

An empirical study on e-banking services: A road ahead for better customer satisfaction

¹ Arpit Shailesh, ² Dr. Taruna

¹ PhD (Management) Research Scholar, School for Management Studies, Babasaheb Bhimrao Ambedkar University, Lucknow (A Central University), Uttar Pradesh, India.

² Assistant Professor, School for Management Studies, Babasaheb Bhimrao Ambedkar University, Lucknow (A Central University), Uttar Pradesh, India.

Abstract

A huge number of customers are getting attracted towards the alternative source of banking, i.e., online banking. Using a PC, cellular phone, or other wireless devices, banking customers gain the flexibility to conduct business anytime. This refers to the transfer of funds directly from one account to another by using electronic means. Internet banking products and services can include wholesale products as well as retail products for corporate clients. The adoptions of Internet banking by the financial institutions and banks have made the development of services over the Internet a major component of their business and marketing strategy and have also grown at a very rapid pace. Banks require E-Commerce systems that are combined with the entire chain of back office and business decision processes for optimum flexibility, responsiveness to changing market requirements and profitability. The main objective of the paper is to give an over view on e-banking, banks or financial institutions which offer e-banking services, such as cash management, bill payment, value-added services and as well as reporting.

Keywords: E-banking, Concerns, Customer Relationship, Satisfaction, Banking Industry and Information Technology

1. Introduction

The new millennium has made a tremendous impact in banking and has also opened a plethora of opportunities in information technology. Since 1990s, banking scenario has been changing at a rapid pace. 'Anywhere and anytime banking' has come into realism. This E-Banking system gives the customers the flexibility to start up a business anytime, using a cellular phone, or a PC or any other wireless device. The introduction and use of the Internet has significantly changed the day-to-day activities of most of the people, such as shopping and banking. A huge number of customers are getting attracted towards the alternative source of banking that is online banking. Some of the reasons for Customers prefer online banking services due to some of the reasons which are: convenient in using, saving time, avoiding human contact and the quality of the electronically services. Online Banking, which includes both wireless banking and home banking, is changing intensely the way financial institutions or banks interact with their customers. But Electronic Banking is more than simply setting up a new channel or customer touches point. In the banking industry as well as in the community, E-banking as a subject is receiving great attention.

Businesses are gradually more looking to IT to help support the tasks of improving customer support, enhancing business processes, supply chain management or helping drive innovation in the business. Customer Relationship through Integrated Banking System: To attain and maintain an edge over its opponents, Banks need an open E-Commerce Technology platform which can:

- Exploit the market data as well as the value of the clients by deploying Customer Relationship Management (CRM), Business Intelligence (BI) and other financial software to help better anticipate.

- Provide the scalability and power to handle multiple workloads
- Provide advanced services availability and sound security for transactions all the time, around the world which are very essential for competitive banking
- Understand and respond to customer demands and modified customer service
- Incorporate Future Technologies, an up-to-date E-commerce applications and new innovative ways of doing business with clients

2. Review of Literature

Dr. C. Paramasivan (2013) in his research entitled "Customer Satisfaction in commercial banks through information technology", deals on how much the customers are contented to a certain level with the banking services but with the help of information technology, they can improve their services at an affordable cost. In his research, he highlighted that customers should understand the introduction of internet based e-banking system which is to improve their operations and to reduce the cost.

Nyangosi *et al.*, (2009) presented a paper on the customer's opinions concerning the significance of e-banking and the adoption levels of different e-banking technologies in Kenya and India. The research emphasised on the drifts of e-banking indicators in both countries. The overall result indicates customers in both countries give much importance to the emergence of e-banking and that they have developed a positive attitude towards it.

Mishra (2005) in his study highlighted the security concerns and the advantages of internet banking. According to him, offering of more services, improved customer access, attracting new customers, increased customer loyalty are the

primary drivers of internet banking. The online banking association conducted a survey where the member institutions rated more for security as it was the most important concern of online banking.

Awamleh (2003), found out that like other developing countries of the world, Jordan, is perceiving a fast movement towards e-banking. Few studies which were made in Jordan related to E-banking services each bank was providing. The result came out to be that all the banks in Jordan had made transactional website, but only 3 out of 12 banks in Jordan maintained their websites. After the survey was made again a survey was made and the result was that banks providing e-banking services have significantly increased.

Guru (2003), as usage of internet is up to limit only that is why e-banking is in its early stages in the Middle East countries. The study resolved that Banks in Islam are succeeding towards transactional form of banking i.e. e-banking, still they are slower than their conformist equivalents. The details cited for this hold-up comprise of privacy issues, absence of support by top management and security.

Paynter and Chung (2002) stated that four aspects that affect satisfaction of customers in e-banking are security, transactions free of technical problems, response time, and download time. In conclusion they also said that the aspects that are significant for the customers to adopt e-banking involve education, age, the services perceived are simple and being an existing user of phone.

3. Merits of e-banking

Through the services and transaction fees charged to users, E-banking generates new revenue streams. To provide the services to the users, these fees enables the banks to compensate much of the expenses incurred. The benefits of e-banking are as follows:

- Enhance customer relationship by providing more personalized service and greater convenience.
- Cross selling new services to existing customers and providing with opportunities for acquiring new customers which can play a significant role in increasing profitability.
- Enhancing ability to retain consumers through target marketing.
- Improved operational efficiency and savings from reduced transactional costs.
- Ability to view their balances online, lending, cash management, online bill payment, ecommerce portal offerings and account aggregation.

Also, financial institutions or banks not only offer simple E-banking services, such as reporting, cash management, bill payment and other value-added services to achieve profitability in e-banking; but also must use the time the customer spends on the website for cross selling and marketing other products and services.

4. Types of Internet Banking

The three main types of Internet banking which are being employed in the marketplace are as follows:

Table 1: Types of Internet Banking

S. No.	Type	Meaning
1.	Transactional E-banking	The electronic banking which allows clients to execute transactions is known as transactional E-Banking. Customer transactions can include paying bills, accessing accounts, transferring funds and credit facilities, etc. This is the highest risk architecture and also has the strongest controls, since a path usually exists between the database server and the bank's centralized computer systems or outsourcer's internal network.
2.	Informational E-banking	This is the basic level of E-banking. Usually, the bank or a financial institution has information of marketing about its goods and services on a database server. The risk is comparatively low, as informational systems generally have no path between the database server and the bank's internal network. The bank or outsourcing companies can provide this level of Internet banking. On the other hand, the risk for a bank is comparatively low, the database server or Web site may be vulnerable to alteration. As a result, suitable controls must be in place in order to prevent illegal modifications to the bank's server or Web site.
3.	Communicative E-banking	It is that type of electronic banking system which allows some interaction between the bank's systems and the respective client. The interaction may be limited to Account inquiry, Electronic mail, file updates (name, phone and address changes) or Loan applications. The risk is relatively less with informational systems than with this configuration, since these servers might have a route to the bank's internal networks. Appropriate controls need to be in place in order to prevent, monitor, appraise and alert system of any illegal attempt to access the centralized computer systems and the bank's internal networks.

5. Objectives of the study

The study focuses mainly on the following objectives:

- To discuss the E-banking system concerns and planning.
- To measure the satisfaction level of the customer.
- To find out the reasons for customer's preferences towards Internet banking system.
- To understand the facilities commonly availed by the consumers and the opinions about the services.

6. Research Methodology

The data has been collected through various resources as it is a vital aspect in any research. In this study primary as well as secondary data have been used. The Percentage Correlation

method has been used by the researcher to interpret and analyse the data.

7. Data Collection

Primary data is the first hand information, which has been collected through the pre-tested interview schedule. To gather the data and information, the interview schedule was designed keeping an outlook of the objectives of the research.

The secondary data is an integral part of any project report or research study as it delivers information on chief variables, which play a major part in the research. This data is collected by the different studies, books, magazine, journals, internet, newspaper etc. to supplement the present study.

8. Sample Size

The convenience sampling method has been used for the study. The sample consists of general customers of the banks who all are using e-banking facility. The total numbers of respondents for the study are 300 e-banking users.

9. Data Analysis & Interpretation

9.1. Nature of Account

Nowadays banks offer various types of account for different types of client. Data regarding the type of banks account of customers is collected and depicted in Table 2.

Table 2: Nature of Account

S. No.	Account Type	No. of Respondents	Percentage
1	Savings Account	60	20.00
2	Current Account	154	51.33
3	Salary Account	48	16.00
4	Cash Credit Account	38	12.66
	Total	300	100.00

Source: Primary Data

It is clearly depicted in the above table 2 that, 20% respondents have a savings bank account, 51.33% respondents have a current account, 16% respondents have a salary account whereas the remaining 12.66% have a Cash Credit or time deposit account.

9.2. Information sources of e-banking

The customers are provided with different kinds of services from the bank from time to time. Many times it so happens that the customers are not aware about the modern services provided by the bank. So the researcher studied about it and collected the relevant information about the sources through which the respondents got the information about internet banking services. Table 3 given below presents this piece of statistics.

Table 3: Information about services of Internet Banking

S. No.	Sources	No. of Respondents	Percentage
1	Advertisement	110	36.67
2	Relatives and Friends	65	21.66
3	Staff of Bank	92	30.66
4	Website of Bank	37	12.33
	Total	300	100.00

Source: Primary Data

The table 3 clearly depicts that around 36.67 per cent of the respondents have known from advertisement, 21.66 per cent of the informants got the information from friends and relatives, 30.66 per cent of the respondents got aware about the Services of Internet banking via staff of bank and the remaining 12.33 per cent of the respondents known from bank website.

9.3. Reasons for preferring internet banking facilities

The respondents are provided with a number of facilities from Internet Banking. The researcher researched and collected

information about the factor which induce an urge in the customers to prefer e-banking.

Table 4: Motives for using online facilities

S. No.	Reasons	No. of Respondents	Percentage
1	Fund transfer	142	47.33
2	Electronic Bill presentation and payment	46	15.33
3	Checking Accounts balance	64	21.33
4	Paying Bill Online	35	11.66
5	Business purpose	13	4.34
	Total	300	100

Source: Primary Data

It is clearly depicted in the above Table 4, that 300 respondents utilize the Internet Banking services. Out of which 47.33% of the customers use it for Inter account funds transfer, 15.33% of the respondents use Internet Banking for Electronic Bill presentation and payment. On the other hand, 21.33 percent of the respondents use Internet Banking for checking their account balance and the remaining 4.34 percent use Internet banking to withdraw and deposit money at any time.

9.4. Opinions about service charges of internet banking

The bank provides internet banking services to the account holders and in return it collects service charges from them. The researcher has collected the information about then opinion about service charges fixed by the bank and has presented it in Table 5.

Table 5: Opinions about service charges of Internet Banking

S. No.	Service Charge's Level	No. of Respondents	Percentage
1	Very High	24	8.00
2	High	88	29.33
3	Moderate	116	38.67
4	Low	72	24.00
	Total	300	100.00

Source: Primary Data

It is vividly depicted in the above table that, out of 300 customers, 8 percent of them feel that the service charges are very high, whereas 29.33 percent respondents feel that the service charges are high. On the other hand, 38.67 percent respondents feel that the service charges are moderate whereas the remaining 24 percent have a belief that the service charges are low. Therefore, a majority if the respondents believe that the service charges are moderate for them.

9.5. Problems faced by the respondents

Sometimes banks create some minor problems, even though they provide various services under Internet Banking scheme to their customers. While using Internet Banking, the researcher has identified some of the common problems faced by the respondents. It is clearly depicted in the table given below.

Table 6: Problems faced by the respondents

S. No.	Problems	No. of Respondents	Percentage
1	Network Failure	87	29.00
2	Error in Operation	61	20.33
3	No Security for Internet Dealing	83	27.67
4	No Authenticated Records	53	17.66
5	Low Speed and Delay	16	5.34
	Total	300	100.00

Source: Primary Data

It is observed from the above table 6, that 29 percent respondent out of 300 respondents face network failure problems. On the other hand, 20.33 percent of the respondents face error in operation, whereas 27.67 percent of the respondents feel that there is no security in E-dealings. 17.33 percent respondents think that there are no authenticated records and the remaining 5.79 percent of the respondents think that network delay creates problem.

9.6. Satisfaction level of the customer

The researcher has collected the data about the satisfaction level of the users using Internet Banking. The satisfaction level of the consumers is presented in the table given below:

Table 7: Satisfaction level

S. No.	Level of Satisfaction	No. of Respondents	Percentage
1	Highly satisfied	123	41.00
2	Satisfied	90	30.00
3	Moderate	54	18.00
4	Unsatisfied	22	7.33
5	Highly unsatisfied	11	3.67
	Total	300	100.00

Source: Primary Data

It is vividly clear from the table 7 that 41 percent respondents, out of 300 respondents are highly satisfied with the services of Internet Banking. On the other hand, 30 percent respondents are satisfied with the banking services rendered to them. 18 percent of the respondents feel moderate about their satisfaction level, whereas, 7.33 percent customers feel unsatisfied with the Internet Banking services rendered to them. Only 3.67 percent of the users are not satisfied with the Internet Banking services.

10. Concerns in Banking Industry

The Internet must be protected in order to achieve a high level of confidence with both businesses and clients, as recognised by the banking industry. In the upcoming years, the banking industry anticipates a major growth in the usage of the Internet for the electronic data interchange as well as to purchase of goods and services. A Sound management of the goods and services provided over the Internet as well as the banking products and services, is essential to maintain a high level of public assurance not only in the individual bank and its brand name but also in the banking system all together. In an open network environment, the main components that will help in maintaining a high level of public confidence are as follows:

security, trust, authentication & validation, non-repudiation, availability and privacy which have been discussed here under:

10.1. Safety Issue in system of e-banking

The most important area of concern in e-banking systems is Security. Integrity of the data must be secured as there is an extensive exchange of financial data over the internet. The clients expect national banks to provide a level of physical and logical security commensurate with the sensitivity of the information and the individual bank's risk tolerance.

To protect against security breaches for all forms of electronic access, national banks must therefore have a sound system of internal controls. A sound system of detective, preventive and corrective controls will help assure the veracity of the network and the information it handles. In the e-banking solution, the employed security should be like Secure Socket Layer (SSL), firewall security, etc. To create an encrypted communications channel between the client and server on the transport layer, the Secure WEB Server uses the SSL protocol. On Internet Banking systems, Firewalls are often used as a security measure to protect internal systems. They should also be well thought-out for any system associated to an outside network. The combination of software and hardware which are placed between two networks through which all traffic must pass, irrespective of the direction of flow, is known as a firewall. To guard against unlawful individuals who gain access to the bank's network a gateway is provided by them. A high level of state full security is provided by the installed firewall between the back-end database and the front-end server and business server. The installation of specific policies is done only to allow restricted communication. The Internet brings with it new challenges for trustworthiness and security. Fortunately, Internet security technologies solve issues of privacy, data integrity, authentication access control, and non-repudiation.

10.2. Validation & Confirmation concern in the system of electronic banking

Another important issue in an e-banking system is Authentication & Validation. The telecommunication network must be protected in order to achieve a high level of public confidence. Banks, clients, and merchants need assurances that they will receive the service as ordered or the merchandise as requested, as in cyberspace, as in the physical world. The identity of the person is known to them while they are dealing with banks. Through various methods of identity check, the identity validation is established. The methods incorporated are as follows:

- User name and password validated on client's side with the use of the login media which encapsulates encrypted user information,
- Digital Certificates stored on login media,
- Mini CDs or Smart cards.

To secure messages, banks usually use symmetric (private key) encryption technology, whereas, asymmetric (public/private key) cryptography is used by the banks to authenticate parties.

Asymmetric cryptography employs two keys - a private key and a public key. These two keys are accurately tied but one

key cannot be inferred from the other. For example, if a sender sends a message to authenticate, the sender encodes the message using their private key. The private key is known only to the sender. By using only the sender's public key the message can be read. The receiver knows the message came from the expected sender because the message can only be read using the sender's public key.

Along with performance and cost issues, the management must also balance the security needs. A national bank should thus carry out a risk assessment in deciding upon its proper level of encryption. One of the advanced form of authentication are the Biometric devices. These devices may take the form of a finger or thumb print scan, retina scan, voice print scan or facial scan. Biometrics may be used by some banks for authentication, but it is not yet considered mainstream.

10.3. Faith concern in system of e-banking

Public and private key cryptographic systems can be used to protect information and validate parties in transactions in cyberspace, as noted in the previous discussion. A necessary part of the process is a trusted third party. In this third party is the certificate authority. The certificate authority is a trusted third party that verifies identities in cyberspace. The basic fundamental is that a bank, or other third party, uses its good name to authenticate parties in transactions.

We can compare this with the historic role that banks have played with letters of credit, where the buyer and the seller were known to the bank but they were unknown to each other. Therefore, just for a fee, the bank uses its good name to facilitate the transaction. Digital certificates may play an important role in validating parties and henceforth in establishing a trust in the Internet Banking systems.

10.4. No declaration of transactions made

The indubitable proof of participation by both the sender and receiver in a transaction is known as a Non- disclaimer. To prevent denial or repudiation by the sender or receiver and to authenticate electronic messages, the public key encryption was developed. State laws are not uniform in the treatment of electronic authentication and digital signatures, even though technology has provided an answer to non-repudiation. A new and emerging area of the law is the application of state laws to these activities.

10.5. Protecting information of the clients and maintaining privacy

Privacy is a client issue of increasing importance. National banks make this a positive attribute for the bank and a benefit for its clients who respond to privacy issues in a proactive way. Over the proper versus improper accumulation and use of personal information, public concerns are likely to increase with the continued growth of Electronic Commerce and Internet providers who are sensitive to these concerns and have an advantage over those who do not. The safeguarding of personal privacy as well as client information has long been a most important issue for the financial services industry. This is an industry whose currency is the access to and use of financial information. The growing scope of products and consolidation of the banking industry offered by financial services firms' means that the industry will be accountable for

maintaining and protecting huge databases containing extensive information on individuals.

The progression of modern and latest communications technology and technological computers has immensely enhanced the use of personal information for commercial purposes and efficient collection. This has led to a vast enlargement in the scale and scope of personal information collected and has also increased commercial value of personal data. They entrust a bank with personal lifestyle and financial information when bank clients open an account, use a bank credit card or use other services or apply for loan application. This exchange of information is important and is very fundamental to the business of banking. In part on the clients' trust and confidence that personal financial information will remain confidential and will not be disclosed, the success of the banking system is dependent. A bank could suffer damage to its reputation as well as potential financial liability that does not protect this information.

10.6. Providing services to customer, round the clock 365 days a year

One of the component in maintaining a high level of public confidence in a network environment is the Availability. If the network is not available and convenient to clients, all of the previous components are of little value. Users of a network expect access to systems 24 hours daily, seven days weekly and 365 days yearly. Amid the reflections associated with system availability are performance monitoring, capacity, business resumption and redundancy. Internet Banking goods and services which are provided by the national banks and their vendors need to be confident that they have the capacity in regards of hardware and software to consistently deliver a high level of service. Furthermore, management will be provided with information with the help of performance monitoring techniques provide such as the duration of transactions, the volume of traffic and the amount of time clients must wait for a service. Management is assured about a high level of availability for their Internet Banking system with the help of monitoring capacity, performance on a regular basis and downtime. To prevent outages due to component failures, it is also very essential to assess network vulnerabilities. When a single software module or hardware component malfunctions, a complete network can become in-operational. Often national banks and their vendors will have the ability to switch to alternate processing locations or will utilize superfluous hardware in critical areas.

11. Tactical deliberations for evolving services of e-banking

In determining plans for developing an Internet Banking service and the type of services that should be offered, there are several important strategic considerations that should be weighed (Daniel E. Nolle, 2001): -

1. Firstly, bank management must calculate the unit to which current and future market demand for Internet banking services merit a change in their Internet Banking plans. The development in client usage of Online Banking may be dependent on the development of new and better services rather than reducing the price of standard banking products.
2. Secondly, consideration for banks in determining, where and how deep to plunge into Internet banking is likely

potential competitive pressure generated by the development of the Internet. Banks not only from their traditional rival's banks face competition within the banking industry, but their market share is all the more threatened by the banks from new remote locations.

3. Thirdly, strategic consideration is the question of whether there are "early adopter", in developing Internet plans. Some market analysts point to the high market concentration of Internet Banking clients in a few large banks as facts that there will be a few big winners and that laggard will have complexity catching up. Internet Banking will boost the economies of scale and that early adopters will be in better position themselves to exploit them and that the scope can be realized, is all argued by the so early-adopter-advantage-view. Furthermore, using the current set of Internet Banking options, today's early adopter benefit in capturing customers may rapidly be undermined by the introduction of a new technology due of the broad scope and rapid pace of technological change in banking and payments.

12. Suggestions

With a view to improve the customer service in the Internet Banking system, the following suggestions have been made. They are as follows:

- The customers worry about the Security System offered by the banks, even though the E-banking provides numerous facilities to the users. They should improve the quality of the services to make the customers feel convenient about the system. Banks should implement more security to minimize the risk and rise customer authentication such as Digital Signature, Personal Identification Number and Audit Trail for transaction, etc.
- Banks should install such systems which are supported by software and firewalls. According to the customer's needs, the system should be configured with the highest security setting with the level of protection.
- Banks should improve their capacity to manage and control the various risk inherent to the e-transactions activities.
- The branches should setup a preventive measure to overcome day-to-day problems like connectivity problems and power failure problem.
- Making transactions convenient for the customers between accounts of various types of banks, the banks should have a tie-up with other banks.
- The redressals of the grievances must be settled immediately. Likewise, the bank staff must clear the doubts if the customers in dialect language.

13. Conclusion

Online banking has attracted a large number of customers. Some of the reasons for Customers prefer online banking services due to some of the reasons which are: convenient in using, saving time, avoiding human contact and the quality of the electronically services. 'Anywhere and Anytime banking' has come into realism. By using a PC, cellular phone, or other wireless devices, banking customers gain the flexibility to conduct business anytime. This refers to the transfer of funds directly from one account to another by using electronic means. Some E-banking services are ATMs, Withdrawal Services, Payment by Phone Systems. Nevertheless, the

adoption of Internet banking by the financial institutions and banks, besides growing at a rapid pace, have made the development of services over the Internet a major constituent of their business as well as their marketing strategy. The requirement for banks to be an integral part of E-Commerce technology has been made clear by the competitive demands so that they can provide best service all the time, everywhere, over any communications channel.

14. References

1. Akerlof G, Romer P. Looting: The Economic Underworld of Bankruptcy for Profit, *Brookings Papers on Economic Activity* 1993; 2:1-73.
2. Aurora S, Malhotra M. Customer Satisfaction: A Comparative Analysis of Public and Private sector Banks, *Decision* 1997; 24(1-4):109 -130.
3. Boot AW, Thakor AV. Self-Interested Bank Regulation, *American Economic Review Papers and Proceedings* 1993; 83:206-212.
4. Borish MS, Long MF, Noel M. Restructuring Banks and Enterprises: Recent Lessons from Transition Countries, *World Bank Discussion Paper 279* (Washington, DC), 1995.
5. Caprio JG, Jr D Folkerts-Landau, Lane TD, eds. *Building Sound Finance in Emerging Market Economies* (Washington: IMF and World Bank), 1994.
6. Chamley C, Honohan P. Taxation of Financial Intermediation: Measurement Principles and Application to Five African Countries, *World Bank Policy Research Working*, 1990, 421.
7. Claessens S. Banking Reform in Transition Countries, Background Paper for the World Development Report, mimeo, 1996.
8. Centeno C. Adoption of Internet Services in the Enlarged European Union: Lessons from the Internet Banking case. *European Commission Joint Research Centre, Report EUR 20822 EN*, 2003.
9. CUES Techport, 2001. www.corillian.com
10. Diaz-Alejandro C. Goodbye Financial Repression, Hello Financial Crash. *Journal of Development Economics*. 1983; 19:1-24.
11. Ennis HM, Keister T. Economic Growth, Liquidity, and Bank Runs. *Journal of Economic Theory*. 2003; 109:220–245.
12. Furst Karen, William W Lang, Daniel E. Nolle Technological Innovation in Banking and Payments: Industry Trends and Implications for Banks. *Quarterly Journal*. Office of the Comptroller of the Currency.
13. Guttentag JM, Herring RJ. Disaster Myopia in International Banking, *Princeton Essays in International Finance*, 1986, 164.
14. Gehrig, T. Market Structure, Monitoring and Capital Adequacy, *Schweizerische Zeitschrift fur Volkswirtschaft und Statistik* 1996; 132(4/2):685-702.
15. Gehrig T, Stenbacka R. Screening Cycles, working paper, University of Freiburg, 2004.
16. Gersbach H. Financial Intermediation, Regulation and the Creation of Macroeconomic Risks, working paper, University of Heidelberg, 1998.
17. Gersbach H, Wenzelburger J. Do Risk Premia Protect from Banking Crises? *Macroeconomic Dynamics*, 2008, 12.

18. Gavin M, Hausman R. *The Roots of Banking Crises: The Macroeconomic Context*, 1995.
19. Goldstuck A. *Special Report Online banking in India*. (Available at <http://www.mediatoolbox.co.za>, 2003)
20. Garber PM. *Managing Risks to Financial Markets from Volatile Capital Flows: The Role of Prudential Regulation*, Conference Paper, 1995.
21. *Internet Banking. Market Developments and Regulatory Issues*, Article of Office of the Comptroller of the Currency. *Internet Banking Comptroller's Handbook*, 2003; 4-5:17-21.
22. John Carlson, Karen Furst, William W Lang, Daniel E. Nolle, 2001.
23. Lasota A, Mackey M. *Chaos, Fractals and Noise: Stochastic Aspects of Dynamics*, Applied Mathematical Sciences 97. Springer, New York, 1994.
24. Lindgren C, Garcia G, Saal M. *Bank Soundness and Macroeconomic Policy*, IMF, 1996.
25. *Society of Government Economists Conference the New Economy. What Has Changed, and the Challenges for Economic Policy*, Washington, DC, 2000.
26. *Stop visiting your bank*, *Benef IT*. 2006; 2(10):25-28.
27. *The Dominion I-banking struggles for profits*, 2001. <http://www.stuff.co.nz/inl/index /0, 1008, 779016a28, FF.html>.
28. Tybout J. *A Firm-level Chronicle of Financial Crises in the Southern Cone*. *Journal of Development Economics*. 1986; 24:371-400.
29. Vittas D. *Financial Regulation: Changing the Rules of the Game* (Washington, DC: The World Bank), 1992.
30. Zeithaml VA, Bitner MJ. *Services Marketing*. New York: McGraw-Hill, 2000.