

## **A Study of Consumer Behavior towards E- Banking Services in Chennai City**

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**Abstract:** *Internet technology has rapidly changed the way of banking. There is a big requirement to spread awareness about the technologies for successful implementation of new techniques in banking. Currently, although all banks are offering electronic banking services but there is a need to study about awareness and adoption level of customers regarding e-banking. This study is conducted to know the awareness and adoption level of bank customers of Chennai city. The information is collected from 251 bank customers of Chennai city through online questionnaire. Analysis of data is done through MS EXCEL, by using descriptive analysis, multiple response analysis and cross tabulation.*

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### **I. INTRODUCTION : e-Banking**

Electronic banking has reduced the physical transfer of paper money and coinage from one place to another or even from one person to another. ATM, Mobile Banking, Debit and Credit cards, Electronic Fund Transfer make banking transactions very easy to customers. They can perform transactions without bounding time limit, without visiting bank offices or branches, without use of physical money. By using mobile banking, money transfer, business transactions, payments and receipts can be easily done. Internet banking is a cost effective delivery channel for banking sector. All financial transactions are encrypted and use multi-layer security.

Banking Industry has grown tremendously due to technological innovation and advancement. All banking transactions are operated by electronic means or by using various devices. Customers can access round-the-clock for banking operations. Customers are moving towards e-banking but, they are concerned about privacy and security of banking transactions. Currently although all banks are offering electronic banking services, there is a need for study about awareness level of customers.

### **II. REVIEW OF LITERATURE**

Nayanajith et al., 2020, User adoption of telebanking, a theory of wide spread innovation was used to explain the reasons of adoption of new ideas and technology. There was difference between SN groups in terms of intention and action after analysis. It was also found, there was a positive relation between all three groups and subjective norms had a significant effect on adoption of telebanking.

Singh et al, 2020, explained a virtual model for to search the most significant factor affecting the intention, satisfaction and recommendation for use of mobile wallet, with sample size of 206, the study showed that the effect of innovation, stress and social impact on user's satisfaction and use of mobile wallet. After study, it revealed that, ease of use, usefulness, perceived risk, and attitude were affecting the intention of user about using mobile wallet.

Suma Yally, 2018, studied the effect of social and income status of customers on online payment, with sample size of 200, collected using convenience sampling. Data was analyzed using percentage analysis and Chi Square Test. The result showed that there was a pragmatic relation between age, online payment and education, which indicated, the use of technology improved the performance of banking sector.

### **OBJECTIVES OF THE STUDY – To Find**

- A. The awareness level of customers towards e-banking modes and services in Chennai city.
- B. The usage level and frequency of use of e-banking modes by bank customers in Chennai city.
- C. The relation between awareness level and usage rate of various e-banking modes.

### **III. RESEARCH METHODOLOGY**

Based on primary and secondary type of data. Primary data was collected through online questionnaire. Customers of different banks in Chennai city have been taken as sample. Sample size is 251. Questionnaires were distributed to different customers in online mode. Whole primary data is collected online. Secondary data is collected through various research papers, internet articles, books and web pages. Analysis was done with the help of MS EXCEL. Various tools of analysis as frequency & percentage, bar charts, multiple response analysis

and cross tabulation were used to find the results.

**STATISTICAL DATA ANALYSIS**

To find the awareness level and adoption rate of e-banking by bank customers, some queries were given and responses were recorded and analyzed with the help of MS Excel.

A. To use technology in Banking, What is the level of the knowledge?

3 options were given (1 = average knowledge, 2 = Advance computer knowledge, 3 = expert)

Table 1-Level of knowledge of technology

Level of knowledge in technology		
Level of knowledge	Frequency	Percent
Average knowledge	165	65.7
Advance computer knowledge	62	24.7
Expert	24	9.6
<b>Total</b>	<b>251</b>	<b>100.0</b>

Explanation:

Referring table-1, 165 (65.7%) have average knowledge of technology in banking transactions, 62 (24.7%) have advanced knowledge of technology in banking transactions and only 24 (9.6%) are expert in technology. So, most of the respondents have average computer knowledge.

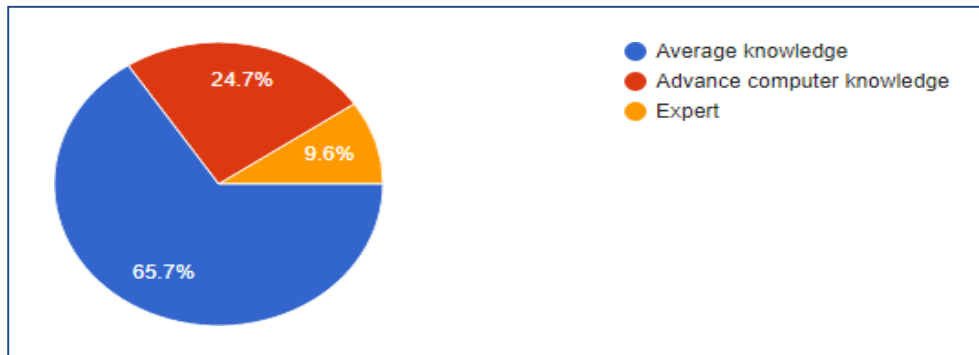


Figure 1-Level of knowledge to use technology in banking

B. Banking apps that you are aware of?

6 options were given (1 = Google pay, 2 = Paytm, 3 = Bhim UPI, 4 = Phone pay, 5 = Amazon banking app, 6 = True caller banking app) and they were asked to choose the option that was applicable, and they can choose more than one option as they were experienced. So, it was a multiple response question and data was analyzed by using multiple response analysis option in MS EXCEL.

Table 2-Awareness of different e-banking apps

Awareness about e-banking apps			
Apps of e-banking	Responses		Percent ofCases
	N	Percent	
Google Pay	152	21.0%	60.8%
Paytm	204	28.2%	81.6%
Bhim UPI	134	18.5%	53.6%
Phone pay	147	20.3%	58.8%
Amazon banking app	71	9.8%	28.4%
True caller banking app	16	2.2%	6.4%
<b>Total</b>	<b>724</b>	<b>100.0%</b>	<b>288.0%</b>

Explanation:

The frequency table-2 describes that out of total 724 ‘YES’ responses, 152 (21%) reported for knowledge of Google pay, 204(28.2%) reported for knowledge of Paytm, 134 (18.5%) reported for knowledge of Bhim UPI, 147 (20.3%) reported for knowledge of Phone pay, 71 (9.8%) reported for knowledge of Amazon banking app and 16 (2.2%) reported for knowledge of True caller banking app.

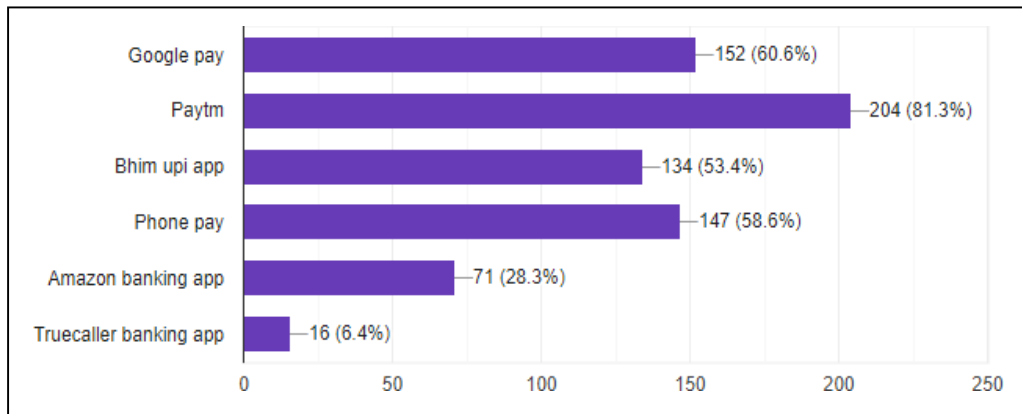


Figure2- Awareness of different banking apps

Referring, fig.2, Paytm is most prominent banking app 205 (81.7%) respondents out of total 251 respondents. Besides it Google pay, Bhim UPI and Phone pay are also favored by more than 50% of respondents.

*C. Apps that are being used by you?*

6 options was given (1 = Google pay, 2 = Paytm, 3 = Bhim UPI, 4 = Phone pay, 5 = Amazon banking app, 6 = True caller banking app)

They can choose more than one option, as it was a multiple response question, data was analyzed by using multiple response analysis option in MS EXCEL

Table 3-Usage of different e-banking apps

Usage of different e-banking apps			
Modes of e-banking	Responses		Percent of Cases
	N	Percent	
<b>Google Pay</b>	120	22.0%	47.8%
<b>Paytm</b>	201	36.9%	80.1%
<b>Bhim UPI</b>	90	16.5%	35.9%
<b>Phone pay</b>	98	18.0%	39.0%
<b>Amazon banking app</b>	31	5.7%	12.4%
<b>True caller banking app</b>	5	.9%	2.0%
<b>Total</b>	545	100.0%	217.1%

Explanation:

Referring table-3, out of total 545 ‘YES’ responses, 120 (22%) reported for Google pay, 201 (36.9%) reported for Paytm, 90 (16.5%) reported for Bhim UPI, 98 (18.0%) reported for Phone pay, 31 (5.7%) reported for Amazon banking app and only 5 (0.9%) reported for True caller banking app.

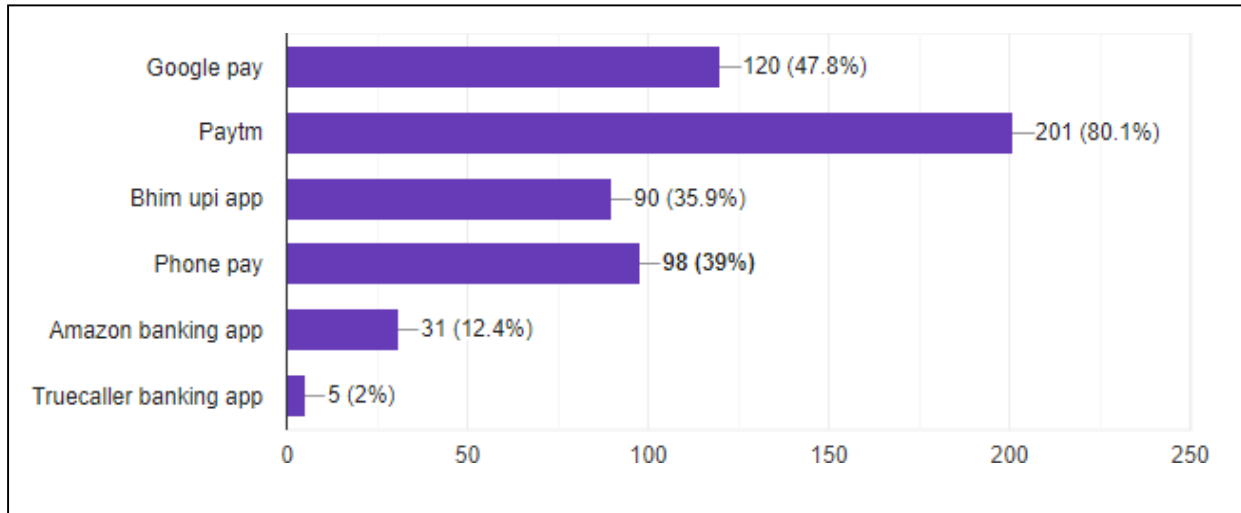


Figure 3-Use of different e-banking apps

Referring fig.3, Paytm is most popular banking app that is used by 201 (80.1%) respondents out of total 251 respondents. Besides it Google pay, Bhim UPI and Phone pay are also used by about 40% of respondents.

*D. Which of following technologies are used by you?*

6 options were given (1 = Use of IB at home for doing transactions, 2 = Use of ATM / Debit card, 3 = Use of credit card, 4 = Use of online banking, 5 = Use of E-payments, 6 = Use of EFT)

They were asked to choose the option, and they can choose more than one option as it was a multiple response question and the data was analyzed by using multiple response analysis in MS EXCEL.

Table 4- use of different e-banking modes

Various technologies used by banking customers			
E-banking modes	Responses		Percent ofCases
	N	Percent	
Use of IB at home for doing transactions	119	17.4%	47.4%
Use of ATM / Debit card	187	27.3%	74.5%
Use of credit card	85	12.4%	33.9%
Use of online banking	132	19.3%	52.6%
Use of E-payments	94	13.7%	37.5%
Use of EFT	68	9.9%	27.1%
<b>Total</b>	<b>685</b>	<b>100.0%</b>	<b>272.9%</b>

Explanation:

Referring frequency table-4, out of total 685 ‘YES’ responses, 119 (17.4%) reported use of IB at home for doing transactions, 187 (27.3%) reported use of Use of ATM / Debit card, 85 (12.4%) reported use of credit card, 132 (19.3%)reporteduseofonlinebanking, 94 (13.7%)reporteduseofE-paymentsand 68(9.9%)reported useofEFT.

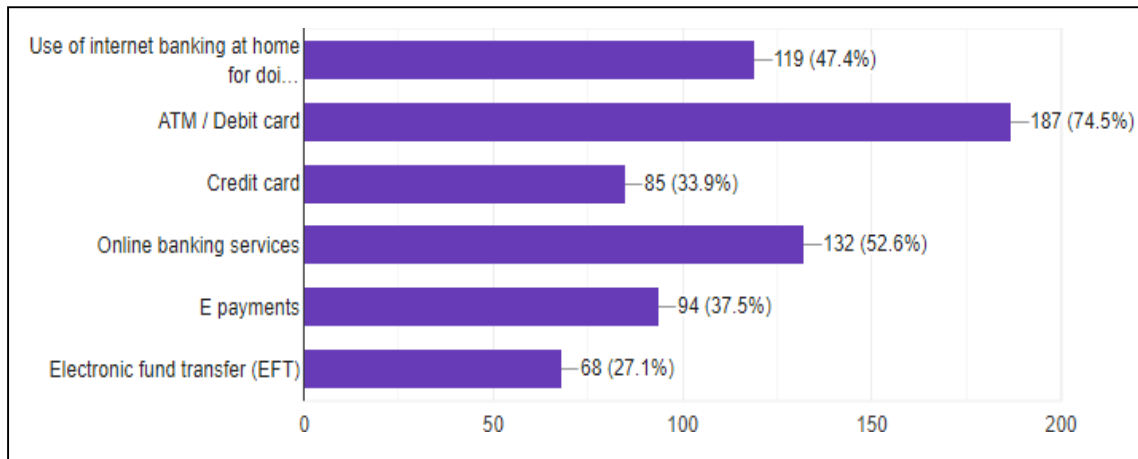


Figure4-Variou technologies used by bank customers

Referring fig.4, Out of total 251 responses, ATM / Debit card accounts for 187 (74.5%) respondents. So, it can be said that ATM / Debit card is most popular e-banking mode that is followed by online banking services then use of internet banking at home. About 35% respondents are using credit card & e-payments and EFT is less favored option. The results support the study(Harikanth,2020).

A. How frequently do you use the following banking services per month?

Respondents were asked to tell about the frequency of use for different banking modes in a month as Branch banking, ATM, Internet banking and Mobile banking. They were given 5 response options for each banking mode (1 = Nil, 2 = 1-3 times, 3 = 3-8 times, 4 = 8-12 times and 5 = more than 12 times).

Table5-Frequency of use of different banking services

	Nil	1-3 Times	3-8 times	8-12 times	More than 12 times	Total
<b>Branch banking</b>	113	118	8	9	3	251
<b>ATM</b>	63	101	47	27	13	251
<b>Internet banking</b>	55	118	30	25	23	251
<b>Mobile banking</b>	49	147	39	8	8	251

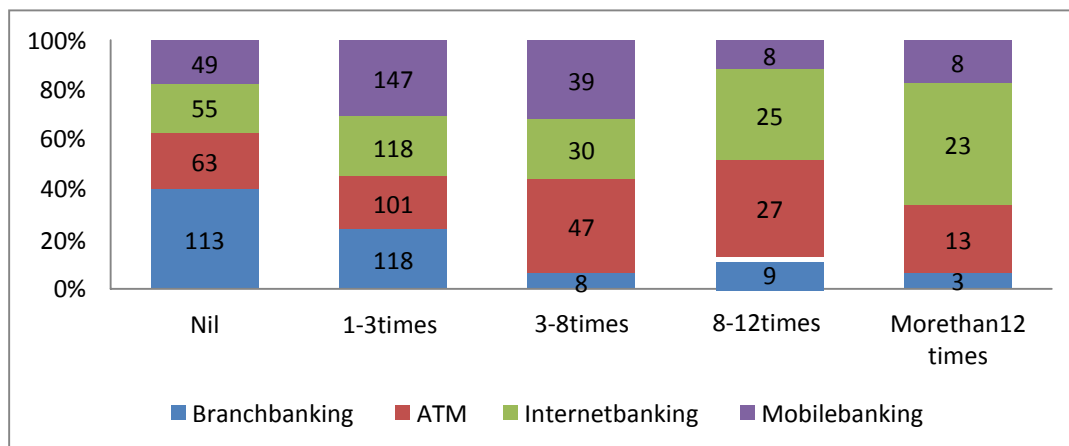


Figure5-Frequency of use of different banking services

Descriptive analysis is used to find the banking mode that is used most frequently. Analysis was done by MS EXCEL and results are shown on basis of descriptive statistics table.

Table6-Descriptive analysis

	N	Min	Max	Mean	Rank
frequency of use of branch banking	251	1	5	1.69	4
frequency of use of ATM	251	1	5	2.12	3
frequency of use of internet banking	251	1	5	2.31	2
frequency of use of mobile banking	251	1	5	2.37	1

Explanation:

The mean is very significant. From 1 to 1.8, it means nil. From 1.81 to 2.60, it means 1-3 times. From 2.61 to 3.40, it means 3-8 times. From 3.41 to 4.20, it means 8-12 times and from 4.21 to 5, it means more than 12 times.

According to statistics table-6 ATM, internet banking and mobile banking are used 1 to 3 times in a month, branch banking is not used frequently. On the basis of mean of frequency of use of different banking modes, 1st rank is given to mobile banking that is followed by internet banking, then ATM and branch banking frequency. The results support the study (Koti, 2016).

#### IV. RELATIONSHIP BETWEEN AWARENESS AND USAGE OF DIFFERENT E-BANKING SERVICES

Awareness and use of different e-banking services are considered as independent variables and relationship between variables are determined by using cross tabulation.

##### A. Relationship - awareness and usage of Google pay

Table 7- Cross tabulation of awareness and usage of Google pay

Awareness and usage of Google pay					
			Use		Total
			Yes	No	
Awareness	Yes	Count	112	40	152
		% within awareness	73.7%	26.3%	100.0%
	No	Count	8	91	99
		% within awareness	8.1%	91.9%	100.0%
Total		Count	120	131	251
		% within awareness	47.8%	52.2%	100.0%

Explanation:

Referring table-7 it accounts for 73.7% respondents who are aware using Google pay besides 91.9% respondents who were not aware, not using this app. So, there is a significant relation between awareness and usage of Google pay.

##### B. Relationship between awareness and usage of Paytm

Table 8-Cross tabulation of awareness & usage of Paytm

Awareness and usage of Paytm					
			Use		Total
			Yes	No	
Awareness	Yes	Count	188	16	204
		% within awareness	92.2%	7.8%	100.0%
	No	Count	13	34	47
		% within awareness	27.7%	72.3%	100.0%
Total		Count	201	50	251
		% within awareness	80.1%	19.9%	100.0%

Explanation:

Referring table-8 it accounts for 92.2% respondents who are aware using Paytm, 72.3% respondents who were not aware not using this app. So, there is a significant relation between awareness and usage of Paytm.

*C. Relationship between awareness and usage of BHIM UPI*

Table 9-Cross tabulation of awareness and usage of BHIM UPI

<b>Awareness and usage of BHIM UPI</b>					
			<b>Use</b>		<b>Total</b>
			<b>Yes</b>	<b>No</b>	
<b>Awareness</b>	<b>Yes</b>	<b>Count</b>	84	50	134
		<b>% within awareness</b>	62.7%	37.3%	100.0%
	<b>No</b>	<b>Count</b>	6	111	117
		<b>% within awareness</b>	5.1%	94.9%	100.0%
<b>Total</b>		<b>Count</b>	90	161	251
		<b>% within awareness</b>	35.9%	64.1%	100.0%

Explanation:

Referring table-9, 62.7% are aware using BHIM UPI, 94.9% were not aware of this app. So, there is a significant relation between awareness and usage of BHIM UPI.

*D. Relationship between awareness and usage of Phone pay*

Table 10-Cross tabulation of awareness and usage of Phone pay

<b>Awareness and usage of Phone pay</b>					
			<b>Use</b>		<b>Total</b>
			<b>Yes</b>	<b>No</b>	
<b>Awareness</b>	<b>Yes</b>	<b>Count</b>	93	54	147
		<b>% within awareness</b>	63.3%	36.7%	100.0%
	<b>No</b>	<b>Count</b>	5	99	104
		<b>% within awareness</b>	4.8%	95.2%	100.0%
<b>Total</b>		<b>Count</b>	98	153	251
		<b>% within awareness</b>	39.0%	61.0%	100.0%

Explanation:

Referring, table-10, 63.3% use Phone pay, 95.2% were not aware, so, there is a significant relation between awareness and usage of Phone pay.

**VI. FINDINGS**

After analyzing the data, following results were obtained:

- A. More than 60% respondents has average computer knowledge. So, they use electronic mode of banking.
- B. Paytm is most prominent banking app, as more than 80% respondents are aware about this app.
- C. Google pay, Phone pay and BHIM UPI were also favored by more than 50% respondents.
- D. Paytm is used by more than 80% respondents while Google pay, Phone pay and BHIM UPI are used by about 40% respondents.
- E. ATM/Debit card is most popular e-banking mode used by more than 70% respondents.
- F. Online banking and internet banking at home are also favored by 50% respondents while EFT is less opted mode.
- G. Branch banking is used less frequently.
- H. ATM, internet banking and mobile banking are used 1-3 times in a month by most of the respondents.
- I. Mobile banking is most frequently used mode that is followed by internet banking.
- J. There is a positive and significant relation between awareness and usage of different e-banking options as Google pay, Phone pay, BHIM UPI, Paytm etc.

## **VII. CONCLUSION**

Electronic banking is a growing concept in current banking era. Technologies used in banking have completely changed the way the banks are working. Customers can efficiently complete their banking transaction with less time and efforts. But a number of customers are not properly aware about the different electronic modes or, they have less computer knowledge to use e-banking. In this study it is opined that frequency of use of electronic banking modes is more than branch or traditional banking. Awareness and usage of different e-banking modes have a positive and significant relation.

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