

# Customers' Perception and Attitude about Electronic Banking: Special Study of Banks in Maharashtra State (INDIA)

## INTRODUCTION

The Economic development of any country depends upon the existence of well organized financial system. It is the financial system which supplies the necessary financial inputs for the production of goods and services which in turn prompt the well being and standard of living of the people of a country. The 'financial system' is a broader term which brings under its hold the financial markets and the financial institutions which support the system. The financial system provides the 'Intermediation' between savers and investors and promotes faster economic development. "The term financial 'intermediary' includes all the kinds of organizations which intermediate and facilitate financial transition of both individual and corporate customer. Thus, it refers to all kinds of financial institutions in financial market"<sup>(1)</sup>.

Therefore, 'BANK' is one of the 'intermediary' in the financial sector. "BANK is the institution which attracts deposits from public and makes loans and advances on the basis of these deposits to the public. Thus banks are the institutions dealing in money."<sup>(2)</sup> With the growth and development of various economics the functions of banks have enlarged in modern time. The activities of banks are increasing by leaps and bounds.

The Banking in India can be by and large grouped into three era: Pre-Nationalisation era, Post-Nationalisation era, Post-Liberalisation era. Each era has significantly changed the face of Indian economy, banking and banking practice. During "the Pre-nationalisation era till 1969 banks were focused more on basic principles of banking- accepting deposits for the purpose of lending"<sup>(3)</sup>. Customers approached bankers for giving deposits which bankers accepted for the purpose of lending and making profits. During

### Abstract

With the growth and development of economic activities the functions of banks have enlarged in modern time. The Banking in India can be by and large grouped into three eras, Pre-Nationalization era, Post-Nationalization era and Post-Liberalization era. Each era has significantly changed the face of Indian economy, banking and banking practices. In India, major banks were either offering e-banking services at various levels or planned to do so in the near future. Maharashtra is a financially advanced state in the country and banking is the largest financial sector. The state comprises many big cities: Mumbai, Pune, Nagpur, Aurangabad etc. There are a number of banks spread all over the state. All the banks are providing 24\*7 banking (e-banking) services to their customers. The networks of these banks are connected all over the India and outside. Therefore, the objective of present work is an attempt to find out the extent of application of e-banking in Indian banks and to evaluate the perception and attitudes of common customers' towards electronic banking. This study is based on the survey and the data which are collected through the issue of questionnaire to the bank's customers.

**Keywords:** E-banking, Digital Cash, D-mate, ATM, Digital Signature, Core banking.

the post-nationalisation era till 1994, several banks were brought under government control and directed to give a major thrust to rural lending and poverty alleviation programs. Employment generation was the focus. Target approach was adopted. Banks were re-orienting themselves to open and manage branches in the remotest corners of the country to meet the region-wise, sector-wise lending targets. Thousands of employees were recruited. Lakhs of borrowers benefited. Crores of rupees were mobilized as deposits and were also lent with focus on increasing agricultural product, developing small scale sector, self employment programs and so on. "Deposits were mobilized (re: accepted) for the purpose of lending for economic growth and prosperity of the country (re: profitability)"<sup>(4)</sup>. The Post-liberalisation era started in the late 1990s and continuing even now, fuelled by emergence of IT sector as major export earner for the country. The Government thrust to capital adequacy, profitability, privatization, telecommunication infrastructure triggered both the private sector as well as public sector banks to embrace technology for offering state of the art banking services at reduce cost and increasing availability and customer convenience. "Core banking has been redefined as on line banking which address many of the problems of post nationalisation era faced by the banks"<sup>(5)</sup>.

#### **Changing era:**

"The Internet is one of the major distribution channel of banking products and services. Due to advances in Internet security and the relevant protocols, banks play their role as financial intermediators of commercial transactions. Banks have chosen a route of establishing a direct web presence as well as owner of financial services. There is a need for clear and concise Internet commerce strategy. Electronic finance offers considerable opportunities for banks to expand their base and rationalise the business. The E-Banking strategies that banks implement the derive maximum value through the online channel. E-banking transactions and how Internet has transformed banking transitions and use of Internet as an information delivery tool to improve relationship with customers. Moreover, the Internet poses a range of risk and threats. Though Internet has enabled banks to deliver desired products/service, the challenge is to enhance customer touch, ease of operation of their web sites and other initiatives"<sup>(6)</sup>. India would emerge as the preferred investment

destination by attracting global funds into a market that offers the best of returns with efficiencies. The need of transition from a product centric to customer centric approach understands the customer base. The relationship a customer has with the banks and to realize the bank and financial services strategy. "In India, approximately 1% of high and middle-income group banking customers conducted banking on the internet in 2000 compared to 5 to 6 percent in Singapore and South Korea. In 2001 major banks were either offering e-banking services at various levels or planned to do so in the near future. In some of the private banks including ICICI bank, HDFC bank, IDBI bank, CITI bank, Global Trust Bank, AXIS (UTI) Bank etc." E-banking is becoming popular.

#### **INFLUENCE OF ELECTRONIC BANKING IN MAHARASHTRA**

Maharashtra is economically developed state of India where the banking system has played a vital role in to growth & development. The state is comprising many big cities : Mumbai, Pune, Nagpur, Aurangabad etc. There are number of banks spread all over the state. In the state there are Nationalised Banks, Private Commercial Banks, and Cooperative Banks, due to globalization many foreign banks are also providing their services in the state. SBI, SBH and Bank of Maharashtra are the prominent Nationalized banks in the state. There are many private commercial banks like ICICI, HDFC, IDBI, YES bank etc., providing the banking services to their customers and also provide the funds for Industrial development and housing development of the state. The cooperative banks also help in economic development of the state. Today, all the Nationalised banks and Private commercial banks are providing 24X7 banking (e-banking) services to their customers. The networks of these banks are connected all over India or with the globe. The cooperative banks of the state are also entering in the field of e-banking.

The terms '**E-BANKING**' can be define as "the use of electronic delivery channels for banking products and services, and is a subset of electronic finance. The most important electronic delivery channels are the Internet, Wireless Communication Networks, ATMs, and telephone banking. Internet banking is a subset of e-banking that is primarily carried out by means of the Internet"<sup>(8)</sup> The another definition of e-

banking is: "Electronic banking refers to e-banking, where in the entire operation are done by the customer through his computer system by using a code. Customer need not necessarily required to visit banks to carry out their banking transactions and can meet their requirement through means of electronic banking facility"<sup>(9)</sup>

At Presents the Electronic services all bank are provided are: ATM cum Debit cards, Credit cards, Electronic Fund Transfer (EFT), Phone Banking, Mobile banking, Electronic Data Interchange (EDI), Internet banking – online banking, D-mate accounts, E-cheques

**Hypothesis:**

1. E-banking is convenient & suitable irrespective of occupation.
2. There is no significant relationship between marital status and customers' perception about the use of ATM cum Debit card for purchasing in the market.
3. Qualification is independent from usability of ATM cum Debit Card for bills payment.

**Scope and Limitations:**

The scope of the study is, to get the information about the empirical and theoretical work in the field of E-banking of the banking organization. As it was difficult to cover the entire national scenario, hence the following limitations govern the study:

1. The study shall be restricted to the banks operating in Maharashtra state.
2. The sample shall be restricted to 22% of the banks from private & public.
3. The data collection shall be restricted to published data available.
4. The first hand opinion of the employees and customers may also be the part of the study.

**Objectives of the study:**

1. To analysis the e-banking and its implementation in under developing cities.
2. To evaluate the empirical and theoretical work in the field of e-banking.
3. To analyse the impact of e-banking in Maharashtra state.
4. To analyse the bank, customer's perception and attitudes about e-banking.
5. To suggests measures for the Indian banking industry with reference to Maharastra to adopt the best practices for inclusive banking.

**Methodology of study:**

1. **Universe of study:** The present study is

based on the analysis of the e-banking in Indian banks and the universe of the present study is restricted to Maharashtra state. Sample size of the bank is 22% of the banks from total population are selected from both public and private sector for the study purpose.

2. **Sampling:** In this study, "Random sampling" method is used.
3. **Data collection technique:**
  - a) **Primary Data:** This study is based on the survey and the data which is collected through the issue of questionnaire to the bank's customers.
  - b) **Secondary Data:** The secondary sources of data are from, Banks Annual Reports, Broachers of e-banking products and services, Reports of RBI on Internet Banking, various sites of banks on internet, Various books, articles, research papers published in leading research journals and magazines etc.
4. **Statistic tools:**
  - a) Percentage Analysis
  - b) Cross Tabulation
  - c) Chi- Square

**Analysis and Interpretation**

This study is based on the survey and the data which is collected through the issue of questionnaire to the bank's customers. Personal interaction and discussion with the customer helped to understand their perception and attitudes about E-banking products and services. There are totally 45 banks and its number of branches all over in India. These banks and its branches are spread over in the Maharashtra also. Of these, 16 nationalized banks, 17 private banks, 05 foreign banks and 07 Kerala based bank are in the country. 22% of the banks are selected form both public and private sector for the study purpose. These banks are:

**Table-1**

1. ICICI BANK	6. STATE BANK OF INDIA
2. HDFC BANK	7. STATE BANK OF HYDERABAD
3. YES BANK	8. BANK OF MAHARASHTRA
4. DCB BANK	9. BANK OF BARODA
5. AXIS BANK	10. IDBI

**(Source: Authors own Complied)**

The Area of study is Maharashtra state, in that Aurangabad, Jalna and its nearest Taluca's and Puna, and Mumbai also. The Sample respondents were selected on the basis of "Convenient Random Sampling Techniques". For understanding the perception and attitude of Bank's customers towards e-banking, there are 27 questions related to various aspects of e-banking, which has covered in this study.

The basic aim of this study is to find out the customers perception and attitude towards innovative banking or e-banking. For the purpose of analysis, the findings of the survey are classified into two groups:-

1. Finding on the basis of general parameters
2. Cross section Analysis.
3. Testing hypothesis

#### General Parameter Analysis:

**Table-2: The Detail Regarding General Profile of the Banks Customers**

Factors	Classification	No. of Respondents	Percentage
Occupation	Services	148	49.3
	Business	74	24.7
	Professional	25	8.3
	Students	51	17.0
	Housewives	2	0.7
Gender	Female	72	24.0
	Male	228	76.0
Marital Status	Married	168	56.0
	Single	132	44.0
Age	18 to 20 yrs	24	8.0
	21 to 30 yrs	165	55.0
	31 to 40 yrs	75	25.0
	41 to 50 yrs	30	10.0
	51 to 60 yrs	6	2.0
Qualification	HSCG	21	7.0
	raduate	157	52.3
	Post-Graduate	122	40.7
Annual Income	1,00,000 & above	201	67.0
	Below 1,00,000	50	16.7
	No earning (students & house wives)	49	16.3

(Source: Compiled of the Basis of Primary Data)

#### Occupational-wise analysis:

Of the total respondents, it is found that approximately 50% are from service category. Business category occupies only 25%. Professionals are 8% of the total and students are 17% of the total. Housewife category forms the negligible part of the total.

From the above it is observed that business class, which is expected to use the e-banking services to a large extent, is not doing so. Moreover, more and more number of housewives should be encouraged to the use the e-banking services.

This may help in diverting the idle cash to the productive uses.

#### Gender-wise analysis:

On the basis of gender category, it is found that the male respondents are 76% and very few respondents are from female category i.e. 24%.

From the above it can be analysed that existence of a large number of male respondents is as per the expectations, because female respondents also include the housewives who are more interested in investing in non-productive investments.

### Marital Status wise analysis:

It is revealed from table-2, that there are 44% of single respondents and 56% of respondents are married.

From the above it is analysed that majority of respondents are married and 44% respondents are from single category, this indicates the growing habits of savings among the single persons.

### Age-wise Analysis:

Of the total respondents, age group 18-20 are 8%, 21-30 group 55%, 31-40 group 25%, 41-50 group 10%, 51-60 group 2.33% and 61 & above there are no respondent.

The age group 21-30 and 31-40 contains service people, businessman and professionals. Therefore it is expected that maximum number of respondents are in these group. As the age group 18-20 consists of a maximum number of students, who are not having their savings. But in the age group 41-50 and 51-60 which also occupies service, business and professionals, the banking habits are at the decline. In the 61 & above no respondents are because of their old age and unable to perform the banking transactions.

### Cross Factor Analysis:

**Table-3: The Detail Regarding Customers Perception on E-banking**

Sr. no.	Queries	Yes	%	No	%
1	Acknowledge the awareness of e-banking	300	100	00	00
2	Customer's bank provide e-banking services	298	99.3	2	0.7
3	E-banking is more convenient & suitable	291	97.0	9	3.0
4	Indian customer feel shy and hesitated	162	54.0	138	46.0
5	Customers bank provide ATM cum Debit card services	294	98	6	2.0
6	Usages of ATM cum Debit card	287	95.7	13	4.3
7	Use of ATM is easier, authenticated and safe	276	92.0	24	8.0
8	Satisfaction with bank charging amount on ATM access	216	72.0	84	28.0
9	Use of ATM cum Debit card for bills payments	169	56.3	131	43.7
10	Use of ATM cum Debit for purchasing	207	69.0	93	31.0
11	ATM cum Debit card is safer as compare to carry the cash	276	92.0	24	8.0
12	Satisfaction with ATM machines and its services.	241	80.3	59	19.7
13	Customers bank provide Credit card services	266	88.7	34	11.3
14	Usages of Credit card	133	44.3	167	55.7
15	Credit card charges are heavier	228	76.0	72	24.0
16	Debit card is better than credit card	236	78.7	64	21.3
17	Credit transaction is very safe and secure	237	79.0	63	21.0
18	Encounter the processing error while transacting with card	144	48	156	52
19	Customers bank provide internet banking services	282	94	18	6

### Qualification wise analysis:

As an analysis it is found that HSC qualified respondents are 7%, Graduates are approximately 53% and post Graduates are approximately 41%.

Qualification wise analysis of the data reveals that graduate & postgraduates constitute an approximately 94% of the total. Other categories account for just 6% of total. This indicates the lack of interest and awareness on the part of less educated and uneducated masses towards the usage of banking services.

### Income wise analysis:

Of the total respondents, it is found that 1,00,000 and above income are 67%, Below 1,00,00 income respondents are approximately 17% and no earning respondents (i.e. students 7% and house wives are approximately 16%).

From the above study reveals that only the persons having more than one lakh rupees annual income are using the banking services. The people with the lower income perhaps have no savings. Hence they don't need any banking services.

20	Customers bank provide online transactions	272	90.7	28	9.3
21	Online banking can save the time of customer	285	95.0	15	5.0
22	Online banking transitions are financially secured	233	77.7	67	22.3
23	Learning to use a net banking is very easier for customer/user	256	85.3	43	14.3
24	Customers bank provide mobile banking services	246	82	54	18
25	Mobile banking services are more useful	247	82.3	53	17.7
26	Customers bank provided EFT services	259	86.3	41	13.7
27	EFT services is more secure and Time saving	257	85.7	43	14.3

**(Source: Authors own Complied on the basis of Primary Data)**

As an analysis of the (Table-3) reveals that all the respondents have acknowledged their awareness of the e-banking concepts (ie.100%). But the response to the query whether their banks are providing it, we observed that 99.33% respondents have given positive response and 0.66 have given the negative response. Almost 97% of the respondents agree that the electronic services are more convenient and suitable in present life. On the other hand 3% respondents disagreed. It is also observed that 54% of respondents do agree to the fact that Indian customer feels shy, hesitant and keep away from using electronic banking transactions and 46% of the respondents disagreed with this statement and they think that Indian people are much comfortable in accessing the e-banking. It is also found that 98% respondent's banks are providing ATM cum Debit card services, in which 95.66% respondents accessing these services. But 02% respondents are not using them. It is also found that 4.33% respondents are not using ATM cum Debit card services. It is revealed that 92% of the respondents think that using an ATM is easier, authenticated and safe for conducting banking transaction and 8% of the respondents deny this statement. It is also found that 72% of the respondents are satisfied with the banking charges of ATM services and 28% feel that ATM using charges are high and they are not satisfied. A further analysis shows that 56.33% respondents used their debit cards for bills payments and 43.66% respondents are not using it for bill payment purpose. It is analysed that maximum number of respondent i.e. 69% prefer to using their ATM cum Debit card for purchasing in market but 31% have shown their dislike. It is revealed that 92% of the respondents think that Debit card is safer as compared to carry the cash at the time of shopping and traveling and 8% respondents think otherwise. It is found that

80.35% of the respondents are satisfied with ATM machines and its services but 19.66% respondent accessing ATM are not satisfied. As per the observation 88.66% respondent's banks are providing credit cards in which 44.33% respondents are using it. On the other hand, 13% of respondent stated that their banks are not providing credit cards and 55.66% respondents are those who are not using it. It is analyzed that 76% feel that credit card charges are heavier and 24% deny this. As per respondents' feedback, it is found that 78.66% respondent thinks that use of Debit card is better than Credit card and 21.33% negated this statement. It is also found that 79% thinks that card transaction is safe and secure and 21% respondents has shown negative attitude. It is revealed that 48% respondent encountered processing error while transacting with card and 52% has shown positive attitude. It is also found that 94% respondent's banks provides Internet banking and 91% respondent's banks provides on line banking and 6% stated that their bank do not provide internet and 9% respondents also stated that their bank is not online e- financially secured. It is found that 85.33% respondent think that learning to use a net banking/ online banking is easier but 14.66% disagree with this statement. As per the feedback of respondents that 82% are aware that their bank provides mobile banking services and 18% respondents said no. It is further observed that 82.33% respondents thinks that mobile banking services are more useful but 17.66% do not agree. It is found that 86.33% respondent's bank provides EFT and 85.66% respondents feel that it is more secure and time saving but 13.66% respondents deny that their banks provides EFT services and 14.33% said that it is not safe and secure.

**Testing Hypothesis**

The third part of the study is based on the application of statistic tool i.e. Chi-square test. Here, we have used the Test of independence for

testing predetermined hypothesis. The  $\chi^2$  test of independence is used to analyse the frequencies of two qualitative variables or attributes with multiple categories to determine whether the two variables are independent. The chi-square test

of independence can be used to analyse any level of measurement, but it is particularly useful in analyzing nominal data.

1. Is e-banking more convenient & suitable as compared with traditional banking system?

**Table-4: Observed Frequency**

OCCUPATION	YES	NO	TOTAL
SERVICE	143	5	148
BUSINESS	72	2	74
PROFESSIONALS	24	1	25
STUDENTS	50	1	51
HOUSEWIFES	2	0	2
TOTAL	291	9	300

( Source: Authors own Complied on the basis of Primary Data)

**Null Hypothesis (Ho):**

Let us take the null hypothesis that e-banking is convenient & suitable irrespective of occupation.

**Expected Frequency:**

$$\text{Expected Frequency (E) for each cell} = \frac{\text{Row total} * \text{column total}}{\text{Grand total}}$$

**Table-5: The contingency Table of Expected Frequencies**

OCCUPATION	CUSTOMER'S PERCEPTION		Total
	YES	NO	
SERVICE	143.56	4.44	148
BUSINESS	71.7	2.22	74
PROFESSIONAL	24.2	0.75	25
STUDENTS	549.4	1.53	51
HOUSEWIFE	71.94	0.06	2
<b>Total</b>	291	9	300

(Source: Authors own Complied on the basis of Primary Data)

**Table-6: Arranging the Observed and Expected Frequencies in the Following Table to Calculate the Value of  $\chi^2$  - Test Statistic**

Observed(O)	Expected(E)	(O-E)	(O-E) <sup>2</sup> / E
143	143.56	-0.56	0.002
5	4.44	-0.56	0.071
72	71.78	0.22	0.001
2	2.22	-0.22	0.022
24	24.25	-0.25	0.003
1	0.75	0.25	0.083
50	49.47	0.53	0.006
1	1.53	-0.53	0.184
2	1.94	0.06	0.002
0	0.06	-0.06	0.06

$$\text{Calculated Value} = 0.434$$

(Source: Authors own Complied on the basis of Primary Data)

Therefore,

$$\sum \frac{(O_{ii} - E_{ii})^2}{E} = 0.434$$

Degree of freedom:

The contingency table is of size 5x2, the degree of freedom would be:

$$df = (\text{no. of rows}-1) (\text{no. of column}-1)$$

$$df = (5-1) (2-1)$$

$$df = 4 \times 1 = 4$$

**Level of Significance:**  $\alpha = 5\% = 9.49$

IF  $\chi^2_{\text{cal}} < \chi^2_{\text{table}}$   
 $0.434 < 9.49$

Therefore,  $H_0$  is accepted

The table value of chi-square for 4 degree of freedom at 5% level of significance is 9.49. Since the calculated value is smaller than the table value of chi-square. We can accept the null hypothesis. *Therefore, the conclusion is that, e-banking is more convenient and suitable as compared with the traditional banking, irrespective of the occupation of the respondents. In other words the irrespective of the profession of respondents, e-banking is convenient and suitable.*

2. Do you use your ATM cum Debit card for purchasing in the market?

**Table-6: Observed Frequency**

Marital status	YES	TOTAL
NO		
MARRIED	114	168
54		
SINGLE	93	132
39		
TOTAL	207	300
93		

(Source: Authors own Complied on the basis of Primary Data)

**Table-7: Observed Frequency**

Qualification	YES	NO	TOTAL
HSC	14	7	21
GRADUATE	90	67	157
POST GRADUATE	65	57	122
Total	169	131	300

(Source: Authors own Complied on the basis of Primary Data)

**Null Hypothesis ( $H_0$ ):**

Let us assume the null hypothesis as there is no significant relationship between marital status and customers' perception about the use of ATM cum Debit card for purchasing in the market.

**Expected Frequency:**

Row total \* column total

Expected Frequency (E) for each cell

$$= \frac{\text{Row total} * \text{column total}}{\text{GrandTotal}}$$

$$\chi^2 = \sum \frac{(O_{ii} - E_{ii})^2}{E} = 1.43$$

Calculated Values are = 0.231

Degree of freedom = 1

Level of Significance:  $\alpha = 5\% = 3.84$

IF  $\chi^2_{\text{ca}} < \chi^2_{\text{table}}$

$$0.231 < 3.84$$

Therefore,  $H_0$  is accepted

The Critical Value of  $\chi^2 = 3.84$  at  $\alpha = 5\%$  and  $df = 1$ . Since calculated value of  $\chi^2 = 0.231$  is less than its critical value, the null hypothesis ( $H_0$ ) is accepted. *The use of ATM cum Debit card for purchasing in the market is studied on the bases of marital status of respondents. It is a general perception that single are much more inclined towards spending as they have less responsibilities as compare to married. But the research reveals that such perception does not hold good at present times. The hypothesis is accepted, revealing that the customers' perception about the use of ATM cum Debit card for purchasing is no significant relationship with customers' marital status.*

3. Do you use your ATM cum Debit card for bills payment? (like electricity bills, Insurance premium, tax payment, phone charges)



### Null Hypothesis (Ho):

Let us assume that qualification is independent from usability of ATM cum Debit Card for bills payment.

### Expected Frequency:

Expected Frequency (E) for each cell

$$= \frac{\text{Row total} * \text{column total}}{\text{GrandTotal}}$$

Therefore,

$$\chi^2 = \sum \frac{(O_{ii} - E_{ii})^2}{E} = 1.43$$

Calculated Value is 1.43

Degree of freedom=2

Level of Significance:  $\alpha = 5\% = 5.99$

IF  $\chi^2_{\text{cal}} < \chi^2_{\text{table}}$

$1.43 < 5.99$

Therefore, Ho is accepted

The table value of Chi-Square for 2 degree of freedom at 5% level of significance is 5.99. Since the calculated value is smaller than the table value of chi-square and null hypothesis is accepted. It is concluded that there is no influence of usability of ATM cum Debit Card for bills payment on qualification or other words we can say that customers qualification is independent from usability of ATM cum Debit Card for bills payment. Either HSC, or Graduated or Post Graduate customer can use it.

### CONCLUSION

On the basis of the analysis, it can be concluded usage of banking services is still not wide open. In a country like India, where majority of population is less educated and uneducated, the utility of banking services is not properly realized.

It is found that only educated, well to do persons, and male forms the majority of the users. Housewives, small businessmen and persons from unorganized sectors still feel shy and keep themselves away from the banking services.

Even though a majority of Indian and Foreign banks have introduced the advance e-banking facilities, but it is observed that a large numbers of bank users do not proper to use these services. This may be due to the ignorance of the system of e-banking or because of the distrust in the computer systems.

From the above, it can be concluded that there is an urgent need of spreading awareness among the common people. The small business men, the farmers, the housewives, the person's working in unorganized sector be convinced to use banking and e-banking services. They should feel that their money is more safe and secure with the banks. The lack of faith in the banking system is evident from the present study.

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