

Consumer Perception: Factors Influencing E-Banking Services Towards Private Sector Banks In Tiruchirappalli District

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Abstract: In olden days customers were transacting money through traditional banking. Traditional banking is the process of handling with common bank transactions like making withdrawals and deposits in a bank that maintains a physical location. In traditional banking system, the customer can contact the staff for their transactions. These include opening a new account, check deposit, withdrawing funds and applying for a loan etc. The main feature of traditional banking is the customer can ask their queries and clarify their doubts immediately to the staff who is working in the bank. After a big boon in the banking industry, banks realized that the rising popularity of the World Wide Web involves consumers using the Internet to access their bank account and to undertake the banking transactions. From the bank's perspective, the online banking platform provides low-cost channel for both transactions and building relationships.

(Key Words: Easy Access, Convenience, Quick transfer, Money saving)

I. INTRODUCTION

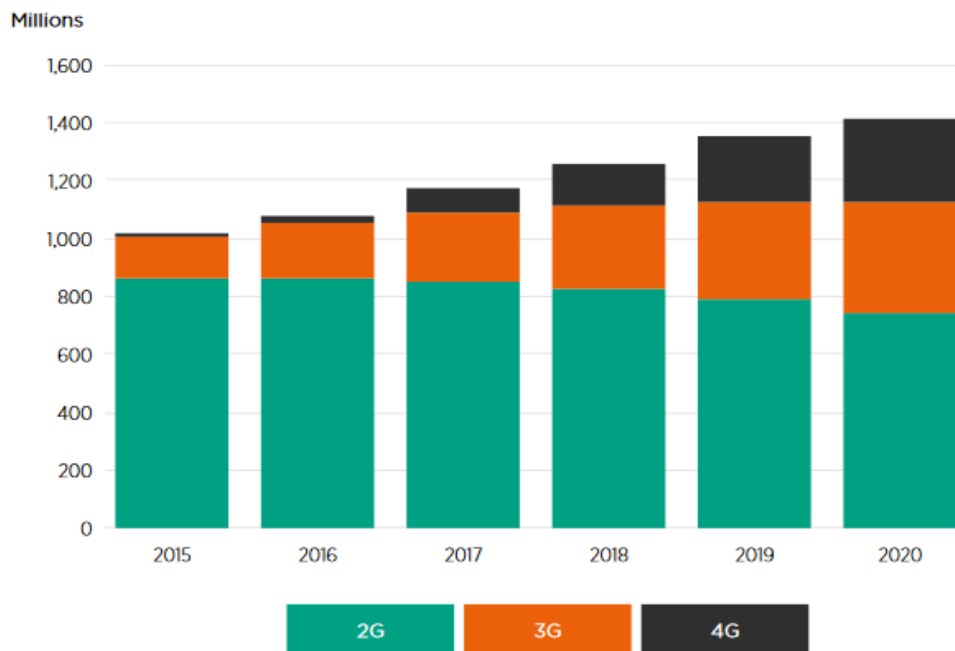
Indian banking industry has witnessed a tremendous developments due to changes that are taking place in the technical innovation. In the world of banking, the developments in information technology has been the major reason in the creation of new products, services, discovering market opportunities, improving management processes and

generating additional revenues for business. Electronic banking has emerged from such an innovative development. The study focuses on the attitude of the customer in Private Sector Banking industry in the adoption of technology.

II. SCOPE OF THE STUDY

The Internet Banking is becoming one of the fastest growing technologies playing a significant role in the banking industry. Internet banking services made it convenient for customers to do their banking transaction 24*7. Banks also sharpened their focus on customers through effective services and introduced a variety of services geared to the special needs of their customers. The Internet Banking is changing the banking industry by having the major effects on banking relationship. Internet Banking involves delivery of banking products and services. In the banking sector, the development in information technology has an enormous effect on development of more flexible payment methods and more user friendly banking services. Electronic Banking services are new and the development of these technology results in more effective banking.

Connections by technology in India



Source: Statistics on Global System for Mobile Communication

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In India, 2G connections remain the highest with over 800 million connections as of 2016, while 3G has around 200 million connections in the same year. The 2G base is expected to fall to around 670 million by 2020, while 3G is projected to have over 350 million connections by that time. 4G is expected to reach around 1400 million connections in the year 2020.

III. RESEARCH GAP

Although there are various research have been done in the past for exploring the success of e-banking on various scale, it is strongly felt that very few studies were focused on Private Sector Banks, systematically and comprehensively. Most of the studies did not give much importance on attitude of the customer regarding e-banking services, factors influencing customers towards innovative e-banking services and the problems and prospects of e-banking services in the New Private Sector Banks in Tiruchirappalli district. Hence the study has been conducted to fill the research gap.

IV. STATEMENT OF PROBLEM

Technological advances ultimately focused to improve the social value while efficiency is aimed at maximizing output and eventually profitability with a given set of resources. The researchers stated that the banking transactions could be done by the click of mouse. The customers who are not comfortable with computers and the internet, often find it difficult to use internet banking especially for beginners, Internet banking is considered as time consuming for them as they need to understand the bank website and they panic themselves to adopt e-banking services. In these circumstances the customers cannot gain the perceived usefulness. The senior citizens will not prefer online banking services because of reluctant to change and fear about the security. Aging may be seen as a multidimensional process of physical, psychological, and social change. Moreover, they have anxiety and doubt about whether they want to continue using Internet banking even after they try it, in certain instances a simple mistake like click of wrong button, will create fear among them.

The customers will expect the security while they transact in online banking. Even though the customer is well educated they may hesitate to transact and reluctant to change with the new innovative services offered by the banks. Those who are not aware of fraudulent activities such as skimming, phishing and spyware etc will lose their money. The customers who are transacting in electronic banking services find it difficult to adopt the new procedures and they could not understand the technical aspects of the steps involved in Internet banking services. The advent of internet banking offers banking firms a new frontier of opportunities, challenges and the acceptance of diffusion of innovation theory that encompasses technology, channel, social and value for money factors as predictors in the identification of influential factors for consumers and their frequent use of internet banking. Despite these possibilities the customers have the barriers like psychological barrier, social barrier and technical barrier etc in internet banking, which affect the growth of Internet banking. The eventual

success of the technology depends on the satisfaction of the customers. But the factors like such as poor network connectivity, cost constraints and delayed service would affect the level of satisfaction of the customers who are involved in e-banking services. In this regard a research has been undertaken on Consumer attitude towards internet banking services in Tiruchirappalli District.

V. OBJECTIVES OF THE STUDY

1. To study the factors influencing customers towards internet banking services.
2. To identify the problems in various electronic banking services provided to the customers.

VI. RESEARCH METHODOLOGY

The study is based on both primary and secondary data. The primary data are collected from the customers of chosen Private Sector banks and the secondary data are collected from books, magazines, websites and Journals. The researcher adopted descriptive research method to know the attitude of the customers regarding e-banking services. Descriptive method provides a very useful initial examination of data since the research is conducted for definite purpose. Private sector banks are pioneer in introducing innovative e-banking services. The Reserve Bank of India classified these Private sector banks as Old private sector banks and New Private sector banks. Among the New private sector banks HDFC Bank, ICICI Bank, AXIS Bank, KOTAK MAHINDRA Bank and YES Bank are leading in terms of total assets and also in terms of number of inward and outward transactions especially with regard to NEFT, RTGS and Mobile banking transactions. Hence the researcher felt it is appropriate to choose these five banks for the present study. Accordingly the researcher draws the sample size to arrive optimum number of customers to be contacted to collect primary data.

VII. DATA COLLECTION AND ANALYSIS

The data have been collected from 500 respondents by selecting hundred customers in each five selected sample banks (ie) HDFC Bank, ICICI Bank, AXIS Bank, KOTAK MAHINDRA Bank and YES Bank in Tiruchirappalli District so as to make it representative of entire population. The sample size is 500 e-banking users from five hundred questionnaires collected from the respondents. A structured questionnaire was designed to collect the data by using five point likert scale method.

VIII. HYPOTHESIS

1. H_{01} : There is no significant relationship between occupation and e-channels preferred by customers.
2. H_{02} : There is no significant relationship between fund transfer facility and profile of the respondents

IX. SAMPLE DESIGN

A sampling design is the theoretical basis and the practical means by which infer the characteristics of some population by generalizing from the characteristics of relatively few of the units comprising the population. The researcher used Judgement sampling technique to collect the primary data from the respondents of the selected sample units.

X. SAMPLE UNIT

Sampling unit is any “population” or “universe” contains some specifications in terms of content units, extent and time. The universe of the present study confined to the customers of five private sector Banks in Tiruchirappalli District namely HDFC Bank, ICICI Bank, AXIS Bank, YES Bank and KOTAK MAHINDRA Bank.

XI. LIMITATIONS

1. The data have been collected with chosen customers using e-banking services, though many customers are using e-banking services.
2. The considered opinion of the respondents about the quality of service provided by the banks is purely temporary and subject to changes will take place in the quality of service provided. Hence the one time opinion of the customers is first and final.
3. As it is the obligation of the bankers to maintain secrecy of the customers it is difficult to fetch certain information from the banks.

XII. REVIEW OF LITERATURE

1. Mamila Rajasekar., Caddapah Anit & Nama Madhavi (2015). Conducted a research on the topic “Impact of service quality of SBIs Internet Banking and its Customers Rural India”. Their objectives were to analyze the effect of service quality dimensions of SBIs internet banking and analyze the impact of demographic characters. It was observed that convenience was the factor which influenced most. They concluded that it was user friendly and has bright future in developing the country

2. S. Arunkumar (2016). Conducted a research on the topic “A study on attitude and intention towards Internet Banking with reference to Malaysian consumers in Klang valley region”. His objectives were to find out the factors that influence on the formation of attitude towards internet banking and to know the relationship between attitudes towards internet banking and intention to use internet banking. The adoption rate of internet banking was estimated by analogy to adoption pattern. He concluded that perceived enjoyment is considered as the major factor for attitude and intention.

3. Garimasrivastav & Arun Mittal (2016). Conducted research on the topic “Impact of Internet Banking on consumer satisfaction in private and public sectors banks”. Their objectives were to list out the most important variables having a significant impact an overall satisfaction levels represents as the recommendation of the banks to others based on internet banking services with references to private and public sectors banks in an emerging Indian market. They

analyzed the awareness about security, regulatory framework, any time anywhere banking and negative factors like security feature, service quality etc. They said that strong customer authentication, more trust, better customer experiences and paperless banking benefited the customer. They concluded that more than public sector banks, private sector banks are performing well and both the banks should improve the service quality.

4. R.D. Priyangika., M.S. Perera & D.P. Rajapakshe (2016). Conducted a research on the topic “An Emprical Investigation on Customer Attitude and Intention towards Internet Banking: A Case of Licensed Commercial banks in Colombo District, Srilanka”. The study investigated the attitude towards customers in commercial banks. The result indicated that there is a strong positive influence from perceived ease of use. The findings suggested are insignificant negative relationship between customer attitude and intention.

XIII. ANALYSIS AND INTERPRETATION OF DATA

Data analysis is the process of bringing the collected data into the form, cleansing and modeling with the aim of discovering useful information. The interpretation is made on the basis of data analysis. In the study the researcher analysed the data to know the attitude of the consumers regarding e-banking services.

TABLE 1 GENDER

Gender	Frequency	Percent
Male	343	69
Female	157	31
Total	500	100

Source: computed results based on primary data

Table 1 depicts the Gender of the respondents, 69 per cent of the respondents are male and 31 per cent of the respondents are female. Hence most of the respondents are male customers using the e-banking services in the banks. When compared with female the customers the male respondents who use e-banking services is more as they are technically sound.

TABLE 2 AGE

Age	Frequency	Per cent
Below 30 Years	265	53
30-40 Years	160	32
40-50 Years	50	10
Above 50 Years	25	5
Total	500	100

Source: computed results based on primary data

Table 2 reveals that 53 per cent of the respondents are transacting through e-banking services are below 30 years as they are very much aware of the latest application in e-banking services, 32 per cent of the respondents are 30-40 years, 10 per cent of the respondents are 40-50 years and the remaining 5% of the respondents are above 50 years, less in number who are reluctant to change as they are aged persons.



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TABLE 3 OCCUPATION

Occupation	Frequency	Per cent
Business man	165	33
Services	180	36
Professional	140	28
Agriculture	15	3
Total	500	100

Source: computed results based on primary data

Table 3 portrays the occupation of the respondents. 36 per cent of the respondents are working in private sector concerns, public sector concerns and rendering other services, 33 per cent of the respondents are doing business who are transacting through e-banking, 28 per cent of the respondents are professional and the remaining 3% of the respondents are engaged in agriculture who are availing e-banking services.

TABLE 4 ANNUAL INCOME

Annual Income	Frequency	Per cent
Less than ₹2,00,000	140	28
₹2,00,000 - ₹5,00,000	35	7
₹5,00,000 - ₹10,00,000	285	57
Above ₹10,00,000	40	8
Total	500	100

Source: computed results based on primary data

Table 4 depicts the annual income of the respondents. 57 per cent of the respondents earning the annual income between ₹500000 - ₹1000000, 28 per cent of the respondents are earning the income of less than ₹200000, 8% of the respondents are earning the income

TABLE 7

RELATIONSHIP BETWEEN OCCUPATION AND E-CHANNELS PREFERRED BY CUSTOMERS

H₀₁: There is no significant difference between occupation and e-channels preferred by customers

Occupation	Particular	Mobile Wallet	Cash Deposit Machine	Automated Teller Machine	Kiosk Machine
Business	Mean	1.738	2.475	1.828	3.959
	N	165	165	165	165
	Std. Deviation	.9690	.8549	.3791	.1991
	Variance	.939	.731	.144	.040
Services	Mean	2.113	2.286	1.707	3.895
	N	180	180	180	180
	Std. Deviation	1.0706	.8925	.4570	.3081
	Variance	1.146	.797	.209	.095
Professional	Mean	2.050	2.465	1.693	3.792
	N	140	140	140	140
	Std. Deviation	1.0989	.8070	.6123	.5161
	Variance	1.208	.651	.375	.266
Agriculture	Mean	1.500	2.917	2.333	3.250
	N	15	15	15	15
	Std. Deviation	1.0000	1.0836	.6513	.9653
	Variance	1.000	1.174	.424	.932
	F	3.809	2.653	7.426	14.036
	Sig	(.010)*	(.048)*	(.000)**	(.000)**

Source: Computed results based on primary data

** sig @ 0.001, * sig @ 0.005

above ₹1000000 and the remaining 7% of the respondents are earning the income between ₹200000-Rs.500000.

TABLE 5 EDUCATIONAL QUALIFICATION

Educational level	Frequency	Per cent
High school	40	8
Higher secondary	45	9
Bachelor degree	190	38
Master degree	225	45
Total	500	100

Source: computed results based on primary data

Table 5 shows the educational qualification of the respondents. 45 per cent of the respondents have completed the Master degree. 38 per cent of the respondents have completed the Bachelors degree. 9% of the respondents have undergone the higher secondary and the minimum of 8% of the respondents have not completed even the higher secondary education.

TABLE 6 PREFERENCE TOWARDS BROWSER

Browser	Frequency	Per cent
Google chrome	320	64
Mozilla	100	20
IE	40	8
Opera	40	8
Total	500	100

Source: computed results based on primary data

Table 6 depicts the preference towards the browser for online transaction. 64 per cent of the respondents have been using Google Chrome for e-banking services, 20 per cent of the respondents have been using Mozilla and the remaining 8% of the respondents have been using Internet Explorer and Opera for online transaction.

Table 7 exhibits the significant relationship between occupation and e-channels preferred by customers. There is a significant relationship between occupation and mobile wallet service, cash deposit machine at .05 per cent level of significance, there is a significant relationship between occupation and automated teller machine, kiosk machine at .01 per cent level of significance. So there is a significant relationship between occupation and e-channels preferred by customers.

Table 8 Factors Influencing Mobile Wallet Services

Particulars	R1	R2	R3	R4	Weighted Score	Mean Score
Quick Response	121	110	115	134	1178	2.356
Convenience	176	93	71	145	1270	2.54
Easy to access	152	104	78	159	1229	2.458
Cost Effective	135	56	111	184	1114	2.228

Source: computed results based on primary data

Table 8 shows the factors influencing mobile wallet services. From the table it is clearly noted that convenience is the factor influenced the customer most with mean score of 2.54, since it is easy to transact anywhere and anytime, Easy to access is the factor influenced second with the mean score of 2.458 as the transaction could be done easily without much of effort, Quick response is the factor influenced next with the mean score of 2.356 and Cost effective is the factor influenced the customer with the mean score of 2.228, since the transportation cost to go to the bank is reduced in case of mobile wallet services.

Table 9 Relationship Between Fund Transfer Facility And Profile Of The Respondents Who Are Using E-Banking Facility

Fund Transfer	Particulars	Gender	Age	Occupation	Annual Income	Educational Qualification
NEFT	Mean	1.330	1.330	1.821	2.500	1.830
	N	152	152	152	152	152
	Std. Deviation	.4725	.4725	.8406	1.0134	.8478
	Variance	.223	.223	.707	1.027	.719
RTGS	Mean	1.296	1.296	2.245	2.673	1.980
	N	133	133	133	133	133
	Std. Deviation	.4588	.4588	.8974	1.0131	.9946
	Variance	.210	.210	.805	1.026	.989
Mobile Payment Service	Mean	1.236	1.236	2.097	2.097	1.903
	N	98	98	98	98	98
	Std. Deviation	.4277	.4277	.8419	.9518	.9518
	Variance	.183	.183	.709	.906	.906
Transfer of funds through ATM	Mean	1.384	1.384	1.907	2.465	1.767
	N	117	117	117	117	117
	Std. Deviation	.4891	.4891	.7915	.8904	.7922
	Variance	.239	.239	.627	.793	.628
	F	1.416	1.416	5.061	4.963	.966
	Sig	.238	.238	(.002)**	(.002)**	.409

H₀₂: There is no significant difference between fund transfer and profile of the respondents

Source: Computed results based on primary data

** sig @ 0.001, * sig @0.05

Table 9 shows the relationship between the types of fund transfer and profile of the respondents. The table shows there is a significant relationship between fund transfer facility and the occupation of the respondents at .001 per cent and there is a significant relationship between fund transfer facility and annual income of the respondents at .001 per cent. So from the table it is clearly inferred that the fund transfer facility is highly influenced by the customers.



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Table 10 Cluster Analysis Of Problems In E-Banking

Factors	Sectors	Rotated Factor Loadings
I (2.024 per cent)	Lack of technical operation	.941
	High initial cost	.943
II(1.485 per cent)	Security threat	.358
	Hacking	.440
	Delayed grievance redress	.528
	Delayed service	.673
III (1.279 per cent)	Time out Error	.364
	Social Barrier	.612
	No Proper response	.619
IV (1.257 per cent)	Delay to add beneficiary	.759
	Time consuming	.661
V (1.224 per cent)	Limited number of ATM	.214
	Out of order ATM	.823
	Reluctant to change	.400
	Difficult to adopt new technology	-.274
VI (1.155 per cent)	Network problem	.732
VII (1.103 per cent)	Psychological Barrier	.770
VIII (1.068 Per cent)	Unreliability	.801
IX (1.027 per cent)	Lack of awareness	-.751

Source: Computed results based on primary data

Table 10 depicts the clustering of sectors. Lack of technical operation and High initial cost are the factors which influenced customer the most with the per cent of 2.024, Security threat, Inaccurate service and delayed grievance redress is the factor which influenced next with the per cent of 1.485, Delay to add beneficiary is the factor influenced with the percent of 1.257, Timeout error is the third factor which influenced customer with the per cent of 1.279, Reluctant to change and limited number of ATM are the factor which influenced next, which influenced the customer with the per cent of 1.224, Network problem is the factor influenced the customer with the per cent of 1.55, Psychological barrier is the factor influenced the customer with the per cent of 1.03, Unreliability is the next factor which influenced the customer with the per cent of 1.068 and Lack of awareness is the factor which influenced the customer with the least per cent of 1.027.

XIV. FINDINGS

1. Out of 500 respondents, 69 per cent is male and 31 per cent is female.
2. 53 per cent of the respondents are transacting through e-banking services are below 30 years and 5% of the respondents are above 50 years.
3. 36 per cent of the respondents are working in private sector concerns, public sector concerns and rendering other services and 3% of the respondents are engaged in agriculture availing e-banking services.
4. 57 per cent of the respondents earning the annual income between ₹500000-₹1000000 and 7% of the respondents are earning the income between ₹200000-₹500000.
5. 45 per cent of the respondents have completed the Master degree and the minimum of 8% of the respondents have not completed even the higher secondary education.
6. 64 per cent of the respondents have been using Google Chrome for e-banking services and 8% of the respondents have been using Internet Explorer and Opera for online transaction.

7. There is a significant relationship between occupation and automated teller machine, kiosk machine at .01 per cent level of significance. So there is a significant relationship between occupation and e-channels preferred by customers.
8. The respondents are mostly like the factor user friendly because of easy approach in case of transferring funds through mobile wallet service.
9. There is a significant relationship between fund transfer facility and annual income of the respondents at .001 per cent. So from the table it is clearly inferred that the fund transfer facility is highly influenced by the customers.
10. Lack of technical operation, High initial cost and unreliability are the major problems while transacting through e-banking services.

SUGGESTIONS

- The customers who are dealing with electronic banking services should have the trust in the minds, since perceived usefulness is the most influencing factor in the adoption of innovative electronic banking services.
- Computer literacy must be improved to enjoy the real usefulness while transacting through electronic banking services.
- The perceived risk could be minimized.
- The network facility in the rural areas of the study could be improved to have the speedy transaction.
- The service charges to transact in innovative electronic banking services could be reduced since the cost is much related with the continued use of internet banking services.
- The customers should have the reliability and confidence on virtual banking for the continued usage.
- As the quality of the service improves the customer's retention would also be improved.
- The cheaper access to basic requirements such as power and telecommunication would avoid the customer switch over from Internet banking to other services.

- The proper technical infrastructure to be provided in the form of uninterrupted internet connectivity.
- The orderly working of Automatic Teller Machines would improve be improved
- The customers should be aware of fraudulent activities such as skimming, spoofing, vishing etc.
- Biometric authentication is the unique identity, could be followed in virtual banking system.
- The attitude like reluctant to change could be avoided to adopt with new technology.
- The customers should be very careful while entering the account number. The entry of wrong account number would lead to lot of procedures to get back the amount.

XV. CONCLUSION

The recent trend in banking shows that most brick and mortar banks have been shifted from a product centric model as they develop their new banking capabilities. The technological innovations have made a drastic change in the present scenario and it has become a survival weapon changing the banking industry worldwide. The most important factor influence the customers in electronic banking service is time saving and they can transact even after the working hours by the click of mouse. The transaction through electronic banking services offers the quality services at a competitive cost encourage them to adopt the services and it paves a way to stick on to the virtual banking. The scope of Internet banking provides new growth perspectives on new business process. Though the customers are facing some problems, it is the most effective service offered by the banks. The hundred percent safe banking is provided by the banks, but the customers should have the awareness on fraudulent activities by the hackers. Unless the customers have the strong belief the continued use of E-banking would not be possible. The customers are satisfied by the factor accuracy, easy access and consistency of performance.

From the research carried out it is concluded that the banking industry has benefited tremendously to meet the demand of the customers, needs and expectations.

RECOMMENDATIONS

1. Creation of a body to control the fraudulent activities beyond the borders is need of the hours and it would be a regulatory body.
2. The Deposit Insurance Scheme must be taken as a model for creating an E-banking Insurance Security Scheme at the level of individual bankers with a ceiling of about Rs.100000 and pending enquiry for frauds above Rs.100000.
3. Cross verification of e-banking activities must be inbuilt mechanism in the software themselves. So up-gradation of e-banking software should be taken as a priority policy by the bankers.
4. Consistent creation of awareness and reminders through social media to be made it as mandatory irrespective of the customers from cities, towns, rural areas and villages.
5. Innovative e-banking always includes protection for both bankers and customers and hence the Annual Board Meeting of the bankers under study should involve proper discussion

and improvement in their innovative banking schemes introduced or upgraded every year.

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ABBREVIATIONS

NEFT – National Electronic Fund Transfer
RTGS-Real Time Gross Settlement
ATM-Automated Teller Machine

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