

# Awareness Level of Customers on E-Banking

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## ABSTRACT

E-banking has become a necessary weapon and is fundamentally changing the banking industry worldwide. Today, the mere click of the mouse offers customer banking services at a much lower cost and enable them with unprecedented freedom in choosing vendors for their financial service needs. E-banking is the outcome of technological innovations and competitions. Banks are using an electric distribution channel to market their products to wholesale and retail customers. Traditional branch-based retail banking remains the most widely spread method for conducting banking transactions in India as well as in other countries. One of the important bad features of Indian banking is that it has completely ignored the rural and semi-urban areas to spread the concept and services of banking especially e-banking. In India, banks have tried to introduce internet-based e-banking systems to improve their operations and reduce costs. Despite all their efforts for developing better and easier e-banking systems, these systems remained largely unnoticed by the customers and certainly underused in spite of their availability. No doubt the main drawback in the Indian banking scenario is the lack of awareness about e-banking and lack of will to accept and adopt the changes among the people. Hence, a study is undertaken to measure and analyse the level of awareness of customers on e-banking products and services. The analysis and result thereof are briefly presented in the article.

*Key words: ATM, Awareness, Banking, E-banking.*

## 1. Introduction

The core issues faced by banks today are on the fronts of customer's service expectations, cutting operational costs and managing competition. For this, banks are exploring new financial products and services that would help them to grow without losing existing customers. And any financial product or service that a bank offers will be

intrinsically related to technology. Only technology can help banks in meeting these objectives. Under the regime of banking sector reforms, information technology (IT) Act, 2000 gave new dimensions to the Indian banking sector. IT has created transformation in banking structure, business process, work culture and human resource development. It affects the

productivity, profitability and efficiency of the banks to a large extent. From various studies, it is observed that with the more and better use of technology along with the efficient employees, the efficiency of the banks going better and they started to compete successfully in the foreign markets too.

The future of e-banking is bright but still there are some difficulties that interrupt the working of the banks. It is also observed that there is a significant difference in the profitability performance of fully-computerized and partially- computerized banks. This significant difference is due to the best performance of internet using and fully computerized banks in India. Technology is a crucial factor affecting the banks performance and making them capable to earn more through new opportunities.

E-banking is the outcome of technological innovations and competitions. Banks are using an electronic distribution channel to market and sell their products to wholesale and retail customers. The devices used by the banks are telephones, personal computers, automated teller machines, mobile phones and internet.

E-banking has also affected the customer's expectations as they prefer to deal with the banks offering better, efficient and innovative services. To face and survive in this cutting edge competition, banks have to deliver better quality services to the customers because it is only a customer who can evaluate quality of services. Hence, the

service quality is offering services to customer's specifications and expectations. The banks must know what type of services the customers expect to have and then accordingly serve them the products and services that meet their expectations. The banks should not be adamant to accept changes. Otherwise their survival will become very difficult in the emerging competition. Therefore, there is a need to evaluate the customer's perceptions regarding the recent e-banking services too, which will help to further improve the services if they are not satisfied with their services.

Despite all their efforts in developing better and easier e-banking systems, these still remain largely unnoticed by the customers and certainly underused in spite of their availability. No doubt the main drawback in the banking scenario in India has been lack of awareness about e-banking and lack of willingness to accept and adapt the changes by the customers. In this background, it becomes essential to know the answers to the following questions:

- Is there any improvement in the performance of the banks due to the introduction of technology in banking transactions?
- Whether the customers are aware about the various products and services offered by the Indian banks or not?
- What are the factors contributing for the growth and development of e-banking in India?

- What are the problems faced by the bankers and customers in utilizing e-banking services?

This study is proposed to find out the answers to the above questions.

## **2. Methodology**

The ATM card holders of both the public sector and private sector banks of all the five taluks in Erode District were considered as population of the study. There are 40 banks in Erode district namely 3 SBI groups, 17 nationalised banks and 20 private sector banks (old and new) with a total of 152 branches. Also there are 207 ATM centres in Erode district.

Initially, it was decided to collect data from 800 respondents. The list of customers of each branch of the public sector banks and private sector banks could not be obtained from the branch managers as they did not want to disclose the names of the customers due to their obligation to maintain the confidentiality of customer's account. So, it was decided to adopt convenience sampling method for selecting the sample respondents. The required data have been collected from the sample respondents in front of the ATM centres (which is considered as an opt place) with the help of well-structured questionnaires. On an average, 15-20 minutes were required to fill up questionnaire. The doubts and queries raised by the respondents were properly clarified at the time of filling up of data. Out of 800 questionnaires distributed, only 692 questionnaires have been collected from the

respondents. After deleting 92 questionnaires owing to incomplete and inconsistent answers, the remaining 600 questionnaires were used for analysis and this constitutes the sample size of the study.

The required secondary data were collected from the RBI website, RBI Bulletin and RBI Annual Reports. Besides, leading journals and magazines relating to banking industry were also referred for this study.

A three- point Likert-type scale was used to measure the level of awareness on e-banking. The score of 600 sample respondents were calculated by adopting the scoring procedure i.e. if a respondent is "aware" three points, "partially aware" two points and one point for "unaware" has been assigned. If the respondent is aware of all these 100 statements, his maximum score would be 300 and if he is unaware of all the statements his score would be 100. Therefore, the expected scores of the respondents would range from 100 to 300. The average score is 200.

## **3. Results and Discussion**

In this paper, an attempt has been made to examine the association between independent variables and awareness level of sample respondents on e-banking products and services. The first part deals with the association between independent variables and awareness level of sample respondents on e-banking products and services collectively and the second part deals with the association between independent variables and product-wise awareness level of sample respondents.

The identified variables such as age, gender, Educational level, occupation, annual income and frequency of visit to the bank assesseees may influence the level of awareness on e-banking products and services. The products and services of banks are grouped into five viz., ATM, bank cards, phone banking, payment systems and internet banking.

Significance of association of all the twelve variables with the awareness level on e-banking products and services of the sample respondents is analysed by applying the chi-square test. The Significance of the relationship of average awareness score with the twelve variables of sample respondents is analysed by applying the statistical techniques such as F- test and Z - test.

**3.1 Overall Awareness Level of Customers on E-Banking**

The respondents were classified into two groups based on their average scores. Group one consists of those respondents who have

scored 200 and above. Group two consists of those respondents who have scored below 200. Based on the above procedure, it is found that out of 600 sample respondents, awareness score of 359 (60%) respondents is below the average score whereas 241 (40%) respondents' awareness score is 200 and above.

For in-depth study, the respondents were classified into three groups viz. Low, Medium and High based on their average awareness scores. Those respondents who have scored between 100 and 149 were classified as Low; those respondents who have scored between 150 and 249 were classified as Medium and those respondents who have scored 250 and above were classified as High.

Table 1 reveals that out of 600 respondents, 198 respondents (33. 0%) are having High awareness, 271 respondents (45.17%) are having Medium awareness on e-banking and 131 respondents (21.83%) are

**Table 1: Distribution of Respondents on the basis of Overall Awareness Level on E-Banking**

<b>Awareness Level</b>	<b>Number of Respondents</b>	<b>Percent</b>	<b>Mean</b>	<b>S. D</b>
High	198	33.00	262.51	22.344
Medium	271	45.17	208.88	7.829
Low	131	21.83	141.70	13.270
Total	600	100.00	211.91	32.259

*Source: Primary Data*

having Low awareness on e-banking. The awareness level of 67 % of sample respondents (402) is either medium/low. The average awareness score is 211.91 Therefore, majority of the respondents are having medium level awareness on e-banking.

**3.2 Age and Awareness Level**

Age is one of the important variables which may play a significant role in determining the awareness level of customers on e-banking products and services. Normally, the old age people prefer the traditional methods of banking and the young age people who are dynamic may prefer the e-banking. For the purpose of analysis, the ages of the respondents are classified as young age Group (A) (up to 25 years), Middle age Group (B) (From 26 to 50 years) and old age Group (C) (above 50 years).

Table 2 exhibits the number of respondents belonging to different age groups and their awareness level on e-banking products and services. In order to test the hypothesis which states that there is no significant association between the different groups of age of sample respondents and their level of awareness on e-banking, chi-

square is applied. Table 2 indicates that out of 600 sample respondents, 43.3% respondents belonging to middle age group and 32.1% respondents belonging to the old age group are having high awareness on e-banking. 50.5% respondents belonging to the young age group and 43.3% respondents belonging to old age group are having medium awareness on e-banking. 31.2% of respondents belonging to young group and 14.2% respondents belonging to middle age group are having low awareness on e-banking. Hence, it could be concluded that only the Middle age group sample respondents are having higher awareness (43.2%) than other two age groups. The young age group respondents are having medium awareness (50.5%).

As the calculated value of chi-square test (38.065) exceeds the Table value of chi-square (13.277) for 4 degrees of freedom at 1% level of significance, the framed hypothesis for this purpose is rejected. Therefore, it could be concluded that there is a significant association between the age of customers and their awareness level on e-banking.

**Table 2: Age and awareness Level – chi-square Test**

<b>Age Group</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Total</b>
Young (A)	34 (18.3%)	94 (50.5%)	58 (31.2%)	186 (100.0%)
Middle (B)	121(43.3%)	119 (42.5%)	40 (14.2%)	280(100.0%)
Old (C)	43 (32.1%)	58 (43.3%)	33 (24.6%)	134 (100.0%)
Total	231(38.5%)	285 (47.5%)	84 (14.0%)	600(100.0%)

*Chi-square value: 38.065 (Figures in parentheses represent per cent)*

**3.2.1 Average Awareness Score of Respondents on the Basis of their Age**

Table 3 exhibits the average awareness score of three groups of sample respondents classified on the basis of their age. The Table explains that the average awareness score of middle age group (B) (216.91) is higher

than that of young age group (A) (207.56) and old age group (C) (211.91). To test the hypothesis which states that the average awareness score of the three groups of respondents classified on the basis of their age is the same, “F” test is applied

**Table 3: Age and Average Awareness Score - F-test**

Age	No. of Respondents	Per cent	Average score	F- Value
Young (A)	186	31.00	207.56	6.432
Middle(B)	280	46.67	216.91	
Old (C)	134	22.33	207.48	
Total	600	100.00	211.91	

It is found that the calculated value of “F” test (6.432) exceeds the table value (4.60) for 2 and 597 degrees of freedom at 1% level of significance. Therefore, the hypothesis is not accepted. Hence, it could be concluded that there is a significant association exists between the three groups of customers and their level of awareness scores.

**3.3 Gender and Awareness Level**

Normally, the male customers are always

having better awareness on e-banking products and services than female customers because the male. Customers happen to attend their routine works for their life and get good exposure. The present scenario is different from the previous one because of the developments in the field of information technology and the female customers could get equal chance to work in all the fields.

**Table 4: Gender and Awareness Level - Chi- Square Test**

Gender	High	Medium	Low	Total
Male	156 (38.7%)	191 (47.4%)	56 (13.9%)	403 (100.0%)
Female	42 (21.3%)	80 (40.6%)	75 (38.1%)	197 (100.0%)
Total	198 (33.0%)	271 (45.2%)	131 (21.8%)	600 (100.0%)

Chi-square value: 48.894 (Figures in parentheses represent per cent)

Table 4 gives the information regarding the gender of the respondents and their awareness level on e-banking products and services. It is found that 86% of the male respondents are having high/medium awareness compare to female respondents. It is also found that 38.1% female respondents and 13.9% of male respondents are having low awareness on e-banking.

In order to test the hypothesis which states that there is no significant association between the gender of the sample respondents and their level of awareness on e-banking, chi-square is applied. The calculated value of chi-square test (48.894) exceeds the table value of chi-square (9.210) for 2 degrees of freedom at 1% level of significance. Hence, the framed hypothesis for this purpose is rejected. Therefore, it could be concluded that there is a significant association between the Gender of the

customers and their awareness level on e-banking.

**3.3.1 Average Awareness Score of the Respondents on the Basis of Gender**

Table 5 exhibits the average awareness score of two groups of sample respondents classified on the basis of their gender. The average awareness score of the male sample respondents (219.10) is more than that of female respondents (197.20). In order to test the hypothesis that the average awareness score of the two groups of respondents classified on the basis of their gender is the same, "Z" test is applied. It is found that the calculated value of "Z" (8.233) exceeds the table value (2.576) at 1% level of significance. Therefore, the hypothesis is rejected. It could be concluded that there is a significant association exists between the Gender of customers and their level of awareness scores

**Table 5: Gender and Average Awareness Score - Z-test**

Gender	No.of Respondents	Per cent	Mean	Z - Value
Male	403	67.17	219.10	8.233
Female	197	32.83	197.20	
Total	600	100.00	211.91	

Table value: 2.576

**3.4 Educational Qualification and Awareness Level**

Education is one of the core factors in determining the awareness level of the bank customers on e-banking. It is a systematic training to the brain for developing knowledge, ability and personality of a

person. Highly Educated people visit number of places. They have a lot of chances to work in number of organizations and have opportunities to use and operate latest technology oriented machines for their work. So, higher the educational qualification, naturally, higher would be the awareness

level. Hence, it is decided to study the association between educational level and awareness level of the customers.

For the purpose of the analysis, the sample respondents are classified into three groups according to their educational qualifications namely Groups A: Elementary

Education level Group B: Higher secondary education level and Group C: College level.

In order to test the hypothesis that the level of awareness on e-banking products and services under different educational qualification groups does not differ significantly, chi-square test is applied.

**Table 6: Educational Qualification and Awareness Level - Chi- Square Test**

<b>Educational Qualification</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Total</b>
Elementary (A)	17 (17.5%)	38 (39.2%)	42 (43.3%)	97 (100.0%)
Higher Secondary (B)	59 (29.5%)	90 (45.0%)	51 (25.5%)	200(100.0%)
College(C)	122 (40.3%)	143 (47.2%)	38 (12.5%)	303(100.0%)
Total	198 (33.0%)	271 (45.2%)	131 (21.8%)	600 (100.0%)

Chi- square value: 47.359 (Figures in parentheses represent per cent

Table 6 clearly shows that educational qualification of the sample respondents and their level of awareness on e-banking products and services. It explicit that about 40.3% of the customers belonging to college level category is highly aware on e-banking products and services comparing higher secondary (29.5%) category and elementary category (17.5%). Hence, it could be concluded that customers belonging to Group C (College level) are having high awareness on e-banking than other two groups. The calculated value of chi-square test (47.359) exceeds the Table value of chi-square (7.81) for 4 degrees of freedom at 1% level of significance. Hence, the hypothesis framed for this purpose is rejected. Therefore, it could be concluded that there is a significant association

between the educational qualification of the customers and their level of awareness on e-banking.

***3.4.1 Average Awareness Score of Respondents on the Basis of the Educational Qualification***

Table 7 shows the average awareness score of three groups of sample respondents classified on the basis of the educational qualification. The average awareness score of the sample respondents belonging to Group C (221.88) is higher than the average awareness scores of B group (206.13) and C group (192.69) “F” test is applied to test the hypothesis that the average awareness score of the respondents of three groups of respondents classified on the basis of their educational qualification is the same.



**Table 7: Educational Qualification and Average Awareness Score - F-test**

Education	No. of Respondents	Per cent	Average score	F -value
Elementary (A)	97	16.17	192.69	39.381
Higher (B)	200	33.33	206.13	
College (C)	303	50.50	221.88	
Total	600	100.00	211.91	

Table value: 4.60

Table 7 shows that the calculated value of "F" (39.381) exceeds the table value (4.60) for 2 & 598 degrees of freedom at 1% level of significance. Therefore, the hypothesis is rejected. It could be concluded that there is a significant difference in the average awareness scores of the three groups of respondents.

### 3.5 Occupational Status and Awareness Level

The occupation of the respondents may influence the awareness level on e-banking. Business people have more opportunities to use the e-banking channels for their banking transactions than agriculturist. Educationalist

and professionals have more frequently use the e-banking products and services for their work.

So, the uses and application of e-banking channels by the respondents for banking transactions depends upon their occupation. Hence, it is decided to analyse the relationship that exists between occupation of the respondents and their awareness on e-banking. For the purpose of analysis, occupation of the sample respondents is classified in to four groups i.e. Group A: Business, Group B: Agriculture Group C: Profession, Group D: Government and Group E: Private.

**Table 8: Occupation and Awareness Level - Chi- Square Test**

Occupation	High	Medium	Low	Total
Business(A)	27(26.2%)	63(61.2%)	13(12.6%)	103(100.0%)
Agriculture(B)	37(28.9%)	61(47.7%)	30(23.4%)	128(100.0%)
Profession(C)	47(43.1%)	55(50.5%)	7(6.4%)	109(100.0%)
Government(D)	51(40.2%)	42(33.1%)	34(26.8%)	127(100.0%)
Private (E)	36(27.1%)	50(37.6%)	47(35.3%)	133(100.0%)
Total	198(33.0%)	271(45.2%)	131(21.8%)	600 (100.0%)

Table 8 shows the information regarding the occupation of the sample respondents and their awareness level on e-banking. In order to test the hypothesis that there is no significant relationship between occupational status and their awareness level on e-banking, chi-square test is applied. Table 8 clearly indicates that 43.1% of respondents belonging to group C and 40.2% of respondents belonging to group D are having high awareness on E-banking. Further, 6.4% of respondents belonging to group C and 12.6% of respondents belonging to group A are having low awareness on E-banking. Hence, it could be concluded that professional people and government employees are having high awareness than others.

The calculated value of chi-square test (49.891) exceeds the table value of chi-square (7.81) for 8 degrees of freedom at 1% level of significance. Hence, the framed hypothesis for this purpose is rejected and concluded that there is a significant association between the occupational status of the customers and their awareness on e-banking.

**3.5.1 Average Awareness Score of Respondents on the Basis of the Occupation**

Table 9 shows the average awareness score of five groups of sample respondents classified on the basis of the occupation. It also clearly indicates that the average awareness score of the sample respondents belonging to Group C (222.16) is higher than the average awareness scores of group A (214.85), group B (207.53), group D (217.61) and group E (200.00).

In order to test the hypothesis that the average awareness score of the respondents of five groups of respondents classified on the basis of their occupation is the same, “F” test is applied. From the Table 9, it is found that the calculated value of “F” (9.598) exceeds the table value (4.60) for 4 & 595 degrees of freedom at 1% level of significance. Therefore, the hypothesis is rejected and concluded that there is a significant difference in the average awareness scores of the five groups of respondents.

**Table 9: Occupation and Average Awareness Score - F-test**

<b>Occupation</b>	<b>No. of Respondents</b>	<b>Per centAverage</b>	<b>Score</b>	<b>F -value</b>
Business(A)	103	17.17	214.85	9.598
Agriculture(B)	128	21.33	207.53	
Profession(C)	109	18.17	222.16	
Government(D)	127	21.17	217.61	
Private(E)	133	22.17	200.00	
Total	600	100.00	211.91	

*Table value: 4.60.*

**3.6 Annual Income and Awareness Level**

Annual income of the respondents determines whether to use e-banking channels for their banking transactions or not. Customers find it safe to keep hand earned money with banks. They wish to adopt the recent technologies of banking for their operations. Hence, it is decided to analyse the relationship between the annual income of the respondents and their awareness level on e-banking.

For the purpose of analysis, the annual income of the sample respondents is classified in to three groups. Group A: Income up to Rs.1, 00,000, Group B: Income from Rs.1, 00,001 to2, 50,000 and Group C: Income above Rs.2, 50,000. Table 10 exhibits the information regarding the annual income of the sample respondents and their awareness level on e-banking. In order to test the hypothesis that there is no significant relationship between annual income and their awareness level on e-banking, chi-square test is applied.

**Table 10: Annual Income and Awareness Level - Chi- Square Test**

AnnualIncome (Rs.)	High	Medium	Low	Total
Up to 100000(A)	50 (27.0%)	72 (38.9%)	63 (34.1%)	185(100.0%)
100001to 250000(B)	47 (24.2%)	102 (52.6%)	45(23.2%)	194(100.0%)
Above 250000(C) 101(45.7%)	97(43.9%)	23(10.4%)	221(100.0%)	
Total	198(33.0%)	271(45.2%)	131(21.8%)	600(100.0%)

*Chi- square value: 51.153 (Figures in parentheses represent per cent)*

Table 10 also reveals that 45.7% of the respondents belonging to group C are having high awareness on e-banking. 38.9% of respondents belonging to group A, 52.6% of respondents belonging to group B and 43.9% of respondents belonging to group C are having medium awareness. With regard to high / medium level of awareness, 89.6% of respondents belonging to group C have more awareness on e-banking than other groups.

From the above analysis, it is found that the calculated value of chi-square test

(51.153) is more than table value (13.277) for 4 degrees of freedom at 1% level of significance. Therefore, the hypothesis framed is rejected and a significant association exists between annual income of the respondents and their awareness level on e-banking.

**3.6.1 Average Awareness Score of Respondents on the Basis of the Annual Income**

Table 11 shows the average awareness score of two groups of sample respondents classified on the basis of the annual income. It also indicates that the average awareness

score of the sample respondents belonging to Group C (220.88) is higher than the average awareness scores of group A (211.83) and group B (201.76) “F” test is

applied to test the hypothesis that the average awareness score of the respondents of three groups of respondents classified on the basis of their annual income is the same.

**Table 11: Annual Income and Average Awareness Score - F-test**

<b>Annual income (Rs.)</b>	<b>No. of Respondents</b>	<b>Per cent</b>	<b>Average Score</b>	<b>F -value</b>
Up to 100000(A)	185	30.83	211.83	19.240
100001to 250000(B)	194	32.33	201.76	
Above 250000(C)	221	36.84	220.88	
Total	600	100	211.91	

Source: Primary Data.

From Table 11, it is found that the calculated value of “F” (19.240) exceeds the table value (4.60) for 2 & 597 degrees of freedom at 1% level of significance. Therefore, the hypothesis is rejected. It could be concluded that there is a significant difference in the average awareness scores of the three groups of respondents.

**3.7 Frequency of Visit and Level of Awareness**

Customers those who are visiting the bank frequently for banking transactions may have the chances to know the various new products and services offered by the banks.

Sometimes, customers those who are experts in operating the e-banking products can carry out their banking transactions without visiting the bank. Hence, it is decided to study the frequency of visit of the respondents to the bank in relation to their awareness level. The respondents are classified under three groups. Group A comprises respondents with frequency of visit less than 10 times in a month; Group B comprises respondents with frequency of visit between 11 and 20 times in a month and Group C comprises respondents with frequency of visit above 20 times in a month.

**Table 12: Frequency of Visit and Awareness Level - Chi- Square Test**

<b>Frequency of Visit</b>	<b>High</b>	<b>Medium</b>	<b>Low</b>	<b>Total</b>
Less than 10 (A)	119(44.1%)	103(38.1%)	48(17.8%)	270(100.0%)
Between 11 – 20(B)	33(18.3%)	108(60.0%)	39(21.7%)	180(100.0%)
Above 20(C)	46(30.7%)	60(40.0%)	44(29.3%)	150(100.0%)
Total	198(33.0%)	271(45.2%)	131(21.8%)	600(100.0%)

*Chi- square value: 40.515 (Figures in parentheses represent per cent)*

Table 12 exhibits the information regarding the frequency of visit of the sample respondents and their awareness level on e-banking. In order to test the hypothesis that there is no significant relationship between frequency of visit and their awareness level on e-banking, chi-square test is applied.

Table 12 reveals that 44.1% of respondents belonging to group A are having high awareness on e-banking. 60.0% of respondents belonging to group B and 40.0% of respondents belonging to Group C are having medium awareness. With regard to high / medium level of awareness, 82.2% of respondents belonging to Group A have more awareness on e-banking than other groups. From the analysis, it is found that the calculated value of chi-square test (40.515) is more than table value (13.277) for 4 degrees of freedom at 1% level of significance. Therefore, the hypothesis framed is rejected and a significant association exists between frequency of visits and their awareness level on e-banking.

**Table 13: Frequency of Visit and Average Awareness Score - F-test**

<b>Frequency of Visit</b>	<b>No. of Respondents</b>	<b>Percent</b>	<b>Mean</b>	<b>F - Value</b>
Less than 10(A)	270	45.00	219.15	13.482
Between 11 – 20(B)	180	30.00	207.74	
Above 20(C )	150	25.00	203.88	
Total	600	100.00	211.91	

**3.8 Awareness Level on E-Banking Products and Services (Product-Wise)**

In the second part of this section, an attempt has also been made to ascertain the awareness level of the respondents on

**3.7.1 Average Awareness Score of Respondents on The Basis of the Frequency of Visits**

Table 13 shows the average awareness score of three groups of sample respondents classified on the basis of the Frequency of Visits. It also indicates that the average awareness score of the sample respondents belonging to Group A (219.15) is higher than the average awareness scores of group B (207.74) and group C. In order to test the hypothesis on the basis of their frequency of visit is the same, “F” test is applied.

Table 13 shows that the calculated value of “F” (13.482) exceeds the Table value (13.277) for 4 & 597 degrees of freedom at 1% level of significance. Therefore, the hypothesis is rejected and concluded that there is a significant difference in the average awareness scores of the two groups of respondents.

individual products and services of e-banking. Here, the study is made to know the level of awareness on ATM, on card services, on Internet banking, on Phone banking and on payment services.

**3.8.1 Awareness level of customers on ATM service**

Now-a-days, ATM has become an inevitable machine which is used by the customers for many purposes such as withdrawing money at any time, transfer of funds between accounts, balance enquiry, recharge of prepaid mobile card and option for mobile banking etc. A three point likert's type scale is used to measure the level of awareness on ATM. The score of 600 sample respondents are calculated by using the scoring procedure. If one respondent is aware of all the

20 statements the maximum score would be 60 and if he is unaware of all the statement the score would be 20. Therefore, the expected scores of respondents would range from 20 to 60. The average score is 40.

For in depth study, the respondents were classified into three groups based on their average awareness scores. They are low, medium and high. Those respondents who have scored 20 and 29 were classified as low, those respondents who have scored between 30 and 49 were classified as medium and those respondents who have scored 50 and above were classified as high.

**Table 14: Distribution of Respondents according to their Awareness on ATM**

<b>Awareness Level</b>	<b>No. of. Respondents</b>	<b>Percentage</b>	<b>Mean</b>
High	289	48.17	55.87
Medium	184	30.66	49.67
Low	127	21.17	28.72
Total	600	100	48.22

Source: Primary Data.

Table 14 exhibits that out of 600 respondents, 289 sample respondents (48.17%) are having high level awareness with mean score of 55.87, 184 sample respondents (30.66%) are having medium level awareness with mean score of 49.67 and 127 sample respondents (21.17%) are having low level awareness with mean score of 28.72. The average awareness score of sample respondents is 48.22. Hence, majority of the sample respondents are having high level awareness on ATM.

**3.8.2 Awareness Level of Customers on Internet Banking**

Internet banking, also called on-line banking, is nothing more than traditional banking services delivered through an electronic communication device viz. the internet. It demolishes the traditional geographical barriers and thus reaches out to customers across the world. It is an efficient and cost effective delivery mechanism for banking service. Through internet banking, banks can

offer extensive range of products and services of varied content and sophistication.

Internet banking enables customers to open accounts, pay bills, know account balances, forward loan applications, calculate interest, view and print copies of cheques and deposits, transfer funds, stop payments, recording of stop-payment instructions, reorder cheque books and statements and receive banking industry news, send and receive messages to and from the bank through e-mail and other forms of traditional banking services. Different banks have different levels of such services offered; starting from level-1 where only information is disseminated through Internet to level-3 where on line transactions are put through.

A three point likert's type scale is used to measure the level of awareness on Internet Banking. The score of 600 sample respondents are calculated by using the scoring procedure. If one respondent is aware of all the 20 statements the maximum score would be 60 and if he is unaware of all the statement the score would be 20. Therefore, the expected scores of respondents would range from 20 to 60. The average score is 40. For in depth study, the respondents were classified into three groups based on their average awareness scores. They are low, medium and high. Those respondents who have scored 20 and 29 were classified as low, those respondents who have scored between 30 and 49 were classified as medium and those respondents who have scored 50 and above were classified as high.

**Table 15: Distribution of Respondents according to their Awareness on Internet Banking**

<b>Awareness Level</b>	<b>No.of.Respondents</b>	<b>Percentage</b>	<b>Mean</b>
High	116	27.67	55.01
Medium	193	32.17	48.03
Low	241	40.16	25.90
Total	600	100	41.07

Source: Primary Data.

Table 15 shows that out of 600 respondents, 116 sample respondents (27.67%) are having high level awareness with mean score of 55.01, 193 sample respondents (32.17%) are having medium level awareness with mean score of 48.03 and 241 sample respondents (40.16%) are

having low level awareness with mean score of 25.90. The average awareness score of sample respondents is 41.07. Only 27.67% of the sample respondents are having high level awareness. Hence, the awareness level of the sample respondents is low and moderate in case of Internet banking.

**3.8.3 Awareness Level of Customers on Card Services**

A debit card is a plastic card that provides the cardholder electronic access to his bank account at a financial institution. Some cards have a stored value with which a payment is made, while most relay a message to the cardholder’s bank to withdraw funds from a designated account in favor of the payee’s designated bank account. The card can be used as an alternative payment method to cash when making purchases. In some cases, the cards are designed exclusively for use on the Internet, and so there is no physical card.

Credit card is the modern system of payment system, which has to a large extent replaced the traditional forms of payment by each, cheques, etc. VISA and MASTER CARD, MAESTRO, CIRRUS DINEKS are associations of banks, which dealt in credit cards. Bank credit cards are a type of consumer loan, revolving in nature, i.e. automatically renewing itself, with in specific limits. The

card holder has the option to utilize it in part (or) full depending upon his needs. The credit so availed has to be paid with in a period and with repayment the limit gets renewed automatically.

A three point likert’s type scale is used to measure the level of awareness on card services. The score of 600 sample respondents are calculated by using the scoring procedure. If one respondent is aware of all the 16 statements the maximum score would be 48 and if he is unaware of all the statement the score would be 16. Therefore, the expected scores of respondents would range from 16 to 48. The average score is 32.

For in depth study, the respondents were classified into three groups based on their average awareness scores. They are low, medium and high. Those respondents who have scored 16 and 23 were classified as low, those respondents who have scored between 24 and 39 were classified as medium and those respondents who have scored 40 and above were classified as high.

**Table 16: Distribution of Respondents according to their Awareness on Card Services**

<b>Awareness Level</b>	<b>No. of. Respondents</b>	<b>Percentage</b>	<b>Mean</b>
High	331	55.2	46.27
Medium	192	32	37.09
Low	77	12.8	22.89
Total	600	100	40.32

*Source: Primary Data*



Table 16 exhibits that out of 600 respondents, 331 sample respondents (55.2%) are having high level awareness with mean score of 46.27, 192 sample respondents (32%) are having medium level awareness with mean score of 37.09 and 77 sample respondents (12.8%) are having low level awareness with mean score of 22.89. The average awareness score of sample respondents is 40.32. The sample respondents selected for this study at least should have ATM card. 331 sample respondents are having high awareness. The average awareness score is also 40.32. Hence, the majority of the sample respondents are having high level awareness on card services.

**3.8.4 Awareness Level of Customers on Phone Banking**

Rapid expansion in the use of mobile phone as a mode of communication has created new opportunities for barriers to use their mode for banking transactions. Many countries have adopted this delivery channel as a means of financial inclusion as it facilitates smart value payments at a very low cost. Telebanking is an innovative form of electronic banking introduced by banks through which banking service or produce are rendered through telephone to its customers. Under phone banking service a customer can talk to a phone banking officer for transacting banking services.

**Table 17: Distribution of Respondents according to their Awareness on Phone Banking**

<b>Awareness Level</b>	<b>No. of Respondents</b>	<b>Percentage</b>	<b>Mean</b>
High	88	14.7	56.65
Medium	103	17.2	48.13
Low	409	68.2	28.16
<i>Total</i>	<i>600</i>	<i>100</i>	<i>35.77</i>

*Source: Primary Data*

A three point likert's type scale is used to measure the level of awareness on phone banking. The score of 600 sample respondents are calculated by using the scoring procedure. If one respondent is aware of all the 20 statements the maximum score would be 60 and if he is unaware of all the statement the score would be 20. Therefore, the expected scores of respondents would range from 20 to 60.

The average score is 40.

For in depth study, the respondents were classified into three groups based on their average awareness scores. They are low, medium and high. Those respondents who have scored 20 and 29 were classified as low, those respondents who have scored between 30 and 49 were classified as medium and those respondents who have scored 50 and above were classified as high.

Table 17 exhibits that out of 600 respondents, 88 sample respondents (14.7%) are having high level awareness with mean score of 56.65, 103 sample respondents (17.2%) are having medium level awareness with mean score of 48.13 and 409 sample respondents (68.2%) are having low level awareness with mean score of 28.16. The average awareness score of sample respondents is 35.77. As 68.2% of the sample respondents are having low level awareness on phone banking, the awareness is poor.

**3.8.5 Awareness Level of Customers on Payment Services**

National Electronic Fund Transfer (NEFT) is a national wide funds transfer system to facilitate transfer of funds from any branch to any other bank branch. The operation of the NEFT in November 2005 was a major step in the direction of setting up and operating a national level payment system. There is no restriction of centre or of any geographical area inside the country.

Real Time Gross Settlement (RTGS) system is a funds transfer mechanism where

transfer of money takes place from one bank to another on a 'Real time' and on 'Gross' basis. This is the speedy money transfer system through the banking channel. Settlement in 'Real Time' means payment transaction is not subjected to any waiting period. The transactions are settled as soon as they are processed. 'Gross settlement' means the transaction is settled on one to one basis without bunching with any other transaction.

Electronic Clearing Service (ECS) is a mode of electronic funds transfer from one bank account to another bank account using the services of a clearing house. This is normally for bulk transfers from one account to many accounts or vice versa. This can be used both for making payments like distribution of dividend, interest, salary, pension etc. by institutions or for collection of amounts for purposes such as payments to utility companies like telephone, electricity or charges such as house tax, water tax etc. or for loan instalments of financial institutions/banks or regular investments of persons.

**Table 18: Distribution of Respondents according to their Awareness on Payment Services**

<b>Awareness Level</b>	<b>No. of. Respondents</b>	<b>Percentage</b>	<b>Mean</b>
High	71	11.08	69.23
Medium	155	25.08	50.73
Low	374	62.03	29.33
<i>Total</i>	<i>600</i>	<i>100</i>	<i>39.58</i>

*Source: Primary Data.*

A three point likert's type scale is used to measure the level of awareness on payment services. The score of 600 sample respondents are calculated by using the scoring procedure. If one respondent is aware of all the 20 statements the maximum score would be 60 and if he is unaware of all the statement the score would be 20. Therefore, the expected scores of respondents would range from 20 to 60. The average score is 40.

For in depth study, the respondents were classified into three groups based on their average awareness scores. They are low, medium and high. Those respondents who have scored 24 and 35 were classified as low, those respondents who have scored between 36 and 59 were classified as medium and those respondents who have scored 60 and above were classified as high.

Table 18 exhibits that out of 600 respondents, 71 sample respondents (11.08%) are having high level awareness with mean score of 69.23, 155 sample respondents (25.08%) are having medium level awareness with means score of 50.73 and 374 sample respondents (62.03%) are having low level awareness with means score of 29.33. The average awareness score of sample respondents is 39.58. Hence, majority of the sample respondents are having low level awareness on payment services and it can be said that the awareness on payment service is poor.

#### **4. Observations and Suggestions**

It is found that

- i. Out of 600 respondents, 198 respondents (33.0%) are having high awareness, 271 respondents (45.17%) are having Medium awareness, and 131 respondents (21.83%) are having Low awareness on e-banking with average awareness score of 141.70.
- ii. Out of 600 sample respondents, the Middle age group sample respondents are having higher awareness (43.2%) than other age groups and the young age group respondents are having medium awareness (59.1%).
- iii. The average awareness score of the male sample respondents (219.1042) is more than that of female respondents (197.2030).
- iv. The customers belonging to Group C (College level) are having high awareness on e-banking than other two groups.
- v. The average awareness score of the sample respondents belonging to professional Group C (222.16) is higher than the average awareness scores of other groups.
- vi. The average awareness score of the sample respondents belonging to Group C (above Rs.2, 50,000) (220.88) is higher than the average awareness scores of other groups.
- vii. The average awareness score of the sample respondents belonging to Group A (Less than 10 times) (219.15) is higher than the average awareness scores of group B (Between 11 and 20 times) (207.74).

To find out whether there is any association between the twelve identified variables such as age, gender, Educational level, occupation, annual income, frequency of visit to the bank and awareness level on e-banking of the sample respondents, the statistical tools like 'chi-square test', 'F-test', and 'Z- test' are applied.

The chi-square test reveals that there is a significance relationship exists between the variables such as age, gender, Educational level, occupation, annual income, frequency of visit to the bank and the awareness level on e-banking. F-test reveals that there exists association between the variables such as such as age, Educational level, occupation, annual income, frequency of visit to the bank and the level of awareness on e-banking.

Z-test reveals that there is an association between the variables such as gender and the level of awareness on e-banking.

Z-test also reveals that there is no association between the variable marital status and the level of awareness on e-banking.

Hence it is suggested that:

- i. Head office of every bank whether it is a public sector bank or private sector bank should earmark a special fund for some years for creating awareness and that amount should be wholly spent for that purpose till they get the desired result.
- ii. Mobile vehicles may be designed in such a way that all the e-banking products and services can be demonstrated under one roof.
- iii. Demonstrations and explanations should be done in front of the temples,

railway stations, bus stands and schools where crowd is always there about the various types of e-banking products and services.

- iv. In rural areas, demonstration may be done in the evening times most likely between 6.00 p.m and 9.00 p.m so as to enable the agriculturists, labourers and others to know about the e-banking products and services.
- v. Every bank should adopt one nearby educational institution and should conduct awareness programmes at regular intervals.
- vi. The mode, nature, type and extent of awareness programmes should be so designed to catch the attention of the students to make them aware of complete information about e-banking products and services and its operations. Moreover, the awareness programmes should only be designed by the bank experts. This may be done through LCD (Liquid Crystal Display) presentations, explanations and demonstrations regarding the benefits of e-banking, different types of e-banking products and services, various types of services provided by a particular product and the methods of operating the e-channels.
- vii. As the youngsters are fond of Television, Internet and Mobile Phones, banks may use these channels to create awareness about e-banking products and services.
- viii. Every bank should create a separate cell called 'E-Banking Awareness Cell' with e-banking experts. Its main functions should be to conduct demonstration and provide information at the counters regarding various types of payment services (such as NEFT,

RTGS and ECS) that are available in the bank, their uses and the methods of operation.

ix. Mobile banking is to be popularized as almost 80 crores of people in India are using mobile phones. The e-banking experts who are working in the 'E-banking Awareness Cell' should properly educate and help the customers in this regard and they should also be so polite in doing these things in order to earn the goodwill among the customers.

x. To make e-banking more versatile, especially in rural and semi-urban areas e-banking products and services should be free in the initial stages. To make banking services more viable and popular in rural areas the need is to establish maximum branches in rural areas. Not only this, there should be necessary provisions in the branches, to provide full accommodation to the people freely and without any trouble.

xi. There should be a campaign regarding e-banking free services, even going from door to door, in initial stages. Bank employees should not only provide free services but also should educate the rural masses about banking. This would help a lot to create awareness among the people about e-banking.

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