-0.017	0.007	-0.024	-0.021	-0.054	0.018	0.036	.302**	.167*	.314**	.354**	.213**	.340**	.459**	1	.523**
Misuse of Card & Frauds	-0.037	-0.02	-0.127	-0.084	0.011	-0.083	0.006	-0.065	0.054	0.038	.380**	.153*	.239**	.185*	.301**	.384**	.349**	.523**	1
N	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

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The above table 4.20 reveals that there is no significant relationship between various modes of e-banking services of the respondents and their various problems of overall e-banking services. The calculated value is greater than the table value.

Research hypothesis

H_1 : There is a significant relationship between various modes of e-banking services of the respondents and their various problems of overall e- banking services.

Null hypothesis

H_0 : There is no significant relationship between various modes of e-banking services of the respondents and their various problems of overall e- banking services.

Statistical test

Pearson correlation test was used the above hypothesis

Findings

The above table 4.20 reveals that there is no significant relationship between various modes of e-banking services of the respondents and their various problems of overall e-banking services. The calculated value is greater than the table value. So the research hypothesis is rejected and the null hypothesis is accepted. It is inferred that even though the respondents are facing various problems while using the e-banking services speed and developed technology makes them use the services in a frequent manner.

SUMMARY OF FINDINGS, SUGGESTIONS, RECOMMENDATIONS AND CONCLUSION

This chapter sums up all the findings of the study, suggestions, recommendations to the banks and conclusion and suggestions for the future research.

Data was collected from customers who use electronic banking in the banks. Consequently, the collected data was analyzed and interpreted in line with the aims of the study on which is to compare the banks in the customers' perspectives. This analysis is focused on relevant dimensions of services qualities and the problems faced by the customers for the purpose of comparison between themselves and across respondents.

The respondents using e-banking services been taken equally from all the 4 banks. Out of the total respondents using e-banking services 50 percent of the respondents belong to nationalized banks and 50 percent belong to the private sector banks. Demographic breakdown of the sample presents the frequencies and percentages of the respondents divided according to gender, age, education, occupation and personal monthly income. The majority of the respondents were male (53.1%). As for the age distribution, most of the respondents fall between the age group of 21 to 30 years (49.5%). With respect to education, 57.3 percent of the respondents are holders of graduate degrees, 55.7 percent of the respondents belong to salaried class and 39.6 percent had monthly income between the ranges 2 to 4 Lakhs.

Usage of e-banking services

The respondents were asked how frequency they have used the e- banking services. It was revealed that 36.5 percent of respondents are use for Fund transfer, 41.1 percent are using the e-banking services for shopping purpose, 26.6 percent use for payment of Telephone bill, 22.9 percent use for payment of electricity bill, 16.7 percent use for air ticket booking, 14.6 percent of respondents use for tax returns, 32.8 percent use for mobile recharge, 15.6 percent use for investment purpose, 14.1 percent use for railway ticket booking and 17.2 percent for payment DTH bill. 17.7 percent of the respondents are having access of e-banking services at home, 17.2 percent of the respondents are having access of e-banking services at office, 27.1 percent of the respondents are having access of e-banking services at Mobile and 54.2 percent of the respondents are having access of e-banking services at home, office and mobile.

This part of the analysis provides the information on the views of the respondents using e-banking services with regard to the e-banking service qualities.

To understand the e-banking services provided by the banks, nine key service quality dimensions been taken for analysis are system availability, accuracy, efficiency, security, responsiveness, easiness and convenience, cost effectiveness and problem handling. Under each of key service quality dimension five scales been taken to evaluate the service qualities

The performance of electronic banking channels with respect to the service quality dimensions. The respondents were asked the latest electronic service they have used. It was revealed that more customers have adopted ATM banking (91.1%) than

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online banking, mobile banking, credit card and Tele banking. This implies that banking customers are more familiar with the ATM technology as compared to online banking, mobile banking, credit card and Tele banking.

The inter correlation matrix between e-banking services and qualities of e- banking services inferred that there is a highly significant relationship between credit card and telebanking, system availability, security and responsiveness. Inferred that there is a highly significant relationship between online banking and mobile banking, telebanking, Inferred that there is a highly significant relationship between mobile banking and online banking, telebanking, efficiency security, responsiveness, easiness and convenience and problem handling. Inferred that there is a highly significant relationship between telebanking and credit card, online banking, problem handling.

Opinion regarding the problems of e-banking services;

Table 4.9 indicates the opinions of the respondents regarding the problems faced by them while dealing with the e-banking services. A majority (24.5%) of the respondents have given third rank for the problem faced by forgotten password about the usage of e-channels , a majority(29.2%) have given fifth rank for the problem faced of insufficient number of ATM's, majority (29.2%) of the respondents have given fifth rank for the location is unsuitable of ATM's, majority(25%) of the respondents have given third rank for the problem network issues, majority (36.5%) of the respondents have given fifth rank for the inadequate knowledge about the usage of E-channels, majority (32.8%) of the respondents have given fifth rank for the Lack of confidence, majority (28.1%) of the respondents have given fifth rank the technical issues, majority(36.5 %) of the respondent have given fifth rank for the problem misplace of card, vast majority (38%) of the respondents have given fifth rank for the problem of misuse of card and frauds.

Cross tabulation on age of the respondents and the qualities of overall e- banking services.

Out of the total respondents 30.7 percent of the respondents of the age group of 21 to 30 years, perceived that the overall e-banking services qualities are high. 1.0 percent of age group of 18 to 20 and 31 to 40 years perceived that the overall e-banking services qualities are low.Cross tabulation on gender and the qualities of e-banking services

This indicates that there is no significant association between age of the respondents and their overall e-banking services qualities. The mean value depicting gender level satisfaction with regard to each service quality dimension and overall e-banking services qualities. Compared to mean value of female gender 1.94 the mean value of male gender 2.06 shows the male gender satisfied with the e-banking services qualities.

Cross tabulation on association between occupation and the qualities of e- banking services.

- ✓ The mean value calculated on the opinions perceived by the respondents of different occupational groups regarding the e-banking services qualities provided by banks.
- ✓ The system availability of businessman regarding e-banking service quality shows the highest mean value of 2.58
- ✓ The accuracy of banks in providing e- banking services in the opinion of the businessman shows the highest mean value of 2.54
- ✓ The efficiency provided by the banks viewed by the other occupational group with the high mean value of 3.00
- ✓ The security of banks in providing e- banking services in the opinion of the student shows the highest mean value of 2.60
- ✓ The responsiveness of banks in providing e- banking services in the opinion of the other occupation groups shows the highest mean value of 3.50
- ✓ The easiness & convenience of banks in providing e- banking services in the opinion of the students shows the highest mean value of 2.45 & 2.50
- ✓ The cost effectiveness of banks in providing e- banking services in the opinion of the other occupation groups shows the highest mean value of 3.00
- ✓ The problem handling of banks in providing e-banking in the opinion of professional group has perceived with the highest mean value of 2.62
- ✓ The overall mean value of students respondents is 2.35, is 116.22, businessman is 2.08, salaried class is 1.88, professional respondents is 2.16 and others is 1.50 with regard to overall e-banking services qualities.

Cross tabulation on difference between educational qualification of the respondents and the qualities of overall e-banking services

The respondents of HSC level have high level of mean value 2.20, professional degree level have mean value of 2.05, graduate level have the mean value of 2.01 and post graduate level have a mean value of 1.94.

Cross tabulation on difference between income of the respondents and the overall e-banking services qualities.

The respondents belonging to the income group of no income group have the highest mean value of 2.41. the respondents of the income group of 8 to 10 Lakhs to ranks next with the mean value of 2.12, the respondents of the income group of less than Lakh

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and 2 to 4 Laksh has same ranks with the mean value of 2.00, the respondents of the income group of 10 and above ranks next with the mean value of 1.88, the respondents of the income group of 5 to 7 Lakhs ranks next with the mean value of 1.86.

Cross tabulation between name of bank of the respondents and the overall e-banking services qualities

According to the opinions of the respondents, the State Bank of India have the highest mean value of 2.12, the ICICI Bank rank the second with the mean value of 2.06, the Bank of Baroda Bank is in the third rank with the mean value of 1.94, the HDFC bank is in the fourth place with mean value of 1.90. The ranking indicates the level of satisfaction of the bank customers with the service qualities provided by the bank.

FINDINGS BASED ON THE RESULTS OF TEST OF HYPOTHESES

1. **H_1**: There is no significant difference between nationalized banks and private banks of the respondents and the e-banking services

i. Tools used

The hypothesis given above is tested using Mann-Whitney test

ii. Results

The table 4.10 reveals that there is no significant difference between nationalized banks and private banks of the respondents and their e-banking services.

[*ATM/Debit card=.205>0.05 / Credit card=.190>.0.05 / mobile banking=.469>0.05 / online banking=.288>0.05 / Tele banking =.584>0.05]*. It is clear that the customers are willing to use the e-banking services but they do not give much consideration whether the bank is nationalized or private.

2. **H_1** : There is no significant difference between nationalized banks and private banks of the respondents and their various problems faced in e-banking services.

i. Tools used

The hypothesis given above is tested using Mann-Whitney test

ii. Results

The table 4.11 reveals that there is no significant difference between nature of bank of the respondents and their various problems faced in e-banking services. [Problems faced by forgotten password about the usage of e channels =.133>0.05 / insufficient number of ATMs=.802>0.05/, Location is unsuitable for ATM's=.529>0.05, Network Issue=0.197<0.05/ lack of inadequate knowledge about the usage of E-Channels =.626>0.05/Lack of confidence (Security PIN Code, Card Number, CVV Number)OPT Number =.013<0.05/ Problem in technical issues in ATM's Smart card and credit card = .892>0.05/ Problem in Misplace of card =.350>0.05/, Misuse of card and frauds =.078>0.05. it is clear that the problems faced by the respondents may decrease their e-banking habits.

3. H_1: 3 there is no significant difference between gender, occupation, area of residence, monthly income of the respondents and the qualities of overall e-banking services.

H_1 : There is a significant difference between gender of the respondents and their overall e-banking services qualities.

i. Tools used

The hypothesis given above is tested using students t test.

ii. Results

The above table 4.13 reveals that there is a significant difference between gender of the respondents and their overall e-banking services qualities [System Availability = .984 > 0.05/ Accuracy = .136 > 0.05/ Efficiency = .053 > 0.05/ **Security = .002 < 0.05 /** Responsiveness = .070 > 0.05/ Easiness = .114 > 0.05/ Convenience = .586 > 0.05/ Cost Effectiveness = .172 > 0.05/ Problem Handling = .435 > 0.05 Overall e-banking services qualities = .689 > 0.05]. it is clear that female category still not ready with full confidence in their opinion to deal with e-banking services.

H_1 : There is a significant difference between occupation of the respondents and the qualities overall e-banking services.

i. Tools used

The hypothesis given above is tested using one way ANOVA 'F' test.

ii. Results

The table 4.15 reveals that there is significant difference between occupation of the respondents and the qualities of the overall e-banking services *[System Availability = .0.043 < 0.05/ Efficiency = .000 < 0.05/ Responsiveness = .039 < 0.05/ Overall e-banking services qualities = .026 < 0.05]*. Hence, the calculated value is lesser than table value, the research hypothesis is accepted and the null hypothesis is rejected.

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The table 4.15 reveals that there is no significant difference between occupation of the respondents and the qualities of the overall e-banking services *[Accuracy = .0.065 > 0.05/ Security = .070 > 0.05/ Easiness = .091 > 0.05/ Convenience = .245 > 0.05/ Cost Effectiveness= .0535 > 0.05/ Problem Handing = .173 > 0.05]*. Hence, the calculated value is greater than table value, the research hypothesis is rejected and the null hypothesis is accepted. It is clear from the results that the respondents will be utilizing the e-banking services according to their necessity.

H_1: There is no significant difference between educational qualification of the respondents and the qualities overall e-banking services.

i. Tools used

The hypothesis given above is tested using one way anova 'f' test

ii. Results

The table 4.16 reveals that there is no significant difference between educational qualification of the respondents and the qualities of the overall e-banking services *[System Availability = .0.919 > 0.05/ Accuracy = .640 > 0.05/ Efficiency = .071 > 0.05/ Security = .611 > 0.05 / Responsiveness = .569 > 0.05/ Easiness = .198 > 0.05/ Convenience = .618 > 0.05/ Cost Effectiveness= .0892 > 0.05/ Problem Handing = .753 > 0.05/ Overall E-banking service = .754 > 0.05]*. It is clear that the respondents are using the e-banking services based on their occupational needs.

H_1: There is a significant difference between income of the respondents and their overall e-banking services qualities.

i. Tools used:

The hypothesis given above is tested using **one way ANOVA 'f'** test.

ii. Results

The above table 4.17 reveals that there is no significant difference between income of the respondents and their overall e-banking services qualities. *[System Availability = .0.789 > 0.05/ Accuracy = .899 > 0.05/ Efficiency = .0243 > 0.05/ Security = .214 > 0.05 / Responsiveness = .103 > 0.05/ Convenience = .424 > 0.05/ Cost Effectiveness= .0595 > 0.05/ Problem Handing = .675 > 0.05/ Overall E-banking service = .124 > 0.05]*. Hence, the calculated value is greater than table value, the research hypothesis is rejected and the null hypothesis is accepted.

The above table 4.17 reveals that there is significant difference between income of the respondents and their overall e-banking services qualities. ***[Easiness = .198 > 0.05]***. Hence, the calculated value is lesser than table value, the research hypothesis is accepted and the null hypothesis is rejected. It is clear that in spite of the income level all the income group people are utilizing the e-banking services.

4. H_1: There is significant difference between account access through internet of the respondents and the qualities of the overall e-banking services.

i. Tools used

The hypothesis given above is tested using students t test.

ii. Results

The table 4.18 reveals that there is no significant difference between the respondents who are having account access through internet and the qualities of overall e-banking services. *[**System Availability** – a) Home = .408 > 0.05/ b) Office = .421 > 0.05/ c) Mobile = .154 >0.05/ d)All the above = .191 > 0.05 / **Efficiency** - a) Home = .167> 0.05/ b) Office = .655 > 0.05/ c) Mobile = .280 >0.05/ d)All the above = .089 > 0.05/ **Cost Effectiveness** - a) Home = .246 > 0.05/ b) Office = .892 > 0.05/ c) Mobile = .612 >0.05/ d)All the above = .319 > 0.05.* Therefore, the calculated value is greater than the table value. So, the research hypothesis is rejected and null hypothesis is accepted. It is inferred that the level of Satisfaction is more through access of e-banking services through home, office, mobile and also all the above. But the mean difference is not much difference between each e-banking service qualities.

The table 4.18 reveals that there is significant difference between the respondents who are having account access through internet and the qualities of overall e-banking services. *[**Accuracy** – a) Home = .627 > 0.05/ b) Office = .888 > 0.05/ c) **Mobile = .017 < 0.05**/ d)**All the above = .005 < 0.05** / **Security** - a) Home = .307> 0.05/ b) Office = .243> 0.05/ c) Mobile = .057 >0.05/ **d)All the above = .031 < 0.05**/ **Responsiveness** - a) Home = .464 > 0.05/ b) Office = .551 > 0.05/ c) **Mobile = .005 < 0.05**/ d)**All the above = .000<0.05**/ **Easiness** - a) **Home = .005 < 0.05**/ b) Office = .832 > 0.05/ c) **Mobile = .006 <0.05**/ **d)All the above = .041<0.05**/ **Convenience** - a) Home = .300 > 0.05/ b) Office = .190 > 0.05/ **c) Mobile = .046 < 0.05**/ d)All the above = .240 > 0.05/ **Problem Handling** - a) Home = .545 > 0.05/ b) Office = .853 > 0.05/ **c) Mobile = .001 < 0.05**/ **d)All the above = .000 < 0.05**/ **Overall E-banking service** - a) Home = .953 > 0.05/ b) Office = .409 > 0.05/ **c) Mobile = .001 < 0.05**/ d)All the above = .110 > 0.05.* Therefore, the calculated value is less than the table value. So, the research hypothesis is accepted and null hypothesis is rejected. It is inferred that the level of Satisfaction is less through access of e-banking services through mobile and also all the above. But the mean difference is not much difference between each e-banking service qualities.

5. H_1: There is significant relationship between the e-banking services like ATM/ Debit card, Credit Card, Mobile banking, online

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banking and Tele banking of the respondents and the overall e-banking services.

i. Tools used

The hypothesis given above is tested using Pearson correlation test.

ii. Results

The table 4.19 reveals that there is no significant relationship between nature of e- banking services like ATM/Debit card, Credit card, Mobile banking, Online banking and Tele banking of the respondent and their overall e-banking service. it is clear that the nature of e-banking services are connected to each other in one way or another.

6. H_1:

There is a significant relationship between various modes of e-banking services (mobile recharging, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns, investment etc) of the respondents and the qualities of overall e- banking services.

i. Tools used

The hypothesis given above is tested using **pearson correlation** t test.

ii. Results

The table 4.32 reveals that there is no significant relationship between various modes of e-banking services (mobile recharging, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns, investment etc) of the respondents and the qualities of overall e-banking services. The speed and facility of the e-banking services has made customers to utilize the facility in spite of the qualities of e-banking services.

7. H_1: There is a significant relationship between various modes of e-banking services (mobile recharging, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns, investment etc) of the respondents and their various problems of overall e-banking services.

i. Tools used

The hypothesis given above is tested using pearson correlation test.

ii. Results

The table 4.20 reveals that there is no significant relationship between various modes of e-banking services (mobile recharging, payment of telephone bill, payment of electric bill, money transfer, railway ticket booking, air ticket booking, filing of tax returns, investment etc) of the respondents and their various problems of overall e-banking services. It is clear that the problems related to the e-banking services may reduce the habits of e-banking services.

SUGGESTIONS

The analysis of work with different aspects of e-banking services shows the satisfaction level of the customers which can be used by banks as guide line for necessary actions leading to improvements of the quality of the e-banking services they offer.

The study was carried out to determine the opinions and problems of customers. This will enable the banks to understand at which point the customers cease to be satisfied with service they are receiving.

Measuring customer satisfaction is paramount importance for improving service quality and retaining customers on a long-term basis. The study demonstrates that there are 9 factors that affect satisfaction with regard to e-banking services in the study area. The study reveals that the insufficient number of ATM's Improper location of ATMs not maintaining adequate cash with full denomination, security concern, connectivity, fees and charges, frequents out of order of ATMs, restriction for use other cards are some of the major problem faced by the e-banking users in the study areas.

Majority of Customers are satisfied with online service because it saves their time and efforts. Besides, the system, being cost effective, enables them to accomplish their banking transactions by sitting anywhere and anytime. Respondent also find convenient to transfer money from one account to another from one place to another, 90% of respondents committed to use online banking only. The use of technology in banking enhances the service offering to the customers. Efficiency from bank side should increase to the customer. Promotion tool should use by banks very effectively to the e-banking service to the e-banking services and awareness of e-banking services should be done to e-banking user. Banks must take more steps to introduce the e-banking habits among the age group below 25 years. This can be done through the educational institutions. The banks must take necessary steps to improve the efficiency in the service delivery hence boosts up customers' confidence.

The bank must make the e-banking services to general public in easy and under stable way like payment of electricity bill, payment of telephone bill, tax payer, making investment. So that the customer can feel free to use these service. The bank must welcome the complaints and feedback from customer so that bank can improve their services in e-banking.

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Out dated machine and e-service should be removed and welcome for new and modern machine and introduction of new e-banking service should be create awareness among customer it is very important so that the customers come to know about the services provided by the bank and upcoming innovations in banks should be informed to customer. Banks have to meet the needs of customers. Bank should able to gain the customer loyalty by providing them adequate security in e-banking services. Good connectivity and power base the will enable them to serve customer faster and there should not be any problem in network while using the e-banking services.

Future research

This research reveals certain aspects of customer satisfaction in context of e-banking, there is lot of room for future research in order to ascertain and enrich online banking service in India.

1. Broader concept of e-banking service should be taken into account such as online shopping, online ticketing etc.
2. By taking into consideration research ought to apply for more comprehensive approach by making a comparative analysis of branch and online/e-banking service to the same aspect of study
3. Different types of e-banking services modes can be taken as research are to have depth study.
4. Problem of E-banking can be taken as the research areas in depth and dealt as a broader area of research.

Conclusions

Banking sector today has a compelling demand for improvement, to survive the substantial competition in today's scenario. Today the click of the mouse offers customers banking services at a much lower coat and also empowers them with unprecedented freedom in choosing the service needs. Banks have to upgrade and constantly thin of new innovative customized packages and services to remain competitive. The Invasion of banking y technology has created an information age and commoditization of banking services Therefore, E-banking has become a strategic weapon for banks to remain profitable. Electronic banking has become a necessary survival weapon and is fundamentally changing the banking industry worldwide. Today, the click of a mouse offers bank customers services at a much lower cost and also empowers them with unprecedented freedom in choosing vendors for their financial service needs. The study finds that many banks' customers are fully aware of e-banking services. Most customers however still patronize the bank branches and find interaction with human tellers as very important as they got distracted with the problems (inadequate knowledge about the usage of e-banking services, lack of interest, poor network, pass word forgotten, card misplace and lack of confidence. It also finds that customers enjoying electronic banking services are still not satisfied with quality and efficiency of the services. Customers perception of and reactions to the developments of e-banking services are issues of concern to both government and banking industry. A lot need to be done to create confidence in the minds of customers about the benefits and security of the e-banking services.

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