

Customer Perception towards E-Delivery Channels and Future of E-Delivery Channels in India

AUTHOR

Dr. R. K. Uppal
Principal Investigator
UGC Sponsored MRP
DAV College, Malout
(Punjab).

ABSTRACT

An analysis of technology and its uses show that it has permeated in almost every aspect of our life. According to Tero et. al. (2004) many activities are handled electronically due the acceptance of information technology at home as well as at workplace. According to Heikki et. al. (2002), the transformation from the traditional banking towards e-banking has been a 'leap' change. During the pre-LPG (Liberalization, Privatization and Globalization) era, Indian banking system was a monopoly of the Government and banks performed all their functions manually with little support from computers. As their services were labour intensive, banks had to bear heavy establishment costs which limited the growth of banking in terms of profitability and productivity. But with the dawn of economic Liberalization in 1991 and with the wave of LPG, In 1993-94, the RBI allowed the entry of private and foreign banks into the banking Industry, leading to greater competition and enhanced performance with the aid of technology advancements.

1. INTRODUCTION

The world is changing at a staggering rate and technology is considered to be the key driver for these changes around us (Papers4you.com, 2006). An analysis of technology and its uses show that it has permeated in almost every aspect of our life. According to Tero et. al. (2004) many activities are handled electronically due the acceptance of information technology at home as well as at workplace. According to Heikki et. al. (2002), the transformation from the traditional banking towards e-banking has been a 'leap' change. During the pre-LPG (Liberalization, Privatization and Globalization) era, Indian banking system was a monopoly of the Government and banks performed all their functions manually with little support from computers. As their services were labour intensive, banks had to bear heavy establishment costs which limited the growth of banking in terms of profitability and productivity. But with the dawn of economic Liberalization in 1991 and with the wave of LPG, In 1993-94, the RBI allowed the entry of private and foreign banks into the banking Industry, leading to greater competition and enhanced performance with

the aid of technology advancements. As a result the banks computerized their operations, resulting in reduced paper work, burden of account maintenance and hence improved database management. With the introduction of IT Act in 2000, banking has undergone an electronic revolution known as E-banking. The process of liberalization has rather started a new economics of our country.

Banking Sectors Reforms Since 1991

Until the early 1990s, the banking sector suffered from lack of competition, low capital base, low productivity and high intermediation cost. Commenting on the performance of the nationalized banks, the Reserve Bank of India observed, after the nationalization of large banks in 1969 and 1980, the government owned banks have dominated the banking sector. The role of technology was minimal and the quality of service was not given adequate importance. Banks also did not follow proper risk management systems and the prudential standards were weak. All these resulted in poor asset quality and low profitability. Prior to reforms, the Indian government determined the quantum, allocation and the

price of credit, a situation referred to as financial repression by some experts. It was in this backdrop, that wide ranging sector reforms in India were introduced as an integral part of the economic reforms initiated in the early 1990s. Reforms in the commercial banking sector had two distinct phases.

The First Phase: The first phase of reforms implemented subsequent to the release of the report of the committee on financial system (Chairman: M. Narasimham), 1992(or Narasimham committee I) focused mainly on enabling and strengthening measures.

The Second Phase:-The second phase of reforms, implemented subsequent to the recommendations of the committee on banking sector reforms (Chairman: M. Narasimham), 1998(Narasimham committee II) placed greater emphasis on structural measures and improvement in standards of disclosure and levels of transparency in order to align the Indian standards with international best practices.

Application of information technology in banking: The severe crises of 1991 gave birth to the new economic thought in the country. Hence, new economic policy was introduced to mould the Indian economy to the right path. Financial sector reforms and banking sector reforms are the part and parcel of economic reforms which strengthen the economic reforms. Under the regime of banking sector reforms, IT-Act of 2000 gave new dimensions to the Indian banking industry. An act to provide legal recognition for the transactions carried out by means of electronic data interchange and other means of electronic communication commonly referred to as “Electronic Commerce”, which involve the use of alternatives to paper based methods of communication and storage of information, to facilitate electronic filing of documents. The IT (ATMs, Internet Banking, Tele banking, Mobile Banking) has changed the structure of Indian banking. Information technology (IT) refers to the acquisition,

processing, storage and dissemination of all type of information using computer technology and telecommunication systems. Technology includes all the matters concerned with the furtherance of computer science and technology and with the design, development installation and implementation of information system and applications. The technology has been the main facilitator in the process of transformation.

2. OBJECTIVES, DATA BASE, HYPOTHESIS, RESEARCH METHODOLOGY

Objectives: a) To study and evaluate the customer perception regarding e-delivery channels; b) To study the customer preference of e-delivery channels; c) To suggest the ways and means to enhance awareness about e-delivery channels.

Hypothesis: There is no significant difference in the opinion of bank customers of HDFC and PNB regarding e-delivery channels.

3. PERCEPTIONS OF RESPONDENTS

As we have number of sample in both HDFC and PNB bank is 100 so that the percentage and the number of responses will be the same. Now here are the tables showing responses regarding different statements of the questionnaire as follows:-

E-Delivery Channels are very necessary.

Table 2 shows that in HDFC bank 62 percent and in PNB bank 39 percent respondents have strongly agreed that e-delivery channels are very necessary. Similarly, in HDFC bank 29 percent and in PNB bank 49 percent respondents have also agreed with the statement. Only a few respondents undecided for this statement in both the banks. It shows that almost every customer think that in the modern era e-delivery channels are very necessary and the banks should provide these facilities to their customers in a sophisticated manner.

Table 1
Profile of Respondents

Groups	RespondentsHDFC	RespondentsPNB
Sex		
Male	29	35
Female	71	65
Age Group		
Less than 25	60	72
25-35	35	26
36-45	5	2
46-55	0	0
Above 56	0	0
Marital Status		
Married	43	29
Unmarried	57	71
Family Size		
Up to 2	0	6
3-4	57	49
5-6	43	35
Above 6	0	10
Qualification		
Matriculation	3	1
Graduation	68	69
Post-Graduation	27	21
Professional Disagree	2	9
Occupation		
Service	16	3
Business	31	25
Professional	3	5
Industrialist	0	0
Agriculture	28	14
Any Other	22	53
Monthly Income		
0-2500	1	4
2501-5000	21	11
5001-10000	21	23
10001-15000	44	33
Above 15000	13	29

Source: Survey Results

E-Delivery Channels are going to improve the quality of customer services in bank. Table 3 shows that in HDFC bank 28 percent and in PNB bank 48 percent respondents have strongly agreed with the statement that e-banking is going to improve the quality of customer services in banks. At the same time, in HDFC bank 61 percent and in PNB bank 41 percent respondents are also agreed with the statement i.e. they also think that e-banking facilities are really going to improve the quality of customer satisfaction in the banks.

Computerized information system is more accurate than the manual system. Table 4 shows that 18 percent respondent of HDFC and 41 percent of PNB are strongly agreed and 38 percent respondent of HDFC and 41 percent of PNB agree with the statement that

- computerized information system is more
- accurate than the manual system i.e. they
- favours the computerization occurring in
- banks.
- *E-Delivery channels has increased the role*
- *of employees in the bank.* Table 5 shows
- that majority of respondents i.e. 38 percent in
- HDFC bank and 45 percent in PNB bank
- only agreed with the statement that e-delivery
- channels has increased the role of employees
- in the banks. But at the same time 13
- percent respondents in HDFC bank and 15
- percent in PNB bank also disagreed with this
- statement i.e. they think that e-delivery
- channels has decreased the role of
- employees in the banks i.e. they think that
- role of employees in the banks was more in
- manual system than the computerized system.
- And near about 25 percent in both the banks

respondents are undecided.

E-Delivery channels are going to reduce the incidence of bank frauds. Table 6 shows that majority of respondents i.e. 33 percent in HDFC bank and 59 percent in PNB bank only agreed with the statement that e-delivery channels can stop or reduce the incidence of bank frauds. But 47 percent in HDFC bank and 19 percent in PNB bank are undecided with the statement i.e. they are not sure up that e-delivery channels can reduce the incidence of bank frauds.

In future people use more E-channels than before. Table 7 shows that majority of respondents i.e. 34 percent in HDFC bank and 47 percent in PNB bank are strongly agreed and 33 percent in HDFC bank and 37 percent in PNB bank are with the statement that the future of e-banking is bright. These respondents are sure that these channels will surely improve the working of the bank and they will prove beneficial for the development of the country in the future.

Availability of more products in E-Banking motivates the customers. Table 8 shows that majority of respondents i.e. 42 percent in HDFC bank and 47 percent in PNB bank are agreed and 26 percent in HDFC bank and 41 percent in PNB bank are strongly agreed with the statement that availability of more products in e-banking motivates the customers. It means almost all the respondents believe that if banks increased the e-delivery channels customers will be more satisfied.

Convenient access to E-Delivery motivates the customers. Table 9 shows that majority of respondents i.e. 39 percent in HDFC bank and 50 percent in PNB bank are agreed and 20 percent in HDFC bank and 21 percent in PNB bank are strongly agreed with the statement that the convenient access to e-banking motivates the customers. It means they think that if e-banking facilities are easily available to the customers that they use more

of these facilities.

Courteous behavior of the bank staff motivates the customers. Table 10 shows that a large number of respondents i.e. 30 percent in HDFC bank and 39 percent in PNB bank are agreed and 31 percent in HDFC bank and 29 percent in PNB bank are strongly agreed with the statement that the courteous behavior of the bank staff motivates the customers. It means they believe that if bank employees behave courteously with their customers then the customers will use more of these facilities.

Easy procedures and less formalities motivate the customers. Table 11 shows that majority of the respondents i.e. 29 percent in HDFC bank and 47 percent in PNB bank are agreed and 29 percent in HDFC bank and 25 percent in PNB bank are strongly agreed with the statement that easy procedures and less formalities motivates the customers. It means that they think if there is less formalities and the procedures are relatively easy then customers will be motivated to use these e-delivery channels

Sound reputation of the E-Banking services of the bank motivates the customers. Table 12 shows that a large number of respondents i.e. 32 percent in HDFC bank and 44 percent in PNB bank are agreed with the statement and 31 percent in HDFC bank and 21 percent in PNB bank are strongly agreed that Sound reputation of the e-banking services of the bank motivates the customers. It means that they want to use e-banking services of only reputed banks.

Every Public sector bank should be connected with each other through E-Banking. Table 13 shows that majority of the respondents i.e. 28 percent in HDFC bank and 43 percent in PNB bank are agreed and 35 percent in HDFC bank and 34 percent in PNB bank are strongly agreed with the statement that every public sector

bank should be connected with each other through e-banking. It means that they want that the public sector banks should increase their base in the market through this inter-connection and proved helpful to the customers.

Responses regarding the awareness regarding These channels. Table 14 shows the awareness level of customers regarding various e-channels provided by the bank. Customers are aware to a large extent with the ATMs i.e. 40 percent in HDFC bank and 22 percent in PNB bank. This is because ATMs are the most commonly used e-channels. And to some extent the respondents are aware for other e-delivery channels i.e. 20 percent in HDFC bank and 31 percent in PNB bank with e- payments and 14 percent in HDFC bank and 27 percent in PNB bank with on- line banking and 21 percent in HDFC bank and 27 percent in PNB bank with mobile banking and 10 percent in HDFC bank and 25 percent in PNB bank with tele banking. It can be seen from the above table that customers are aware to large extent and to some extent only about a few e-delivery channels and not to all of them.

Awareness level of customers regarding E-Channel facilities provided by the bank. Table 15 shows the awareness level of customers regarding various e-channels provided by the bank. Customers are aware to a large extant with e-bill payment i.e. 26 percent in HDFC bank and 17 percent in PNB bank And to some extent the respondents are aware for other e-delivery channels i.e. 23 percent in HDFC bank and 37 percent in PNB bank with on-line shopping facility and 13 percent in HDFC bank and 30 percent in PNB bank with international banking services and 14 percent in HDFC bank and 22 percent in PNB bank with mobile banking and 10 percent in HDFC bank and 25 percent in PNB bank with NRI bank services and accounts and 11 percent in HDFC and 30 percent in PNB with merchant banking. It can be seen from the above table

that customers are aware to large extent and to some extent only about a few e-delivery channels and not to all of them.

E- banking Channels by Customers of different occupations. Table 16 shows that service class is using more ATMs i.e. 39 percent in HDFC bank and 42 percent in PNB bank and business class is using more e-payments i.e. 50 percent in HDFC bank and 37 percent in PNB bank and professional class is using on-line banking i.e. 37 percent in HDFC bank and 27 percent in PNB bank and agriculturist are suing more tele banking i.e. 16 percent in HDFC bank and 10 percent in PNB bank and industrialist class is using mobile banking as well as tele-banking.

Satisfaction with different dimensions of bank performance. Table 17 shows the level of satisfaction with different dimensions of bank performance. It is clear from the table that mostly customers are satisfied with all the dimensions of the bank performance. Yet they want some kind of improvement in Timeliness, confidentiality, flexibility, Transparency and banking process. But overall their satisfaction level is good.

Future of e-delivery channels. Banking sector reforms in India are by no means complete. Plans are afoot to modernize the financial system to make it compatible with best international practices. Definitely by 2020, the vast and enormous differences in the ambience presently noticed between public sector banks and the new generation. Private sector as well as foreign banks would be noticeably narrowed down. But the dominance of public sector banks, which accounts for nearly 80% share in the banking sector, is likely to reduce considerably by 2020. Analysts predict that banks will have to drive services via new channels to attract costumers, and not leave it to the technology. Every aspect of banking will be transformed by new technology. Costumer-friendly products, delivery channels, dependency on IT systems and competitive pricing would be the driving forces. The most successful

institutions will be those that combine visionary technology and very competitive pricing with strong relationships and brands built on trust with previous in-depth experience of the client business.

Banks would have adopted the following strategies to move to high-tech banking as a necessity of e-commerce, e-banking, etc.:-

- Identification of select branches from out of the entire spread of the branch network to provide innovation services.
- In the scenario of severe competition and escalating expectations of the customers for never products and improved as well as alternative delivery channels, the nerve centre of banking activities will be redefined.
- The key to survival of banks, therefore, is retention of customer loyalty by providing value-added services tailored to their needs, using state-of-the-art technology, instead of relying on outdated practices.
- Once the centralized topography is put in place, the infrastructure required for e-banking and e-commerce (with the necessary security) can be built to provide state of the art innovative services.
- Allocation of capital for each product/ service and also borrower-wise capital allocation, as far as credit, market and operational risks are concerned, through sophisticated risk management technique.
- In the case of settlement in the retail segment, extensive usage of debit card by the public and acceptance by merchant establishments would replace cheque cutting habit of customer, as currency/paperless financial deals would dominate.

The Internet would be the engine of the banking revolution in the decade to come, and e-commerce its fuel. An April 2005 survey by the IAMAI indicates that the total value of e-business in India could grow from Rs 570 crore in 2004-05 to Rs 2300 crore by 2006-07. As e-commerce would involve

banking facilities, one can imagine how much turnover would be put through banking system. ATM's have a great role to play in India. The national financial switch(NFS) network, which is aimed and maintained by the institute for development and research in banking technology is the technical aim of the RBI and aims at linking all ATM's in the country for providing efficient and cheaper ATM operations. The ATM's would be the 'Banking of the future' and the brick and mortar branches would slowly disappear. Both banker and the clients, due to its various benefits have adapted themselves to the ATM culture.

4. LIMITATIONS OF THE STUDY

1. The study is confined to only Punjab.
2. The results are drawn on the bases of the responses given by only 200 bank customers.

5. SUGGESTIONS FOR THE FURTHER STUDY

- The present study covers only representative sample of the customers of the two banks i.e. HDFC and PNB. This study may be replicated on a larger sample in order to get a better understanding of variables under study.
- The present study covers only a few e-delivery channels. This study may be replicated by including many other e-delivery channels also.
- A study on the customers of foreign banks may also be undertaken.

6. CONCLUSION

The study has been concluded that customers are well aware of the importance of e-delivery channels in the present scenario. That is why they consider these e-delivery channels as very much necessary because they knew that the use of these e-

delivery channels can increase the level of their satisfaction from the banking operations. customers wants computerized information system in the banks. So that they can avoid

- all the mistakes that occur in the manual system. It is a well known fact that
- computerized system is more accurate than the manual system and the customers know
- this fact clearly.

Table 2
E-Delivery Channels are very necessary

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	62	29	9	-	-
PNB	39	49	12	-	-

Source: Same as Table 1

Table 3
E-Delivery Channels are going to improve the quality of customer services in bank

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	28	61	10	-	1
PNB	48	41	11	-	-

Source: Same as Table 1

Table 4
Computerized information system is more accurate than the manual system

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	18	38	38	6	-
PNB	41	41	13	5	-

Source: Same as Table 1

Table 5
E-Delivery Channels has increased the role of employees in the bank

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	18	38	30	13	1
PNB	12	45	27	15	1

Source: Same as Table 1

Table 6
E-Delivery channels are going to reduce the incidence of bank frauds

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	10	33	47	2	8
PNB	18	59	19	3	1

Source: Same as Table 1

Table 7

In future people use more E-channels than before

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	34	33	28	5	-
PNB	47	37	14	2	-

Source: Same as Table 1

Table 8

Availability of more products in E-Banking motivates the customers

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	26	42	26	4	2
PNB	41	47	5	3	4

Source: Same as Table 1

Table 9

Convenient access to E-Delivery motivates the customers

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	20	9	37	4	-
PNB	21	50	20	9	-

Source: Same as Table 1

Table 10

Courteous behavior of the bank staff motivates the customers

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	31	30	23	15	1
PNB	29	39	21	11	-

Source: Same as Table 1

Table 11

Easy procedures and less formalities motivate the customers

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	29	29	28	6	8
PNB	25	47	20	6	2

Source: Same as Table 1

Table 12

Sound reputation of the E-Banking services of the bank motivates the customers

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	31	32	25	9	3
PNB	21	44	26	9	-

Source: Same as Table 1

Table 13

Every Public sector bank should be connected with each other through E-Banking

Banks	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
HDFC	35	28	28	9	-
PNB	4	43	15	7	1

Source: Same as Table 1

Table 14

Awareness regarding these channels

e-channels	To large extent		To some extent		Undecided		A Little extent		Very Little extent	
	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb
(i) ATM	40	22	28	41	14	11	13	17	5	9
(ii) e-payments	6	18	20	31	35	18	10	20	29	13
(iii) On-Line Banking	8	13	14	27	35	22	21	21	22	17
(iv) Mobile Banking	6	19	21	27	31	16	22	23	20	15
(v) Tele Banking	9	12	10	25	39	19	15	18	27	26

Source: Same as Table 1

Table 15

Awareness level of customers regarding E-Channel facilities provided by the bank

e-channels	To large extent		To some extent		Undecided		A Little extent		Very Little extent	
	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb
(i) E-bill Paybill	26	17	8	28	36	21	110	15	20	19
(ii) On-Line Shopping Facility	4	13	23	37	37	15	16	22	20	13
(iii) International Banking facility	6	11	13	30	38	19	12	21	31	19
(iv) NRI Bank Services and accounts.	5	8	14	22	37	28	14	12	30	30
(v) Merchant Banking	5	7	11	30	45	23	7	16	32	24

Source: Same as Table 1

Table 16

E-banking Channels by Customers of different occupations

e-channels	To large extent		To some extent		Undecided		A Little extent		Very Little extent	
	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb
(i) ATM	39	42	33	44	11	5	4	4	13	5
(ii) e-payments	9	22	50	37	22	25	4	5	15	11
(iii) On-Line Banking	16	12	27	35	37	27	8	8	12	18
(iv) Mobile Banking	20	26	27	30	22	26	17	8	14	18
(v) Tele Banking	15	15	29	31	23	29	16	10	17	15

Source: Same as Table 1

Table 17

Satisfaction with different dimensions of bank performance

e-channels	To large extent		To some extent		Undecided		A Little extent		Very Little extent	
	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb	Hdfc	Pnb
(i) Reliability	36	31	24	42	28	14	3	11	9	2
(ii) Accuracy	15	27	40	34	33	28	2	7	10	4
(iii) Service Speed	23	34	24	34	37	19	6	10	10	3
(iv) Timeliness	21	41	21	28	43	18	9	12	6	1
(v) Confidentiality	23	37	13	33	47	23	9	5	8	2
(vi) Flexibility	20	25	20	36	42	28	6	8	12	3
(vii) Transparency	15	11	15	42	52	27	9	16	9	4
(viii) Banking process	16	25	14	34	48	21	8	12	14	8

Source: Same as Table 1

REFERENCES

- 1 Akiniserkan, Aksoy Safak and Atilgan Eda (2004) : "Adoption of internet banking among sophisticated consumer segments in an advanced developing country," International journal of Bank Marketing. Emerau Group Publishing Limited Vol. 22, issue 3 pp. 212-232.
- 2 Annual Hawaii International Conference on system Sciences 40th (2007): "Cognition, Emotion, Satisfaction and Post behaviours of E-Service Customers." Chea, University of Hawaii at Manoa, USA. LUO, Yuan-Ze University Taiwan.
- 3 Consumer Voice(2006) : "Banking Sector: India's First Survey of Customer Satisfaction Study', Consumer Voice, Vol. 7, Issue 1 (July), pp. 14-20.
- 4 Ganesh S. (2000) : "Electronic Commerce: Applications in Banking". Published Article. IBA Bulletin March 2000. pp. 39-43.
- 5 Garg Poonam and Jham Vimi (2006) : "Indian Banks and ATM-An Empirical Study of Consumer Perceptions, Strategies of Winning Organizations", Ed. By Upinder Dhar, Dhar S. and Chauhan V.S., Excell Books, New Delhi, pp. 516-23.
- 6 Google.Com. : An internet web site.
- 7 Ibrahim, Joseph and Ibeh (2006) : "International Journal of Bank Marketing." (2006) Vol.24, Issue 7, pp.475-493.
- 8 Jalan, Bimal (2001) : "Banking and Finance in the new millennium", RBI Bulletin, February, 2001.
- 9 Kamakodi and Ahmed (2008) : "International Journal of Electronic Banking." Issue- Vol.-1, pp.73-94.
- 10 Krishna Murali R. (2000) : "Electronic Banking" published Article. IBA Bulletin March. pp. 10-13.
- 11 Kukkkddi J. and Deene S. (2006) : "Impact of ATMs on Customer Satisfaction (A Case Study of SBH in Gulbarga District of Karnataka)", Strategies of Winning Organizations, Ed. By Upinder Dhar, Dhar S. and Chauhan V.S., Excell Books, New Delhi, pp. 509-15.
- 12 Lim Bee Eng., Chamwoon Hong, Chai Chor Yam, Lee Huilino (1999): "Retail Banking : Impact of Technological innovations on customer satisfaction". Malaysian and Singapore institute of Management, published Article. Essinger publication, Singapore.
- 13 Lee Ladhar, V. (2005) : "Indian Banking - The challenges Ahead", RBI Bulletin, December. p. 1131.
- 14 Madhava Rao K. (1999) : Report of the High power committee on urban co-operative Banks." Government of India Committee Report. November, 13.
- 15 Malhotra A.P. (2000) : "Electronic Banking" published Article. IBA Bulletin March. pp. 16-19.
- 16 Mobarek Asma (2005) : "E-banking practices and customer satisfaction - A case study in Botswana".
- 17 Nair S.N (2000) : "E-Commerce and the Emergence of E-Banking", IBA Bulletin, Vol. 22, No. 10 (October).
- 18 Narasimham, M (1998) : "Report of the committee on Banking Sector Reforms", Government of India Committee Report.
- 19 Niranjana (2000) : "Internet Banking is Here", published Article. Business World. April. p-13.
- 20 Olga, Lustusik' Janek, Uiboupin; Mart sorg; Liuntu, Kari; (2007) : "Organizational and sectoral changes in Transition banking; Estonian Experience' Frames publication Issue 2/2007 pp 155-172.
- 21 Palsokar PV (2000) : "Electronic Banking" published Article. IBA Bulletin March. pp. 14-18.
- 22 Prasad Chowdari and Rai Srinivasa K.S. (2005) : "Private Sector Banks in India, published Article. ICFAI university press publication.
- 23 Raghavan R.S. : "Perception of Indian Banks in 2020".
- 24 Raja Kumar Dennis J(2005) : "Financial intermediation under Reforms in India: Evidences from scheduled commercial banks". ICFAI University Press Publication.
- 25 Singh Swarn (2000) : "Electronic Banking" published Article. IBA Bulletin March. Pp. 24-27.
- 26 Sohail Sadiq M. and Shanmugham Bala Chandran (2002) : "E-banking and customer preferences in Malaysia: An empirical investigation," Department of Management and Marketing, college of Industrial Management, Saudi Arabia.
- 27 Srivastava C(2006): "Customer Relationship Management : A Key success Factor in Services Marketing (A Case Study of Banking Services in India)", Strategies of Winning Organizations, Ed. By Upinder Dhar, Dhar S. and Chauhan V.S., Excell Books, New Delhi. Pp 481-90.
- 28 Uppal R.K. : "Transformation in Banks through e-banking services".
- 29 Uppal R.K. & Jatana Rimpi : "E-banking in India challenges and opportunities".
- 30 Uppal R.K. & Pooja : "E-delivery channels in banks: customer perception".