

Sectoral Analysis Of E-Banking Industry – An Evolutionary Approach

* *R. Seranmadevi*

** *Dr. M. Latha Natarajan*

*** *Dr. M. G. Saravananaraj*

INTRODUCTION

E-banking has the potential to provide accessible, convenient financial services, because it no longer requires a 'bricks and mortar' infrastructure, operated by the permanent staff of a financial institution. E-banking uses an electronic infrastructure to originate transactions. However, partners in an e-banking initiative differ in nature, in location, in accessibility for the poor, and in the functionality they are able to provide.

Many early electronic banking initiatives were designed to reduce the cost of transactions for the financial institutions as much as to deliver value to the customer, with a number of features available to customers, such as cash withdrawals and cash-back transactions, deposits, payments and transfers. Value - added services can be provided - such as loyalty programmes, person-to-person transfers, airtime top up for mobile phones and government payments.

BRIEF HISTORY OF BANKING INDUSTRY

Banking in India originated in the first decade of the 18th century with The General Bank of India coming into existence in 1786. The first fully Indian owned bank was the Allahabad Bank, which was established in 1865. The RBI formally took on the responsibility of regarding the Indian banking sector from 1935. After India's independence in 1947, the Reserve Bank was nationalized and given broader powers.

RECENT SITUATION IN INDIAN BANKING INDUSTRY

Till date, India has many scheduled Commercial Banks (SCBS), Public Sector Banks, Private Sector Banks and Foreign Banks. They have a combined network of over 53000 branches and 17000 ATMs. Banking in India is generally fairly mature in terms of supply, product range and reach-even though reach in rural India still remains a challenge for the private sector and foreign banks.

In March 2006, the Reserve Bank of India allowed Warburg Pincus to increase its stake in Kodak Mahindra Bank (a private sector bank) to 10%. This is the first time an investor has been allowed to hold more than 5% in a private sector bank. CANCARD VSA credit cards issued by Indian Overseas Bank since 1991 is a valuable substitute for cash and provides an avenue for convenient and risk-free shopping.

The use of credit cards originated in the United States the 1920's. The inventor of the first bank issued credit card was John Baggins of the Flatbush National Bank of Brooklyn in New York. In 1946, Baggins invested the "Change-IT" program between bank customers and local merchants. Credit Card is a mechanism which enables cardholders to purchase goods, travel and dine in a hotel without making immediate payments. The credit extends up to the maximum of 45 days. It is a convenience of extended credit without formality. Thus, credit card is a passport to, "safety, convenience, prestige and credit." Credit Cards were not always been made of plastic, but have been made from metal coins, metal elastics, metal fiber, paper and now, mostly plastic cards. The parties involved in the credit card transactions are Issuer, and the Member Establishments.

OBJECTIVES OF THE STUDY

✿ To analyze the value added services rendered with credit cards by various e-banks.

* *Faculty in Department of Management Studies, CMS College of Engineering, Namakkal, Tamil Nadu.*

E-mail: seranmadevi@yahoo.co.in

** *Head/Professor, Department of Management Studies, Vivekanandha College of Engineering for Women, Tiruchengode, Tamil Nadu.*

*** *Head/Professor, Department of Management Studies, Muthayammal Engineering College, Rasipuram, Tamil Nadu.*

Table 1: Simple Percentage Analysis

BANKS	IOB		SBT		KVB		ICICI		TOTAL
Options	No	%	No	%	No	%	No	%	%
AGE									
18-30	3	1	3	1	2	8	4	16	13
31-40	5	2	4	1	3	12	7	28	21
41-50	7	2	5	2	10	40	8	32	33
50&above	10	4	13	5	10	40	6	24	33
GENDER									
Male	16	64	22	88	20	80	19	76	77
Female	9	36	3	12	5	20	6	24	23
MARITAL STATUS									
Single	10	40	8	32	11	44	11	48	41
Married	15	60	17	68	14	56	14	52	59
EDUCATIONAL QUALIFICATION									
School	1	4	1	4	-	-	2	8	4
UG	5	20	4	16	3	12	6	24	18
PG	8	36	8	32	12	48	7	28	35
Professionals	11	44	12	48	10	40	10	40	43
OCCUPATION									
Self Employed	8	32	6	24	5	20	9	36	28
Salaried	7	28	8	32	9	36	9	36	33
Any Other Profession	10	40	11	44	11	44	7	28	39
MONTHLY INCOME									
5000-10000	2	8	4	16	3	12	4	16	13
10000-15000	8	32	9	36	5	20	5	20	27
15000-20000	9	36	5	20	7	28	7	28	28
20000&above	6	24	7	28	10	40	9	24	32
GEOGRAPHICAL LOCATION									
Rural	1	4	2	8	1	4	4	16	8
Urban	5	20	4	16	3	12	6	24	18
Town	9	36	8	32	10	40	7	28	34
City	10	40	11	44	11	44	8	32	40
NUMBER OF DEPENDENTS									
2	3	12	4	16	2	8	5	20	14
3-4	5	20	6	24	4	16	7	28	22
5-6	7	28	7	28	9	36	6	24	29
6&Above	10	40	8	32	10	40	7	28	35
USAGE OF CREDIT CARDS									
Yes	20	80	18	72	13	52	22	88	73
No	5	20	7	28	12	48	3	12	27
AUTOMATIC RENEWAL FACILITY									
Yes	20	80	22	88	18	72	23	92	83
No	5	20	3	12	7	28	2	8	17
ADD ON FACILITY									
Yes	18	72	22	88	15	60	23	92	78
No	7	28	3	12	10	40	2	8	22

Source: Field Survey

- ✿ To evaluate the facilities offered by various e-banks.
- ✿ To study the frequency of usage of the credit cards.

RESEARCH METHODOLOGY

Research design is the conceptual structure using which the research is conducted. It constitutes the blue print for the collection measurement and analysis of data. Descriptive research has been conducted in the project study. The type of sampling used in this research is probability sampling. In this research study, both primary and secondary data are used. The Analytical Tools Used are, Percentage Analysis, Ranking Method, Weighted Average, Chi- Square Test, Correlation Coefficient, F - Test and ANOVA.

Majority of the respondents belonged to the above 31 age group, and the male category has almost equal representation from both single and married status. Most of the respondents were literate, and among them, majority belonged to the graduate level. 73% of the customers were using the credit cards and more or less, 80% of the respondents were making use of the automatic renewal facility and add on facility.

Table 2: Ranking Method

BANKS	IOB	SBT	KVB	ICICI	Total	Rank
Minimum of Number of Time of Usage of Credit Cards						
2	4	4	3.5	4	15	1
3	2.5	3	1	2	9	2
4	1	1	3.5	3	8	3
5	2.5	2	2	1	7	4
Fee on the basis of Amount						
Annual Fee	3	4	4	4	15	1
Hot Listing Charges	4	3	1	3	11	2
Cash Advance Fee	2	2	3	2	9	3
Membership Fee	4	1	2	1	8	4
Add on Facility						
Spouse	1	1	2	1	5	3
Friends	2	2	1	2	7	2
Nominee	3	3	3	3	12	1
Usage of Credit Cards Per Year						
50	4	4	2	3	13	1
50-100	3	2.5	1	3	9.5	2
100-150	1.5	1	3	3	8.5	4
150&above	1.5	2.5	4	1	9	3
Settlement						
Once fortnight	3	2	3	3	11	1
Once in Month	1.5	1	2	1	6	3
45 days	1.5	3	1	2	8	2

Source: Field Survey

It can be seen from Table 2, that among the fees collected on credit cards usage, the annual fee stands first, correspondingly, the add on facility will be extended to the spouse of the customers, moreover, most of the customers want to settle the credit card balance once in a fortnight. While considering the frequency of usage of credit cards, it can be seen that the usage was limited among the Indian customers, they preferred to make purchases using a credit card only 50 times per year, and that too during the auspicious occasions. Hence, there is a possibility for further enhancement of making use of the credit cards among the Indian customers.

From the Table 3, it can be inferred that ICICI hold the first place in the respondents' ranking, and the second

Table 3: Weighted Average Method

Options	Ranking of Various E - Banks		Different Facilities		E-Banking Facilities		Rate of Interest		Credit Limit		Mode Of Settlement		Validity		Settle the Balance		Settle the Account	
	Total	Rank	Total	Rank	Total	Rank	Total	Rank	Total	Rank	Total	Rank	Total	Rank	Total	Rank	Total	Rank
IOB	30	2	15	3	98	2	56	3	31	4	34	4	71	2	60	3	77	2
SBT	25	3	30	2	89	3	63	2	55	1	35	3	69	3	58	4	76	3
KVB	10	4	10	4	71	4	49	4	47	3	40	2	64	4	66	2	68	4
ICICI	35	1	45	1	104	1	67	1	65	2	54	1	80	1	71	1	78	1

Source: Field Survey

preference was given to IOB, and then SBI and KVB were placed at the third and fourth place respectively. On the whole, it reveals that among the E-banking services, ICICI reserves the first place in all the criteria, except in the provision of credit limit to the customers. IOB stood second in extending the services to the customers, except in the field of mode of settlement and the credit limit offered to the customer. SBT bank offered excellent credit facility to its customers than other e-banks, but in all other aspects, it has to drastically improve its functioning. KVB plays well in settlement facilities, but in order to do well in other areas, it has to put in a great amount of effort.

CHI - SQUARE TEST

Ho: There is no significant difference between occupations on the mode of settlement.

Ho: There is no impact of geographical location on the rate of interest.

Ho: There is no significant difference between genders on the usage of credit cards.

Table 4: Chi-Square analysis

Mode of Settlement & Occupation	15-30	30-45	40 &	above	Total	CV	TV @5%	DoF	Remark
Self Employed	6	10	12	28	0.4638	16.919	9		CV<TV; Not significant
Salaried	7	12	14	33					
Professional	8	15	16	39					
Total	21	37	42	100					

Source: Field Survey

It could be seen from the above Table 4 that after conducting the analysis, the calculated chi-square value is lesser than the table value and the result is not significant at 5% level . So, we can accept the Null Hypothesis. The mode of settlement does not vary with the respondent's occupation.

CORRELATION COEFFICIENT

USAGE OF CREDIT CARD BASED ON EDUCATIONAL QUALIFICATION

H0: There is a negative relationship between the educational qualification and usage of credit card.

Table 5: Calculation of Correlation Co-Efficient

X	Y	(x - \bar{x})	(x - \bar{x}) ²	(y - \bar{y})	(y - \bar{y}) ²	(x - \bar{x})(y - \bar{y})
4	20	-14	196	-9	81	126
18	29	0	0	0	0	0
35	25	17	289	-4	16	-68
43	26	25	676	-3	9	-75
100	100		1161		106	-17

Source: Field Survey

Where X = Education Qualification; Y = Usage of Credit card; $\bar{X} = 18$ and $\bar{Y} = 29$.

$$r = \frac{\sum(X - \bar{X})(Y - \bar{Y})}{\sqrt{\sum(X - \bar{X})^2 \sum(Y - \bar{Y})^2}} = \frac{322}{347.53} = 0.92$$

A high positive correlation exists between the educational qualification and usage of credit cards. So, the null hypothesis, that credit card usage is high among highly educated people is rejected.

F - TEST

CREDIT LIMIT AND BASIC FACILITIES OFFERED BY VARIOUS E- BANKS

H₀: There is no significant difference in the credit limit of various Private and Public Sector e-banks.

H₀: There is no significant difference between the basic facilities of various Private and Public Sector e- banks.

Table 6: F-Test

Factor	CV	TV @5%	DOF	Criteria	Remark
Credit Limit between ICICI & IOB	3.8	10.97	5,5	CV<TV	Not significant
Basic Facilities among SBT & KVB	1.34	8.47	6,6	CV<TV	Not significant
Basic Facilities among ICICI & IOB	1.07	8.47	6,6	CV<TV	Not significant

Source: Field Survey

The Table 6 reflects that there is no resemblance between the credit card facilities offered by private and public sector banks considered for the study.

ANOVA

I. VARIATION IN THE RATE OF INTEREST ON THE BASIS OF GEOGRAPHICAL LOCATION

H₀: There is no significant difference in the rate of interest on the basis of geographical location.

Table 7: ANOVA

Rate of Interest depend on GL	21	37	42	Source of variation	SS	DoF	MS	CV	TV@5%	Result
28	6	10	12	Between Samples	78	3-1=2	39	10.2	F(2,6) 4.26	Reject H ₀
33	7	12	14	Within sample	23	9-3=6	3.8			
39	8	15	16	Total	101	8	**			

Source: Field Survey

The table value of 'F' at 5% level of significance for (2,6) degree of freedom is 4.26. The calculated value of 'F' is greater than the table value of 'F'. Therefore, the null hypothesis is rejected. So there is significant difference in rate of interest on the basis of geographical location.

II. GENDER WISE USAGE OF CREDIT CARDS

H₀: There is no significant difference in the usage of credit card between the genders.

Table 8: ANOVA

Gender wise usage of credit cards	50	50 - 100	100 - 150	150 & above	Source of variation	SS	DoF	MS	CV	TV @5%	Result
Male	18	22	20	20	Between Samples	154	2-1=1	76.5	1.01	F(1,6)	Accept H ₀
Female	4	3	6	5	Within sample	454	8-2=6	75.6			

Source: Field Survey

The table value of 'F' at 5% level of significance for (2,9) degree of freedom is 4.26. The calculated value of 'F' is less than the table value of 'F'. Therefore, the null hypothesis is accepted. Irrespective of gender, all the people are making use of the credit cards.

FINDINGS

- ✿ From the Percentage analysis, it can be inferred that majority of the respondents belong to the age group of 31 years and above. Men represented almost equal percentage from both single and married status. Most of the respondents were literate, and among them, a majority of the respondents belonged to the graduate level. 73% of the customers were using credit cards and around 80% of the respondents were making use of the automatic renewal facility and add on facility.
- ✿ While considering the frequency of usage of credit cards, it can be seen that the usage was limited among the Indian customers, they preferred to make purchases using a credit card only 50 times per year, and that too during the auspicious occasions. Hence, there is a possibility for further enhancement of making use of the credit cards among the Indian customers.
- ✿ ICICI hold the first place in the respondents' ranking, and the second preference was given to IOB, and then, SBI and KVB were placed at the third and fourth place respectively
- ✿ On the whole, it reveals that among the E-banking services, ICICI was ranked first in all the criteria, except in the provision of credit limit to the customers. IOB came in second for extending satisfactory services to the customers, except in the area of mode of settlement and the credit limit offered to the customer. SBT bank offered excellent credit facility to its customers than other e-banks, but in all other aspects, it has to drastically improve its functioning. KVB plays well in settlement facilities, but in order to do well in other areas, it has to put in a great amount of effort.
- ✿ It could be seen from the chi-square table that the calculated chi-square value is lesser than the table value and the result is not significant at 5% level. So, we can accept the Null Hypothesis. The mode of settlement does not vary with the respondent's occupation.
- ✿ Positive correlation existed between the educational qualification of the respondents and usage of credit cards. So, the researchers the null hypothesis, that credit card usage is high among highly educated people.
- ✿ There is no resemblance between the credit card facilities offered by private and public sector banks considered for the study.
- ✿ In ANOVA, the table value of 'F' at 5% level of significance for (2,6) degree of freedom is 4.26. The calculated value of 'F' is greater than the table value of 'F'. Therefore, the null hypothesis is rejected. So, there is significant difference in rate of interest on the basis of geographical location.
- ✿ In ANOVA, the table value of 'F' at 5% level of significance for (2,9) degree of freedom is 4.26. The calculated value of 'F' is less than the table value of 'F'. Therefore, the null hypothesis is accepted. Irrespective of gender, all the people are making use of the credit cards.

SUGGESTIONS

- ✿ New strategies should be framed and implemented in order to widen the credit card market by attracting women and young people. The employees should be made more aware and familiar with every aspect related to e channels. Bank branches should be merged some to make them more strong and efficient with implementation of Information Technology.
- ✿ The customers should be made more aware of e-channels; especially through demos at the counter. There should be provisions to answer the customers' queries to regarding credit cards and other related problems.
- ✿ IT and E-Banking services should be implemented at the rural and semi-urban areas.
- ✿ Competition is very stiff in the banking industry, especially the public sector banks are facing a lot of competition from the private sector banks and foreign banks. In order to survive in the market, it is now paramount for the public sector banks to improve their infrastructure facilities and IT Enabled Services. Consumer preferences are always based on easy banking and at the door step services. It is recommended that banks follow the hard rule that says "*Perform or Perish*".

CONCLUSION

Change is being driven by falling costs of technology, by competition, and by the ability of electronic banking solutions to offer customers an enhanced range of services at a very low cost. Electronic Banking promises to extend

low-cost virtual bank accounts to a large number of currently un-banked individuals worldwide.

Now-a-days, credit cards play a significant role in our life. Customer management is more crucial today than ever before. Globalization and information revolution have raised customer expectations. The customer today is computer savvy and more demanding and time conscious. The success or failure of the business in the market place is determined, to a large extent, by how well the needs and wants of the customers are understood and fulfilled.

A customer is the centre for all activities of a bank. After conducting this survey, it is found that most of the respondents were satisfied with the credit cards of various banks. Every bank is trying to introduce new facilities in credit cards. A satisfied customer is an asset for all banks and adds to the bank's goodwill.

BIBLIOGRAPHY

- 1) Anderson, E.W. and M. W. Sullivan (1993), "The Antecedents and Consequences of Customer Satisfaction for Firms," *Marketing Science*, Vol. 12, pp. 125-143.
- 2) Gupta R P (2001), "Banking in the New Millennium".
- 3) Gupta S.Gupta M.P (1996) *Business Statistics*, (Eleventh Edition). Sultan Chand&Sons, New Delhi.
- 4) Jham, Vimi, 2005, "Insights into Customer Interactions in the Banking Industry--A Qualitative Relationship Marketing Study", *Review of Professional Management*, Vol. 3, No. 1 pp 10-17.
- 5) Kothari C.R. (1990) *Research Methodology*. (Seventh Edition) Wishawa Prakashan New Delhi.
- 6) Lovelock, Cristopher, 2001, *service Marketing: People, Technology, Strategy*, 4th Edition, Prentice Hall.
- 7) Richare.I.Levin, David.S.Rubin, "Statistics for Management" 7th Edition.
- 8) Rural banking - Opportunity for diversification and growth - published in *The Hindu "Business Line"*, April 20, 2004.
- 9) Soteriou, A. and S. A. Zenios (1999), "Operations, Quality, and Profitability in the Provision of Banking Services," *Management Science*, Vol. 45, No. 9
- 10) Uppal R K (2006), *Indian Banking Industry and Information Technology*, New Century Publications, New Delhi.
- 11) Vimi Jham and Kaleem Mohd Khan, "Customer satisfaction in the Indian Banking Sector. A Study" *IIMB Management Review*, Vol. 20 No. 1, March 2008.

Websites

- 1) <http://ideas.repec.org/p/iim/iimawp/282.html>
- 2) <http://pdfcast.org/pdf/technology-trust-and-e-banking-adoption-the-mediating-effect-of-customer-relationship-management-performance>
- 3) http://www.ifad.org/evaluation/public_html/eksyst/doc/profile/pa/gm.htm
- 4) <http://www.infosys.com/finacle/solutions/rural-banking-in-india.asp>
- 5) www.creditcard.com
- 6) www.icici.com
- 7) www.iob.com
- 8) www.kvb.com & www.sbi.com