



## “E-BANKING SERVICES- A COMPARATIVE STUDY OF PUBLIC, PRIVATE & FOREIGN BANKS IN INDIA”

PRIYAMVADA CHATURVEDI, VISHNU OSMOND BUCKLE, Dr. AASHKA THAKKAR

MBA STUDENT

MBA STUDENT

ASSISTANCE PROFESSOR

PARUL UNIVERSITY

FAULTY OF MANAGEMENT STUDIES.

**Abstract:** - The purpose of this paper is to determine the customer's satisfaction toward the e-banking services. A total of number of customer taken for the study is 166. Analysis of variance technique is employed to study the significant relationship between the Education and customer satisfaction of e-banking services, significant relationship between the branch banking and customer satisfaction of e-banking services, significant relationship between gender and customer satisfaction of e-banking services. The result of the study clearly shows that different age group of customer and different occupation group of customers have different satisfaction toward the e-banking services. The results also propose that demographic factors impact significantly internet banking behavior, specifically, occupation and age. Finally, this paper suggests that an understanding about the customer's satisfaction regarding the e-banking services of public, private and foreign banks it will help to the banker to understand the customers need in better way.

Key words: Pie chart, Chi-Square Test, Customer Satisfaction E-banking, Private, Public and Foreign Bank

### 1. INTRODUCTION

Change is inevitable in every situation likewise the financial sector of India by the use of different channels and technology resulting in the increase of reach to all remote areas of the country. E-banking is the result of transformation in the financial transaction of India but came with challenges. The bank customers had become sophisticated in their daily banking transactions and needed alternative channels which could reduce the time spent at the banking halls. On the other hand, the bank also needed other alternative channels that could migrate most of its core banking processes and services to its customers to reduce costs. This is why the government is introducing regulatory measures constantly to ensure it is reliable and secured to add to the changing face of technology. For instance, Finland had been the first country in the world to have a lead in E-banking. When it comes to India, ICIC bank was the first bank to initiate the use of E-banking in 1997 using the brand name Infinity.

The change in information technology leading to computerization of how financial transactions by the banking institutions have the Indian economy steady by the use delivery channels such as internet banking, Mobile banking, telephone banking, Automated Teller Machines(ATM), Smart Cards, Debit/credit cards, E-cheques, Electronic Transfer Fund(ETF), Electronic Clearing Services(ECS), Electronic Data Interchange(EDI), etc.

## 2. LITERATURE REVIEW

Also, Kumar and Gupta (2020) in their study aimed at investigating e-banking users' perception with regards to online risk for public, private, and foreign banks. Online risk perception for the above-mentioned banks was assessed using three major risk parameters, which included security aspect, privacy aspect, and trust; using a multiple-criteria decision-making tool, called the Analytical Hierarchy Process (AHP). The results indicated that security risk is supreme among various aspects of the perceived risk, followed by privacy and trust concern. Likewise, public sector banks were apparent to be the safest in this aspect as well as safe in terms of privacy and trust. From the overall perspective by general users in terms of risk parameters, public sector banks are perceived to be the most secured, followed by private and foreign banks. All the same, findings by the study have many implications for both research and practice. By and large, the private and foreign banks in India may adopt suitable marketing strategies to achieve a favorable perception.

The research work of Madavan and Vethirajan (2020) examined customer satisfaction on the use of E-Banking Services by Public Sector and Private Sector Banks in the Puducherry region. Their sample size of the study was 478 and data gathered using primary and secondary information. The sampling technique used was Non-probability in their article and particularly purposive sampling technique applied for the study. Some of the statistical tools like, independent sample t-test, ANOVA, correlation, Mean and Standard Deviation are used in this research article. In all, their results indicated that public Sector bank customers had lesser perception of the various dimensions of e-service quality as compared to the private sector Banks.

Agrawal, Sakshi, and Kukreti (2017) identified in their research work that without e-banking no banks can work. From their analysis, how much e-banking was used in Public and Private sectors bank? (About SBI and HDFC bank) The objective of the study is to find consumer satisfaction in respect of e-banking and the perception of employees for using e-banking in Public and Private sector banks. The method of the study is Primary and Secondary. The study showed the perception of the customer regarding the service quality and satisfaction of employees in internet banking services. As well as this study analyzes the working style as a comparison between Public and Private sector banks in respect of SBI and HDFC bank.

Suleiman, LIM, and WEE (2017) indicated the purpose of their paper to highlight the overview of e-banking adoption in Malaysia. It begins by analyzing the local bank websites using a model introduced by Chung and Payter (2002). The examination was done on the different types of e-banking products used by adopters before finally describing the characteristics of e-banking adopters. In all 542 questionnaires were administered and received for the survey, and of which, 54 percent were from e-banking adopters. For this, services like basic activities such as viewing balance inquiries, obtaining summary reports of their transactions, and using savings and current account facilities were used by most adopters. A large number of adopters used e-banking services when necessary, that is once a month to pay utility bills and access the facilities either from home or the office. There was also encouragement by users to friends and family members to use e-banking services. The study also illustrated, that there were more adopters among the younger age groups, among those with higher salaries and those holding higher positions.

Masoud and AbuTaqa (2017) explained their study objective was to identify and analyze factors affecting customers' adoption of E-Banking services in Jordan. The study sample size used was 450 E-banking service users selected from nine main banks by the researchers. The study concluded that there was a significant effect of (E-Service Quality, E-Perceived Usefulness, E-Security, and E-Reliability) on the adoption of E-Banking services. The most affecting factor was E-Service quality by customers' adoption, while E-Security was the least influential factor. The study proved the effectiveness of the following E-Service quality dimensions: E-Ease of Use, E-Privacy, E-Efficiency, E-Design, and E-Cost Effectiveness and explained the non-existence effect of E-Responsiveness on customers' adoption of E-banking services.

Again Siddik, Sun, Kabiraj, and Shanmugan(2016) in their empirical studies examined the impact of e-banking on the performance of banks. The fact that e-banking was gaining recognition in Bangladesh; the impact of e-banking on bank's performance is yet to be established and the gap to be filled by their paper. The data used was from 13 banks from 2003–2013 which scientifically investigated the impact of e-banking on the performance of Bangladeshi banks with measurement on Return on Equity, Return on Assets, and Net Interest Margin. The Use of the least square analysis showed e-banking begins to contribute positively to banks' Return on Equity with a time lag of two years while a negative influence was found in the first year of adoption. An experiential finding of this study was of greater significance for developing countries like Bangladesh because it will appeal to the attention of the management of the bank and policymakers to pursue such policies to improve e-banking. This study also contributed to the empirical literature by reconfirming the findings of previous studies.

Toor,Hunain,Hussain, Ali, and Shahid (2016) investigated in their research work the impact of E-banking variables on customer satisfaction in Pakistan. They used five service quality dimensions derived from SERVQUAL namely reliability, responsiveness, assurance, tangibles, and empathy, and with support of literature review have been selected as forecasters of customer satisfaction in E-banking. The research design used for the study was quantitative and data gathered through a tested questionnaire from 264 E-banking users as respondents, emanating from different cities of Pakistan. The outcomes of the study revealed that there is a significant relationship between service quality dimensions and customer satisfaction in E-banking in Pakistan, with more emphasis on the age of reliability, responsiveness, and assurance among the five dimensions.

### 2.1 The objective of the study

- To examine the demographic influence of e-banking services by Public, Private sector & Foreign banks in India.
- To examine customer satisfaction of e-banking services among the Public, Private and Foreign banks.
- To establish the influence of e-banking services on bank operation by Public, Private sector & Foreign banks.
- To establish the challenges faced by Bank & Customer related to e-banking services.

### 3. RESEARCH METHODOLOGY

Coming to the research methodology, this is the procedures or techniques that will be used to analyze our topic on E-banking services 'A comparative study between public, private and foreign banks in India. For the study, banks are being chosen randomly. These comprise users of public, private, and foreign banks in India.

Here, a descriptive research design is being opted for this study as there is no major scope for exploratory or any other research design.

For the sampling design, the population considered is the Indian Banking Sector.Private, Public, and Foreign sector banks in India are taken into consideration.

In our study, a simple random method will be used for selecting the population for the research purpose because a simple random sample takes a small random portion of the entire population to represent the entire data set.

Out of the large population size only a few banks which comprises of a public bank, private banks & foreign banks each in India.

Here, Data collection will mainly emphasize the secondary data and will be assisted with primary data collection as well.

The Data will be collected from various secondary sources such as journals magazines, research articles, Internet Newspapers, the Annual Report of banks, and primary sources through a questionnaire.

For the analysis, statistical equipment will be used for information analysis. The laptop software "SPSS' is used for statistical analysis. The equipment used for statistical evaluation of number parameters is given beneath;

In hypothesis testing, the statistical test to be used for hypothesis testing is the Chi-Square Tests for the independence of variables.

E-banking service users of public banks, private banks & foreign banks in India constitute the universe. Since the study is 'A comparative study of E-banking services provided by public banks, private banks & Foreign banks in India as research Hypothesis is formed.

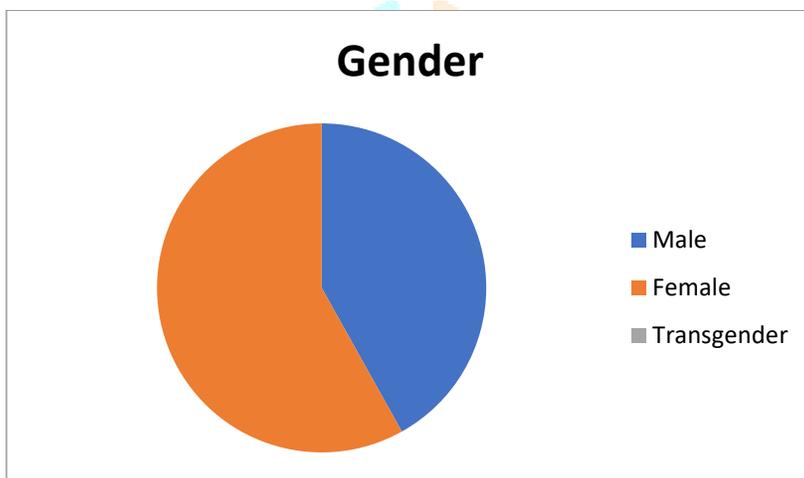
Hypothesis

- H0: "[Types of banks] is independent of [satisfaction level of E-banking services]"
- H1: "[Types of banks] is not independent of [satisfaction level of E-banking services]"

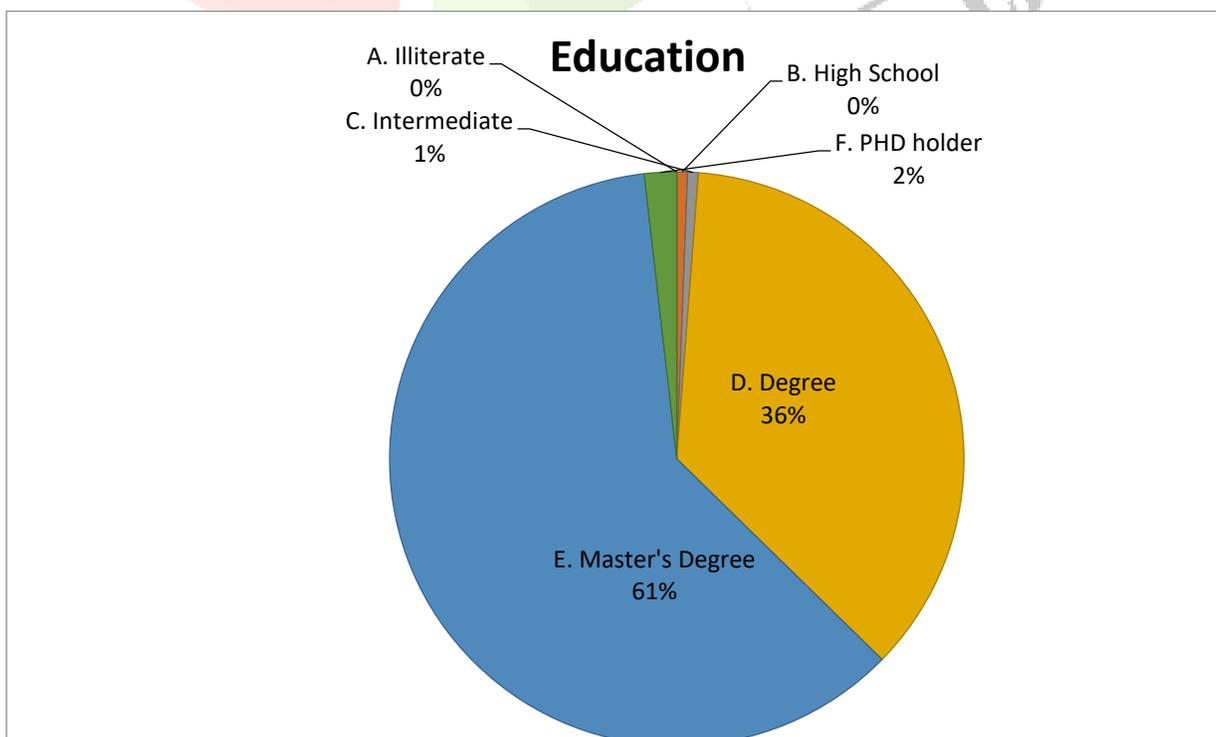
### Interpretation and Analysis

As part of the data collection and interpretation below is the Analysis from the questionnaire per our objective.

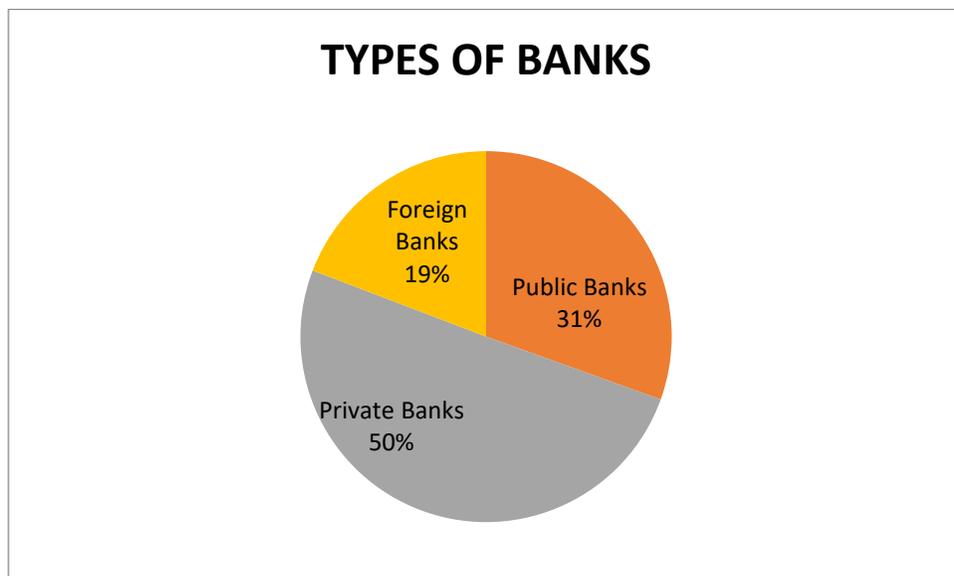
- H0: "[Types of banks] is independent of [Demographic influence of e-banking service]"
- H1: "[Types of banks] is not independent of [Demographic influence of e-banking service]"



Per our data collection, the male response had 58.10% and 41.90% for the female. Base on the diagram it can be seen that there are more males using e-banking services as compared to females.



In education, we realize that a good number of our responses are holding a masters degree which contribute to about 61% of our population, 36% for Bachelor, PHD holders 2% and others.



According to our data collection, the response for the types of banks used in India shows that a good number of customers have adopted and are satisfied with the service provided by the private banks in India. With 50% (84), 31% (51) and 19% (32) for Private, Public and Foreign Banks respectively. Based on the diagram, it can be seen that there are more customers from private banks using e-banking services as compared to Public and Foreign banks.

### TYPES OF BANKS AND BRANCH BANKING

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.594 <sup>a</sup>	8	.127
Likelihood Ratio	12.098	8	.147
Linear-by-Linear Association	1.012	1	.315
N of Valid Cases	166		

The key result in the Chi-Square Tests table is the Pearson Chi-Square.

- The value of the test statistic is 12.594.
- The corresponding p-value of the test statistic is  $p = 0.127$ .

### DECISION AND CONCLUSIONS

Since the p-value is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis.

Rather, we conclude that there is not enough evidence to suggest an association between types of banks and branch banking. Based on the results, we can state the following:

There is no association found between types of banks and Branch banking ( $X^2(8) \geq 12.594$ ,  $p = 0.127$ ).

## TYPES OF BANKS AND INTERNET BANKING

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.415 <sup>a</sup>	8	.493
Likelihood Ratio	7.306	8	.504
Linear-by-Linear Association	.081	1	.776
N of Valid Cases	166		

a. 1 cells (6.7%) have an expected count less than 5. The minimum expected count is 4.43.

The key result in the Chi-Square Tests table is the Pearson Chi-Square.

- The value of the test statistic is 7.415.
- The corresponding p-value of the test statistic is  $p = 0.493$ .

## DECISION AND CONCLUSIONS

For the reason that the p-value is greater than that of our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis.

On the contrary, we conclude that there is not enough evidence to suggest an association between types of banks and Internet banking.

Based on the results, we can state the following:

There is no relationship found between types of banks and Internet banking ( $X^2(8) \geq 7.415$ ,  $p = 0.493$ ).

## TYPES OF BANKS \* ATM

### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.754 <sup>a</sup>	6	.710
Likelihood Ratio	4.659	6	.588
Linear-by-Linear Association	.126	1	.723
N of Valid Cases	166		

a. 3 cells (25.0%) have an expected count less than 5. The minimum expected count is .96.

The key result in the Chi-Square Tests table is the Pearson Chi-Square.

- The value of the test statistic is 3.754.
- The corresponding p-value of the test statistic is  $p = 0.710$ .

## DECISION AND CONCLUSIONS

Since the p-value is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between types of banks and ATM banking. Based on the results, we can state the following:

No association was found between types of banks and ATM ( $X^2(8) = 3.754, p = 0.710$ ).

### TYPES OF BANKS \* TELEPHONE BANKING

#### Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.251 <sup>a</sup>	8	.409
Likelihood Ratio	8.101	8	.424
Linear-by-Linear Association	.266	1	.606
N of Valid Cases	166		

a. 7 cells (46.7%) have an expected count less than 5. The minimum expected count is 1.54.

The key result in the Chi-Square Tests table is the Pearson Chi-Square.

- The value of the test statistic is 8.251.
- The corresponding p-value of the test statistic is  $p = 0.409$ .

## DECISION AND CONCLUSIONS

Since the p-value is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis.

Rather, we conclude that there is not enough evidence to suggest an association between types of banks and Telephone banking.

Based on the results, we can state the following:

No association was found between types of banks and Telephone banking ( $X^2(8) = 8.251, p = 0.409$ ).

### TYPES OF BANKS \* MOBILE BANKING

#### Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.412 <sup>a</sup>	8	.394
Likelihood Ratio	9.211	8	.325
Linear-by-Linear Association	.101	1	.751
N of Valid Cases	166		

a. 1 cells (6.7%) have an expected count less than 5. The minimum expected count is 4.63.

The key result in the Chi-Square Tests table is the Pearson Chi-Square.

- The value of the test statistic is 8.412.
- The corresponding p-value of the test statistic is  $p = 0.394$ .

## DECISION AND CONCLUSIONS

Since the p-value is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis.

Rather, we conclude that there is not enough evidence to suggest an association between types of banks and Mobile banking.

Based on the results, we can state the following:

No association was found between types of banks and Mobile banking ( $X^2(8) = 8.412, p = 0.394$ ).

## RECOMMENDATION

Above analysis reveals that in private banks customers are happier as compare to public banks and foreign banks about the services of eBanking. Different educational group customers have different satisfaction and adaption towards the e-banking services, Mainly the old age people are having disinclination for using e-banking facilities, that's significant to be given to those people and proper training on the usage of e-banking should be given to them and bankers have to adopt the right strategies to attract different educational group and give more information about the e-banking services. Most of the customers prefer e-banking for quickness. Therefore banks should try in all the ways that e-banking is working 24 hour round the clock and service is available to customers without any hassles. Online Customers are mainly concerned on safety issues so the banks should educate their customers on the safety use of their passwords and pin numbers and it should insist the customers that they should change the passwords and pin numbers frequently so no unauthorized fraudulent practices happen in the online banking.

## CONCLUSION

In conclusion, customer satisfaction and customer service are key elements for banks to ascertain customer acquisition, retention, and increase bank profitability. Banks all over the world were going digital because of the changes in consumer behavior and their expectations from the bank. All humans on earth have needs that have to be met because of organizational and technological changes. Technology now had changed the way banking was done some decades ago. In those days, customers joined long queues to make banking transactions but with recent developments, just a click of a mouse would get a transaction done. New technologies enabled banks to serve and assist customers not only in branches but anywhere in the world at any time and through any delivery channel a customer cares to select. With the convenience of digital channels, customers are visiting branches less often and they use online and mobile technology for their banking needs more often. Online and mobile banking are growing fast while branch importance decline rapidly. Nevertheless, branch banking is still preferred by customers when it comes to getting banking advice. Although the internet and mobile do not completely replace other channels, they have become lately the dominant means for consumers to interact with their banks. Thus, there is no doubt that shortly electronic banking will undeniably overcome traditional banking.

## REFERENCES

1. Toor A, Hunain M, Hussain T, Ali S, Shahid A. The impact of e-banking on customer satisfaction: Evidence from banking sector of Pakistan. *Journal of Business Administration Research*. 2016;5(2):27-40.
2. Kumar M, Gupta S. Security perception of e-banking users in India: an analytical hierarchy process. *Banks and Bank Systems*. 2020 Mar 1;15(1):11.
3. Madavan K, Vethirajan C. Customer Satisfaction on E-Banking Services of Public and Private Sector Banks in Puducherry Region-An Empirical Analysis. *International Journal of Management (IJM)*. 2020 Jun;11(6).
4. Agrawal DC, Chauhan S, Kukreti A. A Comparative Study of E-Banking in Public and Private Sectors Banks (with special reference to SBI and HDFC Bank in Haridwar). *Asian Journal of Research in Business Economics and Management*. 2017;7(8):370-89.
5. Masoud E, AbuTaq H. Factors affecting customers' adoption of e-banking services in Jordan. *Information Resources Management Journal (IRMJ)*. 2017 Apr 1;30(2):44-60.
6. Siddik MN, Sun G, Kabiraj S, Shanmugan J, Yanjuan C. Impacts of e-banking on performance of banks in a developing economy: empirical evidence from Bangladesh. *Journal of Business Economics and Management*. 2016 Nov 1;17(6):1066-80.
7. Sumra SH, Manzoor MK, Sumra HH, Abbas M. The impact of e-banking on the profitability of banks: A study of Pakistani banks. *Journal of Public Administration and Governance*. 2011;1(1):31-8.
8. Kaur N, Kiran R. E-banking service quality and customer loyalty: Changing dynamics of public, private and foreign bank consumers in India. *Global Business and Management Research*. 2015;7(1):74.
9. Jindal S. Study of E-Banking Scenario in India. *International Journal of Science and Research (IJSR)*. 2016 Dec;5(12):680-3.

