

E-BANKING IN INDIA

Dr. Raj Kumar Agrawal

Assistant Professor
TH. H.N. Singh College (Allahabad State University)
Karelabagh Allahabad, UP. 211016

ABSTRACT: The technology and security standards are of prime importance as the entire base of Internet banking rests on it. Also the competition has increased to such an extent that the one who is not compatible with the changing environment is not able to survive for long. The last decade has witnessed a drastic change in the economic and banking environment all over the world. With the economic and financial sector reforms introduced in the country since early 1990s, the operating environment for banks in India has also undergone a rapid change. Technology will break all boundaries and encourage cross border banking business. E-banking helps us in overcoming the drawbacks of manual system, as computers are capable of storing, analyzing, consolidating, searching and presenting the data as per the user requirements with lot of speed and accuracy. Banks would have to undertake extensive Business Process Re-Engineering. E-banking comprises of Internet Banking, Smart Cards, Debit Cards, Credit Cards, Automated Teller Machines, and Charge Cards etc. Now-a-days, foreign banks are also entering into the Indian Banking Market.

Keywords: E-Banking Functions, Advantages, Limitations, Traditional banking services.

This research paper is focused on Technology used in E-banking, Current Usage of Technology in Banks, Advantages of the Technology, Challenges of the Technology, Legal Issues - IT Act, 2000

INTRODUCTION: - A sound and effective banking system is the backbone of an economy. The acceleration in technology has produced an extraordinary effect upon our economy in general has had a particularly profound impact in expanding the scope and utility of financial products over the last ten years. Information technology has made possible the creation, valuation, and exchange of complex financial products on a global basis and even that just in recent years. Derivatives are obviously the most evident of the many products that technology has inspired, but the substantial increase in our calculation has permitted a variety of other products and, most beneficially, new ways to unbundled risk. Technology will break all boundaries and encourage cross border banking business. E-banking helps us in overcoming the drawbacks of manual system, as computers are capable of storing, analyzing, consolidating, searching and presenting the data as per the user requirements with lot of speed and accuracy. The technology has the potential to change methods of marketing, advertising, designing, pricing and distributing financial products and services and cost savings in the form of an electronic, self-service product-delivery channel. The technology holds the key to the future success of Indian Banks. Thus, "Electronic Banking" is the need of the hour, which cannot be lost sight of except at the cost of elimination from the competition. The existence of Electronic banking also becomes inevitable due to the standards required to be matched at the international level. Thus, the domestic as well as the international standards mandates the adoption of Electronic banking at the earliest possible moment.

REVIEW OF LITERATURE:- To know the impact of e-banking on various aspects, the research studies undertaken for the review have been classified into four categories, i.e., studies related to banks, studies related to customers, studies related to service quality and studies related to technology.

Studies Related to Banks:

Uppal R.K. (2010) studies the extent of mobile banking in Indian banking industry during 2000-2007. The study concludes that among all e-channels, ATM is the most effective while mobile banking does not hold a strong position in public and old private sector but in new private sector banks and foreign banks m-banking is good enough with nearly 50 pc average branches providing m-banking services. M-banking customers are also the highest in ebanks which have positive impact on net profits and business per employee of these banks. Among all, foreign banks are on the top position followed by new private sector banks in providing m-banking services and their efficiency is also much higher as compared to other groups. The study also suggests some strategies to improve m-banking services.

Suresh (2008) highlighted that recently developed e-banking technology had created unpredicted opportunities for the banks to organize their financial products, profits, service delivery and marketing. The objectives of the study were to evaluate the difference between traditional and e-banking, and to identify the core capabilities for the best use of ebanking.

The author analyzed that e-banking will be an innovation if it preserved both business model and technology knowledge, and disruptive if it destroys both the model and knowledge. He also differentiated e-banking from traditional banking in five ways, namely, value proportion, market scope, cost structure, profit potential and value network. However, in order to exploit technical and business capabilities of e-banking, banks should generate more customers inside and outside India so that more revenues could be generated that lead to better future of Indian economy.

Singh (2004) examined the impact of online banking and internet banking. The objective of the study was to find who uses internet, why and where. It also examined the respondents' reasons for not using banking online. The data was collected from two universities of Kwazunatal. The researcher analyzed that males use more internet banking than females. Main services used through websites were inter-account transfer, paying accounts, checking balance/statement, communication with the banks, etc. Security was the main issue for not using banking online. The author suggested that to make online banking more adaptive, websites should be more attractive, more 54 informative and colorful. Training should be given to customers. Charges of online facilities should also be less. Banks should advertise and publicize their new products and services offered on the websites so as to make internet banking more popular among customers. Erickson et al. (2005) studied the technology acceptance of internet banking

Studies Related to Service Quality

Jain, Megha & Popli, G.S. in their article "Role of Information Technology in the development of Banking Sector in India", have tried to analyse the banking innovations and the extent of computerization in the public sector banks of India. They have also identified certain challenges being faced in the implementation of IT solutions in various spheres of banking. Their study shows that 97.8 percent were fully computerized at the end of March 2010 whereas all branches of SBI were fully computerized. It also reveals the increase in the spread of NEFT to 86,449 branches and RTGS to 84,638 branches as at the end of May 2012. As at end-March 2012, 49 banks with a customer base of 13 million provided mobile banking service in India. Also noted that during the year 2011-12, 25.6 million mobile banking transactions valued at 18.2 billion were observed. It proves Indian Banking industry has come a long way providing greater convenience, transparency, new segments and improved bank-customer relationship. However, having discussed the blessings of Internet banking we also need to note the threats and challenges faced by E-banking. Such as, the potential for frauds, money laundering and system failure needs to be ruled out which requires huge investments by government. Lal, Roshan & Saluja, Rajni, E-Banking: The Indian Scenario. The authors have tried to address.

Studies Related to Technology

Aggarwal (2003), in his paper, looked for such avenues where e-banking could play significant role in e-democracy. The author discussed two case studies on the implementation of e-banking in digital democracy. One was farmer service and other was e-seva. While applying e-banking in e-democracy, services become more secure, efficient, transparent and fast. It becomes a win-win situation for all, for banks its low cost, for government its better service, for business its fast and secure, and for citizens its transparent and efficient. The author evaluated that e-banking could be used for successful e-banking for online bill payment, online brokerage, online account management, anywhere banking, etc. The author concluded that e-banking services provide one stop service and informational unit that provides great benefits to banks, customers, employers and government.

Arora (2003) made an attempt to prove that technology had a definitive role in facilitating transactions in the banking sector; and the impact of technology had resulted into the introduction of new products and services by various banks in India. The author discussed various initiatives taken by the banks to manage transformation and these initiatives had brought customers the convenience of anywhere, anytime banking. The author concluded that technology was a facilitator for advancement in the core business of banking and not an end in itself. Hogarth and Hilbert (2004) highlighted that electronic banking technology.

Research Methodology

The present study is based on the secondary data on Indian Banking Sector collected from different journals, research articles, periodicals, websites and published data from various issues of RBI, Indian Banks' association. Various studies on this subject available on internet have also been referred in this paper.

TECHNOLOGY USED IN E-BANKING

Current Indian Scene: Findings

The Reserve Bank of India has divided the internet banking products in India into 3 categories which are as follows:

Information Only System - General purpose information like interest rates, branch location, bank products and their features, loan and deposit calculations are provided in the banks website. No customer identification is done.

Electronic Information Transfer System - This system entails provision of customer- specific information in the form of account balances, transaction details, and statement of accounts. Customer identification and authentication is required.

Fully Electronic Transactional System - It allows bi-directional capabilities. Customers can submit transactions for online update. This system requires high degree of security and control. It comprises technology covering computerization, networking and security, interbank payment gateway and legal infrastructure.

With around 90 scheduled commercial banks and over 90,000 branches operating in India currently, there are umpteen e-banking products and services which banks have continuously strived to bring for the ease of customers. Some of them have been listed below:

Automated Teller Machines (ATMs) Internet Banking Electronic Fund Transfer Mobile Banking/ Telebanking Electronic Clearing Services Smart Cards Door Step Banking Electronic Clearing Cards Online payments NEFT/RTGS Electronic Payment Services – E Cheques E-tax E-ticketing Demat account Account Opening Request Account statement on emails, etc.

Automated Teller Machines: The Automated Teller Machines are installed, now-a-days, at every nook and corner in most of the towns & cities. These are meant for balance enquiries, cash withdrawals and many other facilities depending upon the policies of the bank. This requires a valid Customer Id and password to log in and is therefore safe to be used. Despite of using ATM cards, Debit cards can also be used in the ATMs.

Debit Cards: Debit Cards is another advanced technology of the electronic banking, now-a-days. These cards are the multi-purpose cards and can be used in ATMs for balance enquiry and cash withdrawal or can be used for easy shopping at various counters. Debit Cards ensure the automatic deduction of amount from the account just by scratching it on the machine. It makes it easier for the consumers to go for shopping with and even carrying cash with them.

Credit Cards: Credit Cards, unlike debit cards, provide credit to the consumers. A credit card system is a type of retail transaction settlement and credit system, named after the small plastic card issued to users of the system. A credit card is different from a debit card in that it does not remove money from the user's account after every transaction. In the case of credit cards, the issuer lends money to the consumer (or the user). It is also different from a charge card (though this name is sometimes used by the public to describe credit cards), which requires the balance to be paid in full each month. In contrast, a credit card allows the consumer to 'revolve' their balance, at the cost of having interest charged. Most credit cards are the same shape and size, as specified by the ISO 7810 standard.

Charge Cards: A charge card is a means of obtaining a very short term (usually around 1 month) loan for a purchase. It is similar to a credit card, except that the contract with the card issuer requires that the cardholder must each month pay charges made to it in full -- there is no "minimum payment" other than the full balance. Since there is no loan, there is no official interest. A partial payment (or no payment) results in a severe late fee (as much as 5% of the balance) and the possible restriction of future transactions or even cancellation of the card.

Smart Cards: A card that is used for storing and retrieving personal information, normally the size of a credit card and contains electronic memory and possibly an embedded integrated circuit. The card can be used to do many tasks: Will verify the carrier of that card in order to access systems, Storing a patient's medical records, Storing digital cash, To use a smart card, either to pull information from it or add data to it, you need a smart card reader, a small device into which you insert the smart card.

ADVANTAGES OF E-BANKING

- Stop payment or cheques
- Cheque book replenishment
- Demand Draft / Pay-order
- Opening of fixed deposit account
- Opening of Letter of credit
- Convenience.
- Speed of concluding transactions.
- Safety-banking from own home.
- Economy- banking without visiting your bank & Cheaper service fees.
- Seamless Integration with existing environment (IDM-Intelligent Data Module).
- Highly Scalable.
- Easy Customization.
- Lower Costs of both Installation and Maintenance.
- Platform Independence.
- Round-the-Clock and Cross-Border Availability.
- Remote Authorization.

CHALLENGES OF TECHNOLOGY

- Safety situations around ATMs.
- Abuse of bank cards by fraudsters at ATMs.
- Danger of giving your card number when buying on-line.
- Operational risk, also referred to as transactional risk is the most common form of risk associated with Ebanking.
- Security risk arises on account of unauthorized access to a bank's critical information stores like accounting system, risk management system, portfolio management system, etc.
- Banks face the risk of wrong choice of technology, improper system design and inadequate control processes

- Reputational risk is the risks of getting significant negative public opinion, which may result in a critical loss of funding or customers. Such risks arise from actions which cause major loss of the public confidence in the banks' ability to perform critical functions or impair bank-customer relationship. It may be due to banks' own action or due to third party's action.
- Legal risk arises from violation of, or non-conformance with laws, rules, regulations, or prescribed practices, or when the legal rights and obligations of parties to a transaction are not well established.
- For reducing such risk, banks need to conduct proper survey, consult experts from various fields, establish achievable goals and monitor performance.

Internet Banking in the United States: -

An average industry estimates indicates the about 13 million US households banked online by the end of 2000 – twice as many as in the previous years.

At the beginning of 2001, 37% of all US national banks, including nearly all of the largest national banks, were offering full transactional capabilities online – a near twofold increase in little over a year.

Banks offering Internet-based transaction service – and there are more of them each day – should be well positioned to compete in the financial markets of the future.

New Risks: -

Internet banking poses risks that are different from those that bank supervisors customarily dealt with in assessing credit, market, or interest rate risk.

First, banks must manage the unprecedented speed of technological change, and assess how it relates to their technology investments and their ability to provide consistently high-quality customer service.

Second, banks are increasingly dependent on third parties to provide the necessary information technology.

Security is another area of significant risk. So far, relatively few financial institutions have reported being victimized by online security violations.

Legal Issues - IT Act, 2000

The Internet banking cannot operate properly unless it is in conformity with the Information Technology Act, 2000 (hereinafter referred to as Act). A holistic approach should be adopted, the purpose of which should be to bring uniformity and harmony between the provisions of the Act on the one hand and the guidelines issued by the RBI on the other. It must be appreciated that in case of conflict between the provisions of the Act and the guidelines, the former would prevail.

The following provisions of the Act have a direct bearing on the functioning of Internet banking in India:

- The authentication of electronic records for the purposes of Internet banking should be in accordance with the provisions of the Act.
- The electronic records duly maintained for the purposes of Internet banking would be recognized as legally valid and admissible.
- The digital signature affixed in a proper manner would satisfy the requirement of signing of a document for the purposes of Internet banking.
- A digital signature meeting the specified requirements would be deemed to be a secured digital signature for carrying out Internet banking transactions.
- The banking business requires certain documents or records to be retained for a fixed period. In Internet banking such documents or records can be retained in an electronic form.
- The rules, regulations, order, bye-law, notification or any other matter pertaining to Internet banking can be published in the Official Gazette or Electronic Gazette, as the case may be.
- The Internet banking presupposes the existence of attribution and certainty. If any electronic record is sent by the originator himself, by his agent, or by an information system programmed by or on behalf of the originator to operate automatically, then the electronic shall be attributed to the originator.
- The requirement of acknowledgement of documents sent for the purposes of Internet banking is adequately safeguarded by the Act.
- The Internet banking may require to determine the time and place of dispatch and receipt of electronic records. This problem can be easily solved by applying the provisions of the Act.
- The Internet banking would require the secured electronic records for its proper working. Where any security procedure has been applied to an electronic record at a specific point of time, then such record shall be deemed to be a secure electronic record from such point of time to the time of verification.

CONCLUSION

Technology innovation and fierce competition among existing banks have enable a wide array of banking products and services, being made available to retail and wholesale customer through an electronic distribution channel, collectively referred to as e-banking. The integration of e-banking application with legacy system implies an integrated risk management approach for all banking activities of a banking institution. Latest recommendations of Basle Committee recognize that each bank's risk profile is different and requires a tailored risk mitigation approach appropriate for the scale of e-banking operations, the materiality of the risks present and the willingness and ability of the institution to manage their risks. This implies that a "one size fits all" approach to e-banking risk management issues may not be appropriate. Internet has created plenty of opportunities for players in the banking sector. While the new entrants have the advantage of latest technology, the good-will of the established banks gives them a special opportunity to lead the online world. By merely putting existing service online won't help the banks in holding their customer close. Instead, banks must learn to capitalize their customer's different online financial-services relationships. The article "Will Banks Control Online Banking?" focuses on how banks have to reinvent their role to remain as their customers' preferred bank. Coming home, India is on threshold of a major banking revolution with the invasion of net banking. With the concept of payment gateway coming in, banks are vying with one another for the lion's share in the market. Highlighting the benefits of payment gateway over the open-loop payment mechanism, the article "Banking in the Cyber worlds" gives a brief report of the tug of war between the two major Indian e-banking players.

References

1. <http://www.bis.org/publ/bcbs98.htm>
2. <http://www.bharatbook.com/bookdetail.asp?bookid=10005&publisher=>
3. <http://www.abnamro.co.in/ProductsServices/Wholesale/electronic.html>
4. <http://ebusiness.icicibank.com/imarkets/common/seft.asp>
5. www.findarticles.com/p/articles/mi_qa4012/is_200107/ai_n8957497
6. <http://perry4law.blogspot.com/2005/12/internet-banking-and-its-challenges-in.html>
7. <http://www.rbi.org/>
8. <http://www.part11.org.uk/content/glossary.htm>
9. http://en.wikipedia.org/wiki/Credit_cards
10. <http://www.arraydev.com/commerce/jibc/0406-08.asp>
11. www.blogger.com/post-create.g?blogID=12231424
12. <http://www.internetworldstats.com>
13. <http://www.financialexpress.com>
14. <http://www.onlinesbi.comaccessedon25thfeb2006>
15. E-Banking in India – Major Development and issues', by sathya swarrop debashish and Bishnu Priya Mishra – Pranjana, valb, no1, Jan-July 2003 – page 18
16. An introduction to computers and their application in banking – by T.N. Srivastava, MC Millan Publication.
17. Vinayagamoorthy, A. & Senthilkumar, K., "ROLE OF REACH OF INTERNET BANKING IN INDIA"
18. Sekar, G.V., "Emerging Trends in Technology Adoption by Indian Banks and IT Governance – A Practical Guide"
19. Jamaluddin, N. (2013), "E-Banking: Challenges and Opportunities in India" Proceedings of 23rd International Business
20. Research Conference 18 - 20, Marriott Hotel, Melbourne, Australia
- Sharma, M.C. & Sharma, Abhinav, "Role of Information Technology in Indian Banking Sector", International Journal in
21. Multidisciplinary and Academic Research (SSIJMAR) Vol. 2, No. 1, JanuaryFebruary