

## **PERCEPTION OF THE PUBLIC AND PRIVATE SECTOR BANK CUSTOMERS ON THE PERFORMANCE OF VIRTUAL BANKING SERVICES IN VARANASI DISTRICT**

**Shipra Mishra**\*

**Dr. V.Shunmugasundaram**\*\*

---

### **ABSTRACT**

*The present study is an attempt to identify the significance difference between the response of the public and private sector bank customers of the Varanasi district. For this a descriptive study has been done. For this 300 samples are selected on the basis of the convenient sampling technique which comprises the 150 from public sector bank customers and 150 from private sector bank customers. The distributions of the customers are done on the basis of their age group, gender, education, occupation and income group. The chi-square test is used to find out the association between the public and private sector banks customers with reference to the use of virtual banking services. To find out the significance difference between the response of the public and private sector banks customers the Mann-Whitney U-test is used. The responses of the customers are taken on the main 4 factors i.e. convenient, facilities, role of technology and management & security. The study concluded that the customers are accepting that these factors are affecting their perception to adopt virtual banking services. The study also revealed that there is a significance difference between response of public and private sector bank on the convenient and role of technology factor and there is no significance difference between the public and private sector bank customers on the facilities and management & security factor to adopt virtual banking services.*

**Key words-** *Virtual banking, Association, Chi-square test, Mann-Whitney U-test, Technology, Security*

---

• \* **Research Scholar, Faculty of Commerce, Banaras Hindu University, Varanasi**

\*\* **Professor, Faculty of Commerce, Banaras Hindu University, Varanasi**

## INTRODUCTION

(Lal & Saluja, 2012) IT has introduced new business paradigm. It is increasingly playing a significant role in improving the services in the banking industry. Indian banking industry has witnessed a tremendous developments due to sweeping changes that are taking place in the information technology. Electronic banking has emerged from such an innovative development. Modern technology is seen as a panacea for most of the ills that the banking sector faces today. The Virtual Banking allows customers to implicate the internet to access their bank account and to undertake various types of banking transactions at a single place. (Singh, 2014) All the services of the bank can be utilized by alternate channels sitting at any location away from bank. The influence of IT on banking enables the customer to get all major operations/decisions with regard to deposits, withdrawals, and investments by just clicking of a mouse on a computer or at an Automatic Teller Machine (ATM) or mobile. A customer having an account with bank in city x can operate from anywhere in the world through internet (Keivani, Jouzbarkand, Khodabadi, & Sourkouhi) At the basic level, internet banking can mean the setting up of a web page by a bank to give information about its products and services. In an advanced level, it involves provision of facilities such as accessing accounts, transferring funds, and buying financial products or services online. (Kaushik, 2012) Internet Banking System is a system that has been developed in order to help clients with the daily day-to-day transactions. Internet banking systems means that any clients can now perform all types of banking at the leisure of their homes. It is also known as online banking, the system allows both transactional and non-transactional features. Online banking or internet banking allows customers to conduct financial transactions on a secure website operated by the retail or virtual bank.

## LITERATURE REVIEW

(Amir & Sheykh, December 2017) They identify the satisfaction level of the customers on the online banking services in Bangladesh. For this 50 responses are taken from the One Bank Limited by using three point Likert scale. By applying factor analysis various factors are explored and analysed. The study concluded that the customers are satisfied with security and user friendliness of the website of the banks, and somewhat neutral in perception with update frequency.

**(Agrawal & Chauhan, 2017)** Their study identifies that, the customer satisfaction with reference to the e-banking services and the perception of employees on using e-banking services in public and private sector banks. The study concluded that the customers of private sector banks are more satisfying than the public sector banks customers because of the better facilities of the private sector banks. And on the other hand 60% employees satisfied with their banks technology and 40% are saying that they don't have update system of e-banking.

**(Hada, 2016)** The main purpose of this study is to analyze various online facilities provided by major public and private sector banks in Jaipur and to measure their impact on customers in terms of customer satisfaction. The results showed that variables such as Perceived Usefulness, Perceived Ease of Use and Consumer Awareness had positive influence on internet banking use. Similarly, results showed that two variables Consumer Security Concerns and Trust and Privacy are negative influence on internet banking use. "Ease of Use" factor influence more to private sector bank customers as compared to public sector bank customers.

**(Komal & Rani, 2012)** In their paper explains the various way of doing banking electronically, specially dealing in the ATMs, Internet Banking, Mobile Banking and Credit card. The paper is concentrated on the customer's satisfaction level on these services, by comparing the responses of the customers of Public sector banks, Private sector banks and Private Foreign banks located various cities namely Haryana, Delhi, Chandigarh and Punjab by taken into account of 150 respondents from each district. The study concluded that the customer's satisfaction level is higher of the ATMs in all the district and Internet banking and credit card got the second position in the satisfaction level of the customers. The mobile banking got the third position because of the newly launch services.

### **SIGNIFICANCE OF THE STUDY-**

The Indian banking industry is the composition of public and private sector banks, both banks are important for the development of the country. In India the credit of launching of virtual banking services was given to the private sector bank ICICI who launch ATMs and Debit Card in India in 1991 than after all the other banks are launching one by one these services. The other services such as NEFT, RTGS, Credit Card, Tele-phone banking and mobile banking etc. are also launched one by one. After the digitalization and demonetization the trend of virtual

banking is increases day to day. Thus, in this study we analyzed the perception of public and private sector banks customers on the virtual banking services, to know whether there is any difference in response of the public and private sector banks customers.

### **OBJECTIVES OF THE STUDY**

- 1- To study about the association between the public and private sector banks customers of the Varanasi district on the basis of their demographic variable.
- 2- To analyse the difference between the public and private sector banks customers on the convenient prospects of the virtual banking.
- 3- To analyse the difference between the public and private sector banks customers on the facilities of virtual banking services.
- 4- To identify the difference between the opinion of the public and private sector banks on the Role of Technology in virtual banking.
- 5- To identify the difference between the public and private sector banks customers on the Management and Security issue of the virtual banking

### **HYPOTHESIS**

*H<sub>01</sub> = there is no association between the demographic profile of the public and private sector banks customers who use virtual banking (V.B.) services in Varanasi.*

*H<sub>02</sub> = there is no significance difference between the public and private sector banks customers on the convenient factor of virtual banking services.*

*H<sub>03</sub> = there is no significance difference between the public and private sector banks customers on the facility factor of virtual banking services.*

*H<sub>04</sub> = there is no significance difference between the public and private sector banks customers on the role of technology factor of virtual banking services.*

*H<sub>05</sub> = there is no significance difference between the public and private sector banks customers on management and security of the virtual banking services.*

### **RESEARCH METHODOLOGY**

#### **Type and Scope of the study**

The present study is descriptive and exploratory in nature. The study covers the customers of public and private sector banks in Varanasi district for this the all public and private sector banks are included of the Varanasi.

### **Sample Technique and Sample Size**

All banks customers of the Varanasi who use any one type of virtual banking services is treated as a total population of the study. From the population, 300 samples were selected by the convenient sampling technique, which comprises the 150 from public sector banks customers and 150 from the private sector banks customers. The responses are taken only for those who want to reply the questionnaire.

### **Data Collection and Scaling Techniques-**

The data is collected by using the structured questionnaire; the questionnaire is structured by using dichotomous and scaled questions. The 5 Point Likert scale is used for the scale questions, in this 5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1=Strongly Disagree.

### **Tools and Techniques-**

The mean and S.D. is used to test the demographic analysis of the study and Mann-Whitney U-test is used to find out is there significance difference between the public and private sector banks customers of the Varanasi district. Besides, Cronbach's Alpha test is also used to test the reliability of the data.

## **ANALYSIS AND INTERPRETATION**

### **Demographic analysis-**

**Objective-1 To study about the association between the public and private sector banks customers of the Varanasi district on the basis of their demographic variable.**

The classification of the virtual banking customers of Varanasi district is done on the basis of their Age, Gender, Education, Occupation and Monthly Income. Chi-square test is used to find out the association in the demographic profile of the public and private sector banks customers of Varanasi district on the use of V.B. services. The following tables shows the demographic profile of the customers-

*$H_{01}$  = there is no association between the demographic profile of the public and private sector banks customers who use virtual banking (V.B.) services in Varanasi.*

### **Table-1 Age Group of the Customers**

Demographic variables	Frequency		Mean	S.D.	Chi-square value	p-value	Result
	Public Bank	Private sector bank					
<b>Age group-</b>			2.4767	1.0064	11.178	0.025	Rejected
15-25 years	34	18					
26-35 years	57	51					
36-45 years	39	53					
46-55 years	19	22					
> 55 years	1	6					
Total	150	150					

Sources; Primary Data

The above table indicates that, in Varanasi district all age group customers are using V.B. services but in the public sector bank customers' majority are from the age group of 26-35 years and in case of Private sector banks customers' majorities are from the age group of 36-45 years. The table also revealed that the in both banks the customers of more than 55 year are not frequently using the V.B. services. The p-value of chi-square test indicates that there is association between the public and private sector banks customers on the basis of their age group.

**Table-2 Gender of the Customers**

Demographic variables	Frequency		Mean	S.D.	Chi-square value	p-value	Result
	Public Bank	Private sector bank					
<b>Gender-</b>			1.4433	.49761	5.957	.020	Rejected
Male	73	94					
Female	77	56					
Total	150	150					

Sources; Primary Data

In the public sector banks respondents' maximum i.e. 77 are female and from the private sector banks respondents maximum 94 are male. On the same, the p-value also indicates that there is an

association between the public and private sector banks customers on the basis of their gender on the use of V.B. services in Varanasi.

**Table-3 Education of the Customers**

Demographic variables	Frequency		Mean	S.D.	Chi-square value	p-value	Result
	Public Bank	Private sector Bank					
<b>Education-</b>			4.6367	.82478	13.327	.010	Rejecte d
High school or Below	1	0					
Intermediate	5	15					
Graduate	47	63					
Post Graduate	75	50					
Professional degree	22	22					
Total	150	150					

Sources; Primary Data

From the study it is found out all public sector banks majority of the customers are graduate and post graduate i.e. 47 and 75 respectively. On the same, from the all private sector banks customers who use V.B. services are graduate and post graduate. Thus we can say that the literate person uses V.B. very frequently. The p-value of Chi-square test is .010 which indicates that there is an association between the public and private sector banks customers on the basis of their educations on the use of V.B. services in Varanasi district.

**Table-4 Occupations of the Customers**

Demographic variables	Frequency		Mean	S.D.	Chi-square value	p-value	Result
	Public Sector Bank	Private sector bank					
<b>Occupation</b>			2.7000	1.23087	13.410	.0009	Rejected
Student	37	22					
Private Emplo.	50	40					

Government Emplo.	25	26					
Business men/woman	28	54					
Unemployed	10	8					
Total	150	150					

Sources; Primary Data

The above table shows that the occupation of the respondents who used the virtual banking services. In public sector banks maximum respondents comes under the occupation of Private employees and in private sector banks majority of the respondents are business men/women who uses the virtual banking services frequently. The p-value of the chi-square test is .0009 and the same is less than the alpha .05 value which rejects the null hypothesis and indicates that there is an association between the public and private sector banks customers with regard to the use of V.B. services in Varanasi.

**Table-5 Monthly Income of the Customers**

Demographic variable	Frequency		Mean	S.D.	Chi- square value	p- value	Result
	Public Bank	Private sector bank					
<b>Monthly Income (in Rupee)</b>							
Below Rs. 10,000	41	19	3.6833	1.89253	11.973	.035	Rejected
Rs. 10,001-20,000	16	17					
Rs.20,001-30,000	27	24					
Rs.30,001-40,000	18	24					
Rs.40,001-50,000	11	15					
More than 50,000	37	51					
Total	150	150					

Sources; Primary Data

The above table indicates that the all income group of the banks customers are using V.B. services in Varanasi. But the customers of higher income group are using virtual banking more



when compared to the low income group. The p-value of the chi-square test rejects the null hypothesis and concludes that there is an association between the public and private sector banks customers on the basis of their income group with regard to the use of virtual banking services in Varanasi.

**Objective-2 To analyse the difference between the public and private sector banks customers on the convenient prospects of the virtual banking.**

The second objective identifies the differences in the response of the banks customers on the use of virtual banking. For this both banks customer's responses are compared and significant differences are found out in their responses. For this the Mann-Whitney U-test is used. The responses are taken on the basis of the various aspects such as convenient, Facilities, role of technology and management and security etc.

*$H_{02}$  = there is no significance difference between the public and private sector banks customers on the convenient factor of virtual banking services.*

**Table- 4 Customers Perception on Virtual Banking Services**

Perception of customers on Convenient factor	Code	Mean	S.D.	Mann-Whitney U-test	p-value	Hypothesis
V.B. provides all types of Banking services	CON 1	4.5900	.49940	11070.000	.778	<b>Accepted</b>
V.B. Saves time money and Effort	CON 2	4.0333	.80481	7928.000	.000	<b>Rejected</b>
It minimizes the need to go bank branch	CON 3	3.5967	1.0477	9094.000	.003	<b>Rejected</b>
V.B. allow us to anywhere access	CON 4	3.9667	.78801	8042.000	.000	<b>Rejected</b>
It is transparent in nature	CON 5	3.9433	.78879	8482.00	.000	<b>Rejected</b>

Sources; Primary Data

The mean value of the above table indicates that there is a difference in the opinion of the customers of Varanasi on the virtual banking services but the majority of the respondents are accepting that the virtual banking is very convenient to use. The CON 1 have the p-value of

Mann-Whitney U-test is .778 which accepts the null hypothesis and remaining variables of convenient factor i.e. CON 2, CON 3, CON 4, CON 5 has the p-value less than significance level i.e. .05 which rejects the null hypothesis and it is conclude that there is a significance difference between in the perception of the public and private sector banks customers on the Convenient (CON) factor of the virtual banking in Varanasi district.

**Objetive-3 To find out the difference between the public and private sector banks customers on the facilities factor of virtual banking services.**

*H<sub>03</sub>= There is no significance difference between the public and private sector banks customers on the facility factor of virtual banking services.*

**Table- 5 Customers Perception on Facility factor**

Perception of customers on Facilities factor (FAC)	Code	Mean	S.D.	Mann-Whitney U-test	p-value	Hypothesis
less time is required to perform banking transactions	FAC 1	4.5833	.50056	10982.000	.676	<b>Accepted</b>
It allows 24*7 banking facilities	FAC 2	4.5867	.50663	10952.000	.642	<b>Accepted</b>
Virtual banking allows easy access of banking services	FAC 3	4.0567	.68436	7501.500	.000	<b>Rejected</b>
Its provide new and innovative banking services	FAC 4	4.2567	.65233	11070.500	.791	<b>Accepted</b>
Its allows fast quarry handling facilities	FAC 5	3.6767	.92465	10675.000	.418	<b>Accepted</b>
V.B. various non-banking facilities	FAC 6	4.2200	.66815	10700.500	.418	<b>Accepted</b>
V.B. Minimizes the paper work	FAC 7	4.5133	.50729	10840.000	.529	<b>Accepted</b>

Sources; Primary Data

The mean value of the above table indicates that the maximum respondents are accepting that the virtual banking offered various types of banking services at single place. On the other hand from

the all 7 variables of the facility factor, FAC 1, FAC2, FAC 4, FAC 5 and FAC 7 has the p-value of Mann-Whitney U-test more than the significance level which accepts the null hypothesis and remaining 2 variables i.e. FAC 3 and FAC 6 has the p-value less than significance level i.e. .05 which rejects the null hypothesis and conclude that there is a significance difference between in the perception of the public and private sector banks customers on the Facilities (FAC) factor of the virtual banking in Varanasi district.

**Objective-4 To identify the difference between the public and private sector banks customers on the Role of Technology factor of virtual banking.**

*H<sub>04</sub>= There is no significance difference between the public and private sector banks customers on the role of technology factor of virtual banking services.*

**Table- 6 Customers Perception on Role of Technology**

Perception of customers on Role of Technology factor (ROT)	Code	Mean	S.D.	Mann-Whitney U-test	p-value	Hypothesis
Technology allows us to keep banking in pocket	ROT 1	4.1400	.69907	8268.000	.000	<b>Rejected</b>
Virtual banking is less expansive	ROT 2	3.7700	.95225	9642.500	.025	<b>Rejected</b>
It provides transaction notification	ROT 3	4.1800	.71832	8728.500	.000	<b>Rejected</b>
Its allows faster banking services	ROT 4	4.2167	.75606	87772.000	.000	<b>Rejected</b>
The virtual banking technology is user friendly	ROT 5	3.8767	.98218	8265.500	.000	<b>Rejected</b>

Sources; Primary Data

The mean value of the above table indicates the mostly respondents are agreed on the role of technology increases their satisfaction level of banking. The Mann-Whitney U-test shows that the all variables of the ROT rejects the null hypothesis because the p-value is less than the significance level which indicates that there is a significance difference between the perception

of the public and private sector banks customers on the ROT factor of the virtual banking in Varanasi district.

**Objective-5 To identify the difference between the public and private sector banks customers on the Management and Security issue of the virtual banking**

*$H_{05}$  = there is no significance difference between the public and private sector banks customers on management and security issue of the virtual banking services.*

**Table- 7 Customers Perception on Virtual Banking Services**

Perception of customers on Management & Security (MS)	Code	Mean	S.D.	Mann-Whitney U-test	p-value	Hypothesis
Ease to manage banking transactions	MS 1	4.3533	.56824	11127.000	.851	<b>Accepted</b>
It is more reliable than the branch banking	MS 2	4.3233	.65846	11234.000	.981	<b>Accepted</b>
Virtual banking is secured in nature	MS 3	3.9033	.86978	10238.500	.153	<b>Accepted</b>
The services are innovative in nature	MS 4	4.3467	.53614	10590.000	.306	<b>Accepted</b>
Virtual banking allows less cash in valet	MS 5	3.0367	1.1546	9415.000	.008	<b>Rejected</b>
Less Chance of cash theft	MS 6	3.3400	1.0431	10017.500	.086	<b>Accepted</b>

Sources; Primary data

Maximum respondents of the Varanasi district are accepting that the management and security of the virtual banking transactions are very easy. Thus, the Mann-Whitney U-test accepts the null hypothesis of the all variables of management and security factor with the p-value more than the significance level .05 which concludes that there is a significance difference between in the perception of the public and private sector banks customers on the Convenient (CON) factor of the virtual banking in Varanasi district.

## MAJOR FINDINGS

- 1- The customers of all age groups are using virtual banking services, but the customers of 15-55 years are using more frequently virtual banking.
- 2- It is found out from the study, maximum customers are male.
- 3- It is revealed from the study that the, more than 80% of the customers are graduate or more than graduate who used virtual banking services in Varanasi.
- 4- It is found out from the study, the customers of all occupation group are using virtual banking services in their day to day operation.
- 5- It is revealed from the study, the customers of all income groups are using virtual banking services in Varanasi district.
- 6- The study revealed that the customers of Varanasi district are accepting that the virtual banking is very convenient in nature and there is a significance difference between the response of the public and private sector banks customers on the convenient factor.
- 7- The study indicates that the customers are accepting that the virtual banking offers various types of banking services at single place and there is no significance difference between the response of the public and private sector banks customers on the facilities of the virtual banking.
- 8- It is found out from the study that the role of technology affects the adaptation of virtual banking services in Varanasi district and there is a significance difference between the response of the public and private sector banks customers on the role of technology factor.
- 9- The study also revealed that the customers are accepting that the virtual banking is secured and the management of virtual banking is very easy and there is a significance difference between the response of the public and private sector banks customers on the management and security issue of the virtual banking.

## SUGGESTIONS

On the basis of the present study some suggestions are provided for the betterment of the virtual banking services. These suggestions are discussed hereunder-

- 1- The study revealed that the old age people are not frequently using virtual banking services just because of the less awareness on such services. Thus it is suggested to the banks of Varanasi district to provide special training programme to their customers.
- 2- It is also suggested to the banks to provide the demonstration programme to their customers and also provide the trainer for their customers.
- 3- The study revealed that the private sector bank customers are more satisfied with their banks performance. Thus it is suggested to the public sector banks to provide better and update banking services to their customers for the enhancement of the virtual banking services.
- 4- The study revealed that the private sector banks are offers more facilities to their customers. Thus it is suggested to the public sector banks to provide more and advanced facilities to their customers for the betterment of their bank.

## CONCLUSION

Virtual banking provides the fast and innovative banking services to their customers which increases the customer's satisfaction. The present study revealed that the each group of the customers of Varanasi district is using virtual banking services and they are satisfied with the virtual banking performance. The demographic variable shows that the all group of the customer are using virtual banking services in Varanasi district. The study concluded that the customers of private sector bank are more satisfied with the virtual banking services rather than the public sector bank customers. There is a significance difference between the public and private sector bank customer's responses on the virtual banking services on the convenient factor (CON) and role of technology factor (ROT) of virtual banking in Varanasi district. On the other hand side there is no significance difference between the facility (FAC) and management & security (MAS) factor of the virtual banking services in Varanasi district. The present study reveals that the virtual banking facilitate the fast and innovative banking services to their customers and the customers are opting theses services in their day to day transaction such as cash withdrawals, shopping, paying bills, transfer of funds etc.

**REFERENCES**

- 1- Agrawal, D. D., & Chauhan, S. (2017). A Comparative Study of E-Banking in Public and Private Sectors Banks (with special reference to SBI and HDFC bank in Haridwar). *Motherhood International Journal of Multidisciplinary Research and Development* , 01-18.
- 2- Amir, M. K., & Sheykh, D. H. (December 2017). Analysis of Customer Satisfaction on Online Banking: A Case Study on "One Bank Limited". *IOSR Journal of Business and Management (IOSR-JBM)* , 36-42.
- 3- Hada, D. B. (2016). Online Banking and Customer Satisfaction in Public and Private Sector Banks: Evidence from India. *IOSR Journal of Business and Management (IOSR-JBM)* , 10-20.
- 4- Kaushik, A. K. (2012). E-Banking System in SBI. *ZENITH International Journal of Multidisciplinary Research*, 76-97.
- 5- Keivani, F. S., Jouzbarkand, M., Khodabadi, M., & Sourkouhi, Z. K. (n.d.). A General View on the E-banking. 62-65.
- 6- Komal, D., & Rani, D. V. (2012). PROGRESS OF BANKING IN INDIA: CUSTOMERS' PERSPECTIVES. *Business Intelligence Journal*, 28-39.
- 7- Lal, D. R., & Saluja, D. R. (2012). E-banking: The Indian Scenario. *Asia Pacific Journal of Marketing & Management Review*, 16-25.
- 8- Singh, P. (2014). BRANCH BANKING TO VIRTUAL BANKING -UTILIZATION OF DIRECT BANKING CHANNELS IN INDIAN BANKING SECTOR. *European Journal of Accounting Auditing and Finance Research*, 1-8.